

**ANR Pipeline Company
 Transmission TNS Estimate**

Transmission Compressor Station TNS Estimate Summary

Description	Amount
Demolition Cost - Buildings	\$120,662,264
Environmental Sampling Cost (5% of Demolition Cost)	\$6,033,113
Deactivation Cost (20% of Demolition Cost)	\$24,132,453
Contamination Removal Cost	\$9,746,641
Fenced Property - Restore to Agricultural Use	\$16,115,020
Cost of Removal Subtotal:	\$176,689,491
Contingency (10%)	\$17,668,949
Cost of Removal Total:	\$194,358,440
Bldg Scrap Metal Salvage Value (5% of Demolition Cost)	(\$6,033,113)
CS Unit Salvage Value from Salvage Table	(\$15,806,000)
Gross Salvage Total:	(\$21,839,113)
Transmission Compressor Station TNS Estimate:	\$172,519,327

**ANR Pipeline Company
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Transmission Compressor Station TNS Estimate

Compressor Station	State	Bldg	Unit HP Range	No. of Units	Year Range	Demolition Cost Per Building	Sampling Cost (5%)	Deactivation Cost (20%)	Contamination Removal Cost	Agricultural Use	C.O.R. Excl. Contingency
Alden	Kansas	A	0-5,000 HP	8	Pre - 1970	\$1,590,121	\$79,506	\$318,024	\$159,012	\$330,000	\$2,476,664
Alden	Kansas	B	0-5,000 HP	1	Post - 1991	\$492,784	\$24,639	\$98,557	\$0	\$330,000	\$945,980
Birmingham	Iowa	A	0-5,000 HP	7	Pre - 1970	\$2,721,339	\$136,067	\$544,268	\$272,134	\$330,000	\$4,003,807
Birmingham	Iowa	B	0-5,000 HP	1	Post - 1991	\$887,465	\$44,373	\$177,493	\$0	\$330,000	\$1,439,331
Bridgman	Michigan	A	0-5,000 HP	5	Pre - 1970	\$1,963,966	\$98,198	\$392,793	\$196,397	\$222,750	\$2,874,104
Bridgman	Michigan	B	0-5,000 HP	3	Pre - 1970	\$1,394,245	\$69,712	\$278,849	\$139,424	\$222,750	\$2,104,981
Bridgman	Michigan	C	10,500-21,000 HP	1	1971 - 1980	\$1,149,689	\$57,484	\$229,938	\$114,969	\$222,750	\$1,774,830
Brownsville	Tennessee	A	0-5,000 HP	6	Pre - 1970	\$1,264,967	\$63,248	\$252,993	\$126,497	\$114,840	\$1,822,545
Brownsville	Tennessee	B	5,000-10,500 HP	1	Pre - 1970	\$584,746	\$29,237	\$116,949	\$58,475	\$114,840	\$904,248
Brownsville	Tennessee	C	10,500-21,000 HP	1	1971 - 1980	\$707,830	\$35,392	\$141,566	\$70,783	\$114,840	\$1,070,411
Buttermilk	Kansas	A	0-5,000 HP	2	1971 - 1980	\$649,546	\$32,477	\$129,909	\$64,955	\$82,500	\$959,388
Celestine	Indiana	A	0-5,000 HP	6	Pre - 1970	\$2,415,693	\$120,785	\$483,139	\$241,569	\$224,978	\$3,486,163
Celestine	Indiana	B	5,000-10,500 HP	1	Pre - 1970	\$1,043,920	\$52,196	\$208,784	\$104,392	\$224,978	\$1,634,269
Celestine	Indiana	B	10,500-21,000 HP	1	1971 - 1980	\$1,235,388	\$61,769	\$247,078	\$123,539	\$224,978	\$1,892,751
Total:				44		\$18,101,700	\$905,085	\$3,620,340	\$1,672,145	\$3,090,203	\$27,389,472

Compressor Station	Contingency (10%)	C.O.R. Incl. Contingency	Building Scrap Value (5%)	Equip. Salvage Value	Total Salvage	Comp. Station TNS Cost	
Alden	\$247,666	\$2,724,330	(\$79,506)	(\$264,000)	(\$343,506)	\$2,380,824	
Alden	\$94,598	\$1,040,578	(\$24,639)	(\$67,000)	(\$91,639)	\$948,939	
Birmingham	\$400,381	\$4,404,188	(\$136,067)	(\$231,000)	(\$367,067)	\$4,037,121	
Birmingham	\$143,933	\$1,583,264	(\$44,373)	(\$67,000)	(\$111,373)	\$1,471,891	
Bridgman	\$287,410	\$3,161,515	(\$98,198)	(\$165,000)	(\$263,198)	\$2,898,316	
Bridgman	\$210,498	\$2,315,479	(\$69,712)	(\$99,000)	(\$168,712)	\$2,146,766	
Bridgman	\$177,483	\$1,952,313	(\$57,484)	(\$219,000)	(\$276,484)	\$1,675,829	
Brownsville	\$182,255	\$2,004,800	(\$63,248)	(\$198,000)	(\$261,248)	\$1,743,551	
Brownsville	\$90,425	\$994,672	(\$29,237)	(\$63,000)	(\$92,237)	\$902,435	
Brownsville	\$107,041	\$1,177,452	(\$35,392)	(\$219,000)	(\$254,392)	\$923,061	
Buttermilk	\$95,939	\$1,055,327	(\$32,477)	(\$82,000)	(\$114,477)	\$940,849	
Celestine	\$348,616	\$3,834,780	(\$120,785)	(\$198,000)	(\$318,785)	\$3,515,995	
Celestine	\$163,427	\$1,797,696	(\$52,196)	(\$63,000)	(\$115,196)	\$1,682,500	
Celestine	\$189,275	\$2,082,026	(\$61,769)	(\$219,000)	(\$280,769)	\$1,801,257	
Total:		\$2,738,947	\$30,128,419	(\$905,085)	(\$2,154,000)	(\$3,059,085)	\$27,069,334

**ANR Pipeline Company
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Transmission Compressor Station TNS Estimate

Compressor Station	State	Bldg	Unit HP Range	No. of Units	Year Range	Demolition Cost Per Building	Sampling Cost (5%)	Deactivation Cost (20%)	Contamination Removal Cost	Agricultural Use	C.O.R. Excl. Contingency
Cottage Grove	Tennessee	A	0-5,000 HP	6	Pre - 1970	\$1,264,967	\$63,248	\$252,993	\$126,497	\$160,731	\$1,868,436
Cottage Grove	Tennessee	B	5,000-10,500 HP	1	Pre - 1970	\$584,746	\$29,237	\$116,949	\$58,475	\$160,731	\$950,139
Cottage Grove	Tennessee	B	10,500-21,000 HP	1	1971 - 1980	\$707,830	\$35,392	\$141,566	\$70,783	\$160,731	\$1,116,303
Custer	Oklahoma	A	0-5,000 HP	2	1981 - 1990	\$649,546	\$32,477	\$129,909	\$0	\$55,028	\$866,961
Custer	Oklahoma	A1	0-5,000 HP	2	Post - 1991	\$649,546	\$32,477	\$129,909	\$0	\$55,028	\$866,961
Custer	Oklahoma	B	0-5,000 HP	2	Post - 1991	\$649,546	\$32,477	\$129,909	\$0	\$55,028	\$866,961
Defiance	Ohio	A	0-5,000 HP	6	Pre - 1970	\$2,969,690	\$148,484	\$593,938	\$296,969	\$165,000	\$4,174,081
Defiance	Ohio	B	10,500-21,000 HP	1	1971 - 1980	\$1,424,308	\$71,215	\$284,862	\$142,431	\$165,000	\$2,087,816
Defiance	Ohio	B	5,000-10,500 HP	2	Pre - 1970	\$1,622,465	\$81,123	\$324,493	\$162,247	\$165,000	\$2,355,328
Defiance	Ohio	C	0-5,000 HP	1	1981 - 1990	\$1,045,066	\$52,253	\$209,013	\$0	\$165,000	\$1,471,332
Delhi	Louisiana	A	0-5,000 HP	6	Pre - 1970	\$1,577,754	\$78,888	\$315,551	\$157,775	\$169,868	\$2,299,836
Delhi	Louisiana	B	10,500-21,000 HP	1	1971 - 1980	\$860,339	\$43,017	\$172,068	\$86,034	\$169,868	\$1,331,326
Delhi	Louisiana	B	5,000-10,500 HP	1	Pre - 1970	\$717,157	\$35,858	\$143,431	\$71,716	\$169,868	\$1,138,030
E.G. Hill	Oklahoma	A	0-5,000 HP	10	Pre - 1970	\$1,903,646	\$95,182	\$380,729	\$190,365	\$330,000	\$2,899,922
E.G. Hill	Oklahoma	A1	0-5,000 HP	1	Post - 1991	\$492,784	\$24,639	\$98,557	\$0	\$330,000	\$945,980
Total:				43		\$17,119,393	\$855,970	\$3,423,879	\$1,363,290	\$2,476,879	\$25,239,411

Compressor Station	Contingency (10%)	C.O.R. Incl. Contingency	Building Scrap Value (5%)	Equip. Salvage Value	Total Salvage	Comp. Station TNS Cost
Cottage Grove	\$186,844	\$2,055,280	(\$63,248)	(\$198,000)	(\$261,248)	\$1,794,032
Cottage Grove	\$95,014	\$1,045,153	(\$29,237)	(\$63,000)	(\$92,237)	\$952,916
Cottage Grove	\$111,630	\$1,227,933	(\$35,392)	(\$219,000)	(\$254,392)	\$973,541
Custer	\$86,696	\$953,657	(\$32,477)	(\$104,000)	(\$136,477)	\$817,179
Custer	\$86,696	\$953,657	(\$32,477)	(\$134,000)	(\$166,477)	\$787,179
Custer	\$86,696	\$953,657	(\$32,477)	(\$134,000)	(\$166,477)	\$787,179
Defiance	\$417,408	\$4,591,489	(\$148,484)	(\$198,000)	(\$346,484)	\$4,245,005
Defiance	\$208,782	\$2,296,598	(\$71,215)	(\$219,000)	(\$290,215)	\$2,006,382
Defiance	\$235,533	\$2,590,861	(\$81,123)	(\$126,000)	(\$207,123)	\$2,383,738
Defiance	\$147,133	\$1,618,465	(\$52,253)	(\$52,000)	(\$104,253)	\$1,514,212
Delhi	\$229,984	\$2,529,820	(\$78,888)	(\$198,000)	(\$276,888)	\$2,252,932
Delhi	\$133,133	\$1,464,458	(\$43,017)	(\$219,000)	(\$262,017)	\$1,202,441
Delhi	\$113,803	\$1,251,833	(\$35,858)	(\$63,000)	(\$98,858)	\$1,152,975
E.G. Hill	\$289,992	\$3,189,915	(\$95,182)	(\$330,000)	(\$425,182)	\$2,764,732
E.G. Hill	\$94,598	\$1,040,578	(\$24,639)	(\$67,000)	(\$91,639)	\$948,939
Total:	\$2,523,941	\$27,763,352	(\$855,970)	(\$2,324,000)	(\$3,179,970)	\$24,583,383

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Compressor Station	State	Bldg	Unit HP Range	No. of Units	Year Range	Demolition Cost Per Building	Sampling Cost (5%)	Deactivation Cost (20%)	Contamination Removal Cost	Agricultural Use	C.O.R. Excl. Contingency
Enterprise	Kansas	A	0-5,000 HP	8	Pre - 1970	\$1,590,121	\$79,506	\$318,024	\$159,012	\$165,000	\$2,311,664
Enterprise	Kansas	B	0-5,000 HP	1	Post - 1991	\$492,784	\$24,639	\$98,557	\$0	\$165,000	\$780,980
Eunice	Louisiana	A	10,500-21,000 HP	2	1971 - 1980	\$1,115,275	\$55,764	\$223,055	\$111,528	\$132,000	\$1,637,621
Gageby Creek	Texas	A	0-5,000 HP	2	1981 - 1990	\$649,546	\$32,477	\$129,909	\$0	\$22,688	\$834,621
Goodman	Wisconsin	A	5,000-10,500 HP	2	Post - 1991	\$1,411,288	\$70,564	\$282,258	\$0	\$330,000	\$2,094,110
Goodwell	Michigan	A	0-5,000 HP	5	1971 - 1980	\$1,963,966	\$98,198	\$392,793	\$196,397	\$82,500	\$2,733,854
Greensburg	Kansas	A	0-5,000 HP	8	Pre - 1970	\$1,590,121	\$79,506	\$318,024	\$159,012	\$330,000	\$2,476,664
Greenville	Mississippi	A	0-5,000 HP	6	Pre - 1970	\$1,264,967	\$63,248	\$252,993	\$126,497	\$164,934	\$1,872,639
Greenville	Mississippi	B	5,000-10,500 HP	1	Pre - 1970	\$584,746	\$29,237	\$116,949	\$58,475	\$164,934	\$954,342
Greenville	Mississippi	B	10,500-21,000 HP	1	1971 - 1980	\$707,830	\$35,392	\$141,566	\$70,783	\$164,934	\$1,120,505
Hamilton	Michigan	A	0-5,000 HP	5	Pre - 1970	\$1,963,966	\$98,198	\$392,793	\$196,397	\$83,350	\$2,734,704
Hamilton	Michigan	B	0-5,000 HP	4	Pre - 1970	\$1,679,105	\$83,955	\$335,821	\$167,911	\$83,350	\$2,350,142
Hamilton	Michigan	B	21,000-54,000 HP	1	1971 - 1980	\$1,471,002	\$73,550	\$294,200	\$147,100	\$83,350	\$2,069,202
Havensville	Kansas	A	10,500-21,000 HP	1	1981 - 1990	\$715,335	\$35,767	\$143,067	\$0	\$252,450	\$1,146,619
Havensville	Kansas	B	0-5,000 HP	1	Post - 1991	\$492,784	\$24,639	\$98,557	\$0	\$252,450	\$868,430
Total:				48		\$17,692,838	\$884,642	\$3,538,568	\$1,393,110	\$2,476,939	\$25,986,096

Compressor Station	Contingency (10%)	C.O.R. Incl. Contingency	Building Scrap Value (5%)	Equip. Salvage Value	Total Salvage	Comp. Station TNS Cost
Enterprise	\$231,166	\$2,542,830	(\$79,506)	(\$264,000)	(\$343,506)	\$2,199,324
Enterprise	\$78,098	\$859,078	(\$24,639)	(\$67,000)	(\$91,639)	\$767,439
Eunice	\$163,762	\$1,801,384	(\$55,764)	(\$438,000)	(\$493,764)	\$1,307,620
Gageby Creek	\$83,462	\$918,083	(\$32,477)	(\$104,000)	(\$136,477)	\$781,605
Goodman	\$209,411	\$2,303,521	(\$70,564)	(\$264,000)	(\$334,564)	\$1,968,957
Goodwell	\$273,385	\$3,007,240	(\$98,198)	(\$205,000)	(\$303,198)	\$2,704,041
Greensburg	\$247,666	\$2,724,330	(\$79,506)	(\$264,000)	(\$343,506)	\$2,380,824
Greenville	\$187,264	\$2,059,903	(\$63,248)	(\$198,000)	(\$261,248)	\$1,798,655
Greenville	\$95,434	\$1,049,776	(\$29,237)	(\$63,000)	(\$92,237)	\$957,538
Greenville	\$112,051	\$1,232,556	(\$35,392)	(\$219,000)	(\$254,392)	\$978,164
Hamilton	\$273,470	\$3,008,174	(\$98,198)	(\$165,000)	(\$263,198)	\$2,744,976
Hamilton	\$235,014	\$2,585,156	(\$83,955)	(\$132,000)	(\$215,955)	\$2,369,201
Hamilton	\$206,920	\$2,276,122	(\$73,550)	(\$425,000)	(\$498,550)	\$1,777,572
Havensville	\$114,662	\$1,261,280	(\$35,767)	(\$319,000)	(\$354,767)	\$906,514
Havensville	\$86,843	\$955,273	(\$24,639)	(\$67,000)	(\$91,639)	\$863,634
Total:	\$2,598,610	\$28,584,706	(\$884,642)	(\$3,194,000)	(\$4,078,642)	\$24,506,064

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Compressor Station	State	Bldg	Unit HP Range	No. of Units	Year Range	Demolition Cost Per Building	Sampling Cost (5%)	Deactivation Cost (20%)	Contamination Removal Cost	Agricultural Use	C.O.R. Excl. Contingency
Janesville	Wisconsin	A	0-5,000 HP	2	Pre - 1970	\$1,230,124	\$61,506	\$246,025	\$123,012	\$167,393	\$1,828,060
Janesville	Wisconsin	B	0-5,000 HP	1	Post - 1991	\$913,485	\$45,674	\$182,697	\$0	\$167,393	\$1,309,249
Jena	Louisiana	A	0-5,000 HP	5	Pre - 1970	\$1,382,577	\$69,129	\$276,515	\$138,258	\$82,500	\$1,948,980
Jena	Louisiana	B	5,000-10,500 HP	1	Pre - 1970	\$717,157	\$35,858	\$143,431	\$71,716	\$82,500	\$1,050,662
Jena	Louisiana	B	10,500-21,000 HP	1	1971 - 1980	\$860,339	\$43,017	\$172,068	\$86,034	\$82,500	\$1,243,958
Joliet	Illinois	A	0-5,000 HP	2	1981 - 1990	\$1,429,990	\$71,500	\$285,998	\$0	\$44,963	\$1,832,451
Kewaskum	Wisconsin	A	0-5,000 HP	4	Pre - 1970	\$1,863,402	\$93,170	\$372,680	\$186,340	\$82,500	\$2,598,092
Kewaskum	Wisconsin	B	0-5,000 HP	1	Pre - 1970	\$913,485	\$45,674	\$182,697	\$91,349	\$82,500	\$1,315,705
Kewaskum	Wisconsin	C	0-5,000 HP	1	1971 - 1980	\$913,485	\$45,674	\$182,697	\$91,349	\$82,500	\$1,315,705
LaGrange	Indiana	A	0-5,000 HP	2	Pre - 1970	\$1,193,111	\$59,656	\$238,622	\$119,311	\$82,500	\$1,693,199
LaGrange	Indiana	A	10,500-21,000 HP	1	1971 - 1980	\$1,235,388	\$61,769	\$247,078	\$123,539	\$82,500	\$1,750,274
Lake Arthur	Louisiana	A	0-5,000 HP	1	Pre - 1970	\$601,869	\$30,093	\$120,374	\$60,187	\$9,405	\$821,929
Lake Arthur	Louisiana	B	0-5,000 HP	1	Pre - 1970	\$601,869	\$30,093	\$120,374	\$60,187	\$9,405	\$821,929
Lineville	Iowa	A	0-5,000 HP	8	Pre - 1970	\$3,026,985	\$151,349	\$605,397	\$302,698	\$164,918	\$4,251,347
Lineville	Iowa	B	0-5,000 HP	1	Post - 1991	\$887,465	\$44,373	\$177,493	\$0	\$164,918	\$1,274,249
Total:				32		\$17,770,732	\$888,537	\$3,554,146	\$1,453,979	\$1,388,393	\$25,055,787

Compressor Station	Contingency (10%)	C.O.R. Incl. Contingency	Building Scrap Value (5%)	Equip. Salvage Value	Total Salvage	Comp. Station TNS Cost
Janesville	\$182,806	\$2,010,866	(\$61,506)	(\$66,000)	(\$127,506)	\$1,883,360
Janesville	\$130,925	\$1,440,174	(\$45,674)	(\$67,000)	(\$112,674)	\$1,327,500
Jena	\$194,898	\$2,143,877	(\$69,129)	(\$165,000)	(\$234,129)	\$1,909,749
Jena	\$105,066	\$1,155,728	(\$35,858)	(\$63,000)	(\$98,858)	\$1,056,871
Jena	\$124,396	\$1,368,354	(\$43,017)	(\$219,000)	(\$262,017)	\$1,106,337
Joliet	\$183,245	\$2,015,696	(\$71,500)	(\$104,000)	(\$175,500)	\$1,840,196
Kewaskum	\$259,809	\$2,857,901	(\$93,170)	(\$132,000)	(\$225,170)	\$2,632,731
Kewaskum	\$131,571	\$1,447,276	(\$45,674)	(\$33,000)	(\$78,674)	\$1,368,601
Kewaskum	\$131,571	\$1,447,276	(\$45,674)	(\$41,000)	(\$86,674)	\$1,360,601
LaGrange	\$169,320	\$1,862,519	(\$59,656)	(\$66,000)	(\$125,656)	\$1,736,864
LaGrange	\$175,027	\$1,925,301	(\$61,769)	(\$219,000)	(\$280,769)	\$1,644,532
Lake Arthur	\$82,193	\$904,121	(\$30,093)	(\$33,000)	(\$63,093)	\$841,028
Lake Arthur	\$82,193	\$904,121	(\$30,093)	(\$33,000)	(\$63,093)	\$841,028
Lineville	\$425,135	\$4,676,481	(\$151,349)	(\$264,000)	(\$415,349)	\$4,261,132
Lineville	\$127,425	\$1,401,674	(\$44,373)	(\$67,000)	(\$111,373)	\$1,290,300
Total:	\$2,505,579	\$27,561,366	(\$888,537)	(\$1,572,000)	(\$2,460,537)	\$25,100,829

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Madisonville	Kentucky	A	0-5,000 HP	5	Pre - 1970	\$1,109,441	\$55,472	\$221,888	\$110,944	\$165,000	\$1,662,745
Madisonville	Kentucky	B	5,000-10,500 HP	2	Pre - 1970	\$758,637	\$37,932	\$151,727	\$75,864	\$165,000	\$1,189,160
Madisonville	Kentucky	B	10,500-21,000 HP	1	1971 - 1980	\$707,830	\$35,392	\$141,566	\$70,783	\$165,000	\$1,120,571
Maitland	Missouri	A	0-5,000 HP	7	Pre - 1970	\$1,420,493	\$71,025	\$284,099	\$142,049	\$330,000	\$2,247,665
Maitland	Missouri	B	0-5,000 HP	1	Post - 1991	\$487,337	\$24,367	\$97,467	\$0	\$330,000	\$939,172
Marshfield	Wisconsin	A	0-5,000 HP	6	Pre - 1970	\$2,496,679	\$124,834	\$499,336	\$249,668	\$159,225	\$3,529,742
Meade	Kansas	A	0-5,000 HP	9	Pre - 1970	\$1,746,884	\$87,344	\$349,377	\$174,688	\$34,980	\$2,393,273
Mooreland	Oklahoma	A	5,000-10,500 HP	2	1971 - 1980	\$766,220	\$38,311	\$153,244	\$76,622	\$106,532	\$1,140,929
Mountain	Wisconsin	A	10,500-21,000 HP	1	1971 - 1980	\$1,268,612	\$63,431	\$253,722	\$126,861	\$82,500	\$1,795,126
Mountain	Wisconsin	A	5,000-10,500 HP	1	1981 - 1990	\$1,073,044	\$53,652	\$214,609	\$0	\$82,500	\$1,423,805
New Windsor	Illinois	A	0-5,000 HP	7	Pre - 1970	\$3,354,615	\$167,731	\$670,923	\$335,461	\$165,000	\$4,693,730
New Windsor	Illinois	B	0-5,000 HP	1	Post - 1991	\$1,045,066	\$52,253	\$209,013	\$0	\$165,000	\$1,471,332
Patterson	Louisiana	A	5,000-10,500 HP	3	1971 - 1980	\$1,145,885	\$57,294	\$229,177	\$114,588	\$90,750	\$1,637,694
Patterson	Louisiana	B	0-5,000 HP	2	1971 - 1980	\$797,046	\$39,852	\$159,409	\$79,705	\$90,750	\$1,166,763
Total:				48		\$18,177,789	\$908,889	\$3,635,558	\$1,557,234	\$2,132,237	\$26,411,707

Compressor Station	Contingency (10%)	C.O.R. Incl. Contingency	Building Scrap Value (5%)	Equip. Salvage Value	Total Salvage	Comp. Station TNS Cost
Madisonville	\$166,275	\$1,829,020	(\$55,472)	(\$165,000)	(\$220,472)	\$1,608,548
Madisonville	\$118,916	\$1,308,076	(\$37,932)	(\$126,000)	(\$163,932)	\$1,144,144
Madisonville	\$112,057	\$1,232,628	(\$35,392)	(\$219,000)	(\$254,392)	\$978,237
Maitland	\$224,766	\$2,472,431	(\$71,025)	(\$231,000)	(\$302,025)	\$2,170,407
Maitland	\$93,917	\$1,033,089	(\$24,367)	(\$67,000)	(\$91,367)	\$941,722
Marshfield	\$352,974	\$3,882,716	(\$124,834)	(\$198,000)	(\$322,834)	\$3,559,882
Meade	\$239,327	\$2,632,600	(\$87,344)	(\$297,000)	(\$384,344)	\$2,248,256
Mooreland	\$114,093	\$1,255,022	(\$38,311)	(\$160,000)	(\$198,311)	\$1,056,711
Mountain	\$179,513	\$1,974,638	(\$63,431)	(\$219,000)	(\$282,431)	\$1,692,208
Mountain	\$142,381	\$1,566,186	(\$53,652)	(\$102,000)	(\$155,652)	\$1,410,534
New Windsor	\$469,373	\$5,163,103	(\$167,731)	(\$231,000)	(\$398,731)	\$4,764,372
New Windsor	\$147,133	\$1,618,465	(\$52,253)	(\$67,000)	(\$119,253)	\$1,499,212
Patterson	\$163,769	\$1,801,464	(\$57,294)	(\$240,000)	(\$297,294)	\$1,504,170
Patterson	\$116,676	\$1,283,439	(\$39,852)	(\$82,000)	(\$121,852)	\$1,161,586
Total:						
	\$2,641,171	\$29,052,878	(\$908,889)	(\$2,404,000)	(\$3,312,889)	\$25,739,988

**ANR Pipeline Company
Transmission TNS Estimate**

Transmission Compressor Station TNS Estimate

Compressor Station	State	Bldg	Unit HP Range	No. of Units	Year Range	Demolition Cost Per Building	Sampling Cost (5%)	Deactivation Cost (20%)	Contamination Removal Cost	Agricultural Use	C.O.R. Excl. Contingency
Portland	Indiana	A	0-5,000 HP	6	Pre - 1970	\$2,415,693	\$120,785	\$483,139	\$241,569	\$165,000	\$3,426,186
Portland	Indiana	B	5,000-10,500 HP	2	Pre - 1970	\$1,370,871	\$68,544	\$274,174	\$137,087	\$165,000	\$2,015,676
Portland	Indiana	B	10,500-21,000 HP	1	1971 - 1980	\$1,235,388	\$61,769	\$247,078	\$123,539	\$165,000	\$1,832,774
Sandwich	Illinois	A	0-5,000 HP	3	Pre - 1970	\$1,814,915	\$90,746	\$362,983	\$181,492	\$267,135	\$2,717,271
Sandwich	Illinois	B	10,500-21,000 HP	1	1971 - 1980	\$1,424,308	\$71,215	\$284,862	\$142,431	\$267,135	\$2,189,951
Sandwich	Illinois	C	5,000-10,500 HP	1	1981 - 1990	\$1,214,684	\$60,734	\$242,937	\$0	\$267,135	\$1,785,490
Sardis	Mississippi	A	0-5,000 HP	5	Pre - 1970	\$1,109,441	\$55,472	\$221,888	\$110,944	\$247,500	\$1,745,245
Sardis	Mississippi	B	10,500-21,000 HP	1	1971 - 1980	\$707,830	\$35,392	\$141,566	\$70,783	\$247,500	\$1,203,071
Sardis	Mississippi	B	5,000-10,500 HP	1	Pre - 1970	\$584,746	\$29,237	\$116,949	\$58,475	\$247,500	\$1,036,908
Shelbyville	Indiana	A	0-5,000 HP	7	Pre - 1970	\$2,721,339	\$136,067	\$544,268	\$272,134	\$243,045	\$3,916,852
Shelbyville	Indiana	B	5,000-10,500 HP	1	Pre - 1970	\$1,043,920	\$52,196	\$208,784	\$104,392	\$243,045	\$1,652,336
Shelbyville	Indiana	B	10,500-21,000 HP	1	1971 - 1980	\$1,235,388	\$61,769	\$247,078	\$123,539	\$243,045	\$1,910,819
St. John	Indiana	A	0-5,000 HP	1	Post - 1991	\$887,465	\$44,373	\$177,493	\$0	\$165,000	\$1,274,331
St. John	Indiana	A1	0-5,000 HP	4	Pre - 1970	\$1,804,402	\$90,220	\$360,880	\$180,440	\$165,000	\$2,600,943
St. John	Indiana	B	10,500-21,000 HP	2	1971 - 1980	\$1,609,007	\$80,450	\$321,801	\$160,901	\$165,000	\$2,337,159
Total:				37		\$21,179,398	\$1,058,970	\$4,235,880	\$1,907,725	\$3,263,040	\$31,645,013

Compressor Station	Contingency (10%)	C.O.R. Incl. Contingency	Building Scrap Value (5%)	Equip. Salvage Value	Total Salvage	Comp. Station TNS Cost
Portland	\$342,619	\$3,768,804	(\$120,785)	(\$198,000)	(\$318,785)	\$3,450,020
Portland	\$201,568	\$2,217,244	(\$68,544)	(\$126,000)	(\$194,544)	\$2,022,700
Portland	\$183,277	\$2,016,051	(\$61,769)	(\$219,000)	(\$280,769)	\$1,735,282
Sandwich	\$271,727	\$2,988,998	(\$90,746)	(\$99,000)	(\$189,746)	\$2,799,252
Sandwich	\$218,995	\$2,408,946	(\$71,215)	(\$219,000)	(\$290,215)	\$2,118,731
Sandwich	\$178,549	\$1,964,039	(\$60,734)	(\$102,000)	(\$162,734)	\$1,801,305
Sardis	\$174,525	\$1,919,770	(\$55,472)	(\$165,000)	(\$220,472)	\$1,699,298
Sardis	\$120,307	\$1,323,378	(\$35,392)	(\$219,000)	(\$254,392)	\$1,068,987
Sardis	\$103,691	\$1,140,598	(\$29,237)	(\$63,000)	(\$92,237)	\$1,048,361
Shelbyville	\$391,685	\$4,308,538	(\$136,067)	(\$231,000)	(\$367,067)	\$3,941,471
Shelbyville	\$165,234	\$1,817,570	(\$52,196)	(\$63,000)	(\$115,196)	\$1,702,374
Shelbyville	\$191,082	\$2,101,901	(\$61,769)	(\$219,000)	(\$280,769)	\$1,821,131
St. John	\$127,433	\$1,401,764	(\$44,373)	(\$67,000)	(\$111,373)	\$1,290,391
St. John	\$260,094	\$2,861,037	(\$90,220)	(\$132,000)	(\$222,220)	\$2,638,817
St. John	\$233,716	\$2,570,875	(\$80,450)	(\$438,000)	(\$518,450)	\$2,052,425
Total:	\$3,164,501	\$34,809,514	(\$1,058,970)	(\$2,560,000)	(\$3,618,970)	\$31,190,544

**ANR Pipeline Company
Transmission TNS Estimate**

Transmission Compressor Station TNS Estimate

Compressor Station	State	Bldg	Unit HP Range	No. of Units	Year Range	Demolition Cost Per Building	Sampling Cost (5%)	Deactivation Cost (20%)	Contamination Removal Cost	Agricultural Use	C.O.R. Excl. Contingency
Stevens Point	Wisconsin	A	5,000-10,500 HP	1	Post - 1991	\$1,073,044	\$53,652	\$214,609	\$0	\$82,500	\$1,423,805
Sulphur Springs	Indiana	A	0-5,000 HP	2	Post - 1991	\$1,193,111	\$59,656	\$238,622	\$0	\$156,115	\$1,647,503
Transok	Oklahoma	B	0-5,000 HP	1	Post - 1991	\$492,784	\$24,639	\$98,557	\$0	\$82,500	\$698,480
Weyauwega	Wisconsin	A	0-5,000 HP	1	Post - 1991	\$913,485	\$45,674	\$182,697	\$0	\$157,072	\$1,298,928
Weyauwega	Wisconsin	A1	0-5,000 HP	1	Pre - 1970	\$913,485	\$45,674	\$182,697	\$91,349	\$157,072	\$1,390,277
Weyauwega	Wisconsin	B	5,000-10,500 HP	1	Post - 1991	\$1,073,044	\$53,652	\$214,609	\$0	\$157,072	\$1,498,377
Woodstock	Illinois	A	10,500-21,000 HP	2	Post - 1991	\$1,883,375	\$94,169	\$376,675	\$0	\$165,000	\$2,519,218
Woodstock	Wisconsin	A	0-5,000 HP	4	Pre - 1970	\$1,863,402	\$93,170	\$372,680	\$186,340	\$165,000	\$2,680,592
Woodstock	Illinois	A	5,000-10,500 HP	1	Pre - 1970	\$1,214,684	\$60,734	\$242,937	\$121,468	\$165,000	\$1,804,824
Total:				14		\$10,620,414	\$531,021	\$2,124,083	\$399,157	\$1,287,330	\$14,962,005

Compressor Station	Contingency (10%)	C.O.R. Incl. Contingency	Building Scrap Value (5%)	Equip. Salvage Value	Total Salvage	Comp. Station TNS Cost
Stevens Point	\$142,381	\$1,566,186	(\$53,652)	(\$132,000)	(\$185,652)	\$1,380,534
Sulphur Springs	\$164,750	\$1,812,253	(\$59,656)	(\$134,000)	(\$193,656)	\$1,618,598
Transok	\$69,848	\$768,328	(\$24,639)	(\$67,000)	(\$91,639)	\$676,689
Weyauwega	\$129,893	\$1,428,821	(\$45,674)	(\$67,000)	(\$112,674)	\$1,316,147
Weyauwega	\$139,028	\$1,529,304	(\$45,674)	(\$33,000)	(\$78,674)	\$1,450,630
Weyauwega	\$149,838	\$1,648,215	(\$53,652)	(\$132,000)	(\$185,652)	\$1,462,563
Woodstock	\$251,922	\$2,771,140	(\$94,169)	(\$838,000)	(\$932,169)	\$1,838,972
Woodstock	\$268,059	\$2,948,651	(\$93,170)	(\$132,000)	(\$225,170)	\$2,723,481
Woodstock	\$180,482	\$1,985,306	(\$60,734)	(\$63,000)	(\$123,734)	\$1,861,572
Total:	\$1,496,200	\$16,458,205	(\$531,021)	(\$1,598,000)	(\$2,129,021)	\$14,329,185

Total estimated compressor station TNS costs: \$172,519,327

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Alden, A, 0-5,000 HP
 State: Kansas
 Capacity: 0-5,000 HP

Transmission

of Compressors 8

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		8.00	ea	495.00	3960.00	\$52.71	\$208,720.35
	(b) Remove air intake systems	6C		8.00	ea	120.00	960.00	\$52.71	\$50,598.87
	(c) Remove exhaust systems	6C		8.00	ea	120.00	960.00	\$52.71	\$50,598.87
	(d) Remove glycol coolers	6C		8.00	ea	250.00	2000.00	\$52.71	\$105,414.32
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						8,410		\$443,836.55
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		418.54	cy	2.45	1024.00	\$49.60	\$50,793.21
	(b) Remove engine blocks	2A		994.04	cy	2.45	2432.00	\$49.60	\$120,633.86
	(c) Remove operating floor structural slab	2A		209.27	cy	2.45	512.00	\$49.60	\$25,396.60
	(d) Remove yard equipment foundations	2A		104.64	cy	2.45	256.00	\$49.60	\$12,698.30
	(e) Remove above grade pipe piers & valve supports	2A		313.91	cy	2.45	768.00	\$49.60	\$38,094.90
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		627.82	cy	0.10	62.40	\$79.16	\$4,939.75
	(b) Backfill with excavated native material	2C		627.82	cy	0.21	134.40	\$48.32	\$6,494.54
	(c) Backfill with imported gravel	2C		2615.90	cy	0.21	560.00	\$48.32	\$27,060.57
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						5,749		\$286,111.74
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1463.89	sy	0.48	709.92	\$29.28	\$20,784.13
	(b) Remove metal roof deck	3B		1463.89	sy	0.14	208.08	\$49.32	\$10,262.40
	(c) Remove wall cladding, door windows & louvers	3C		832.41	sy	0.18	153.12	\$35.90	\$5,497.74
	(d) Remove structural steel frame (roof, walls & columns)	3C		7023.70	cy	0.09	644.40	\$35.90	\$23,137.03
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		42.24	ton	10.00	422.40	\$56.23	\$23,751.89
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						2,138		\$83,433.19
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1574.54	ft	0.74	1171.20	\$56.77	\$66,494.45
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	393.64	ft	0.51	200.40	\$56.77	\$11,377.64
	- NPS 10 HP above grade suction & discharge	6B	10	367.39	ft	0.30	109.76	\$56.77	\$6,231.58
	- NPS 12 HP bypass	6B	12	104.97	ft	0.37	38.40	\$56.77	\$2,180.15
	(b) Flame Cutting								
	- NPS 30	6A	30	64.00	ea	7.20	460.80	\$71.47	\$32,933.21
	- NPS 16	6A	16	32.00	ea	1.61	51.52	\$71.47	\$3,682.12
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	32.00	ea	1.09	34.88	\$71.47	\$2,492.86
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								2,231	\$134,744.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
	(b) 1:2-DC	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
	(c) L1-SB	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
	(d) L1-DB	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
SUB TOTAL SYSTEM K: ELECTRICAL								192	\$7,030.76
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								22,017	\$1,113,904.79
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			48.00	days			\$4,500.00	\$216,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		80.00	days			\$85.00	\$6,800.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		40.00	days			\$73.00	\$2,920.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$144,556.48
SUB TOTAL ADDITIONAL ITEMS								0	\$476,216.48
GRAND TOTAL								22,017	\$1,590,121.26

Alden, A, 0-5,000 HP
 Transmission

Total Labor MH 20,037
 Average Labor Rate \$51.61
 Total Labor Cost \$1,034,155.70

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Alden, B, 0-5,000 HP
 State: Kansas
 Capacity: 0-5,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$52.71	\$26,090.04
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$52.71	\$13,176.79
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$80,420.68
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$49.60	\$15,079.23
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$49.60	\$1,587.29
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$49.60	\$4,761.86
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$79.16	\$617.47
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$48.32	\$811.82
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,763.97
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$29.28	\$2,598.02
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.32	\$1,282.80
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$35.90	\$687.22
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$35.90	\$2,892.13
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$56.23	\$2,968.99
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,429.15
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$56.77	\$8,311.81
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$56.77	\$1,422.20
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$56.77	\$778.95
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$56.77	\$272.52
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$71.47	\$4,116.65
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$71.47	\$460.26
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$71.47	\$311.61
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								422	\$25,026.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$3,442.14
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								6,314	\$313,830.49
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$44,798.55
SUB TOTAL ADDITIONAL ITEMS								0	\$178,953.55
GRAND TOTAL								6,314	\$492,784.04

Alden, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$54.01	\$234,081.40

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Birmingham, A, 0-5,000 HP
 State: Iowa
 Capacity: 0-5,000 HP

Transmission

of Compressors 7

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		7.00	ea	495.00	3465.00	\$108.01	\$374,250.80
	(b) Remove air intake systems	6C		7.00	ea	120.00	840.00	\$108.01	\$90,727.47
	(c) Remove exhaust systems	6C		7.00	ea	120.00	840.00	\$108.01	\$90,727.47
	(d) Remove glycol coolers	6C		7.00	ea	250.00	1750.00	\$108.01	\$189,015.56
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						7,425		\$801,969.75
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		366.23	cy	2.45	896.00	\$117.12	\$104,937.92
	(b) Remove engine blocks	2A		869.79	cy	2.45	2128.00	\$117.12	\$249,227.55
	(c) Remove operating floor structural slab	2A		183.11	cy	2.45	448.00	\$117.12	\$52,468.96
	(d) Remove yard equipment foundations	2A		91.56	cy	2.45	224.00	\$117.12	\$26,234.48
	(e) Remove above grade pipe piers & valve supports	2A		274.67	cy	2.45	672.00	\$117.12	\$78,703.44
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		549.34	cy	0.10	54.60	\$148.64	\$8,115.65
	(b) Backfill with excavated native material	2C		549.34	cy	0.21	117.60	\$109.07	\$12,827.09
	(c) Backfill with imported gravel	2C		2288.91	cy	0.21	490.00	\$109.07	\$53,446.22
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						5,030		\$585,961.30
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1280.91	sy	0.48	621.18	\$89.10	\$55,346.59
	(b) Remove metal roof deck	3B		1280.91	sy	0.14	182.07	\$109.20	\$19,881.78
	(c) Remove wall cladding, door windows & louvers	3C		728.36	sy	0.18	133.98	\$96.07	\$12,871.07
	(d) Remove structural steel frame (roof, walls & columns)	3C		6145.73	cy	0.09	563.85	\$96.07	\$54,167.42
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		36.96	ton	10.00	369.60	\$125.07	\$46,226.56
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,871		\$188,493.42
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1377.73	ft	0.74	1024.80	\$109.12	\$111,825.39
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	344.43	ft	0.51	175.35	\$109.12	\$19,134.06
	- NPS 10 HP above grade suction & discharge	6B	10	321.47	ft	0.30	96.04	\$109.12	\$10,479.81
	- NPS 12 HP bypass	6B	12	91.85	ft	0.37	33.60	\$109.12	\$3,666.41
	(b) Flame Cutting								
	- NPS 30	6A	30	56.00	ea	7.20	403.20	\$156.04	\$62,914.02
	- NPS 16	6A	16	28.00	ea	1.61	45.08	\$156.04	\$7,034.14
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	28.00	ea	1.09	30.52	\$156.04	\$4,762.24
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,972	\$238,577.16
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$16,189.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								572	\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		803.67	ft	0.03	24.50	\$86.95	\$2,130.19
	(b) 1:2-DC	3E		803.67	ft	0.03	24.50	\$86.95	\$2,130.19
	(c) L1-SB	3E		803.67	ft	0.03	24.50	\$86.95	\$2,130.19
	(d) L1-DB	3E		803.67	ft	0.03	24.50	\$86.95	\$2,130.19
SUB TOTAL SYSTEM K: ELECTRICAL							178		\$15,476.46
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	(c) Mechanic			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	(d) Truck Driver			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$184,064.40
SUB TOTAL: SYSTEMS A TO L							19,773		\$2,170,499.44
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			42.00	days			\$4,500.00	\$189,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		70.00	days			\$85.00	\$5,950.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		35.00	days			\$73.00	\$2,555.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$247,394.44
SUB TOTAL ADDITIONAL ITEMS							0		\$550,839.44
GRAND TOTAL							19,773		\$2,721,338.88

Birmingham, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
17,793	\$111.64	\$1,986,435.04

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Birmingham, B, 0-5,000 HP
 State: Iowa
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$108.01	\$53,464.40
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$108.01	\$27,002.22
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$163,637.21
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$117.12	\$35,603.94
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$117.12	\$3,747.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$117.12	\$11,243.35
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$148.64	\$1,159.38
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$109.07	\$1,832.44
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$83,708.76
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$89.10	\$7,906.66
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$109.20	\$2,840.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$96.07	\$1,838.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$96.07	\$7,738.20
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$125.07	\$6,603.79
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$26,927.63
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$109.12	\$15,975.06
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$109.12	\$2,733.44
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$109.12	\$1,497.12
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$109.12	\$523.77
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$156.04	\$8,987.72
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$156.04	\$1,004.88
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$156.04	\$680.32
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							422		\$50,163.39
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30	
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28	
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$16,189.71
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$67,447.92
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$18,829.55
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94	

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$8,172.96
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	(c) Mechanic			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	(d) Truck Driver			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$184,064.40
SUB TOTAL: SYSTEMS A TO L								6,314	\$672,631.31
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$80,678.63
SUB TOTAL ADDITIONAL ITEMS								0	\$214,833.63
GRAND TOTAL								6,314	\$887,464.94

Birmingham, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$112.72	\$488,566.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Bridgman, A, 0-5,000 HP
 State: Michigan
 Capacity: 0-5,000 HP

Transmission

of Compressors 5

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		5.00	ea	495.00	2475.00	\$99.64	\$246,599.15
	(b) Remove air intake systems	6C		5.00	ea	120.00	600.00	\$99.64	\$59,781.61
	(c) Remove exhaust systems	6C		5.00	ea	120.00	600.00	\$99.64	\$59,781.61
	(d) Remove glycol coolers	6C		5.00	ea	250.00	1250.00	\$99.64	\$124,545.03
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$79.25	\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$101.97	\$16,315.20
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$123.13	\$3,694.03
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$116.98	\$4,679.29
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$101.97	\$2,039.40
	SUB TOTAL SYSTEM A: STATION LAYOUT						5,455		\$543,796.15
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		261.59	cy	2.45	640.00	\$109.49	\$70,075.60
	(b) Remove engine blocks	2A		621.28	cy	2.45	1520.00	\$109.49	\$166,429.54
	(c) Remove operating floor structural slab	2A		130.80	cy	2.45	320.00	\$109.49	\$35,037.80
	(d) Remove yard equipment foundations	2A		65.40	cy	2.45	160.00	\$109.49	\$17,518.90
	(e) Remove above grade pipe piers & valve supports	2A		196.19	cy	2.45	480.00	\$109.49	\$52,556.70
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		392.39	cy	0.10	39.00	\$139.63	\$5,445.61
	(b) Backfill with excavated native material	2C		392.39	cy	0.21	84.00	\$102.25	\$8,589.27
	(c) Backfill with imported gravel	2C		1634.94	cy	0.21	350.00	\$102.25	\$35,788.64
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						3,593		\$391,442.05
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		914.93	sy	0.48	443.70	\$80.64	\$35,778.02
	(b) Remove metal roof deck	3B		914.93	sy	0.14	130.05	\$98.81	\$12,850.10
	(c) Remove wall cladding, door windows & louvers	3C		520.26	sy	0.18	95.70	\$88.17	\$8,437.87
	(d) Remove structural steel frame (roof, walls & columns)	3C		4389.81	cy	0.09	402.75	\$88.17	\$35,510.49
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		26.40	ton	10.00	264.00	\$116.67	\$30,799.56
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,336		\$123,376.05
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	984.09	ft	0.74	732.00	\$101.97	\$74,642.04
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	246.02	ft	0.51	125.25	\$101.97	\$12,771.74
	- NPS 10 HP above grade suction & discharge	6B	10	229.62	ft	0.30	68.60	\$101.97	\$6,995.14
	- NPS 12 HP bypass	6B	12	65.61	ft	0.37	24.00	\$101.97	\$2,447.28
	(b) Flame Cutting								
	- NPS 30	6A	30	40.00	ea	7.20	288.00	\$133.97	\$38,582.18
	- NPS 16	6A	16	20.00	ea	1.61	32.20	\$133.97	\$4,313.70
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246.50
	- NPS 12	6A	12	20.00	ea	1.09	21.80	\$133.97	\$2,920.46
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.14
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$116.98	\$486.65
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$116.98	\$238.64
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$101.97	\$5,961.17

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$139.63	\$2,087.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$102.25	\$3,292.55
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,455	\$160,136.12
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$139.63	\$1,815.20
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$101.97	\$1,009.50
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$102.25	\$2,863.09
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$102.25	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$101.97	\$1,137.99
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$101.97	\$1,390.87
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$102.25	\$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$102.25	\$1,145.24
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$15,170.89
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$116.98	\$9,358.58
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$101.97	\$11,379.85
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$102.25	\$7,157.73
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$116.98	\$3,509.47
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$116.98	\$584.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM F: COOLING WATER								572	\$62,896.05
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$17,516.18
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM H: LUBE OIL								130	\$14,607.20
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$116.98	\$15,207.69
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$19,286.49
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$105.30	\$842.41

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$82.60	\$1,082.00
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$102.25	\$286.31
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$15,914.66
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
	(b) 1:2-DC	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
	(c) L1-SB	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
	(d) L1-DB	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
SUB TOTAL SYSTEM K: ELECTRICAL								150	\$11,888.00
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$143.89	\$47,484.03
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$96.31	\$31,780.65
	(c) Mechanic			1.00	ea	33.00	330.00	\$71.38	\$23,555.07
	(d) Truck Driver			1.00	ea	33.00	330.00	\$78.18	\$25,798.41
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$27.19	\$8,973.36
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$38.52	\$12,712.26
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$162,378.78
SUB TOTAL: SYSTEMS A TO L								15,287	\$1,538,408.65
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			30.00	days			\$4,500.00	\$135,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		50.00	days			\$85.00	\$4,250.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		25.00	days			\$73.00	\$1,825.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$178,542.36
SUB TOTAL ADDITIONAL ITEMS								0	\$425,557.36
GRAND TOTAL								15,287	\$1,963,966.01

Bridgman, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
13,307	\$103.41	\$1,376,029.87

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Bridgman, B, 0-5,000 HP
 State: Michigan
 Capacity: 0-5,000 HP

Transmission

of Compressors 3

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		3.00	ea	495.00	1485.00	\$99.64	\$147,959.49
	(b) Remove air intake systems	6C		3.00	ea	120.00	360.00	\$99.64	\$35,868.97
	(c) Remove exhaust systems	6C		3.00	ea	120.00	360.00	\$99.64	\$35,868.97
	(d) Remove glycol coolers	6C		3.00	ea	250.00	750.00	\$99.64	\$74,727.02
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$79.25	\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$101.97	\$16,315.20
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$123.13	\$3,694.03
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$116.98	\$4,679.29
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$101.97	\$2,039.40
	SUB TOTAL SYSTEM A: STATION LAYOUT						3,485		\$347,513.19
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		156.95	cy	2.45	384.00	\$109.49	\$42,045.36
	(b) Remove engine blocks	2A		372.77	cy	2.45	912.00	\$109.49	\$99,857.73
	(c) Remove operating floor structural slab	2A		78.48	cy	2.45	192.00	\$109.49	\$21,022.68
	(d) Remove yard equipment foundations	2A		39.24	cy	2.45	96.00	\$109.49	\$10,511.34
	(e) Remove above grade pipe piers & valve supports	2A		117.72	cy	2.45	288.00	\$109.49	\$31,534.02
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		235.43	cy	0.10	23.40	\$139.63	\$3,267.36
	(b) Backfill with excavated native material	2C		235.43	cy	0.21	50.40	\$102.25	\$5,153.56
	(c) Backfill with imported gravel	2C		980.96	cy	0.21	210.00	\$102.25	\$21,473.18
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						2,156		\$234,865.23
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		548.96	sy	0.48	266.22	\$80.64	\$21,466.81
	(b) Remove metal roof deck	3B		548.96	sy	0.14	78.03	\$98.81	\$7,710.06
	(c) Remove wall cladding, door windows & louvers	3C		312.15	sy	0.18	57.42	\$88.17	\$5,062.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		2633.89	cy	0.09	241.65	\$88.17	\$21,306.29
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		15.84	ton	10.00	158.40	\$116.67	\$18,479.74
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						802		\$74,025.63
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	590.45	ft	0.74	439.20	\$101.97	\$44,785.22
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	147.61	ft	0.51	75.15	\$101.97	\$7,663.05
	- NPS 10 HP above grade suction & discharge	6B	10	137.77	ft	0.30	41.16	\$101.97	\$4,197.09
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$101.97	\$1,468.37
	(b) Flame Cutting								
	- NPS 30	6A	30	24.00	ea	7.20	172.80	\$133.97	\$23,149.31
	- NPS 16	6A	16	12.00	ea	1.61	19.32	\$133.97	\$2,588.22
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246.50
	- NPS 12	6A	12	12.00	ea	1.09	13.08	\$133.97	\$1,752.27
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.14
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$116.98	\$486.65
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$116.98	\$238.64
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$101.97	\$5,961.17

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$139.63	\$2,087.48	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$102.25	\$3,292.55	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							939		\$103,067.10
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$139.63	\$1,815.20	
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$101.97	\$1,009.50	
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$102.25	\$2,863.09	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$139.63	\$544.56	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$101.97	\$632.21	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$102.25	\$858.93	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$139.63	\$998.36	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$101.97	\$1,137.99	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$101.97	\$1,390.87	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$102.25	\$1,574.70	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$139.63	\$726.08	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$101.97	\$474.16	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$102.25	\$1,145.24	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$15,170.89
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$116.98	\$9,358.58	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$101.97	\$11,379.85	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$139.63	\$5,990.17	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$102.25	\$2,290.47	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$102.25	\$7,157.73	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$116.98	\$3,509.47	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$116.98	\$584.91	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$62,896.05
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$17,516.18
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$14,607.20
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$116.98	\$15,207.69	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$19,286.49
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$139.63	\$2,792.62	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$105.30	\$842.41	

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$82.60	\$1,082.00
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$102.25	\$286.31
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$15,914.66
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		344.43	ft	0.03	10.50	\$79.25	\$832.16
	(b) 1:2-DC	3E		344.43	ft	0.03	10.50	\$79.25	\$832.16
	(c) L1-SB	3E		344.43	ft	0.03	10.50	\$79.25	\$832.16
	(d) L1-DB	3E		344.43	ft	0.03	10.50	\$79.25	\$832.16
SUB TOTAL SYSTEM K: ELECTRICAL								122	\$9,668.91
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$143.89	\$47,484.03
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$96.31	\$31,780.65
	(c) Mechanic			1.00	ea	33.00	330.00	\$71.38	\$23,555.07
	(d) Truck Driver			1.00	ea	33.00	330.00	\$78.18	\$25,798.41
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$27.19	\$8,973.36
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$38.52	\$12,712.26
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$162,378.78
SUB TOTAL: SYSTEMS A TO L								10,801	\$1,076,910.33
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			18.00	days			\$4,500.00	\$81,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		30.00	days			\$85.00	\$2,550.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$126,749.53
SUB TOTAL ADDITIONAL ITEMS								0	\$317,334.53
GRAND TOTAL								10,801	\$1,394,244.87

Bridgman, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
8,821	\$103.68	\$914,531.55

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Bridgman, C, 10,500-21,000 HP
 State: Michigan
 Capacity: 10,500-21,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$99.64	\$49,319.83
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$99.64	\$11,956.32
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$99.64	\$11,956.32
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$99.64	\$24,909.01
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$79.25	\$12,680.54
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$101.97	\$32,630.40
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$123.13	\$7,388.07
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$116.98	\$7,018.94
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$99.64	\$15,941.76
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$99.64	\$15,941.76
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$201,979.34
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$109.49	\$14,015.12
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$109.49	\$33,285.91
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$109.49	\$7,007.56
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$109.49	\$3,503.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$109.49	\$10,511.34
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$139.63	\$1,089.12
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$102.25	\$1,717.85
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$102.25	\$7,157.73
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$78,288.41
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$80.64	\$7,155.60
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$98.81	\$2,570.02
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$88.17	\$1,687.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$88.17	\$7,102.10
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$116.67	\$6,159.91
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$24,675.21
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$101.97	\$24,880.68
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$101.97	\$6,811.60
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$101.97	\$3,997.22
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$101.97	\$1,468.37
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$133.97	\$7,716.44
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$133.97	\$862.74
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246.50
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$133.97	\$1,168.18
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.14
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$116.98	\$486.65
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$116.98	\$238.64
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$101.97	\$8,055.63

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$139.63	\$2,722.80
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$102.25	\$4,294.64
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$68,100.67
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$139.63	\$3,630.40
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$101.97	\$1,682.51
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$102.25	\$5,726.18
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$102.25	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$101.97	\$1,137.99
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$101.97	\$1,390.87
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$102.25	\$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$102.25	\$1,145.24
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$20,522.19
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$116.98	\$9,358.58
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$101.97	\$12,644.28
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$139.63	\$7,260.81
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$102.25	\$2,863.09
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$102.25	\$8,589.27
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$116.98	\$3,509.47
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$116.98	\$584.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM F: COOLING WATER								613	\$67,435.29
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$17,516.18
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM H: LUBE OIL								130	\$14,607.20
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$116.98	\$15,207.69
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$19,286.49
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$105.30	\$842.41

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$82.60	\$1,082.00
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$102.25	\$286.31
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$15,914.66
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$79.25	\$277.39
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$79.25	\$277.39
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$79.25	\$277.39
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$79.25	\$277.39
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$7,449.81
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$143.89	\$79,140.05
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$96.31	\$52,967.75
	(c) Mechanic			1.00	ea	55.00	550.00	\$71.38	\$39,258.45
	(d) Truck Driver			1.00	ea	55.00	550.00	\$78.18	\$42,997.35
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$27.19	\$14,955.60
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$38.52	\$21,187.10
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,300	\$270,631.30
SUB TOTAL: SYSTEMS A TO L								8,447	\$806,406.76
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$104,517.18
SUB TOTAL ADDITIONAL ITEMS								0	\$343,282.18
GRAND TOTAL								8,447	\$1,149,688.94

Bridgman, C, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
5,147	\$104.10	\$535,775.46

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Brownsville, A, 0-5,000 HP
 State: Tennessee
 Capacity: 0-5,000 HP

Transmission

of Compressors 6

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		6.00	ea	495.00	2970.00	\$53.64	\$159,299.57
	(b) Remove air intake systems	6C		6.00	ea	120.00	720.00	\$53.64	\$38,618.08
	(c) Remove exhaust systems	6C		6.00	ea	120.00	720.00	\$53.64	\$38,618.08
	(d) Remove glycol coolers	6C		6.00	ea	250.00	1500.00	\$53.64	\$80,454.33
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.14	\$2,891.42
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$52.19	\$8,349.76
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.39	\$2,051.64
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.37	\$2,614.96
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$52.19	\$1,043.72
	SUB TOTAL SYSTEM A: STATION LAYOUT						6,440		\$344,610.79
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		313.91	cy	2.45	768.00	\$48.93	\$37,581.52
	(b) Remove engine blocks	2A		745.53	cy	2.45	1824.00	\$48.93	\$89,256.11
	(c) Remove operating floor structural slab	2A		156.95	cy	2.45	384.00	\$48.93	\$18,790.76
	(d) Remove yard equipment foundations	2A		78.48	cy	2.45	192.00	\$48.93	\$9,395.38
	(e) Remove above grade pipe piers & valve supports	2A		235.43	cy	2.45	576.00	\$48.93	\$28,186.14
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		470.86	cy	0.10	46.80	\$78.13	\$3,656.56
	(b) Backfill with excavated native material	2C		470.86	cy	0.21	100.80	\$45.00	\$4,536.28
	(c) Backfill with imported gravel	2C		1961.93	cy	0.21	420.00	\$45.00	\$18,901.16
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						4,312		\$210,303.91
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1097.92	sy	0.48	532.44	\$30.32	\$16,143.09
	(b) Remove metal roof deck	3B		1097.92	sy	0.14	156.06	\$49.99	\$7,801.12
	(c) Remove wall cladding, door windows & louvers	3C		624.31	sy	0.18	114.84	\$36.47	\$4,188.36
	(d) Remove structural steel frame (roof, walls & columns)	3C		5267.77	cy	0.09	483.30	\$36.47	\$17,626.56
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		31.68	ton	10.00	316.80	\$54.55	\$17,282.69
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,603		\$63,041.83
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1180.91	ft	0.74	878.40	\$52.19	\$45,840.16
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	295.23	ft	0.51	150.30	\$52.19	\$7,843.55
	- NPS 10 HP above grade suction & discharge	6B	10	275.55	ft	0.30	82.32	\$52.19	\$4,295.95
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$52.19	\$1,502.96
	(b) Flame Cutting								
	- NPS 30	6A	30	48.00	ea	7.20	345.60	\$63.79	\$22,045.10
	- NPS 16	6A	16	24.00	ea	1.61	38.64	\$63.79	\$2,464.76
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	24.00	ea	1.09	26.16	\$63.79	\$1,668.69
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,714		\$94,648.39
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$78.13	\$1,015.71
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$52.19	\$516.64
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$7,497.60
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER							572		\$32,871.40
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL							130		\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
	(b) 1:2-DC	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
	(c) L1-SB	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
	(d) L1-DB	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
SUB TOTAL SYSTEM K: ELECTRICAL							164		\$5,927.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$43.05	\$14,207.82
	(c) Mechanic			1.00	ea	33.00	330.00	\$36.26	\$11,964.48
	(d) Truck Driver			1.00	ea	33.00	330.00	\$32.86	\$10,842.81
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$80,122.98
SUB TOTAL: SYSTEMS A TO L							17,530		\$874,739.73
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			36.00	days			\$4,500.00	\$162,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		60.00	days			\$85.00	\$5,100.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$114,996.97
SUB TOTAL ADDITIONAL ITEMS							0		\$390,226.97
GRAND TOTAL							17,530		\$1,264,966.70

Brownsville, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
15,550	\$51.10	\$794,616.75

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Brownsville, C, 10,500-21,000 HP
 State: Tennessee
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$53.64	\$26,549.93
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$53.64	\$13,409.06
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$36.14	\$5,782.83
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$52.19	\$16,699.51
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$68.39	\$4,103.27
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$65.37	\$3,922.45
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$53.64	\$8,581.80
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$53.64	\$8,581.80
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$106,765.65
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$48.93	\$6,263.59
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$48.93	\$14,876.02
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$48.93	\$3,131.79
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$48.93	\$1,565.90
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$48.93	\$4,697.69
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$78.13	\$609.43
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$45.00	\$756.06
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,050.65
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$30.32	\$2,690.52
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.99	\$1,300.19
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$36.47	\$698.06
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$36.47	\$2,937.76
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$54.55	\$2,880.45
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,506.97
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$52.19	\$12,733.38
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$52.19	\$3,486.02
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$52.19	\$2,045.69
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$52.19	\$751.48
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$63.79	\$3,674.18
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$63.79	\$410.79
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$63.79	\$556.23
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$52.19	\$4,122.69

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$78.13	\$1,523.57
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$45.00	\$1,890.12
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$34,513.42
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$78.13	\$2,031.42
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$52.19	\$861.07
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$45.00	\$2,520.15
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$10,117.81
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$52.19	\$6,471.06
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$78.13	\$4,062.85
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$45.00	\$3,780.23
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								613	\$35,111.56
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$3,397.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$55.52	\$30,534.35
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$43.05	\$23,679.70
	(c) Mechanic			1.00	ea	55.00	550.00	\$36.26	\$19,940.80
	(d) Truck Driver			1.00	ea	55.00	550.00	\$32.86	\$18,071.35
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$19.26	\$10,593.55
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$19.26	\$10,593.55
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							3,300		\$133,538.30
SUB TOTAL: SYSTEMS A TO L							8,447		\$404,717.21
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$64,348.22
SUB TOTAL ADDITIONAL ITEMS							0		\$303,113.22
GRAND TOTAL							8,447		\$707,830.43

Brownsville, C, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
5,147	\$52.69	\$271,178.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Buttermilk, A, 0-5,000 HP
 State: Kansas
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$52.71	\$52,180.09
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$52.71	\$26,353.58
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$132,337.23
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$49.60	\$12,698.30
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$49.60	\$30,158.47
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$49.60	\$9,523.73
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$79.16	\$1,234.94
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$48.32	\$1,623.63
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$48.32	\$6,765.14
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$71,527.94
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$29.28	\$5,196.03
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$49.32	\$2,565.60
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$35.90	\$1,374.43
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$35.90	\$5,784.26
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$56.23	\$5,937.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$20,858.30
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$56.77	\$16,623.61
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$56.77	\$1,557.90
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$56.77	\$545.04
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$71.47	\$8,233.30
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$71.47	\$920.53
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$71.47	\$623.22
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								680	\$40,700.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$3,954.80
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								8,557	\$428,126.82
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$59,049.68
SUB TOTAL ADDITIONAL ITEMS								0	\$221,419.68
GRAND TOTAL								8,557	\$649,546.50

Buttermilk, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$52.97	\$348,377.73

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Celestine, A, 0-5,000 HP
 State: Indiana
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 6

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		6.00	ea	495.00	2970.00	\$108.01	\$320,786.40
	(b) Remove air intake systems	6C		6.00	ea	120.00	720.00	\$108.01	\$77,766.40
	(c) Remove exhaust systems	6C		6.00	ea	120.00	720.00	\$108.01	\$77,766.40
	(d) Remove glycol coolers	6C		6.00	ea	250.00	1500.00	\$108.01	\$162,013.34
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						6,440		\$695,580.99
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		313.91	cy	2.45	768.00	\$117.12	\$89,946.79
	(b) Remove engine blocks	2A		745.53	cy	2.45	1824.00	\$117.12	\$213,623.62
	(c) Remove operating floor structural slab	2A		156.95	cy	2.45	384.00	\$117.12	\$44,973.39
	(d) Remove yard equipment foundations	2A		78.48	cy	2.45	192.00	\$117.12	\$22,486.70
	(e) Remove above grade pipe piers & valve supports	2A		235.43	cy	2.45	576.00	\$117.12	\$67,460.09
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		470.86	cy	0.10	46.80	\$148.64	\$6,956.27
	(b) Backfill with excavated native material	2C		470.86	cy	0.21	100.80	\$109.07	\$10,994.65
	(c) Backfill with imported gravel	2C		1961.93	cy	0.21	420.00	\$109.07	\$45,811.04
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						4,312		\$502,252.54
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1097.92	sy	0.48	532.44	\$89.10	\$47,439.94
	(b) Remove metal roof deck	3B		1097.92	sy	0.14	156.06	\$109.20	\$17,041.52
	(c) Remove wall cladding, door windows & louvers	3C		624.31	sy	0.18	114.84	\$96.07	\$11,032.34
	(d) Remove structural steel frame (roof, walls & columns)	3C		5267.77	cy	0.09	483.30	\$96.07	\$46,429.21
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		31.68	ton	10.00	316.80	\$125.07	\$39,622.77
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,603		\$161,565.79
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1180.91	ft	0.74	878.40	\$109.12	\$95,850.33
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	295.23	ft	0.51	150.30	\$109.12	\$16,400.62
	- NPS 10 HP above grade suction & discharge	6B	10	275.55	ft	0.30	82.32	\$109.12	\$8,982.70
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$109.12	\$3,142.63
	(b) Flame Cutting								
	- NPS 30	6A	30	48.00	ea	7.20	345.60	\$156.04	\$53,926.30
	- NPS 16	6A	16	24.00	ea	1.61	38.64	\$156.04	\$6,029.26
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	24.00	ea	1.09	26.16	\$156.04	\$4,081.92
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,714	\$207,174.87
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$16,189.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								572	\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		688.86	ft	0.03	21.00	\$86.95	\$1,825.87
	(b) 1:2-DC	3E		688.86	ft	0.03	21.00	\$86.95	\$1,825.87
	(c) L1-SB	3E		688.86	ft	0.03	21.00	\$86.95	\$1,825.87
	(d) L1-DB	3E		688.86	ft	0.03	21.00	\$86.95	\$1,825.87
SUB TOTAL SYSTEM K: ELECTRICAL								164	\$14,259.21
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	(c) Mechanic			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	(d) Truck Driver			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$184,064.40
SUB TOTAL: SYSTEMS A TO L								17,530	\$1,920,854.75
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			36.00	days			\$4,500.00	\$162,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		60.00	days			\$85.00	\$5,100.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$219,608.48
SUB TOTAL ADDITIONAL ITEMS								0	\$494,838.48
GRAND TOTAL								17,530	\$2,415,693.23

Celestine, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
15,550	\$111.69	\$1,736,790.35

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Celestine, B, 5,000-10,500 HP
 State: Indiana
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$108.01	\$53,464.40
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$108.01	\$27,002.22
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$86.95	\$10,433.57
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$109.12	\$26,188.62
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$131.84	\$5,932.61
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$126.25	\$7,575.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$109.12	\$6,547.15
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$109.12	\$3,273.58
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$192,261.43
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$117.12	\$35,603.94
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$117.12	\$3,747.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$117.12	\$11,243.35
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$148.64	\$1,159.38
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$109.07	\$1,832.44
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$83,708.76
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$89.10	\$7,906.66
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$109.20	\$2,840.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$96.07	\$1,838.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$96.07	\$7,738.20
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$125.07	\$6,603.79
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$26,927.63
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$109.12	\$18,637.56
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$109.12	\$3,644.58
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$109.12	\$2,138.74
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$109.12	\$1,047.54
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$156.04	\$8,987.72
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$156.04	\$1,004.88
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$156.04	\$1,020.48
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$55,242.60
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$148.64	\$2,898.45
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$109.12	\$1,440.37
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$109.07	\$4,581.10
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$19,042.98
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								572	\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$8,172.96
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$181.28	\$79,763.20
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$117.83	\$51,846.08
	(c) Mechanic			1.00	ea	44.00	440.00	\$77.04	\$33,899.36
	(d) Truck Driver			1.00	ea	44.00	440.00	\$77.04	\$33,899.36
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								2,640	\$245,419.20
SUB TOTAL: SYSTEMS A TO L								7,309	\$770,542.82
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$94,901.78
SUB TOTAL ADDITIONAL ITEMS								0	\$273,376.78
GRAND TOTAL								7,309	\$1,043,919.60

Celestine, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$112.48	\$525,123.62

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Celestine, B, 10,500-21,000 HP
 State: Indiana
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$108.01	\$53,464.40
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$108.01	\$27,002.22
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$86.95	\$13,911.43
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$109.12	\$34,918.15
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$131.84	\$7,910.15
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$126.25	\$7,575.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$108.01	\$17,281.42
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$108.01	\$17,281.42
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$218,360.65
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$117.12	\$35,603.94
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$117.12	\$3,747.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$117.12	\$11,243.35
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$148.64	\$1,159.38
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$109.07	\$1,832.44
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$83,708.76
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$89.10	\$7,906.66
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$109.20	\$2,840.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$96.07	\$1,838.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$96.07	\$7,738.20
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$125.07	\$6,603.79
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$26,927.63
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$109.12	\$26,625.09
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$109.12	\$7,289.16
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$109.12	\$4,277.47
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$109.12	\$1,571.32
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$156.04	\$8,987.72
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$156.04	\$1,004.88
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$156.04	\$1,360.64
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$109.12	\$8,620.42

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$148.64	\$2,898.45
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$109.07	\$4,581.10
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$73,863.92
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$148.64	\$3,864.60
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$109.12	\$1,800.47
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$109.07	\$6,108.14
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$21,896.26
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$109.12	\$13,530.78
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$148.64	\$7,729.19
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$109.07	\$9,162.21
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								613	\$72,291.45
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$8,172.96
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$181.28	\$99,704.00
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$117.83	\$64,807.60
	(c) Mechanic			1.00	ea	55.00	550.00	\$77.04	\$42,374.20
	(d) Truck Driver			1.00	ea	55.00	550.00	\$77.04	\$42,374.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$28.33	\$15,578.75
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$39.66	\$21,810.25
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,300	\$306,774.00
SUB TOTAL: SYSTEMS A TO L								8,447	\$884,314.97
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$112,308.00
SUB TOTAL ADDITIONAL ITEMS								0	\$351,073.00
GRAND TOTAL								8,447	\$1,235,387.97

Celestine, B, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
5,147	\$112.22	\$577,540.97

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Cottage Grove, A, 0-5,000 HP
 State: Tennessee
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 6

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		6.00	ea	495.00	2970.00	\$53.64	\$159,299.57
	(b) Remove air intake systems	6C		6.00	ea	120.00	720.00	\$53.64	\$38,618.08
	(c) Remove exhaust systems	6C		6.00	ea	120.00	720.00	\$53.64	\$38,618.08
	(d) Remove glycol coolers	6C		6.00	ea	250.00	1500.00	\$53.64	\$80,454.33
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.14	\$2,891.42
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$52.19	\$8,349.76
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.39	\$2,051.64
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.37	\$2,614.96
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$52.19	\$1,043.72
	SUB TOTAL SYSTEM A: STATION LAYOUT						6,440		\$344,610.79
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		313.91	cy	2.45	768.00	\$48.93	\$37,581.52
	(b) Remove engine blocks	2A		745.53	cy	2.45	1824.00	\$48.93	\$89,256.11
	(c) Remove operating floor structural slab	2A		156.95	cy	2.45	384.00	\$48.93	\$18,790.76
	(d) Remove yard equipment foundations	2A		78.48	cy	2.45	192.00	\$48.93	\$9,395.38
	(e) Remove above grade pipe piers & valve supports	2A		235.43	cy	2.45	576.00	\$48.93	\$28,186.14
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		470.86	cy	0.10	46.80	\$78.13	\$3,656.56
	(b) Backfill with excavated native material	2C		470.86	cy	0.21	100.80	\$45.00	\$4,536.28
	(c) Backfill with imported gravel	2C		1961.93	cy	0.21	420.00	\$45.00	\$18,901.16
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						4,312		\$210,303.91
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1097.92	sy	0.48	532.44	\$30.32	\$16,143.09
	(b) Remove metal roof deck	3B		1097.92	sy	0.14	156.06	\$49.99	\$7,801.12
	(c) Remove wall cladding, door windows & louvers	3C		624.31	sy	0.18	114.84	\$36.47	\$4,188.36
	(d) Remove structural steel frame (roof, walls & columns)	3C		5267.77	cy	0.09	483.30	\$36.47	\$17,626.56
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		31.68	ton	10.00	316.80	\$54.55	\$17,282.69
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,603		\$63,041.83
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1180.91	ft	0.74	878.40	\$52.19	\$45,840.16
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	295.23	ft	0.51	150.30	\$52.19	\$7,843.55
	- NPS 10 HP above grade suction & discharge	6B	10	275.55	ft	0.30	82.32	\$52.19	\$4,295.95
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$52.19	\$1,502.96
	(b) Flame Cutting								
	- NPS 30	6A	30	48.00	ea	7.20	345.60	\$63.79	\$22,045.10
	- NPS 16	6A	16	24.00	ea	1.61	38.64	\$63.79	\$2,464.76
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	24.00	ea	1.09	26.16	\$63.79	\$1,668.69
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,714		\$94,648.39
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$78.13	\$1,015.71	
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$52.19	\$516.64	
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$7,497.60
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$32,871.40
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$9,404.81
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21	

	<i>(b) Breakup and remove concrete</i>	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	<i>(c) Hand Excavate to expose drain pipes</i>	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	<i>(d) Carefully remove drain piping</i>	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	<i>(e) Backfill with imported gravel</i>	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	<i>(a) Remove station and generator control panels</i>	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	<i>(b) Remove motor control centers (MCC)</i>	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	<i>(a) 1:2-SC</i>	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
	<i>(b) 1:2-DC</i>	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
	<i>(c) L1-SB</i>	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
	<i>(d) L1-DB</i>	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
SUB TOTAL SYSTEM K: ELECTRICAL							164		\$5,927.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	<i>(a) Project Superintendent</i>			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	<i>(b) Safety Coordinator</i>			1.00	ea	33.00	330.00	\$43.05	\$14,207.82
	<i>(c) Mechanic</i>			1.00	ea	33.00	330.00	\$36.26	\$11,964.48
	<i>(d) Truck Driver</i>			1.00	ea	33.00	330.00	\$32.86	\$10,842.81
	2. Equipment								
	<i>(a) Pickup Truck, 4x4</i>			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	<i>(b) Truck, Mechanic Rig 4x4</i>			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	3. Miscellaneous Expenses								
	<i>(a) Trailer Office</i>			1.50	mo			\$230.00	\$345.00
	<i>(b) Telephone</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(c) Cellular Phones</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(d) Office Equipment: Fax, Copier, Computers, etc.</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(e) Utility Bills: Electric, Water, etc.</i>			1.50	mo			\$575.00	\$862.50
	<i>(f) Daily Consumables</i>			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$80,122.98
SUB TOTAL: SYSTEMS A TO L							17,530		\$874,739.73
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			36.00	days			\$4,500.00	\$162,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		60.00	days			\$85.00	\$5,100.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$114,996.97
SUB TOTAL ADDITIONAL ITEMS							0		\$390,226.97
GRAND TOTAL							17,530		\$1,264,966.70

Cottage Grove, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
15,550	\$51.10	\$794,616.75

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Cottage Grove, B, 5,000-10,500 HP
 State: Tennessee
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$53.64	\$26,549.93
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$53.64	\$13,409.06
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$36.14	\$4,337.12
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$52.19	\$12,524.64
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$68.39	\$3,077.45
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$65.37	\$3,922.45
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$52.19	\$3,131.16
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$52.19	\$1,565.58
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$94,262.77
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$48.93	\$6,263.59
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$48.93	\$14,876.02
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$48.93	\$3,131.79
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$48.93	\$1,565.90
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$48.93	\$4,697.69
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$78.13	\$609.43
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$45.00	\$756.05
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,050.65
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$30.32	\$2,690.52
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.99	\$1,300.19
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$36.47	\$698.06
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$36.47	\$2,937.76
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$54.55	\$2,880.45
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,506.97
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$52.19	\$8,913.37
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$52.19	\$1,743.01
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$52.19	\$1,022.85
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$52.19	\$500.99
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$63.79	\$3,674.18
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$63.79	\$410.79
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$63.79	\$417.17
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$25,669.57
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$78.13	\$1,523.57
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$52.19	\$688.85
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$45.00	\$1,890.12
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$8,807.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								572	\$32,871.40
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$3,397.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$55.52	\$24,427.48
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$43.05	\$18,943.76
	(c) Mechanic			1.00	ea	44.00	440.00	\$36.26	\$15,952.64
	(d) Truck Driver			1.00	ea	44.00	440.00	\$32.86	\$14,457.08
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$19.26	\$8,474.84
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$19.26	\$8,474.84
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							2,640		\$106,830.64
SUB TOTAL: SYSTEMS A TO L							7,309		\$353,112.55
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$53,158.76
SUB TOTAL ADDITIONAL ITEMS							0		\$231,633.76
GRAND TOTAL							7,309		\$584,746.31

Cottage Grove, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$52.75	\$246,281.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Custer, A, 0-5,000 HP
 State: Oklahoma
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$52.71	\$52,180.09
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$52.71	\$26,353.58
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$132,337.23
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$49.60	\$12,698.30
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$49.60	\$30,158.47
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$49.60	\$9,523.73
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$79.16	\$1,234.94
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$48.32	\$1,623.63
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$48.32	\$6,765.14
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$71,527.94
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$29.28	\$5,196.03
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$49.32	\$2,565.60
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$35.90	\$1,374.43
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$35.90	\$5,784.26
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$56.23	\$5,937.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$20,858.30
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$56.77	\$16,623.61
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$56.77	\$1,557.90
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$56.77	\$545.04
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$71.47	\$8,233.30
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$71.47	\$920.53
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$71.47	\$623.22
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								680	\$40,700.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$3,954.80
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								8,557	\$428,126.82
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$59,049.68
SUB TOTAL ADDITIONAL ITEMS								0	\$221,419.68
GRAND TOTAL								8,557	\$649,546.50

Custer, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$52.97	\$348,377.73

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Custer, A1, 0-5,000 HP
 State: Oklahoma
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$52.71	\$52,180.09
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$52.71	\$26,353.58
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$132,337.23
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$49.60	\$12,698.30
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$49.60	\$30,158.47
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$49.60	\$9,523.73
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$79.16	\$1,234.94
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$48.32	\$1,623.63
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$48.32	\$6,765.14
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$71,527.94
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$29.28	\$5,196.03
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$49.32	\$2,565.60
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$35.90	\$1,374.43
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$35.90	\$5,784.26
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$56.23	\$5,937.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$20,858.30
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$56.77	\$16,623.61
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$56.77	\$1,557.90
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$56.77	\$545.04
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$71.47	\$8,233.30
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$71.47	\$920.53
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$71.47	\$623.22
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								680	\$40,700.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$3,954.80
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								8,557	\$428,126.82
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$59,049.68
SUB TOTAL ADDITIONAL ITEMS								0	\$221,419.68
GRAND TOTAL								8,557	\$649,546.50

Custer, A1, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$52.97	\$348,377.73

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Custer, B, 0-5,000 HP
 State: Oklahoma
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$52.71	\$52,180.09
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$52.71	\$26,353.58
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$132,337.23
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$49.60	\$12,698.30
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$49.60	\$30,158.47
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$49.60	\$9,523.73
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$79.16	\$1,234.94
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$48.32	\$1,623.63
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$48.32	\$6,765.14
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$71,527.94
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$29.28	\$5,196.03
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$49.32	\$2,565.60
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$35.90	\$1,374.43
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$35.90	\$5,784.26
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$56.23	\$5,937.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$20,858.30
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$56.77	\$16,623.61
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$56.77	\$1,557.90
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$56.77	\$545.04
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$71.47	\$8,233.30
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$71.47	\$920.53
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$71.47	\$623.22
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								680	\$40,700.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$3,954.80
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								8,557	\$428,126.82
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$59,049.68
SUB TOTAL ADDITIONAL ITEMS								0	\$221,419.68
GRAND TOTAL								8,557	\$649,546.50

Custer, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$52.97	\$348,377.73

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Defiance, A, 0-5,000 HP
 State: Ohio
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 6

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		6.00	ea	495.00	2970.00	\$141.67	\$420,760.85
	(b) Remove air intake systems	6C		6.00	ea	120.00	720.00	\$141.67	\$102,002.63
	(c) Remove exhaust systems	6C		6.00	ea	120.00	720.00	\$141.67	\$102,002.63
	(d) Remove glycol coolers	6C		6.00	ea	250.00	1500.00	\$141.67	\$212,505.48
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$120.65	\$9,652.25
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$140.97	\$22,554.86
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$163.75	\$4,912.57
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$159.25	\$6,370.18
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$140.97	\$2,819.36
	SUB TOTAL SYSTEM A: STATION LAYOUT						6,440		\$911,886.78
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		313.91	cy	2.45	768.00	\$150.08	\$115,259.27
	(b) Remove engine blocks	2A		745.53	cy	2.45	1824.00	\$150.08	\$273,740.78
	(c) Remove operating floor structural slab	2A		156.95	cy	2.45	384.00	\$150.08	\$57,629.64
	(d) Remove yard equipment foundations	2A		78.48	cy	2.45	192.00	\$150.08	\$28,814.82
	(e) Remove above grade pipe piers & valve supports	2A		235.43	cy	2.45	576.00	\$150.08	\$86,444.46
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		470.86	cy	0.10	46.80	\$178.27	\$8,342.86
	(b) Backfill with excavated native material	2C		470.86	cy	0.21	100.80	\$141.58	\$14,271.23
	(c) Backfill with imported gravel	2C		1961.93	cy	0.21	420.00	\$141.58	\$59,463.47
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						4,312		\$643,966.52
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1097.92	sy	0.48	532.44	\$119.80	\$63,788.13
	(b) Remove metal roof deck	3B		1097.92	sy	0.14	156.06	\$137.78	\$21,502.59
	(c) Remove wall cladding, door windows & louvers	3C		624.31	sy	0.18	114.84	\$125.48	\$14,410.09
	(d) Remove structural steel frame (roof, walls & columns)	3C		5267.77	cy	0.09	483.30	\$125.48	\$60,644.36
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		31.68	ton	10.00	316.80	\$154.52	\$48,951.47
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,603		\$209,296.66
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1180.91	ft	0.74	878.40	\$140.97	\$123,826.17
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	295.23	ft	0.51	150.30	\$140.97	\$21,187.47
	- NPS 10 HP above grade suction & discharge	6B	10	275.55	ft	0.30	82.32	\$140.97	\$11,604.47
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$140.97	\$4,059.87
	(b) Flame Cutting								
	- NPS 30	6A	30	48.00	ea	7.20	345.60	\$168.01	\$58,065.14
	- NPS 16	6A	16	24.00	ea	1.61	38.64	\$168.01	\$6,492.01
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	24.00	ea	1.09	26.16	\$168.01	\$4,395.21
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$140.97	\$8,240.98

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$178.27	\$2,665.08	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$141.58	\$4,558.87	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,714		\$253,644.78
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$178.27	\$2,317.46	
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$140.97	\$1,395.58	
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$141.58	\$3,964.23	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$20,554.89
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$140.97	\$15,732.01	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$178.27	\$7,647.62	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$141.58	\$3,171.38	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$85,856.14
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$24,017.79
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69	

	<i>(b) Breakup and remove concrete</i>	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	<i>(c) Hand Excavate to expose drain pipes</i>	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	<i>(d) Carefully remove drain piping</i>	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	<i>(e) Backfill with imported gravel</i>	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	<i>(a) Remove station and generator control panels</i>	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	<i>(b) Remove motor control centers (MCC)</i>	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	<i>(a) 1:2-SC</i>	3E		688.86	ft	0.03	21.00	\$120.65	\$2,533.72
	<i>(b) 1:2-DC</i>	3E		688.86	ft	0.03	21.00	\$120.65	\$2,533.72
	<i>(c) L1-SB</i>	3E		688.86	ft	0.03	21.00	\$120.65	\$2,533.72
	<i>(d) L1-DB</i>	3E		688.86	ft	0.03	21.00	\$120.65	\$2,533.72
SUB TOTAL SYSTEM K: ELECTRICAL								164	\$19,787.12
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	<i>(a) Project Superintendent</i>			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	<i>(b) Safety Coordinator</i>			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	<i>(c) Mechanic</i>			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	<i>(d) Truck Driver</i>			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	<i>(a) Pickup Truck, 4x4</i>			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	<i>(b) Truck, Mechanic Rig 4x4</i>			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	<i>(a) Trailer Office</i>			1.50	mo			\$230.00	\$345.00
	<i>(b) Telephone</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(c) Cellular Phones</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(d) Office Equipment: Fax, Copier, Computers, etc.</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(e) Utility Bills: Electric, Water, etc.</i>			1.50	mo			\$575.00	\$862.50
	<i>(f) Daily Consumables</i>			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$187,429.41
SUB TOTAL: SYSTEMS A TO L								17,530	\$2,424,488.01
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			36.00	days			\$4,500.00	\$162,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		60.00	days			\$85.00	\$5,100.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$269,971.80
SUB TOTAL ADDITIONAL ITEMS								0	\$545,201.80
GRAND TOTAL								17,530	\$2,969,689.81

Defiance, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
15,550	\$143.86	\$2,237,058.60

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Defiance, B, 10,500-21,000 HP
 State: Ohio
 Capacity: 10,500-21,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$141.67	\$70,126.81
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$141.67	\$35,417.58
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$120.65	\$19,304.51
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$140.97	\$45,109.72
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$163.75	\$9,825.15
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$159.25	\$9,555.27
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$141.67	\$22,667.25
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$141.67	\$22,667.25
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$285,590.55
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$150.08	\$19,209.88
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$150.08	\$45,623.46
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$150.08	\$9,604.94
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$150.08	\$4,802.47
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$150.08	\$14,407.41
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$178.27	\$1,390.48
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$141.58	\$2,378.54
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$107,327.75
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$119.80	\$10,631.36
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$137.78	\$3,583.77
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$125.48	\$2,401.68
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$125.48	\$10,107.39
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$154.52	\$8,158.58
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$34,882.78
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$140.97	\$34,396.16
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$140.97	\$9,416.65
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$140.97	\$5,525.94
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$140.97	\$2,029.94
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$168.01	\$9,677.52
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$168.01	\$1,082.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$168.01	\$1,465.07
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$140.97	\$11,136.46

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$178.27	\$3,476.19
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$141.58	\$5,946.35
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$92,701.79
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$178.27	\$4,634.92
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$140.97	\$2,325.97
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$141.58	\$7,928.46
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$27,766.97
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$140.97	\$17,480.01
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$178.27	\$9,269.84
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$141.58	\$3,964.23
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$141.58	\$11,892.69
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM F: COOLING WATER								613	\$92,001.32
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$24,017.79
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM H: LUBE OIL								130	\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$11,341.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$192.61	\$105,935.50
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$123.50	\$67,923.35
	(c) Mechanic			1.00	ea	55.00	550.00	\$79.31	\$43,620.50
	(d) Truck Driver			1.00	ea	55.00	550.00	\$67.98	\$37,389.00
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$28.33	\$15,578.75
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$39.66	\$21,810.25
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,300	\$312,382.35
SUB TOTAL: SYSTEMS A TO L								8,447	\$1,056,060.63
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$129,482.56
SUB TOTAL ADDITIONAL ITEMS								0	\$368,247.56
GRAND TOTAL								8,447	\$1,424,308.20

Defiance, B, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
5,147	\$144.50	\$743,678.28

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Defiance, B, 5,000-10,500 HP
 State: Ohio
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$141.67	\$140,253.62
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$141.67	\$34,000.88
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$141.67	\$34,000.88
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$141.67	\$70,835.16
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$120.65	\$14,478.38
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$140.97	\$33,832.29
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$163.75	\$7,368.86
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$159.25	\$9,555.27
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$140.97	\$8,458.07
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$140.97	\$4,229.04
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,765		\$391,013.31
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$150.08	\$38,419.76
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$150.08	\$91,246.93
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$150.08	\$19,209.88
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$150.08	\$9,604.94
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$150.08	\$28,814.82
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$178.27	\$2,780.95
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$141.58	\$4,757.08
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$141.58	\$19,821.16
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$214,655.51
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$119.80	\$21,262.71
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$137.78	\$7,167.53
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$125.48	\$4,803.36
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$125.48	\$20,214.79
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$154.52	\$16,317.16
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$69,765.55
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	459.24	ft	0.74	341.60	\$140.97	\$48,154.62
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$140.97	\$9,416.65
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$140.97	\$5,525.94
	- NPS 12 HP bypass	6B	12	52.48	ft	0.37	19.20	\$140.97	\$2,706.58
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$168.01	\$19,355.05
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$168.01	\$2,164.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	12.00	ea	1.09	13.08	\$168.01	\$2,197.60
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$140.97	\$8,240.98

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$178.27	\$2,665.08	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$141.58	\$4,558.87	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							772		\$113,534.89
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$178.27	\$3,476.19	
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$140.97	\$1,860.78	
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$141.58	\$5,946.35	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							162		\$24,160.93
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$140.97	\$15,732.01	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$178.27	\$7,647.62	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$141.58	\$3,171.38	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$85,856.14
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$24,017.79
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69	

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$13,030.54
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$192.61	\$84,748.40
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$123.50	\$54,338.68
	(c) Mechanic			1.00	ea	44.00	440.00	\$79.31	\$34,896.40
	(d) Truck Driver			1.00	ea	44.00	440.00	\$67.98	\$29,911.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								2,640	\$249,905.88
SUB TOTAL: SYSTEMS A TO L								9,597	\$1,253,988.47
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			18.00	days			\$4,500.00	\$81,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		30.00	days			\$85.00	\$2,550.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		20.00	days			\$73.00	\$1,460.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$147,496.85
SUB TOTAL ADDITIONAL ITEMS								0	\$368,476.85
GRAND TOTAL								9,597	\$1,622,465.32

Defiance, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,957	\$144.32	\$1,004,082.59

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Defiance, C, 0-5,000 HP
 State: Ohio
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$141.67	\$70,126.81
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$141.67	\$35,417.58
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$120.65	\$9,652.25
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$140.97	\$22,554.86
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$163.75	\$4,912.57
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$159.25	\$6,370.18
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$140.97	\$2,819.36
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$214,160.45
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$150.08	\$19,209.88
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$150.08	\$45,623.46
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$150.08	\$9,604.94
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$150.08	\$4,802.47
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$150.08	\$14,407.41
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$178.27	\$1,390.48
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$141.58	\$2,378.54
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$107,327.75
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$119.80	\$10,631.36
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$137.78	\$3,583.77
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$125.48	\$2,401.68
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$125.48	\$10,107.39
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$154.52	\$8,158.58
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$34,882.78
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$140.97	\$20,637.69
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$140.97	\$3,531.24
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$140.97	\$1,934.08
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$140.97	\$676.65
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$168.01	\$9,677.52
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$168.01	\$1,082.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$168.01	\$732.53
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$140.97	\$8,240.98

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$178.27	\$2,665.08
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$141.58	\$4,558.87
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							422		\$62,286.16
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$178.27	\$2,317.46
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$140.97	\$1,395.58
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$141.58	\$3,964.23
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$20,554.89
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$140.97	\$15,732.01
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$178.27	\$7,647.62
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$141.58	\$3,171.38
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM F: COOLING WATER							572		\$85,856.14
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$24,017.79
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM H: LUBE OIL							130		\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$11,341.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$187,429.41
SUB TOTAL: SYSTEMS A TO L								6,314	\$815,904.70
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$95,005.97
SUB TOTAL ADDITIONAL ITEMS								0	\$229,160.97
GRAND TOTAL								6,314	\$1,045,065.67

Defiance, C, 0-5,000 HP
 Transmission

Total Labor MH 4,334
 Average Labor Rate \$145.00
 Total Labor Cost \$628,475.29

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Delhi, A, 0-5,000 HP
 State: Louisiana
 Capacity: 0-5,000 HP

Transmission

of Compressors 6

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		6.00	ea	495.00	2970.00	\$71.31	\$211,793.73
	(b) Remove air intake systems	6C		6.00	ea	120.00	720.00	\$71.31	\$51,343.93
	(c) Remove exhaust systems	6C		6.00	ea	120.00	720.00	\$71.31	\$51,343.93
	(d) Remove glycol coolers	6C		6.00	ea	250.00	1500.00	\$71.31	\$106,966.53
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$45.82	\$3,665.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$67.84	\$10,855.05
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$91.93	\$2,757.95
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$88.18	\$3,527.26
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$71.31	\$5,704.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$71.31	\$5,704.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$67.84	\$1,356.88
	SUB TOTAL SYSTEM A: STATION LAYOUT						6,440		\$457,734.27
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		313.91	cy	2.45	768.00	\$62.97	\$48,362.60
	(b) Remove engine blocks	2A		745.53	cy	2.45	1824.00	\$62.97	\$114,861.18
	(c) Remove operating floor structural slab	2A		156.95	cy	2.45	384.00	\$62.97	\$24,181.30
	(d) Remove yard equipment foundations	2A		78.48	cy	2.45	192.00	\$62.97	\$12,090.65
	(e) Remove above grade pipe piers & valve supports	2A		235.43	cy	2.45	576.00	\$62.97	\$36,271.95
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		470.86	cy	0.10	46.80	\$84.01	\$3,931.76
	(b) Backfill with excavated native material	2C		470.86	cy	0.21	100.80	\$62.22	\$6,272.22
	(c) Backfill with imported gravel	2C		1961.93	cy	0.21	420.00	\$62.22	\$26,134.23
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						4,312		\$272,105.90
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1097.92	sy	0.48	532.44	\$40.10	\$21,349.18
	(b) Remove metal roof deck	3B		1097.92	sy	0.14	156.06	\$60.66	\$9,466.73
	(c) Remove wall cladding, door windows & louvers	3C		624.31	sy	0.18	114.84	\$47.95	\$5,506.41
	(d) Remove structural steel frame (roof, walls & columns)	3C		5267.77	cy	0.09	483.30	\$47.95	\$23,173.54
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		31.68	ton	10.00	316.80	\$70.36	\$22,289.83
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,603		\$81,785.68
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1180.91	ft	0.74	878.40	\$67.84	\$59,594.20
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	295.23	ft	0.51	150.30	\$67.84	\$10,196.96
	- NPS 10 HP above grade suction & discharge	6B	10	275.55	ft	0.30	82.32	\$67.84	\$5,584.92
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$67.84	\$1,953.91
	(b) Flame Cutting								
	- NPS 30	6A	30	48.00	ea	7.20	345.60	\$94.53	\$32,668.25
	- NPS 16	6A	16	24.00	ea	1.61	38.64	\$94.53	\$3,652.49
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$94.53	\$173.93
	- NPS 12	6A	12	24.00	ea	1.09	26.16	\$94.53	\$2,472.81
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$71.31	\$2,852.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$88.18	\$878.29
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$88.18	\$366.83
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$88.18	\$179.89
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$67.84	\$3,966.16

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$84.01	\$1,255.98
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$62.22	\$2,003.62
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						1,714		\$127,800.69
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$84.01	\$1,092.16
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$67.84	\$671.66
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$62.22	\$1,742.28
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$84.01	\$327.65
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$62.22	\$522.68
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$84.01	\$600.69
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$67.84	\$757.14
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$67.84	\$925.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$62.22	\$958.26
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$84.01	\$436.86
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$67.84	\$315.47
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$62.22	\$696.91
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						138		\$9,467.78
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$88.18	\$7,054.51
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$88.18	\$1,763.63
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$67.84	\$7,571.39
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$84.01	\$3,604.11
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$62.22	\$1,393.83
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$88.18	\$2,645.44
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$88.18	\$440.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
	SUB TOTAL SYSTEM F: COOLING WATER						572		\$42,946.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$12,482.03
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$10,650.09
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$88.18	\$11,463.58
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C						170		\$14,177.34
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$67.84	\$3,575.38
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$84.01	\$1,680.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$73.84	\$590.70

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$62.97	\$2,821.15
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$39.20	\$513.54
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$62.22	\$174.23
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$9,775.88
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		688.86	ft	0.03	21.00	\$45.82	\$962.19
	(b) 1:2-DC	3E		688.86	ft	0.03	21.00	\$45.82	\$962.19
	(c) L1-SB	3E		688.86	ft	0.03	21.00	\$45.82	\$962.19
	(d) L1-DB	3E		688.86	ft	0.03	21.00	\$45.82	\$962.19
SUB TOTAL SYSTEM K: ELECTRICAL							164		\$7,514.24
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$80.44	\$26,546.19
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$60.05	\$19,816.17
	(c) Mechanic			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(d) Truck Driver			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$23.79	\$7,851.69
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$29.46	\$9,721.14
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$112,651.41
SUB TOTAL: SYSTEMS A TO L							17,530		\$1,159,092.22
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			36.00	days			\$4,500.00	\$162,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		60.00	days			\$85.00	\$5,100.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$143,432.22
SUB TOTAL ADDITIONAL ITEMS							0		\$418,662.22
GRAND TOTAL							17,530		\$1,577,754.44

Delhi, A, 0-5,000 HP
 Transmission

Total Labor MH 15,550
 Average Labor Rate \$67.29
 Total Labor Cost \$1,046,440.81

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Delhi, B, 10,500-21,000 HP
 State: Louisiana
 Capacity: 10,500-21,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$71.31	\$35,298.95
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$71.31	\$17,827.76
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$45.82	\$7,330.96
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$67.84	\$21,710.09
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$91.93	\$5,515.90
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$88.18	\$5,290.88
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$71.31	\$11,409.76
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$71.31	\$11,409.76
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$141,050.00
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$62.97	\$8,060.43
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$62.97	\$19,143.53
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$62.97	\$4,030.22
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$62.97	\$2,015.11
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$62.97	\$6,045.33
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$84.01	\$655.29
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$62.22	\$1,045.37
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$45,350.98
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$40.10	\$3,558.20
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$60.66	\$1,577.79
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$47.95	\$917.74
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$47.95	\$3,862.26
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$70.36	\$3,714.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$13,630.95
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$67.84	\$16,553.95
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$67.84	\$4,531.98
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$67.84	\$2,659.49
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$67.84	\$976.95
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$94.53	\$5,444.71
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$94.53	\$608.75
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$94.53	\$173.93
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$94.53	\$824.27
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$71.31	\$2,852.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$88.18	\$878.29
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$88.18	\$366.83
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$88.18	\$179.89
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$67.84	\$5,359.68

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$84.01	\$1,638.23
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$62.22	\$2,613.42
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						636		\$45,662.81
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$84.01	\$2,184.31
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$67.84	\$1,119.43
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$62.22	\$3,484.56
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$84.01	\$327.65
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$62.22	\$522.68
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$84.01	\$600.69
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$67.84	\$757.14
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$67.84	\$925.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$62.22	\$958.26
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$84.01	\$436.86
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$67.84	\$315.47
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$62.22	\$696.91
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						185		\$12,749.99
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$88.18	\$7,054.51
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$88.18	\$1,763.63
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$67.84	\$8,412.66
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$84.01	\$4,368.62
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$62.22	\$1,742.28
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$62.22	\$5,226.85
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$88.18	\$2,645.44
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$88.18	\$440.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
	SUB TOTAL SYSTEM F: COOLING WATER						613		\$45,772.29
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$12,482.03
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$10,650.09
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$88.18	\$11,463.58
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C						170		\$14,177.34
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$67.84	\$3,575.38
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$84.01	\$1,680.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$73.84	\$590.70

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$62.97	\$2,821.15
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$39.20	\$513.54
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$62.22	\$174.23
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$9,775.88
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$4,306.94
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$80.44	\$44,243.65
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$60.05	\$33,026.95
	(c) Mechanic			1.00	ea	55.00	550.00	\$55.52	\$30,534.35
	(d) Truck Driver			1.00	ea	55.00	550.00	\$55.52	\$30,534.35
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$23.79	\$13,086.15
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$29.46	\$16,201.90
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,300	\$187,752.35
SUB TOTAL: SYSTEMS A TO L								8,447	\$543,361.65
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$78,212.67
SUB TOTAL ADDITIONAL ITEMS								0	\$316,977.67
GRAND TOTAL								8,447	\$860,339.32

Delhi, B, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
5,147	\$69.10	\$355,609.30

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Delhi, B, 5,000-10,500 HP
 State: Louisiana
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$71.31	\$35,298.95
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$71.31	\$17,827.76
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$45.82	\$5,498.22
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$67.84	\$16,282.57
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$91.93	\$4,136.92
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$88.18	\$5,290.88
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$67.84	\$4,070.64
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$67.84	\$2,035.32
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$124,670.56
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$62.97	\$8,060.43
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$62.97	\$19,143.53
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$62.97	\$4,030.22
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$62.97	\$2,015.11
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$62.97	\$6,045.33
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$84.01	\$655.29
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$62.22	\$1,045.37
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$45,350.98
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$40.10	\$3,558.20
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$60.66	\$1,577.79
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$47.95	\$917.74
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$47.95	\$3,862.26
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$70.36	\$3,714.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$13,630.95
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$67.84	\$11,587.76
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$67.84	\$2,265.99
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$67.84	\$1,329.74
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$67.84	\$651.30
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$94.53	\$5,444.71
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$94.53	\$608.75
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$94.53	\$173.93
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$94.53	\$618.20
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$71.31	\$2,852.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$88.18	\$878.29
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$88.18	\$366.83
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$88.18	\$179.89
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$67.84	\$3,966.16

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$84.01	\$1,255.98
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$62.22	\$2,003.62
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							468		\$34,183.60
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$84.01	\$1,638.23
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$67.84	\$895.54
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$62.22	\$2,613.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$84.01	\$327.65
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$62.22	\$522.68
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$84.01	\$600.69
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$67.84	\$757.14
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$67.84	\$925.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$62.22	\$958.26
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$84.01	\$436.86
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$67.84	\$315.47
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$62.22	\$696.91
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							162		\$11,108.88
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$88.18	\$7,054.51
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$88.18	\$1,763.63
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$67.84	\$7,571.39
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$84.01	\$3,604.11
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$62.22	\$1,393.83
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$88.18	\$2,645.44
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$88.18	\$440.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM F: COOLING WATER							572		\$42,946.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$12,482.03
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM H: LUBE OIL							130		\$10,650.09
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$88.18	\$11,463.58
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$14,177.34
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$67.84	\$3,575.38
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$84.01	\$1,680.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$73.84	\$590.70

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$62.97	\$2,821.15
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$39.20	\$513.54
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$62.22	\$174.23
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$9,775.88
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$4,306.94
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$80.44	\$35,394.92
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$60.05	\$26,421.56
	(c) Mechanic			1.00	ea	44.00	440.00	\$55.52	\$24,427.48
	(d) Truck Driver			1.00	ea	44.00	440.00	\$55.52	\$24,427.48
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$23.79	\$10,468.92
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$29.46	\$12,961.52
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							2,640		\$150,201.88
SUB TOTAL: SYSTEMS A TO L							7,309		\$473,486.06
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$65,196.11
SUB TOTAL ADDITIONAL ITEMS							0		\$243,671.11
GRAND TOTAL							7,309		\$717,157.17

Delhi, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$69.25	\$323,284.18

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: E.G. Hill, A, 0-5,000 HP
 State: Oklahoma
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 10

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		10.00	ea	495.00	4950.00	\$52.71	\$260,900.44
	(b) Remove air intake systems	6C		10.00	ea	120.00	1200.00	\$52.71	\$63,248.59
	(c) Remove exhaust systems	6C		10.00	ea	120.00	1200.00	\$52.71	\$63,248.59
	(d) Remove glycol coolers	6C		10.00	ea	250.00	2500.00	\$52.71	\$131,767.90
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						10,380		\$547,669.65
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		523.18	cy	2.45	1280.00	\$49.60	\$63,491.51
	(b) Remove engine blocks	2A		1242.55	cy	2.45	3040.00	\$49.60	\$150,792.33
	(c) Remove operating floor structural slab	2A		261.59	cy	2.45	640.00	\$49.60	\$31,745.75
	(d) Remove yard equipment foundations	2A		130.80	cy	2.45	320.00	\$49.60	\$15,872.88
	(e) Remove above grade pipe piers & valve supports	2A		392.39	cy	2.45	960.00	\$49.60	\$47,618.63
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		784.77	cy	0.10	78.00	\$79.16	\$6,174.69
	(b) Backfill with excavated native material	2C		784.77	cy	0.21	168.00	\$48.32	\$8,118.17
	(c) Backfill with imported gravel	2C		3269.88	cy	0.21	700.00	\$48.32	\$33,825.72
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						7,186		\$357,639.68
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1829.86	sy	0.48	887.40	\$29.28	\$25,980.16
	(b) Remove metal roof deck	3B		1829.86	sy	0.14	260.10	\$49.32	\$12,828.00
	(c) Remove wall cladding, door windows & louvers	3C		1040.51	sy	0.18	191.40	\$35.90	\$6,872.17
	(d) Remove structural steel frame (roof, walls & columns)	3C		8779.62	cy	0.09	805.50	\$35.90	\$28,921.29
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		52.80	ton	10.00	528.00	\$56.23	\$29,689.86
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						2,672		\$104,291.48
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1968.18	ft	0.74	1464.00	\$56.77	\$83,118.06
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	492.05	ft	0.51	250.50	\$56.77	\$14,222.04
	- NPS 10 HP above grade suction & discharge	6B	10	459.24	ft	0.30	137.20	\$56.77	\$7,789.48
	- NPS 12 HP bypass	6B	12	131.21	ft	0.37	48.00	\$56.77	\$2,725.18
	(b) Flame Cutting								
	- NPS 30	6A	30	80.00	ea	7.20	576.00	\$71.47	\$41,166.51
	- NPS 16	6A	16	40.00	ea	1.61	64.40	\$71.47	\$4,602.64
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	40.00	ea	1.09	43.60	\$71.47	\$3,116.08
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								2,747	\$166,092.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		1148.11	ft	0.03	35.00	\$36.62	\$1,281.65
	(b) 1:2-DC	3E		1148.11	ft	0.03	35.00	\$36.62	\$1,281.65
	(c) L1-SB	3E		1148.11	ft	0.03	35.00	\$36.62	\$1,281.65
	(d) L1-DB	3E		1148.11	ft	0.03	35.00	\$36.62	\$1,281.65
SUB TOTAL SYSTEM K: ELECTRICAL								220	\$8,056.08
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								26,503	\$1,342,497.44
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			60.00	days			\$4,500.00	\$270,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		100.00	days			\$85.00	\$8,500.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		50.00	days			\$73.00	\$3,650.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$173,058.74
SUB TOTAL ADDITIONAL ITEMS								0	\$561,148.74
GRAND TOTAL								26,503	\$1,903,646.19

E.G. Hill, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
24,523	\$51.49	\$1,262,748.35

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: E.G. Hill, A1, 0-5,000 HP
 State: Oklahoma
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$52.71	\$26,090.04
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$52.71	\$13,176.79
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$80,420.68
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$49.60	\$15,079.23
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$49.60	\$1,587.29
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$49.60	\$4,761.86
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$79.16	\$617.47
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$48.32	\$811.82
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,763.97
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$29.28	\$2,598.02
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.32	\$1,282.80
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$35.90	\$687.22
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$35.90	\$2,892.13
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$56.23	\$2,968.99
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,429.15
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$56.77	\$8,311.81
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$56.77	\$1,422.20
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$56.77	\$778.95
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$56.77	\$272.52
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$71.47	\$4,116.65
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$71.47	\$460.26
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$71.47	\$311.61
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								422	\$25,026.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$3,442.14
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								6,314	\$313,830.49
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$44,798.55
SUB TOTAL ADDITIONAL ITEMS								0	\$178,953.55
GRAND TOTAL								6,314	\$492,784.04

E.G. Hill, A1, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$54.01	\$234,081.40

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Enterprise, A, 0-5,000 HP
 State: Kansas
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 8

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		8.00	ea	495.00	3960.00	\$52.71	\$208,720.35
	(b) Remove air intake systems	6C		8.00	ea	120.00	960.00	\$52.71	\$50,598.87
	(c) Remove exhaust systems	6C		8.00	ea	120.00	960.00	\$52.71	\$50,598.87
	(d) Remove glycol coolers	6C		8.00	ea	250.00	2000.00	\$52.71	\$105,414.32
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						8,410		\$443,836.55
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		418.54	cy	2.45	1024.00	\$49.60	\$50,793.21
	(b) Remove engine blocks	2A		994.04	cy	2.45	2432.00	\$49.60	\$120,633.86
	(c) Remove operating floor structural slab	2A		209.27	cy	2.45	512.00	\$49.60	\$25,396.60
	(d) Remove yard equipment foundations	2A		104.64	cy	2.45	256.00	\$49.60	\$12,698.30
	(e) Remove above grade pipe piers & valve supports	2A		313.91	cy	2.45	768.00	\$49.60	\$38,094.90
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		627.82	cy	0.10	62.40	\$79.16	\$4,939.75
	(b) Backfill with excavated native material	2C		627.82	cy	0.21	134.40	\$48.32	\$6,494.54
	(c) Backfill with imported gravel	2C		2615.90	cy	0.21	560.00	\$48.32	\$27,060.57
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						5,749		\$286,111.74
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1463.89	sy	0.48	709.92	\$29.28	\$20,784.13
	(b) Remove metal roof deck	3B		1463.89	sy	0.14	208.08	\$49.32	\$10,262.40
	(c) Remove wall cladding, door windows & louvers	3C		832.41	sy	0.18	153.12	\$35.90	\$5,497.74
	(d) Remove structural steel frame (roof, walls & columns)	3C		7023.70	cy	0.09	644.40	\$35.90	\$23,137.03
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		42.24	ton	10.00	422.40	\$56.23	\$23,751.89
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						2,138		\$83,433.19
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1574.54	ft	0.74	1171.20	\$56.77	\$66,494.45
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	393.64	ft	0.51	200.40	\$56.77	\$11,377.64
	- NPS 10 HP above grade suction & discharge	6B	10	367.39	ft	0.30	109.76	\$56.77	\$6,231.58
	- NPS 12 HP bypass	6B	12	104.97	ft	0.37	38.40	\$56.77	\$2,180.15
	(b) Flame Cutting								
	- NPS 30	6A	30	64.00	ea	7.20	460.80	\$71.47	\$32,933.21
	- NPS 16	6A	16	32.00	ea	1.61	51.52	\$71.47	\$3,682.12
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	32.00	ea	1.09	34.88	\$71.47	\$2,492.86
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								2,231	\$134,744.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
	(b) 1:2-DC	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
	(c) L1-SB	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
	(d) L1-DB	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
SUB TOTAL SYSTEM K: ELECTRICAL								192	\$7,030.76
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								22,017	\$1,113,904.79
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			48.00	days			\$4,500.00	\$216,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		80.00	days			\$85.00	\$6,800.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		40.00	days			\$73.00	\$2,920.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$144,556.48
SUB TOTAL ADDITIONAL ITEMS								0	\$476,216.48
GRAND TOTAL								22,017	\$1,590,121.26

Enterprise, A, 0-5,000 HP
 Transmission

Total Labor MH 20,037
 Average Labor Rate \$51.61
 Total Labor Cost \$1,034,155.70

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Enterprise, B, 0-5,000 HP
 State: Kansas
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$52.71	\$26,090.04
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$52.71	\$13,176.79
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$80,420.68
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$49.60	\$15,079.23
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$49.60	\$1,587.29
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$49.60	\$4,761.86
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$79.16	\$617.47
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$48.32	\$811.82
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,763.97
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$29.28	\$2,598.02
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.32	\$1,282.80
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$35.90	\$687.22
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$35.90	\$2,892.13
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$56.23	\$2,968.99
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,429.15
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$56.77	\$8,311.81
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$56.77	\$1,422.20
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$56.77	\$778.95
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$56.77	\$272.52
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$71.47	\$4,116.65
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$71.47	\$460.26
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$71.47	\$311.61
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								422	\$25,026.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$3,442.14
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								6,314	\$313,830.49
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$44,798.55
SUB TOTAL ADDITIONAL ITEMS								0	\$178,953.55
GRAND TOTAL								6,314	\$492,784.04

Enterprise, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$54.01	\$234,081.40

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Eunice, A, 10,500-21,000 HP
 State: Louisiana
 Capacity: 10,500-21,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$71.31	\$70,597.91
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$71.31	\$17,114.64
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$71.31	\$17,114.64
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$71.31	\$35,655.51
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$45.82	\$7,330.96
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$67.84	\$21,710.09
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$91.93	\$5,515.90
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$88.18	\$5,290.88
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$71.31	\$11,409.76
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$71.31	\$11,409.76
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM A: STATION LAYOUT						3,010		\$211,291.36
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$62.97	\$16,120.87
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$62.97	\$38,287.06
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$62.97	\$8,060.43
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$62.97	\$4,030.22
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$62.97	\$12,090.65
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$84.01	\$1,310.59
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$62.22	\$2,090.74
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$62.22	\$8,711.41
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$90,701.97
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$40.10	\$7,116.39
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$60.66	\$3,155.58
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$47.95	\$1,835.47
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$47.95	\$7,724.51
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$70.36	\$7,429.94
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$27,261.89
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	656.06	ft	0.74	488.00	\$67.84	\$33,107.89
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	262.42	ft	0.51	133.60	\$67.84	\$9,063.96
	- NPS 10 HP above grade suction & discharge	6B	10	262.42	ft	0.30	78.40	\$67.84	\$5,318.97
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$67.84	\$1,953.91
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$94.53	\$10,889.42
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$94.53	\$1,217.50
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$94.53	\$173.93
	- NPS 12	6A	12	16.00	ea	1.09	17.44	\$94.53	\$1,648.54
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$71.31	\$2,852.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$88.18	\$878.29
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$88.18	\$366.83
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$88.18	\$179.89
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$67.84	\$5,359.68

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$84.01	\$1,638.23
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$62.22	\$2,613.42
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,073		\$77,262.90
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$84.01	\$2,184.31
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$67.84	\$1,119.43
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$62.22	\$3,484.56
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$84.01	\$327.65
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$62.22	\$522.68
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$84.01	\$600.69
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$67.84	\$757.14
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$67.84	\$925.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$62.22	\$958.26
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$84.01	\$436.86
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$67.84	\$315.47
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$62.22	\$696.91
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							185		\$12,749.99
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$88.18	\$7,054.51
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$88.18	\$1,763.63
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$67.84	\$8,412.66
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$84.01	\$4,368.62
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$62.22	\$1,742.28
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$62.22	\$5,226.85
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$88.18	\$2,645.44
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$88.18	\$440.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM F: COOLING WATER							613		\$45,772.29
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$12,482.03
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM H: LUBE OIL							130		\$10,650.09
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$88.18	\$11,463.58
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$14,177.34
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$67.84	\$3,575.38
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$84.01	\$1,680.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$73.84	\$590.70

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$62.97	\$2,821.15
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$39.20	\$513.54
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$62.22	\$174.23
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$9,775.88
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$45.82	\$320.73
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$45.82	\$320.73
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$45.82	\$320.73
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$45.82	\$320.73
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$4,948.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$80.44	\$44,243.65
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$60.05	\$33,026.95
	(c) Mechanic			1.00	ea	55.00	550.00	\$55.52	\$30,534.35
	(d) Truck Driver			1.00	ea	55.00	550.00	\$55.52	\$30,534.35
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$23.79	\$13,086.15
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$29.46	\$16,201.90
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,300	\$187,752.35
SUB TOTAL: SYSTEMS A TO L								10,869	\$704,826.49
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			30.00	days			\$4,500.00	\$135,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		40.00	days			\$85.00	\$3,400.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$101,388.65
SUB TOTAL ADDITIONAL ITEMS								0	\$410,448.65
GRAND TOTAL								10,869	\$1,115,275.14

Eunice, A, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
7,569	\$68.32	\$517,074.14

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Gageby Creek, A, 0-5,000 HP
 State: Texas
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$52.71	\$52,180.09
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$52.71	\$26,353.58
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$132,337.23
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$49.60	\$12,698.30
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$49.60	\$30,158.47
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$49.60	\$9,523.73
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$79.16	\$1,234.94
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$48.32	\$1,623.63
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$48.32	\$6,765.14
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$71,527.94
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$29.28	\$5,196.03
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$49.32	\$2,565.60
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$35.90	\$1,374.43
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$35.90	\$5,784.26
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$56.23	\$5,937.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$20,858.30
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$56.77	\$16,623.61
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$56.77	\$1,557.90
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$56.77	\$545.04
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$71.47	\$8,233.30
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$71.47	\$920.53
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$71.47	\$623.22
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								680	\$40,700.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$3,954.80
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								8,557	\$428,126.82
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$59,049.68
SUB TOTAL ADDITIONAL ITEMS								0	\$221,419.68
GRAND TOTAL								8,557	\$649,546.50

Gageby Creek, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$52.97	\$348,377.73

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Goodman, A, 5,000-10,500 HP
 State: Wisconsin
 Capacity: 5,000-10,500 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$111.54	\$110,428.41
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$111.54	\$26,770.52
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$111.54	\$26,770.52
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$111.54	\$55,771.93
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$92.45	\$11,094.34
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$115.38	\$27,692.33
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$134.89	\$6,070.27
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$129.60	\$7,776.23
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$115.38	\$6,923.08
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$115.38	\$3,461.54
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,765		\$309,529.71
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$122.87	\$31,455.71
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$122.87	\$74,707.30
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$122.87	\$23,591.78
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$155.91	\$2,432.23
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$113.05	\$3,798.50
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$113.05	\$15,827.10
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$175,404.40
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$94.17	\$16,714.17
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$110.27	\$5,736.50
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$102.02	\$3,905.15
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$102.02	\$16,434.67
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$128.71	\$13,591.65
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$56,382.14
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	459.24	ft	0.74	341.60	\$115.38	\$39,415.42
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$115.38	\$7,707.70
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$115.38	\$4,523.08
	- NPS 12 HP bypass	6B	12	52.48	ft	0.37	19.20	\$115.38	\$2,215.39
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$155.86	\$17,954.55
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$155.86	\$2,007.42
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	12.00	ea	1.09	13.08	\$155.86	\$2,038.59
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								772	\$95,421.58
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$155.91	\$3,040.29
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$115.38	\$1,523.08
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$113.05	\$4,748.13
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$19,915.31
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER								572	\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL								130	\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$92.45	\$647.17
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$92.45	\$647.17
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$92.45	\$647.17
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$92.45	\$647.17
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$9,984.90
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$192.61	\$84,748.40
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$123.50	\$54,338.68
	(c) Mechanic			1.00	ea	44.00	440.00	\$79.31	\$34,896.40
	(d) Truck Driver			1.00	ea	44.00	440.00	\$67.98	\$29,911.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								2,640	\$249,905.88
SUB TOTAL: SYSTEMS A TO L								9,597	\$1,062,009.24
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			18.00	days			\$4,500.00	\$81,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		30.00	days			\$85.00	\$2,550.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		20.00	days			\$73.00	\$1,460.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$128,298.92
SUB TOTAL ADDITIONAL ITEMS								0	\$349,278.92
GRAND TOTAL								9,597	\$1,411,288.16

Goodman, A, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,957	\$116.72	\$812,103.36

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Goodwell, A, 0-5,000 HP
 State: Michigan
 Capacity: 0-5,000 HP

Transmission

of Compressors 5

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		5.00	ea	495.00	2475.00	\$99.64	\$246,599.15
	(b) Remove air intake systems	6C		5.00	ea	120.00	600.00	\$99.64	\$59,781.61
	(c) Remove exhaust systems	6C		5.00	ea	120.00	600.00	\$99.64	\$59,781.61
	(d) Remove glycol coolers	6C		5.00	ea	250.00	1250.00	\$99.64	\$124,545.03
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$79.25	\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$101.97	\$16,315.20
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$123.13	\$3,694.03
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$116.98	\$4,679.29
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$101.97	\$2,039.40
	SUB TOTAL SYSTEM A: STATION LAYOUT						5,455		\$543,796.15
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		261.59	cy	2.45	640.00	\$109.49	\$70,075.60
	(b) Remove engine blocks	2A		621.28	cy	2.45	1520.00	\$109.49	\$166,429.54
	(c) Remove operating floor structural slab	2A		130.80	cy	2.45	320.00	\$109.49	\$35,037.80
	(d) Remove yard equipment foundations	2A		65.40	cy	2.45	160.00	\$109.49	\$17,518.90
	(e) Remove above grade pipe piers & valve supports	2A		196.19	cy	2.45	480.00	\$109.49	\$52,556.70
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		392.39	cy	0.10	39.00	\$139.63	\$5,445.61
	(b) Backfill with excavated native material	2C		392.39	cy	0.21	84.00	\$102.25	\$8,589.27
	(c) Backfill with imported gravel	2C		1634.94	cy	0.21	350.00	\$102.25	\$35,788.64
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						3,593		\$391,442.05
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		914.93	sy	0.48	443.70	\$80.64	\$35,778.02
	(b) Remove metal roof deck	3B		914.93	sy	0.14	130.05	\$98.81	\$12,850.10
	(c) Remove wall cladding, door windows & louvers	3C		520.26	sy	0.18	95.70	\$88.17	\$8,437.87
	(d) Remove structural steel frame (roof, walls & columns)	3C		4389.81	cy	0.09	402.75	\$88.17	\$35,510.49
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		26.40	ton	10.00	264.00	\$116.67	\$30,799.56
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,336		\$123,376.05
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	984.09	ft	0.74	732.00	\$101.97	\$74,642.04
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	246.02	ft	0.51	125.25	\$101.97	\$12,771.74
	- NPS 10 HP above grade suction & discharge	6B	10	229.62	ft	0.30	68.60	\$101.97	\$6,995.14
	- NPS 12 HP bypass	6B	12	65.61	ft	0.37	24.00	\$101.97	\$2,447.28
	(b) Flame Cutting								
	- NPS 30	6A	30	40.00	ea	7.20	288.00	\$133.97	\$38,582.18
	- NPS 16	6A	16	20.00	ea	1.61	32.20	\$133.97	\$4,313.70
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246.50
	- NPS 12	6A	12	20.00	ea	1.09	21.80	\$133.97	\$2,920.46
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.14
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$116.98	\$486.65
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$116.98	\$238.64
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$101.97	\$5,961.17

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$139.63	\$2,087.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$102.25	\$3,292.55
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,455	\$160,136.12
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$139.63	\$1,815.20
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$101.97	\$1,009.50
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$102.25	\$2,863.09
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$102.25	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$101.97	\$1,137.99
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$101.97	\$1,390.87
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$102.25	\$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$102.25	\$1,145.24
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$15,170.89
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$116.98	\$9,358.58
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$101.97	\$11,379.85
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$102.25	\$7,157.73
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$116.98	\$3,509.47
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$116.98	\$584.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM F: COOLING WATER								572	\$62,896.05
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$17,516.18
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM H: LUBE OIL								130	\$14,607.20
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$116.98	\$15,207.69
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$19,286.49
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$105.30	\$842.41

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$82.60	\$1,082.00
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$102.25	\$286.31
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$15,914.66
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
	(b) 1:2-DC	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
	(c) L1-SB	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
	(d) L1-DB	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
SUB TOTAL SYSTEM K: ELECTRICAL								150	\$11,888.00
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$143.89	\$47,484.03
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$96.31	\$31,780.65
	(c) Mechanic			1.00	ea	33.00	330.00	\$71.38	\$23,555.07
	(d) Truck Driver			1.00	ea	33.00	330.00	\$78.18	\$25,798.41
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$27.19	\$8,973.36
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$38.52	\$12,712.26
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$162,378.78
SUB TOTAL: SYSTEMS A TO L								15,287	\$1,538,408.65
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			30.00	days			\$4,500.00	\$135,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		50.00	days			\$85.00	\$4,250.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		25.00	days			\$73.00	\$1,825.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$178,542.36
SUB TOTAL ADDITIONAL ITEMS								0	\$425,557.36
GRAND TOTAL								15,287	\$1,963,966.01

Goodwell, A, 0-5,000 HP
 Transmission

Total Labor MH 13,307
 Average Labor Rate \$103.41
 Total Labor Cost \$1,376,029.87

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Greensburg, A, 0-5,000 HP
 State: Kansas
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 8

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		8.00	ea	495.00	3960.00	\$52.71	\$208,720.35
	(b) Remove air intake systems	6C		8.00	ea	120.00	960.00	\$52.71	\$50,598.87
	(c) Remove exhaust systems	6C		8.00	ea	120.00	960.00	\$52.71	\$50,598.87
	(d) Remove glycol coolers	6C		8.00	ea	250.00	2000.00	\$52.71	\$105,414.32
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						8,410		\$443,836.55
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		418.54	cy	2.45	1024.00	\$49.60	\$50,793.21
	(b) Remove engine blocks	2A		994.04	cy	2.45	2432.00	\$49.60	\$120,633.86
	(c) Remove operating floor structural slab	2A		209.27	cy	2.45	512.00	\$49.60	\$25,396.60
	(d) Remove yard equipment foundations	2A		104.64	cy	2.45	256.00	\$49.60	\$12,698.30
	(e) Remove above grade pipe piers & valve supports	2A		313.91	cy	2.45	768.00	\$49.60	\$38,094.90
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		627.82	cy	0.10	62.40	\$79.16	\$4,939.75
	(b) Backfill with excavated native material	2C		627.82	cy	0.21	134.40	\$48.32	\$6,494.54
	(c) Backfill with imported gravel	2C		2615.90	cy	0.21	560.00	\$48.32	\$27,060.57
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						5,749		\$286,111.74
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1463.89	sy	0.48	709.92	\$29.28	\$20,784.13
	(b) Remove metal roof deck	3B		1463.89	sy	0.14	208.08	\$49.32	\$10,262.40
	(c) Remove wall cladding, door windows & louvers	3C		832.41	sy	0.18	153.12	\$35.90	\$5,497.74
	(d) Remove structural steel frame (roof, walls & columns)	3C		7023.70	cy	0.09	644.40	\$35.90	\$23,137.03
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		42.24	ton	10.00	422.40	\$56.23	\$23,751.89
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						2,138		\$83,433.19
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1574.54	ft	0.74	1171.20	\$56.77	\$66,494.45
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	393.64	ft	0.51	200.40	\$56.77	\$11,377.64
	- NPS 10 HP above grade suction & discharge	6B	10	367.39	ft	0.30	109.76	\$56.77	\$6,231.58
	- NPS 12 HP bypass	6B	12	104.97	ft	0.37	38.40	\$56.77	\$2,180.15
	(b) Flame Cutting								
	- NPS 30	6A	30	64.00	ea	7.20	460.80	\$71.47	\$32,933.21
	- NPS 16	6A	16	32.00	ea	1.61	51.52	\$71.47	\$3,682.12
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	32.00	ea	1.09	34.88	\$71.47	\$2,492.86
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								2,231	\$134,744.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
	(b) 1:2-DC	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
	(c) L1-SB	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
	(d) L1-DB	3E		918.48	ft	0.03	28.00	\$36.62	\$1,025.32
SUB TOTAL SYSTEM K: ELECTRICAL								192	\$7,030.76
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								22,017	\$1,113,904.79
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			48.00	days			\$4,500.00	\$216,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		80.00	days			\$85.00	\$6,800.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		40.00	days			\$73.00	\$2,920.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$144,556.48
SUB TOTAL ADDITIONAL ITEMS								0	\$476,216.48
GRAND TOTAL								22,017	\$1,590,121.26

Greensburg, A, 0-5,000 HP
 Transmission

Total Labor MH 20,037
 Average Labor Rate \$51.61
 Total Labor Cost \$1,034,155.70

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Greenville, A, 0-5,000 HP
 State: Mississippi
 Capacity: 0-5,000 HP

Transmission

of Compressors 6

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		6.00	ea	495.00	2970.00	\$53.64	\$159,299.57
	(b) Remove air intake systems	6C		6.00	ea	120.00	720.00	\$53.64	\$38,618.08
	(c) Remove exhaust systems	6C		6.00	ea	120.00	720.00	\$53.64	\$38,618.08
	(d) Remove glycol coolers	6C		6.00	ea	250.00	1500.00	\$53.64	\$80,454.33
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.14	\$2,891.42
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$52.19	\$8,349.76
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.39	\$2,051.64
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.37	\$2,614.96
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$52.19	\$1,043.72
	SUB TOTAL SYSTEM A: STATION LAYOUT						6,440		\$344,610.79
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		313.91	cy	2.45	768.00	\$48.93	\$37,581.52
	(b) Remove engine blocks	2A		745.53	cy	2.45	1824.00	\$48.93	\$89,256.11
	(c) Remove operating floor structural slab	2A		156.95	cy	2.45	384.00	\$48.93	\$18,790.76
	(d) Remove yard equipment foundations	2A		78.48	cy	2.45	192.00	\$48.93	\$9,395.38
	(e) Remove above grade pipe piers & valve supports	2A		235.43	cy	2.45	576.00	\$48.93	\$28,186.14
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		470.86	cy	0.10	46.80	\$78.13	\$3,656.56
	(b) Backfill with excavated native material	2C		470.86	cy	0.21	100.80	\$45.00	\$4,536.28
	(c) Backfill with imported gravel	2C		1961.93	cy	0.21	420.00	\$45.00	\$18,901.16
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						4,312		\$210,303.91
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1097.92	sy	0.48	532.44	\$30.32	\$16,143.09
	(b) Remove metal roof deck	3B		1097.92	sy	0.14	156.06	\$49.99	\$7,801.12
	(c) Remove wall cladding, door windows & louvers	3C		624.31	sy	0.18	114.84	\$36.47	\$4,188.36
	(d) Remove structural steel frame (roof, walls & columns)	3C		5267.77	cy	0.09	483.30	\$36.47	\$17,626.56
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		31.68	ton	10.00	316.80	\$54.55	\$17,282.69
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,603		\$63,041.83
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1180.91	ft	0.74	878.40	\$52.19	\$45,840.16
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	295.23	ft	0.51	150.30	\$52.19	\$7,843.55
	- NPS 10 HP above grade suction & discharge	6B	10	275.55	ft	0.30	82.32	\$52.19	\$4,295.95
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$52.19	\$1,502.96
	(b) Flame Cutting								
	- NPS 30	6A	30	48.00	ea	7.20	345.60	\$63.79	\$22,045.10
	- NPS 16	6A	16	24.00	ea	1.61	38.64	\$63.79	\$2,464.76
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	24.00	ea	1.09	26.16	\$63.79	\$1,668.69
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						1,714		\$94,648.39
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$78.13	\$1,015.71
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$52.19	\$516.64
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						138		\$7,497.60
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
	SUB TOTAL SYSTEM F: COOLING WATER						572		\$32,871.40
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C						170		\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
	(b) 1:2-DC	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
	(c) L1-SB	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
	(d) L1-DB	3E		688.86	ft	0.03	21.00	\$36.14	\$759.00
SUB TOTAL SYSTEM K: ELECTRICAL								164	\$5,927.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$43.05	\$14,207.82
	(c) Mechanic			1.00	ea	33.00	330.00	\$36.26	\$11,964.48
	(d) Truck Driver			1.00	ea	33.00	330.00	\$32.86	\$10,842.81
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$80,122.98
SUB TOTAL: SYSTEMS A TO L								17,530	\$874,739.73
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			36.00	days			\$4,500.00	\$162,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		60.00	days			\$85.00	\$5,100.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$114,996.97
SUB TOTAL ADDITIONAL ITEMS								0	\$390,226.97
GRAND TOTAL								17,530	\$1,264,966.70

Greenville, A, 0-5,000 HP
 Transmission

Total Labor MH 15,550
 Average Labor Rate \$51.10
 Total Labor Cost \$794,616.75

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Greenville, B, 5,000-10,500 HP
 State: Mississippi
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$53.64	\$26,549.93
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$53.64	\$13,409.06
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$36.14	\$4,337.12
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$52.19	\$12,524.64
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$68.39	\$3,077.45
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$65.37	\$3,922.45
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$52.19	\$3,131.16
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$52.19	\$1,565.58
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$94,262.77
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$48.93	\$6,263.59
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$48.93	\$14,876.02
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$48.93	\$3,131.79
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$48.93	\$1,565.90
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$48.93	\$4,697.69
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$78.13	\$609.43
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$45.00	\$756.05
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,050.65
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$30.32	\$2,690.52
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.99	\$1,300.19
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$36.47	\$698.06
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$36.47	\$2,937.76
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$54.55	\$2,880.45
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,506.97
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$52.19	\$8,913.37
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$52.19	\$1,743.01
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$52.19	\$1,022.85
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$52.19	\$500.99
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$63.79	\$3,674.18
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$63.79	\$410.79
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$63.79	\$417.17
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$25,669.57
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$78.13	\$1,523.57
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$52.19	\$688.85
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$45.00	\$1,890.12
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$8,807.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								572	\$32,871.40
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$3,397.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$55.52	\$24,427.48
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$43.05	\$18,943.76
	(c) Mechanic			1.00	ea	44.00	440.00	\$36.26	\$15,952.64
	(d) Truck Driver			1.00	ea	44.00	440.00	\$32.86	\$14,457.08
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$19.26	\$8,474.84
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$19.26	\$8,474.84
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							2,640		\$106,830.64
SUB TOTAL: SYSTEMS A TO L							7,309		\$353,112.55
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$53,158.76
SUB TOTAL ADDITIONAL ITEMS							0		\$231,633.76
GRAND TOTAL							7,309		\$584,746.31

Greenville, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$52.75	\$246,281.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Greenville, B, 10,500-21,000 HP
 State: Mississippi
 Capacity: 10,500-21,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$53.64	\$26,549.93
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$53.64	\$13,409.06
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$36.14	\$5,782.83
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$52.19	\$16,699.51
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$68.39	\$4,103.27
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$65.37	\$3,922.45
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$53.64	\$8,581.80
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$53.64	\$8,581.80
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$106,765.65
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$48.93	\$6,263.59
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$48.93	\$14,876.02
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$48.93	\$3,131.79
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$48.93	\$1,565.90
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$48.93	\$4,697.69
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$78.13	\$609.43
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$45.00	\$756.06
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,050.65
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$30.32	\$2,690.52
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.99	\$1,300.19
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$36.47	\$698.06
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$36.47	\$2,937.76
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$54.55	\$2,880.45
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,506.97
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$52.19	\$12,733.38
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$52.19	\$3,486.02
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$52.19	\$2,045.69
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$52.19	\$751.48
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$63.79	\$3,674.18
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$63.79	\$410.79
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$63.79	\$556.23
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$52.19	\$4,122.69

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$78.13	\$1,523.57
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$45.00	\$1,890.12
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$34,513.42
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$78.13	\$2,031.42
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$52.19	\$861.07
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$45.00	\$2,520.15
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$10,117.81
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$52.19	\$6,471.06
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$78.13	\$4,062.85
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$45.00	\$3,780.23
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								613	\$35,111.56
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$3,397.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$55.52	\$30,534.35
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$43.05	\$23,679.70
	(c) Mechanic			1.00	ea	55.00	550.00	\$36.26	\$19,940.80
	(d) Truck Driver			1.00	ea	55.00	550.00	\$32.86	\$18,071.35
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$19.26	\$10,593.55
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$19.26	\$10,593.55
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							3,300		\$133,538.30
SUB TOTAL: SYSTEMS A TO L							8,447		\$404,717.21
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$64,348.22
SUB TOTAL ADDITIONAL ITEMS							0		\$303,113.22
GRAND TOTAL							8,447		\$707,830.43

Greenville, B, 10,500-21,000 HP
 Transmission

Total Labor MH 5,147
 Average Labor Rate \$52.69
 Total Labor Cost \$271,178.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Hamilton, A, 0-5,000 HP
 State: Michigan
 Capacity: 0-5,000 HP

Transmission

of Compressors 5

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		5.00	ea	495.00	2475.00	\$99.64	\$246,599.15
	(b) Remove air intake systems	6C		5.00	ea	120.00	600.00	\$99.64	\$59,781.61
	(c) Remove exhaust systems	6C		5.00	ea	120.00	600.00	\$99.64	\$59,781.61
	(d) Remove glycol coolers	6C		5.00	ea	250.00	1250.00	\$99.64	\$124,545.03
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$79.25	\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$101.97	\$16,315.20
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$123.13	\$3,694.03
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$116.98	\$4,679.29
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$101.97	\$2,039.40
	SUB TOTAL SYSTEM A: STATION LAYOUT						5,455		\$543,796.15
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		261.59	cy	2.45	640.00	\$109.49	\$70,075.60
	(b) Remove engine blocks	2A		621.28	cy	2.45	1520.00	\$109.49	\$166,429.54
	(c) Remove operating floor structural slab	2A		130.80	cy	2.45	320.00	\$109.49	\$35,037.80
	(d) Remove yard equipment foundations	2A		65.40	cy	2.45	160.00	\$109.49	\$17,518.90
	(e) Remove above grade pipe piers & valve supports	2A		196.19	cy	2.45	480.00	\$109.49	\$52,556.70
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		392.39	cy	0.10	39.00	\$139.63	\$5,445.61
	(b) Backfill with excavated native material	2C		392.39	cy	0.21	84.00	\$102.25	\$8,589.27
	(c) Backfill with imported gravel	2C		1634.94	cy	0.21	350.00	\$102.25	\$35,788.64
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						3,593		\$391,442.05
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		914.93	sy	0.48	443.70	\$80.64	\$35,778.02
	(b) Remove metal roof deck	3B		914.93	sy	0.14	130.05	\$98.81	\$12,850.10
	(c) Remove wall cladding, door windows & louvers	3C		520.26	sy	0.18	95.70	\$88.17	\$8,437.87
	(d) Remove structural steel frame (roof, walls & columns)	3C		4389.81	cy	0.09	402.75	\$88.17	\$35,510.49
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		26.40	ton	10.00	264.00	\$116.67	\$30,799.56
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,336		\$123,376.05
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	984.09	ft	0.74	732.00	\$101.97	\$74,642.04
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	246.02	ft	0.51	125.25	\$101.97	\$12,771.74
	- NPS 10 HP above grade suction & discharge	6B	10	229.62	ft	0.30	68.60	\$101.97	\$6,995.14
	- NPS 12 HP bypass	6B	12	65.61	ft	0.37	24.00	\$101.97	\$2,447.28
	(b) Flame Cutting								
	- NPS 30	6A	30	40.00	ea	7.20	288.00	\$133.97	\$38,582.18
	- NPS 16	6A	16	20.00	ea	1.61	32.20	\$133.97	\$4,313.70
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246.50
	- NPS 12	6A	12	20.00	ea	1.09	21.80	\$133.97	\$2,920.46
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.14
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$116.98	\$486.65
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$116.98	\$238.64
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$101.97	\$5,961.17

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$139.63	\$2,087.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$102.25	\$3,292.55
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,455	\$160,136.12
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$139.63	\$1,815.20
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$101.97	\$1,009.50
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$102.25	\$2,863.09
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$102.25	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$101.97	\$1,137.99
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$101.97	\$1,390.87
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$102.25	\$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$102.25	\$1,145.24
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$15,170.89
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$116.98	\$9,358.58
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$101.97	\$11,379.85
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$102.25	\$7,157.73
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$116.98	\$3,509.47
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$116.98	\$584.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM F: COOLING WATER								572	\$62,896.05
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$17,516.18
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM H: LUBE OIL								130	\$14,607.20
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$116.98	\$15,207.69
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$19,286.49
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$105.30	\$842.41

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$82.60	\$1,082.00
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$102.25	\$286.31
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$15,914.66
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
	(b) 1:2-DC	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
	(c) L1-SB	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
	(d) L1-DB	3E		574.05	ft	0.03	17.50	\$79.25	\$1,386.93
SUB TOTAL SYSTEM K: ELECTRICAL								150	\$11,888.00
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$143.89	\$47,484.03
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$96.31	\$31,780.65
	(c) Mechanic			1.00	ea	33.00	330.00	\$71.38	\$23,555.07
	(d) Truck Driver			1.00	ea	33.00	330.00	\$78.18	\$25,798.41
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$27.19	\$8,973.36
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$38.52	\$12,712.26
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$162,378.78
SUB TOTAL: SYSTEMS A TO L								15,287	\$1,538,408.65
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			30.00	days			\$4,500.00	\$135,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		50.00	days			\$85.00	\$4,250.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		25.00	days			\$73.00	\$1,825.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$178,542.36
SUB TOTAL ADDITIONAL ITEMS								0	\$425,557.36
GRAND TOTAL								15,287	\$1,963,966.01

Hamilton, A, 0-5,000 HP
 Transmission

Total Labor MH 13,307
 Average Labor Rate \$103.41
 Total Labor Cost \$1,376,029.87

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Hamilton, B, 0-5,000 HP
 State: Michigan
 Capacity: 0-5,000 HP

Transmission

of Compressors 4

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		4.00	ea	495.00	1980.00	\$99.64	\$197,279.32
	(b) Remove air intake systems	6C		4.00	ea	120.00	480.00	\$99.64	\$47,825.29
	(c) Remove exhaust systems	6C		4.00	ea	120.00	480.00	\$99.64	\$47,825.29
	(d) Remove glycol coolers	6C		4.00	ea	250.00	1000.00	\$99.64	\$99,636.02
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$79.25	\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$101.97	\$16,315.20
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$123.13	\$3,694.03
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$116.98	\$4,679.29
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$101.97	\$2,039.40
	SUB TOTAL SYSTEM A: STATION LAYOUT						4,470		\$445,654.67
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		209.27	cy	2.45	512.00	\$109.49	\$56,060.48
	(b) Remove engine blocks	2A		497.02	cy	2.45	1216.00	\$109.49	\$133,143.63
	(c) Remove operating floor structural slab	2A		104.64	cy	2.45	256.00	\$109.49	\$28,030.24
	(d) Remove yard equipment foundations	2A		52.32	cy	2.45	128.00	\$109.49	\$14,015.12
	(e) Remove above grade pipe piers & valve supports	2A		156.95	cy	2.45	384.00	\$109.49	\$42,045.36
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		313.91	cy	0.10	31.20	\$139.63	\$4,356.48
	(b) Backfill with excavated native material	2C		313.91	cy	0.21	67.20	\$102.25	\$6,871.42
	(c) Backfill with imported gravel	2C		1307.95	cy	0.21	280.00	\$102.25	\$28,630.91
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						2,874		\$313,153.64
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		731.95	sy	0.48	354.96	\$80.64	\$28,622.42
	(b) Remove metal roof deck	3B		731.95	sy	0.14	104.04	\$98.81	\$10,280.08
	(c) Remove wall cladding, door windows & louvers	3C		416.20	sy	0.18	76.56	\$88.17	\$6,750.30
	(d) Remove structural steel frame (roof, walls & columns)	3C		3511.85	cy	0.09	322.20	\$88.17	\$28,408.39
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		21.12	ton	10.00	211.20	\$116.67	\$24,639.65
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,069		\$98,700.84
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	787.27	ft	0.74	585.60	\$101.97	\$59,713.63
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	196.82	ft	0.51	100.20	\$101.97	\$10,217.39
	- NPS 10 HP above grade suction & discharge	6B	10	183.70	ft	0.30	54.88	\$101.97	\$5,596.11
	- NPS 12 HP bypass	6B	12	52.48	ft	0.37	19.20	\$101.97	\$1,957.82
	(b) Flame Cutting								
	- NPS 30	6A	30	32.00	ea	7.20	230.40	\$133.97	\$30,865.75
	- NPS 16	6A	16	16.00	ea	1.61	25.76	\$133.97	\$3,450.96
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246.50
	- NPS 12	6A	12	16.00	ea	1.09	17.44	\$133.97	\$2,336.37
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.14
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$116.98	\$486.65
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$116.98	\$238.64
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$101.97	\$5,961.17

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$139.63	\$2,087.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$102.25	\$3,292.55
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,197		\$131,601.61
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$139.63	\$1,815.20
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$101.97	\$1,009.50
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$102.25	\$2,863.09
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$102.25	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$101.97	\$1,137.99
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$101.97	\$1,390.87
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$102.25	\$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$102.25	\$1,145.24
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$15,170.89
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$116.98	\$9,358.58
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$101.97	\$11,379.85
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$102.25	\$7,157.73
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$116.98	\$3,509.47
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$116.98	\$584.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM F: COOLING WATER							572		\$62,896.05
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$17,516.18
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM H: LUBE OIL							130		\$14,607.20
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$116.98	\$15,207.69
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$19,286.49
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$105.30	\$842.41

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$82.60	\$1,082.00
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$102.25	\$286.31
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$15,914.66
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		459.24	ft	0.03	14.00	\$79.25	\$1,109.55
	(b) 1:2-DC	3E		459.24	ft	0.03	14.00	\$79.25	\$1,109.55
	(c) L1-SB	3E		459.24	ft	0.03	14.00	\$79.25	\$1,109.55
	(d) L1-DB	3E		459.24	ft	0.03	14.00	\$79.25	\$1,109.55
SUB TOTAL SYSTEM K: ELECTRICAL								136	\$10,778.46
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$143.89	\$47,484.03
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$96.31	\$31,780.65
	(c) Mechanic			1.00	ea	33.00	330.00	\$71.38	\$23,555.07
	(d) Truck Driver			1.00	ea	33.00	330.00	\$78.18	\$25,798.41
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$27.19	\$8,973.36
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$38.52	\$12,712.26
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$162,378.78
SUB TOTAL: SYSTEMS A TO L								13,044	\$1,307,659.49
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			24.00	days			\$4,500.00	\$108,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		40.00	days			\$85.00	\$3,400.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		20.00	days			\$73.00	\$1,460.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$152,645.95
SUB TOTAL ADDITIONAL ITEMS								0	\$371,445.95
GRAND TOTAL								13,044	\$1,679,105.44

Hamilton, B, 0-5,000 HP
 Transmission

Total Labor MH 11,064
 Average Labor Rate \$103.52
 Total Labor Cost \$1,145,280.71

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Hamilton, B, 21,000-54,000 HP
 State: Michigan
 Capacity: 21,000-54,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$99.64	\$49,319.83
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$99.64	\$11,956.32
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$99.64	\$11,956.32
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$99.64	\$24,909.01
	(e) Remove lighting system	3E		1.00	Lot	320.00	320.00	\$79.25	\$25,361.07
	(f) Remove associated piping system	6B		1.00	Lot	640.00	640.00	\$101.97	\$65,260.80
	(g) Remove miscellaneous valves	6E		1.00	Lot	120.00	120.00	\$123.13	\$14,776.13
	(h) Removed compressed air system	6D		1.00	Lot	160.00	160.00	\$116.98	\$18,717.16
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	320.00	320.00	\$99.64	\$31,883.53
	(b) Remove all associated hot water piping	6B		1.00	Lot	160.00	160.00	\$101.97	\$16,315.20
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	320.00	320.00	\$99.64	\$31,883.53
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
	SUB TOTAL SYSTEM A: STATION LAYOUT						3,105		\$310,496.50
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$109.49	\$14,015.12
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$109.49	\$33,285.91
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$109.49	\$7,007.56
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$109.49	\$3,503.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$109.49	\$10,511.34
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$139.63	\$1,089.12
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$102.25	\$1,717.85
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$102.25	\$7,157.73
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$78,288.41
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$80.64	\$7,155.60
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$98.81	\$2,570.02
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$88.17	\$1,687.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$88.17	\$7,102.10
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$116.67	\$6,159.91
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$24,675.21
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	426.44	ft	0.74	317.20	\$101.97	\$32,344.88
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	164.02	ft	0.51	83.50	\$101.97	\$8,514.50
	- NPS 10 HP above grade suction & discharge	6B	10	164.02	ft	0.30	49.00	\$101.97	\$4,996.53
	- NPS 12 HP bypass	6B	12	52.48	ft	0.37	19.20	\$101.97	\$1,957.82
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$133.97	\$7,716.44
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$133.97	\$862.74
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246.50
	- NPS 12	6A	12	16.00	ea	1.09	17.44	\$133.97	\$2,336.37
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		2.00	ea	40.00	80.00	\$99.64	\$7,970.88
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.14
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$116.98	\$486.65
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$116.98	\$238.64
	(e) Remove NPS 8 underground vent piping	6B	8	426.44	ft	0.24	102.70	\$101.97	\$10,472.32

	(f) Excavate by machine	2B		235.43	cy	0.10	23.40	\$139.63	\$3,267.36
	(g) Backfill with native excavated material	2C		235.43	cy	0.21	50.40	\$102.25	\$5,153.56
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								825	\$87,730.33
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		300.83	cy	0.10	29.90	\$139.63	\$4,174.96
	(b) Remove NPS 2 underground piping	6B	2	196.82	ft	0.10	19.80	\$101.97	\$2,019.01
	(c) Backfill with native excavated material	2C		300.83	cy	0.21	64.40	\$102.25	\$6,585.11
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$102.25	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$101.97	\$1,137.99
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$101.97	\$1,390.87
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$102.25	\$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$102.25	\$1,145.24
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								201	\$22,262.18
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$116.98	\$9,358.58
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	721.67	ft	0.19	136.40	\$101.97	\$13,908.71
	(e) Excavate underground piping by machine	2B		562.42	cy	0.10	55.90	\$139.63	\$7,805.37
	(f) Backfill with native excavated material (75%)	2C		170.03	cy	0.21	36.40	\$102.25	\$3,722.02
	(g) Backfill with imported gravel (25%)	2C		457.78	cy	0.21	98.00	\$102.25	\$10,020.82
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$116.98	\$3,509.47
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$116.98	\$584.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM F: COOLING WATER								652	\$71,534.75
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$17,516.18
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM H: LUBE OIL								130	\$14,607.20
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$116.98	\$15,207.69
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$19,286.49
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$105.30	\$842.41

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$82.60	\$1,082.00
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$101.97	\$632.21
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$102.25	\$286.31
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$15,914.66
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$79.25	\$277.39
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$79.25	\$277.39
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$79.25	\$277.39
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$79.25	\$277.39
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$7,449.81
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			3.00	Mo				
	(a) Project Superintendent			1.00	ea	66.00	660.00	\$143.89	\$94,968.06
	(b) Safety Coordinator			1.00	ea	66.00	660.00	\$96.31	\$63,561.30
	(c) Mechanic			1.00	ea	66.00	660.00	\$71.38	\$47,110.14
	(d) Truck Driver			1.00	ea	66.00	660.00	\$78.18	\$51,596.82
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	66.00	660.00	\$27.19	\$17,946.72
	(b) Truck, Mechanic Rig 4x4			1.00	ea	66.00	660.00	\$38.52	\$25,424.52
	3. Miscellaneous Expenses								
	(a) Trailer Office			3.00	mo			\$230.00	\$690.00
	(b) Telephone			3.00	mo			\$1,150.00	\$3,450.00
	(c) Cellular Phones			3.00	mo			\$1,150.00	\$3,450.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			3.00	mo			\$1,150.00	\$3,450.00
	(e) Utility Bills: Electric, Water, etc.			3.00	mo			\$575.00	\$1,725.00
	(f) Daily Consumables			66.00	day			\$172.50	\$11,385.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,960	\$324,757.56
SUB TOTAL: SYSTEMS A TO L								10,430	\$994,519.29
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			18.00	days			\$4,500.00	\$81,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		25.00	days			\$85.00	\$2,125.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		20.00	days			\$73.00	\$1,460.00
	5. Daily Subsistence Allowance (Per Diem)			1909.00	Mdays			\$130.00	\$248,170.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$133,727.43
SUB TOTAL ADDITIONAL ITEMS								0	\$476,482.43
GRAND TOTAL								10,430	\$1,471,001.72

Hamilton, B, 21,000-54,000 HP
 Transmission

Total Labor MH 6,470
 Average Labor Rate \$103.52
 Total Labor Cost \$669,761.73

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Havensville, A, 10,500-21,000 HP
 State: Kansas
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$52.71	\$26,090.04
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$52.71	\$13,176.79
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$36.62	\$5,858.97
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$56.77	\$18,167.88
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$68.08	\$4,084.92
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$65.22	\$3,912.93
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$52.71	\$8,433.15
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$52.71	\$8,433.15
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$107,620.50
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$49.60	\$15,079.23
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$49.60	\$1,587.29
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$49.60	\$4,761.86
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$79.16	\$617.47
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$48.32	\$811.82
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,763.97
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$29.28	\$2,598.02
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.32	\$1,282.80
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$35.90	\$687.22
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$35.90	\$2,892.13
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$56.23	\$2,968.99
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,429.15
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$56.77	\$13,853.01
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$56.77	\$3,792.55
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$56.77	\$2,225.57
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$56.77	\$817.55
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$71.47	\$4,116.65
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$71.47	\$460.26
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$71.47	\$623.22
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$56.77	\$4,485.20

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$79.16	\$1,543.67
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$48.32	\$2,029.54
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$37,240.89
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$79.16	\$2,058.23
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$56.77	\$936.78
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$48.32	\$2,706.06
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$10,702.76
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$56.77	\$7,040.05
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$79.16	\$4,116.46
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$48.32	\$4,059.09
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								613	\$36,672.03
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$3,442.14
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$48.72	\$26,795.45
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$40.79	\$22,433.40
	(c) Mechanic			1.00	ea	55.00	550.00	\$37.39	\$20,563.95
	(d) Truck Driver			1.00	ea	55.00	550.00	\$35.12	\$19,317.65
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$20.39	\$11,216.70
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$22.66	\$12,463.00
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,300	\$132,915.15
SUB TOTAL: SYSTEMS A TO L								8,447	\$411,539.44
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$65,030.44
SUB TOTAL ADDITIONAL ITEMS								0	\$303,795.44
GRAND TOTAL								8,447	\$715,334.88

Havensville, A, 10,500-21,000 HP
 Transmission

Total Labor MH 5,147
 Average Labor Rate \$54.14
 Total Labor Cost \$278,624.29

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Havensville, B, 0-5,000 HP
 State: Kansas
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$52.71	\$26,090.04
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$52.71	\$13,176.79
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$80,420.68
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$49.60	\$15,079.23
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$49.60	\$1,587.29
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$49.60	\$4,761.86
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$79.16	\$617.47
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$48.32	\$811.82
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,763.97
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$29.28	\$2,598.02
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.32	\$1,282.80
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$35.90	\$687.22
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$35.90	\$2,892.13
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$56.23	\$2,968.99
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,429.15
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$56.77	\$8,311.81
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$56.77	\$1,422.20
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$56.77	\$778.95
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$56.77	\$272.52
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$71.47	\$4,116.65
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$71.47	\$460.26
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$71.47	\$311.61
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								422	\$25,026.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$3,442.14
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								6,314	\$313,830.49
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$44,798.55
SUB TOTAL ADDITIONAL ITEMS								0	\$178,953.55
GRAND TOTAL								6,314	\$492,784.04

Havensville, B, 0-5,000 HP
 Transmission

Total Labor MH 4,334
 Average Labor Rate \$54.01
 Total Labor Cost \$234,081.40

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Janesville, A, 0-5,000 HP
 State: Wisconsin
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$111.54	\$110,428.41
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$111.54	\$26,770.52
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$111.54	\$26,770.52
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$111.54	\$55,771.93
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$92.45	\$7,396.22
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$115.38	\$18,461.56
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$134.89	\$4,046.85
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$129.60	\$5,184.15
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$115.38	\$2,307.69
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$279,600.27
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$122.87	\$31,455.71
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$122.87	\$74,707.30
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$122.87	\$23,591.78
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$155.91	\$2,432.23
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$113.05	\$3,798.50
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$113.05	\$15,827.10
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$175,404.40
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$94.17	\$16,714.17
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$110.27	\$5,736.50
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$102.02	\$3,905.15
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$102.02	\$16,434.67
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$128.71	\$13,591.65
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$56,382.14
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$115.38	\$33,784.65
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$115.38	\$3,166.16
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$115.38	\$1,107.69
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$155.86	\$17,954.55
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$155.86	\$2,007.42
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$155.86	\$1,359.06
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								680	\$84,719.74
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$155.91	\$2,026.86
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$115.38	\$1,142.31
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$16,938.40
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER								572	\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL								130	\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$92.45	\$647.17
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$92.45	\$647.17
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$92.45	\$647.17
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$92.45	\$647.17
SUB TOTAL SYSTEM K: ELECTRICAL							108		\$9,984.90
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$187,429.41
SUB TOTAL: SYSTEMS A TO L							8,557		\$955,924.57
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$111,829.46
SUB TOTAL ADDITIONAL ITEMS							0		\$274,199.46
GRAND TOTAL							8,557		\$1,230,124.03

Janesville, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$116.84	\$768,495.16

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Janesville, B, 0-5,000 HP
 State: Wisconsin
 Capacity: 0-5,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$111.54	\$55,214.21
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$111.54	\$27,885.96
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$92.45	\$7,396.22
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$115.38	\$18,461.56
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$134.89	\$4,046.85
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$129.60	\$5,184.15
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$115.38	\$2,307.69
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$169,729.57
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$122.87	\$37,353.65
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$122.87	\$3,931.96
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$122.87	\$11,795.89
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$155.91	\$1,216.11
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$113.05	\$1,899.25
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$87,702.20
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$94.17	\$8,357.09
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$110.27	\$2,868.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$102.02	\$1,952.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$102.02	\$8,217.33
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$128.71	\$6,795.82
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$28,191.07
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$115.38	\$16,892.32
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$115.38	\$2,890.39
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$115.38	\$1,583.08
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$115.38	\$553.85
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$155.86	\$8,977.28
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$155.86	\$1,003.71
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$155.86	\$679.53
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						422		\$52,139.59
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$155.91	\$2,026.86
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$115.38	\$1,142.31
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						138		\$16,938.40
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
	SUB TOTAL SYSTEM F: COOLING WATER						572		\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C						170		\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,690.56
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$187,429.41
SUB TOTAL: SYSTEMS A TO L							6,314		\$696,286.12
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$83,044.11
SUB TOTAL ADDITIONAL ITEMS							0		\$217,199.11
GRAND TOTAL							6,314		\$913,485.23

Janesville, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$117.40	\$508,856.71

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Jena, A, 0-5,000 HP
 State: Louisiana
 Capacity: 0-5,000 HP

Transmission

of Compressors 5

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		5.00	ea	495.00	2475.00	\$71.31	\$176,494.77
	(b) Remove air intake systems	6C		5.00	ea	120.00	600.00	\$71.31	\$42,786.61
	(c) Remove exhaust systems	6C		5.00	ea	120.00	600.00	\$71.31	\$42,786.61
	(d) Remove glycol coolers	6C		5.00	ea	250.00	1250.00	\$71.31	\$89,138.78
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$45.82	\$3,665.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$67.84	\$10,855.05
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$91.93	\$2,757.95
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$88.18	\$3,527.26
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$71.31	\$5,704.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$71.31	\$5,704.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$67.84	\$1,356.88
	SUB TOTAL SYSTEM A: STATION LAYOUT						5,455		\$387,492.91
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		261.59	cy	2.45	640.00	\$62.97	\$40,302.17
	(b) Remove engine blocks	2A		621.28	cy	2.45	1520.00	\$62.97	\$95,717.65
	(c) Remove operating floor structural slab	2A		130.80	cy	2.45	320.00	\$62.97	\$20,151.08
	(d) Remove yard equipment foundations	2A		65.40	cy	2.45	160.00	\$62.97	\$10,075.54
	(e) Remove above grade pipe piers & valve supports	2A		196.19	cy	2.45	480.00	\$62.97	\$30,226.63
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		392.39	cy	0.10	39.00	\$84.01	\$3,276.47
	(b) Backfill with excavated native material	2C		392.39	cy	0.21	84.00	\$62.22	\$5,226.85
	(c) Backfill with imported gravel	2C		1634.94	cy	0.21	350.00	\$62.22	\$21,778.53
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						3,593		\$226,754.92
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		914.93	sy	0.48	443.70	\$40.10	\$17,790.98
	(b) Remove metal roof deck	3B		914.93	sy	0.14	130.05	\$60.66	\$7,888.94
	(c) Remove wall cladding, door windows & louvers	3C		520.26	sy	0.18	95.70	\$47.95	\$4,588.68
	(d) Remove structural steel frame (roof, walls & columns)	3C		4389.81	cy	0.09	402.75	\$47.95	\$19,311.28
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		26.40	ton	10.00	264.00	\$70.36	\$18,574.86
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,336		\$68,154.74
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	984.09	ft	0.74	732.00	\$67.84	\$49,661.84
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	246.02	ft	0.51	125.25	\$67.84	\$8,497.47
	- NPS 10 HP above grade suction & discharge	6B	10	229.62	ft	0.30	68.60	\$67.84	\$4,654.10
	- NPS 12 HP bypass	6B	12	65.61	ft	0.37	24.00	\$67.84	\$1,628.26
	(b) Flame Cutting								
	- NPS 30	6A	30	40.00	ea	7.20	288.00	\$94.53	\$27,223.54
	- NPS 16	6A	16	20.00	ea	1.61	32.20	\$94.53	\$3,043.74
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$94.53	\$173.93
	- NPS 12	6A	12	20.00	ea	1.09	21.80	\$94.53	\$2,060.67
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$71.31	\$2,852.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$88.18	\$878.29
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$88.18	\$366.83
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$88.18	\$179.89
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$67.84	\$3,966.16

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$84.01	\$1,255.98
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$62.22	\$2,003.62
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,455		\$108,446.76
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$84.01	\$1,092.16
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$67.84	\$671.66
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$62.22	\$1,742.28
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$84.01	\$327.65
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$62.22	\$522.68
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$84.01	\$600.69
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$67.84	\$757.14
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$67.84	\$925.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$62.22	\$958.26
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$84.01	\$436.86
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$67.84	\$315.47
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$62.22	\$696.91
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$9,467.78
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$88.18	\$7,054.51
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$88.18	\$1,763.63
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$67.84	\$7,571.39
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$84.01	\$3,604.11
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$62.22	\$1,393.83
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$88.18	\$2,645.44
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$88.18	\$440.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM F: COOLING WATER							572		\$42,946.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$12,482.03
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM H: LUBE OIL							130		\$10,650.09
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$88.18	\$11,463.58
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$14,177.34
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$67.84	\$3,575.38
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$84.01	\$1,680.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$73.84	\$590.70

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$62.97	\$2,821.15
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$39.20	\$513.54
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$62.22	\$174.23
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$9,775.88
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		574.05	ft	0.03	17.50	\$45.82	\$801.82
	(b) 1:2-DC	3E		574.05	ft	0.03	17.50	\$45.82	\$801.82
	(c) L1-SB	3E		574.05	ft	0.03	17.50	\$45.82	\$801.82
	(d) L1-DB	3E		574.05	ft	0.03	17.50	\$45.82	\$801.82
SUB TOTAL SYSTEM K: ELECTRICAL								150	\$6,872.78
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$80.44	\$26,546.19
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$60.05	\$19,816.17
	(c) Mechanic			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(d) Truck Driver			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$23.79	\$7,851.69
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$29.46	\$9,721.14
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$112,651.41
SUB TOTAL: SYSTEMS A TO L								15,287	\$1,009,873.55
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			30.00	days			\$4,500.00	\$135,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		50.00	days			\$85.00	\$4,250.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		25.00	days			\$73.00	\$1,825.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$125,688.86
SUB TOTAL ADDITIONAL ITEMS								0	\$372,703.86
GRAND TOTAL								15,287	\$1,382,577.41

Jena, A, 0-5,000 HP
 Transmission

Total Labor MH 13,307
 Average Labor Rate \$67.42
 Total Labor Cost \$897,222.14

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Jena, B, 5,000-10,500 HP
 State: Louisiana
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$71.31	\$35,298.95
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$71.31	\$17,827.76
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$45.82	\$5,498.22
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$67.84	\$16,282.57
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$91.93	\$4,136.92
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$88.18	\$5,290.88
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$67.84	\$4,070.64
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$67.84	\$2,035.32
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$124,670.56
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$62.97	\$8,060.43
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$62.97	\$19,143.53
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$62.97	\$4,030.22
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$62.97	\$2,015.11
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$62.97	\$6,045.33
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$84.01	\$655.29
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$62.22	\$1,045.37
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$45,350.98
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$40.10	\$3,558.20
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$60.66	\$1,577.79
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$47.95	\$917.74
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$47.95	\$3,862.26
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$70.36	\$3,714.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$13,630.95
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$67.84	\$11,587.76
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$67.84	\$2,265.99
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$67.84	\$1,329.74
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$67.84	\$651.30
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$94.53	\$5,444.71
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$94.53	\$608.75
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$94.53	\$173.93
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$94.53	\$618.20
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$71.31	\$2,852.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$88.18	\$878.29
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$88.18	\$366.83
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$88.18	\$179.89
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$67.84	\$3,966.16

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$84.01	\$1,255.98
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$62.22	\$2,003.62
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						468		\$34,183.60
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$84.01	\$1,638.23
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$67.84	\$895.54
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$62.22	\$2,613.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$84.01	\$327.65
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$62.22	\$522.68
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$84.01	\$600.69
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$67.84	\$757.14
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$67.84	\$925.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$62.22	\$958.26
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$84.01	\$436.86
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$67.84	\$315.47
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$62.22	\$696.91
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						162		\$11,108.88
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$88.18	\$7,054.51
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$88.18	\$1,763.63
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$67.84	\$7,571.39
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$84.01	\$3,604.11
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$62.22	\$1,393.83
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$88.18	\$2,645.44
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$88.18	\$440.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
	SUB TOTAL SYSTEM F: COOLING WATER						572		\$42,946.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$12,482.03
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$10,650.09
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$88.18	\$11,463.58
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C						170		\$14,177.34
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$67.84	\$3,575.38
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$84.01	\$1,680.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$73.84	\$590.70

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$62.97	\$2,821.15
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$39.20	\$513.54
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$62.22	\$174.23
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$9,775.88
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$4,306.94
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$80.44	\$35,394.92
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$60.05	\$26,421.56
	(c) Mechanic			1.00	ea	44.00	440.00	\$55.52	\$24,427.48
	(d) Truck Driver			1.00	ea	44.00	440.00	\$55.52	\$24,427.48
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$23.79	\$10,468.92
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$29.46	\$12,961.52
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								2,640	\$150,201.88
SUB TOTAL: SYSTEMS A TO L								7,309	\$473,486.06
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$65,196.11
SUB TOTAL ADDITIONAL ITEMS								0	\$243,671.11
GRAND TOTAL								7,309	\$717,157.17

Jena, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$69.25	\$323,284.18

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Joliet, A, 0-5,000 HP
 State: Illinois
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$141.67	\$140,253.62
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$141.67	\$34,000.88
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$141.67	\$34,000.88
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$141.67	\$70,835.16
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$120.65	\$9,652.25
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$140.97	\$22,554.86
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$163.75	\$4,912.57
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$159.25	\$6,370.18
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$140.97	\$2,819.36
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$353,705.72
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$150.08	\$38,419.76
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$150.08	\$91,246.93
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$150.08	\$19,209.88
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$150.08	\$9,604.94
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$150.08	\$28,814.82
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$178.27	\$2,780.95
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$141.58	\$4,757.08
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$141.58	\$19,821.16
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$214,655.51
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$119.80	\$21,262.71
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$137.78	\$7,167.53
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$125.48	\$4,803.36
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$125.48	\$20,214.79
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$154.52	\$16,317.16
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$69,765.55
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$140.97	\$41,275.39
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$140.97	\$3,868.16
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$140.97	\$1,353.29
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$168.01	\$19,355.05
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$168.01	\$2,164.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$168.01	\$1,465.07
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$140.97	\$8,240.98

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$178.27	\$2,665.08	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$141.58	\$4,558.87	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							680		\$100,557.88
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$178.27	\$2,317.46	
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$140.97	\$1,395.58	
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$141.58	\$3,964.23	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$20,554.89
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$140.97	\$15,732.01	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$178.27	\$7,647.62	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$141.58	\$3,171.38	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$85,856.14
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$24,017.79
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69	

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$13,030.54
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$187,429.41
SUB TOTAL: SYSTEMS A TO L								8,557	\$1,137,621.36
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$129,999.14
SUB TOTAL ADDITIONAL ITEMS								0	\$292,369.14
GRAND TOTAL								8,557	\$1,429,990.50

Joliet, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$144.46	\$950,191.95

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Kewaskum, A, 0-5,000 HP
 State: Wisconsin
 Capacity: 0-5,000 HP

Transmission

of Compressors 4

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		4.00	ea	495.00	1980.00	\$111.54	\$220,856.82
	(b) Remove air intake systems	6C		4.00	ea	120.00	480.00	\$111.54	\$53,541.05
	(c) Remove exhaust systems	6C		4.00	ea	120.00	480.00	\$111.54	\$53,541.05
	(d) Remove glycol coolers	6C		4.00	ea	250.00	1000.00	\$111.54	\$111,543.85
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$92.45	\$7,396.22
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$115.38	\$18,461.56
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$134.89	\$4,046.85
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$129.60	\$5,184.15
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$115.38	\$2,307.69
	SUB TOTAL SYSTEM A: STATION LAYOUT						4,470		\$499,341.65
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		209.27	cy	2.45	512.00	\$122.87	\$62,911.41
	(b) Remove engine blocks	2A		497.02	cy	2.45	1216.00	\$122.87	\$149,414.60
	(c) Remove operating floor structural slab	2A		104.64	cy	2.45	256.00	\$122.87	\$31,455.71
	(d) Remove yard equipment foundations	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(e) Remove above grade pipe piers & valve supports	2A		156.95	cy	2.45	384.00	\$122.87	\$47,183.56
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		313.91	cy	0.10	31.20	\$155.91	\$4,864.46
	(b) Backfill with excavated native material	2C		313.91	cy	0.21	67.20	\$113.05	\$7,597.01
	(c) Backfill with imported gravel	2C		1307.95	cy	0.21	280.00	\$113.05	\$31,654.21
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						2,874		\$350,808.80
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		731.95	sy	0.48	354.96	\$94.17	\$33,428.34
	(b) Remove metal roof deck	3B		731.95	sy	0.14	104.04	\$110.27	\$11,473.00
	(c) Remove wall cladding, door windows & louvers	3C		416.20	sy	0.18	76.56	\$102.02	\$7,810.29
	(d) Remove structural steel frame (roof, walls & columns)	3C		3511.85	cy	0.09	322.20	\$102.02	\$32,869.34
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		21.12	ton	10.00	211.20	\$128.71	\$27,183.30
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,069		\$112,764.27
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	787.27	ft	0.74	585.60	\$115.38	\$67,569.29
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	196.82	ft	0.51	100.20	\$115.38	\$11,561.55
	- NPS 10 HP above grade suction & discharge	6B	10	183.70	ft	0.30	54.88	\$115.38	\$6,332.31
	- NPS 12 HP bypass	6B	12	52.48	ft	0.37	19.20	\$115.38	\$2,215.39
	(b) Flame Cutting								
	- NPS 30	6A	30	32.00	ea	7.20	230.40	\$155.86	\$35,909.10
	- NPS 16	6A	16	16.00	ea	1.61	25.76	\$155.86	\$4,014.84
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	16.00	ea	1.09	17.44	\$155.86	\$2,718.12
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								\$149,880.04
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$155.91	\$2,026.86
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$115.38	\$1,142.31
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								\$16,938.40
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
	SUB TOTAL SYSTEM F: COOLING WATER								\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
	SUB TOTAL SYSTEM G: COMPRESSED AIR								\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	SUB TOTAL SYSTEM H: LUBE OIL								\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		459.24	ft	0.03	14.00	\$92.45	\$1,294.34
	(b) 1:2-DC	3E		459.24	ft	0.03	14.00	\$92.45	\$1,294.34
	(c) L1-SB	3E		459.24	ft	0.03	14.00	\$92.45	\$1,294.34
	(d) L1-DB	3E		459.24	ft	0.03	14.00	\$92.45	\$1,294.34
SUB TOTAL SYSTEM K: ELECTRICAL							136		\$12,573.58
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Mo				
	1. Supervisory Personnel								
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$187,429.41
SUB TOTAL: SYSTEMS A TO L							13,044		\$1,475,201.47
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			24.00	days			\$4,500.00	\$108,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		40.00	days			\$85.00	\$3,400.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		20.00	days			\$73.00	\$1,460.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$169,400.15
SUB TOTAL ADDITIONAL ITEMS							0		\$388,200.15
GRAND TOTAL							13,044		\$1,863,401.62

Kewaskum, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
11,064	\$116.39	\$1,287,772.06

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Kewaskum, B, 0-5,000 HP
 State: Wisconsin
 Capacity: 0-5,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$111.54	\$55,214.21
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$111.54	\$27,885.96
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$92.45	\$7,396.22
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$115.38	\$18,461.56
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$134.89	\$4,046.85
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$129.60	\$5,184.15
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$115.38	\$2,307.69
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$169,729.57
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$122.87	\$37,353.65
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$122.87	\$3,931.96
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$122.87	\$11,795.89
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$155.91	\$1,216.11
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$113.05	\$1,899.25
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$87,702.20
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$94.17	\$8,357.09
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$110.27	\$2,868.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$102.02	\$1,952.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$102.02	\$8,217.33
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$128.71	\$6,795.82
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$28,191.07
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$115.38	\$16,892.32
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$115.38	\$2,890.39
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$115.38	\$1,583.08
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$115.38	\$553.85
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$155.86	\$8,977.28
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$155.86	\$1,003.71
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$155.86	\$679.53
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							422		\$52,139.59
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$155.91	\$2,026.86
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$115.38	\$1,142.31
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$16,938.40
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER							572		\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL							130		\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,690.56
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$187,429.41
SUB TOTAL: SYSTEMS A TO L							6,314		\$696,286.12
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$83,044.11
SUB TOTAL ADDITIONAL ITEMS							0		\$217,199.11
GRAND TOTAL							6,314		\$913,485.23

Kewaskum, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$117.40	\$508,856.71

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Kewaskum, C, 0-5,000 HP
 State: Wisconsin
 Capacity: 0-5,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$111.54	\$55,214.21
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$111.54	\$27,885.96
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$92.45	\$7,396.22
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$115.38	\$18,461.56
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$134.89	\$4,046.85
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$129.60	\$5,184.15
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$115.38	\$2,307.69
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$169,729.57
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$122.87	\$37,353.65
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$122.87	\$3,931.96
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$122.87	\$11,795.89
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$155.91	\$1,216.11
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$113.05	\$1,899.25
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$87,702.20
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$94.17	\$8,357.09
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$110.27	\$2,868.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$102.02	\$1,952.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$102.02	\$8,217.33
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$128.71	\$6,795.82
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$28,191.07
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$115.38	\$16,892.32
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$115.38	\$2,890.39
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$115.38	\$1,583.08
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$115.38	\$553.85
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$155.86	\$8,977.28
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$155.86	\$1,003.71
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$155.86	\$679.53
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							422		\$52,139.59
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$155.91	\$2,026.86	
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$115.38	\$1,142.31	
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$16,938.40
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$70,295.76
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$19,599.09
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57	

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$8,690.56
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$187,429.41
SUB TOTAL: SYSTEMS A TO L								6,314	\$696,286.12
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$83,044.11
SUB TOTAL ADDITIONAL ITEMS								0	\$217,199.11
GRAND TOTAL								6,314	\$913,485.23

Kewaskum, C, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$117.40	\$508,856.71

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: LaGrange, A, 0-5,000 HP
 State: Indiana
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$108.01	\$106,928.80
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$108.01	\$25,922.13
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$108.01	\$25,922.13
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$108.01	\$54,004.45
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$270,025.96
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$117.12	\$29,982.26
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$117.12	\$71,207.87
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$117.12	\$22,486.70
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$148.64	\$2,318.76
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$109.07	\$3,664.88
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$109.07	\$15,270.35
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$167,417.51
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$89.10	\$15,813.31
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$109.20	\$5,680.51
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$96.07	\$3,677.45
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$96.07	\$15,476.40
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$125.07	\$13,207.59
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$53,855.26
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$109.12	\$31,950.11
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$109.12	\$2,994.23
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$109.12	\$1,047.54
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$156.04	\$17,975.43
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$156.04	\$2,009.75
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$156.04	\$1,360.64
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							680		\$81,565.69
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30	
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28	
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$16,189.71
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$67,447.92
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$18,829.55
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94	

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
SUB TOTAL SYSTEM K: ELECTRICAL							108		\$9,390.21
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Mo				
	1. Supervisory Personnel								
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	(c) Mechanic			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	(d) Truck Driver			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$184,064.40
SUB TOTAL: SYSTEMS A TO L							8,557		\$922,276.00
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$108,464.60
SUB TOTAL ADDITIONAL ITEMS							0		\$270,834.60
GRAND TOTAL							8,557		\$1,193,110.60

LaGrange, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$112.23	\$738,211.60

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Lake Arthur, B, 0-5,000 HP
 State: Louisiana
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$71.31	\$35,298.95
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$71.31	\$17,827.76
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$45.82	\$3,665.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$67.84	\$10,855.05
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$91.93	\$2,757.95
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$88.18	\$3,527.26
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$71.31	\$5,704.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$71.31	\$5,704.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$67.84	\$1,356.88
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$106,527.49
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$62.97	\$8,060.43
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$62.97	\$19,143.53
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$62.97	\$4,030.22
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$62.97	\$2,015.11
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$62.97	\$6,045.33
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$84.01	\$655.29
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$62.22	\$1,045.37
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$45,350.98
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$40.10	\$3,558.20
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$60.66	\$1,577.79
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$47.95	\$917.74
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$47.95	\$3,862.26
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$70.36	\$3,714.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$13,630.95
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$67.84	\$9,932.37
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$67.84	\$1,699.49
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$67.84	\$930.82
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$67.84	\$325.65
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$94.53	\$5,444.71
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$94.53	\$608.75
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$94.53	\$173.93
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$94.53	\$412.13
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$71.31	\$2,852.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$88.18	\$878.29
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$88.18	\$366.83
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$88.18	\$179.89
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$67.84	\$3,966.16

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$84.01	\$1,255.98
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$62.22	\$2,003.62
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								422	\$31,031.07
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$84.01	\$1,092.16
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$67.84	\$671.66
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$62.22	\$1,742.28
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$84.01	\$327.65
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$62.22	\$522.68
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$84.01	\$600.69
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$67.84	\$757.14
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$67.84	\$925.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$62.22	\$958.26
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$84.01	\$436.86
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$67.84	\$315.47
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$62.22	\$696.91
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$9,467.78
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$88.18	\$7,054.51
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$88.18	\$1,763.63
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$67.84	\$7,571.39
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$84.01	\$3,604.11
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$62.22	\$1,393.83
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$88.18	\$2,645.44
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$88.18	\$440.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM F: COOLING WATER								572	\$42,946.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$12,482.03
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM H: LUBE OIL								130	\$10,650.09
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$88.18	\$11,463.58
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$14,177.34
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$67.84	\$3,575.38
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$84.01	\$1,680.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$73.84	\$590.70

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$62.97	\$2,821.15
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$39.20	\$513.54
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$62.22	\$174.23
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$9,775.88
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$45.82	\$160.36
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$4,306.94
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$80.44	\$26,546.19
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$60.05	\$19,816.17
	(c) Mechanic			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(d) Truck Driver			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$23.79	\$7,851.69
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$29.46	\$9,721.14
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$112,651.41
SUB TOTAL: SYSTEMS A TO L							6,314		\$412,998.88
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$54,715.39
SUB TOTAL ADDITIONAL ITEMS							0		\$188,870.39
GRAND TOTAL							6,314		\$601,869.27

Lake Arthur, B, 0-5,000 HP
 Transmission

Total Labor MH 4,334
 Average Labor Rate \$69.30
 Total Labor Cost \$300,347.47

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Lineville, A, 0-5,000 HP
 State: Iowa
 Capacity: 0-5,000 HP

Transmission

of Compressors 8

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		8.00	ea	495.00	3960.00	\$108.01	\$427,715.20
	(b) Remove air intake systems	6C		8.00	ea	120.00	960.00	\$108.01	\$103,688.53
	(c) Remove exhaust systems	6C		8.00	ea	120.00	960.00	\$108.01	\$103,688.53
	(d) Remove glycol coolers	6C		8.00	ea	250.00	2000.00	\$108.01	\$216,017.78
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						8,410		\$908,358.50
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		418.54	cy	2.45	1024.00	\$117.12	\$119,929.05
	(b) Remove engine blocks	2A		994.04	cy	2.45	2432.00	\$117.12	\$284,831.49
	(c) Remove operating floor structural slab	2A		209.27	cy	2.45	512.00	\$117.12	\$59,964.52
	(d) Remove yard equipment foundations	2A		104.64	cy	2.45	256.00	\$117.12	\$29,982.26
	(e) Remove above grade pipe piers & valve supports	2A		313.91	cy	2.45	768.00	\$117.12	\$89,946.79
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		627.82	cy	0.10	62.40	\$148.64	\$9,275.03
	(b) Backfill with excavated native material	2C		627.82	cy	0.21	134.40	\$109.07	\$14,659.53
	(c) Backfill with imported gravel	2C		2615.90	cy	0.21	560.00	\$109.07	\$61,081.39
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						5,749		\$669,670.06
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1463.89	sy	0.48	709.92	\$89.10	\$63,253.25
	(b) Remove metal roof deck	3B		1463.89	sy	0.14	208.08	\$109.20	\$22,722.03
	(c) Remove wall cladding, door windows & louvers	3C		832.41	sy	0.18	153.12	\$96.07	\$14,709.79
	(d) Remove structural steel frame (roof, walls & columns)	3C		7023.70	cy	0.09	644.40	\$96.07	\$61,905.62
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		42.24	ton	10.00	422.40	\$125.07	\$52,830.36
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						2,138		\$215,421.05
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1574.54	ft	0.74	1171.20	\$109.12	\$127,800.44
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	393.64	ft	0.51	200.40	\$109.12	\$21,867.49
	- NPS 10 HP above grade suction & discharge	6B	10	367.39	ft	0.30	109.76	\$109.12	\$11,976.93
	- NPS 12 HP bypass	6B	12	104.97	ft	0.37	38.40	\$109.12	\$4,190.18
	(b) Flame Cutting								
	- NPS 30	6A	30	64.00	ea	7.20	460.80	\$156.04	\$71,901.74
	- NPS 16	6A	16	32.00	ea	1.61	51.52	\$156.04	\$8,039.01
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	32.00	ea	1.09	34.88	\$156.04	\$5,442.56
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								2,231	\$269,979.45
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$16,189.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								572	\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		918.48	ft	0.03	28.00	\$86.95	\$2,434.50
	(b) 1:2-DC	3E		918.48	ft	0.03	28.00	\$86.95	\$2,434.50
	(c) L1-SB	3E		918.48	ft	0.03	28.00	\$86.95	\$2,434.50
	(d) L1-DB	3E		918.48	ft	0.03	28.00	\$86.95	\$2,434.50
SUB TOTAL SYSTEM K: ELECTRICAL								192	\$16,693.71
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	(c) Mechanic			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	(d) Truck Driver			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$184,064.40
SUB TOTAL: SYSTEMS A TO L								22,017	\$2,420,144.13
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			48.00	days			\$4,500.00	\$216,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		80.00	days			\$85.00	\$6,800.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		40.00	days			\$73.00	\$2,920.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$275,180.41
SUB TOTAL ADDITIONAL ITEMS								0	\$606,840.41
GRAND TOTAL								22,017	\$3,026,984.54

Lineville, A, 0-5,000 HP
 Transmission

Total Labor MH 20,037
 Average Labor Rate \$111.60
 Total Labor Cost \$2,236,079.73

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Lineville, B, 0-5,000 HP
 State: Iowa
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$108.01	\$53,464.40
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$108.01	\$27,002.22
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$163,637.21
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$117.12	\$35,603.94
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$117.12	\$3,747.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$117.12	\$11,243.35
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$148.64	\$1,159.38
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$109.07	\$1,832.44
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$83,708.76
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$89.10	\$7,906.66
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$109.20	\$2,840.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$96.07	\$1,838.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$96.07	\$7,738.20
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$125.07	\$6,603.79
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$26,927.63
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$109.12	\$15,975.06
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$109.12	\$2,733.44
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$109.12	\$1,497.12
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$109.12	\$523.77
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$156.04	\$8,987.72
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$156.04	\$1,004.88
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$156.04	\$680.32
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								422	\$50,163.39
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$16,189.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								572	\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,172.96
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	(c) Mechanic			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	(d) Truck Driver			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$184,064.40
SUB TOTAL: SYSTEMS A TO L							6,314		\$672,631.31
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$80,678.63
SUB TOTAL ADDITIONAL ITEMS							0		\$214,833.63
GRAND TOTAL							6,314		\$887,464.94

Lineville, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$112.72	\$488,566.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Madisonville, A, 0-5,000 HP
 State: Kentucky
 Capacity: 0-5,000 HP

Transmission

of Compressors 5

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		5.00	ea	495.00	2475.00	\$53.64	\$132,749.64
	(b) Remove air intake systems	6C		5.00	ea	120.00	600.00	\$53.64	\$32,181.73
	(c) Remove exhaust systems	6C		5.00	ea	120.00	600.00	\$53.64	\$32,181.73
	(d) Remove glycol coolers	6C		5.00	ea	250.00	1250.00	\$53.64	\$67,045.28
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.14	\$2,891.42
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$52.19	\$8,349.76
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.39	\$2,051.64
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.37	\$2,614.96
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$52.19	\$1,043.72
	SUB TOTAL SYSTEM A: STATION LAYOUT						5,455		\$291,779.11
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		261.59	cy	2.45	640.00	\$48.93	\$31,317.93
	(b) Remove engine blocks	2A		621.28	cy	2.45	1520.00	\$48.93	\$74,380.09
	(c) Remove operating floor structural slab	2A		130.80	cy	2.45	320.00	\$48.93	\$15,658.97
	(d) Remove yard equipment foundations	2A		65.40	cy	2.45	160.00	\$48.93	\$7,829.48
	(e) Remove above grade pipe piers & valve supports	2A		196.19	cy	2.45	480.00	\$48.93	\$23,488.45
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		392.39	cy	0.10	39.00	\$78.13	\$3,047.14
	(b) Backfill with excavated native material	2C		392.39	cy	0.21	84.00	\$45.00	\$3,780.23
	(c) Backfill with imported gravel	2C		1634.94	cy	0.21	350.00	\$45.00	\$15,750.97
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						3,593		\$175,253.26
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		914.93	sy	0.48	443.70	\$30.32	\$13,452.58
	(b) Remove metal roof deck	3B		914.93	sy	0.14	130.05	\$49.99	\$6,500.93
	(c) Remove wall cladding, door windows & louvers	3C		520.26	sy	0.18	95.70	\$36.47	\$3,490.30
	(d) Remove structural steel frame (roof, walls & columns)	3C		4389.81	cy	0.09	402.75	\$36.47	\$14,688.80
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		26.40	ton	10.00	264.00	\$54.55	\$14,402.24
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,336		\$52,534.86
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	984.09	ft	0.74	732.00	\$52.19	\$38,200.14
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	246.02	ft	0.51	125.25	\$52.19	\$6,536.29
	- NPS 10 HP above grade suction & discharge	6B	10	229.62	ft	0.30	68.60	\$52.19	\$3,579.96
	- NPS 12 HP bypass	6B	12	65.61	ft	0.37	24.00	\$52.19	\$1,252.46
	(b) Flame Cutting								
	- NPS 30	6A	30	40.00	ea	7.20	288.00	\$63.79	\$18,370.92
	- NPS 16	6A	16	20.00	ea	1.61	32.20	\$63.79	\$2,053.97
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	20.00	ea	1.09	21.80	\$63.79	\$1,390.58
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,455	\$80,371.53
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$78.13	\$1,015.71
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$52.19	\$516.64
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,497.60
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								572	\$32,871.40
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		574.05	ft	0.03	17.50	\$36.14	\$632.50
	(b) 1:2-DC	3E		574.05	ft	0.03	17.50	\$36.14	\$632.50
	(c) L1-SB	3E		574.05	ft	0.03	17.50	\$36.14	\$632.50
	(d) L1-DB	3E		574.05	ft	0.03	17.50	\$36.14	\$632.50
SUB TOTAL SYSTEM K: ELECTRICAL								150	\$5,421.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$43.05	\$14,207.82
	(c) Mechanic			1.00	ea	33.00	330.00	\$36.26	\$11,964.48
	(d) Truck Driver			1.00	ea	33.00	330.00	\$32.86	\$10,842.81
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$80,122.98
SUB TOTAL: SYSTEMS A TO L								15,287	\$761,567.57
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			30.00	days			\$4,500.00	\$135,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		50.00	days			\$85.00	\$4,250.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		25.00	days			\$73.00	\$1,825.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$100,858.26
SUB TOTAL ADDITIONAL ITEMS								0	\$347,873.26
GRAND TOTAL								15,287	\$1,109,440.82

Madisonville, A, 0-5,000 HP
 Transmission

Total Labor MH 13,307
 Average Labor Rate \$51.21
 Total Labor Cost \$681,444.59

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Madisonville, B, 10,500-21,000 HP
 State: Kentucky
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$53.64	\$26,549.93
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$53.64	\$13,409.06
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$36.14	\$5,782.83
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$52.19	\$16,699.51
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$68.39	\$4,103.27
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$65.37	\$3,922.45
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$53.64	\$8,581.80
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$53.64	\$8,581.80
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$106,765.65
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$48.93	\$6,263.59
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$48.93	\$14,876.02
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$48.93	\$3,131.79
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$48.93	\$1,565.90
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$48.93	\$4,697.69
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$78.13	\$609.43
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$45.00	\$756.06
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,050.65
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$30.32	\$2,690.52
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.99	\$1,300.19
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$36.47	\$698.06
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$36.47	\$2,937.76
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$54.55	\$2,880.45
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,506.97
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$52.19	\$12,733.38
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$52.19	\$3,486.02
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$52.19	\$2,045.69
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$52.19	\$751.48
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$63.79	\$3,674.18
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$63.79	\$410.79
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$63.79	\$556.23
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$52.19	\$4,122.69

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$78.13	\$1,523.57
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$45.00	\$1,890.12
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$34,513.42
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$78.13	\$2,031.42
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$52.19	\$861.07
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$45.00	\$2,520.15
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$10,117.81
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$52.19	\$6,471.06
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$78.13	\$4,062.85
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$45.00	\$3,780.23
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								613	\$35,111.56
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$3,397.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$55.52	\$30,534.35
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$43.05	\$23,679.70
	(c) Mechanic			1.00	ea	55.00	550.00	\$36.26	\$19,940.80
	(d) Truck Driver			1.00	ea	55.00	550.00	\$32.86	\$18,071.35
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$19.26	\$10,593.55
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$19.26	\$10,593.55
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							3,300		\$133,538.30
SUB TOTAL: SYSTEMS A TO L							8,447		\$404,717.21
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$64,348.22
SUB TOTAL ADDITIONAL ITEMS							0		\$303,113.22
GRAND TOTAL							8,447		\$707,830.43

Madisonville, B, 10,500-21,000 HP
 Transmission

Total Labor MH 5,147
 Average Labor Rate \$52.69
 Total Labor Cost \$271,178.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Maitland, A, 0-5,000 HP
 State: Missouri
 Capacity: 0-5,000 HP

Transmission

of Compressors 7

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		7.00	ea	495.00	3465.00	\$53.64	\$185,849.50
	(b) Remove air intake systems	6C		7.00	ea	120.00	840.00	\$53.64	\$45,054.42
	(c) Remove exhaust systems	6C		7.00	ea	120.00	840.00	\$53.64	\$45,054.42
	(d) Remove glycol coolers	6C		7.00	ea	250.00	1750.00	\$53.64	\$93,863.39
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.14	\$2,891.42
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$52.19	\$8,349.76
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.39	\$2,051.64
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.37	\$2,614.96
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$52.19	\$1,043.72
	SUB TOTAL SYSTEM A: STATION LAYOUT						7,425		\$397,442.46
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		366.23	cy	2.45	896.00	\$48.93	\$43,845.11
	(b) Remove engine blocks	2A		869.79	cy	2.45	2128.00	\$48.93	\$104,132.13
	(c) Remove operating floor structural slab	2A		183.11	cy	2.45	448.00	\$48.93	\$21,922.55
	(d) Remove yard equipment foundations	2A		91.56	cy	2.45	224.00	\$48.93	\$10,961.28
	(e) Remove above grade pipe piers & valve supports	2A		274.67	cy	2.45	672.00	\$48.93	\$32,883.83
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		549.34	cy	0.10	54.60	\$78.13	\$4,265.99
	(b) Backfill with excavated native material	2C		549.34	cy	0.21	117.60	\$45.00	\$5,292.32
	(c) Backfill with imported gravel	2C		2288.91	cy	0.21	490.00	\$45.00	\$22,051.35
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						5,030		\$245,354.56
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1280.91	sy	0.48	621.18	\$30.32	\$18,833.61
	(b) Remove metal roof deck	3B		1280.91	sy	0.14	182.07	\$49.99	\$9,101.31
	(c) Remove wall cladding, door windows & louvers	3C		728.36	sy	0.18	133.98	\$36.47	\$4,886.42
	(d) Remove structural steel frame (roof, walls & columns)	3C		6145.73	cy	0.09	563.85	\$36.47	\$20,564.33
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		36.96	ton	10.00	369.60	\$54.55	\$20,163.14
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,871		\$73,548.80
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1377.73	ft	0.74	1024.80	\$52.19	\$53,480.19
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	344.43	ft	0.51	175.35	\$52.19	\$9,150.81
	- NPS 10 HP above grade suction & discharge	6B	10	321.47	ft	0.30	96.04	\$52.19	\$5,011.94
	- NPS 12 HP bypass	6B	12	91.85	ft	0.37	33.60	\$52.19	\$1,753.45
	(b) Flame Cutting								
	- NPS 30	6A	30	56.00	ea	7.20	403.20	\$63.79	\$25,719.28
	- NPS 16	6A	16	28.00	ea	1.61	45.08	\$63.79	\$2,875.56
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	28.00	ea	1.09	30.52	\$63.79	\$1,946.81
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,972	\$108,925.25
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$78.13	\$1,015.71
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$52.19	\$516.64
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,497.60
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								572	\$32,871.40
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		803.67	ft	0.03	24.50	\$36.14	\$885.50
	(b) 1:2-DC	3E		803.67	ft	0.03	24.50	\$36.14	\$885.50
	(c) L1-SB	3E		803.67	ft	0.03	24.50	\$36.14	\$885.50
	(d) L1-DB	3E		803.67	ft	0.03	24.50	\$36.14	\$885.50
SUB TOTAL SYSTEM K: ELECTRICAL							178		\$6,433.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$43.05	\$14,207.82
	(c) Mechanic			1.00	ea	33.00	330.00	\$36.26	\$11,964.48
	(d) Truck Driver			1.00	ea	33.00	330.00	\$32.86	\$10,842.81
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$80,122.98
SUB TOTAL: SYSTEMS A TO L							19,773		\$987,911.89
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			42.00	days			\$4,500.00	\$189,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		70.00	days			\$85.00	\$5,950.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		35.00	days			\$73.00	\$2,555.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$129,135.69
SUB TOTAL ADDITIONAL ITEMS							0		\$432,580.69
GRAND TOTAL							19,773		\$1,420,492.58

Maitland, A, 0-5,000 HP
 Transmission

Total Labor MH 17,793
 Average Labor Rate \$51.02
 Total Labor Cost \$907,788.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Maitland, B, 0-5,000 HP
 State: Missouri
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$53.64	\$26,549.93
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$53.64	\$13,409.06
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.14	\$2,891.42
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$52.19	\$8,349.76
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.39	\$2,051.64
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.37	\$2,614.96
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$52.19	\$1,043.72
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$80,452.40
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$48.93	\$6,263.59
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$48.93	\$14,876.02
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$48.93	\$3,131.79
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$48.93	\$1,565.90
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$48.93	\$4,697.69
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$78.13	\$609.43
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$45.00	\$756.05
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,050.65
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$30.32	\$2,690.52
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.99	\$1,300.19
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$36.47	\$698.06
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$36.47	\$2,937.76
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$54.55	\$2,880.45
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,506.97
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$52.19	\$7,640.03
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$52.19	\$1,307.26
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$52.19	\$715.99
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$52.19	\$250.49
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$63.79	\$3,674.18
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$63.79	\$410.79
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$63.79	\$278.12
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								422	\$23,264.08
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$78.13	\$1,015.71
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$52.19	\$516.64
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,497.60
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								572	\$32,871.40
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$3,397.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$43.05	\$14,207.82
	(c) Mechanic			1.00	ea	33.00	330.00	\$36.26	\$11,964.48
	(d) Truck Driver			1.00	ea	33.00	330.00	\$32.86	\$10,842.81
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$80,122.98
SUB TOTAL: SYSTEMS A TO L								6,314	\$308,878.93
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$44,303.39
SUB TOTAL ADDITIONAL ITEMS								0	\$178,458.39
GRAND TOTAL								6,314	\$487,337.32

Maitland, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$52.78	\$228,755.95

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Marshfield, A, 0-5,000 HP
 State: Wisconsin
 Capacity: 0-5,000 HP

Transmission

of Compressors 6

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		6.00	ea	495.00	2970.00	\$111.54	\$331,285.23
	(b) Remove air intake systems	6C		6.00	ea	120.00	720.00	\$111.54	\$80,311.57
	(c) Remove exhaust systems	6C		6.00	ea	120.00	720.00	\$111.54	\$80,311.57
	(d) Remove glycol coolers	6C		6.00	ea	250.00	1500.00	\$111.54	\$167,315.78
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$92.45	\$7,396.22
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$115.38	\$18,461.56
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$134.89	\$4,046.85
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$129.60	\$5,184.15
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$115.38	\$2,307.69
	SUB TOTAL SYSTEM A: STATION LAYOUT						6,440		\$719,083.04
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		313.91	cy	2.45	768.00	\$122.87	\$94,367.12
	(b) Remove engine blocks	2A		745.53	cy	2.45	1824.00	\$122.87	\$224,121.90
	(c) Remove operating floor structural slab	2A		156.95	cy	2.45	384.00	\$122.87	\$47,183.56
	(d) Remove yard equipment foundations	2A		78.48	cy	2.45	192.00	\$122.87	\$23,591.78
	(e) Remove above grade pipe piers & valve supports	2A		235.43	cy	2.45	576.00	\$122.87	\$70,775.34
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		470.86	cy	0.10	46.80	\$155.91	\$7,296.69
	(b) Backfill with excavated native material	2C		470.86	cy	0.21	100.80	\$113.05	\$11,395.51
	(c) Backfill with imported gravel	2C		1961.93	cy	0.21	420.00	\$113.05	\$47,481.31
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						4,312		\$526,213.21
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1097.92	sy	0.48	532.44	\$94.17	\$50,142.52
	(b) Remove metal roof deck	3B		1097.92	sy	0.14	156.06	\$110.27	\$17,209.50
	(c) Remove wall cladding, door windows & louvers	3C		624.31	sy	0.18	114.84	\$102.02	\$11,715.44
	(d) Remove structural steel frame (roof, walls & columns)	3C		5267.77	cy	0.09	483.30	\$102.02	\$49,304.00
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		31.68	ton	10.00	316.80	\$128.71	\$40,774.95
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,603		\$169,146.41
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1180.91	ft	0.74	878.40	\$115.38	\$101,353.94
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	295.23	ft	0.51	150.30	\$115.38	\$17,342.32
	- NPS 10 HP above grade suction & discharge	6B	10	275.55	ft	0.30	82.32	\$115.38	\$9,498.47
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$115.38	\$3,323.08
	(b) Flame Cutting								
	- NPS 30	6A	30	48.00	ea	7.20	345.60	\$155.86	\$53,863.65
	- NPS 16	6A	16	24.00	ea	1.61	38.64	\$155.86	\$6,022.26
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	24.00	ea	1.09	26.16	\$155.86	\$4,077.18
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,714	\$215,040.34
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$155.91	\$2,026.86
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$115.38	\$1,142.31
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$16,938.40
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER								572	\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL								130	\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		688.86	ft	0.03	21.00	\$92.45	\$1,941.51
	(b) 1:2-DC	3E		688.86	ft	0.03	21.00	\$92.45	\$1,941.51
	(c) L1-SB	3E		688.86	ft	0.03	21.00	\$92.45	\$1,941.51
	(d) L1-DB	3E		688.86	ft	0.03	21.00	\$92.45	\$1,941.51
SUB TOTAL SYSTEM K: ELECTRICAL								164	\$15,162.26
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$187,429.41
SUB TOTAL: SYSTEMS A TO L								17,530	\$1,994,478.37
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			36.00	days			\$4,500.00	\$162,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		60.00	days			\$85.00	\$5,100.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$226,970.84
SUB TOTAL ADDITIONAL ITEMS								0	\$502,200.84
GRAND TOTAL								17,530	\$2,496,679.21

Marshfield, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
15,550	\$116.21	\$1,807,048.96

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Meade, A, 0-5,000 HP
 State: Kansas
 Capacity: 0-5,000 HP

Transmission

of Compressors 9

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		9.00	ea	495.00	4455.00	\$52.71	\$234,810.40
	(b) Remove air intake systems	6C		9.00	ea	120.00	1080.00	\$52.71	\$56,923.73
	(c) Remove exhaust systems	6C		9.00	ea	120.00	1080.00	\$52.71	\$56,923.73
	(d) Remove glycol coolers	6C		9.00	ea	250.00	2250.00	\$52.71	\$118,591.11
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						9,395		\$495,753.10
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		470.86	cy	2.45	1152.00	\$49.60	\$57,142.36
	(b) Remove engine blocks	2A		1118.30	cy	2.45	2736.00	\$49.60	\$135,713.10
	(c) Remove operating floor structural slab	2A		235.43	cy	2.45	576.00	\$49.60	\$28,571.18
	(d) Remove yard equipment foundations	2A		117.72	cy	2.45	288.00	\$49.60	\$14,285.59
	(e) Remove above grade pipe piers & valve supports	2A		353.15	cy	2.45	864.00	\$49.60	\$42,856.77
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		706.29	cy	0.10	70.20	\$79.16	\$5,557.22
	(b) Backfill with excavated native material	2C		706.29	cy	0.21	151.20	\$48.32	\$7,306.35
	(c) Backfill with imported gravel	2C		2942.89	cy	0.21	630.00	\$48.32	\$30,443.14
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						6,467		\$321,875.71
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1646.88	sy	0.48	798.66	\$29.28	\$23,382.15
	(b) Remove metal roof deck	3B		1646.88	sy	0.14	234.09	\$49.32	\$11,545.20
	(c) Remove wall cladding, door windows & louvers	3C		936.46	sy	0.18	172.26	\$35.90	\$6,184.96
	(d) Remove structural steel frame (roof, walls & columns)	3C		7901.66	cy	0.09	724.95	\$35.90	\$26,029.16
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		47.52	ton	10.00	475.20	\$56.23	\$26,720.87
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						2,405		\$93,862.33
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1771.36	ft	0.74	1317.60	\$56.77	\$74,806.25
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	442.84	ft	0.51	225.45	\$56.77	\$12,799.84
	- NPS 10 HP above grade suction & discharge	6B	10	413.32	ft	0.30	123.48	\$56.77	\$7,010.53
	- NPS 12 HP bypass	6B	12	118.09	ft	0.37	43.20	\$56.77	\$2,452.66
	(b) Flame Cutting								
	- NPS 30	6A	30	72.00	ea	7.20	518.40	\$71.47	\$37,049.86
	- NPS 16	6A	16	36.00	ea	1.61	57.96	\$71.47	\$4,142.38
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	36.00	ea	1.09	39.24	\$71.47	\$2,804.47
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								2,489	\$150,418.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		1033.29	ft	0.03	31.50	\$36.62	\$1,153.48
	(b) 1:2-DC	3E		1033.29	ft	0.03	31.50	\$36.62	\$1,153.48
	(c) L1-SB	3E		1033.29	ft	0.03	31.50	\$36.62	\$1,153.48
	(d) L1-DB	3E		1033.29	ft	0.03	31.50	\$36.62	\$1,153.48
SUB TOTAL SYSTEM K: ELECTRICAL								206	\$7,543.42
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$79,749.09
SUB TOTAL: SYSTEMS A TO L								24,260	\$1,228,201.11
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			54.00	days			\$4,500.00	\$243,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		90.00	days			\$85.00	\$7,650.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		45.00	days			\$73.00	\$3,285.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$158,807.61
SUB TOTAL ADDITIONAL ITEMS								0	\$518,682.61
GRAND TOTAL								24,260	\$1,746,883.73

Meade, A, 0-5,000 HP
 Transmission

Total Labor MH 22,280
 Average Labor Rate \$51.55
 Total Labor Cost \$1,148,452.02

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Mooreland, A, 5,000-10,500 HP
 State: Oklahoma
 Capacity: 5,000-10,500 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$52.71	\$52,180.09
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$52.71	\$12,649.72
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$52.71	\$26,353.58
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$36.62	\$4,394.23
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$56.77	\$13,625.91
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$68.08	\$3,063.69
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$65.22	\$3,912.93
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$56.77	\$3,406.48
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$56.77	\$1,703.24
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,765		\$146,589.30
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$49.60	\$12,698.30
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$49.60	\$30,158.47
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$49.60	\$9,523.73
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$79.16	\$1,234.94
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$48.32	\$1,623.63
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$48.32	\$6,765.14
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$71,527.94
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$29.28	\$5,196.03
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$49.32	\$2,565.60
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$35.90	\$1,374.43
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$35.90	\$5,784.26
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$56.23	\$5,937.97
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$20,858.30
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	459.24	ft	0.74	341.60	\$56.77	\$19,394.21
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$56.77	\$3,792.55
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$56.77	\$2,225.57
	- NPS 12 HP bypass	6B	12	52.48	ft	0.37	19.20	\$56.77	\$1,090.07
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$71.47	\$8,233.30
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$71.47	\$920.53
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	12.00	ea	1.09	13.08	\$71.47	\$934.82
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							772		\$45,943.23
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$79.16	\$1,543.67	
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$56.77	\$749.43	
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$48.32	\$2,029.54	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							162		\$9,324.34
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$34,300.52
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$9,759.21
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89	

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$36.62	\$256.33
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$3,954.80
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$48.72	\$21,436.36
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$40.79	\$17,946.72
	(c) Mechanic			1.00	ea	44.00	440.00	\$37.39	\$16,451.16
	(d) Truck Driver			1.00	ea	44.00	440.00	\$35.12	\$15,454.12
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$20.39	\$8,973.36
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$22.66	\$9,970.40
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								2,640	\$106,332.12
SUB TOTAL: SYSTEMS A TO L								9,597	\$475,583.39
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			18.00	days			\$4,500.00	\$81,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		30.00	days			\$85.00	\$2,550.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		20.00	days			\$73.00	\$1,460.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$69,656.34
SUB TOTAL ADDITIONAL ITEMS								0	\$290,636.34
GRAND TOTAL								9,597	\$766,219.73

Mooreland, A, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,957	\$53.07	\$369,251.27

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Mountain, A, 10,500-21,000 HP
 State: Wisconsin
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$111.54	\$55,214.21
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$111.54	\$27,885.96
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$92.45	\$14,792.45
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$115.38	\$36,923.11
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$134.89	\$8,093.70
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$129.60	\$7,776.23
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$111.54	\$17,847.02
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$111.54	\$17,847.02
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$226,996.38
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$122.87	\$37,353.65
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$122.87	\$3,931.96
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$122.87	\$11,795.89
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$155.91	\$1,216.11
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$113.05	\$1,899.25
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$87,702.20
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$94.17	\$8,357.09
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$110.27	\$2,868.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$102.02	\$1,952.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$102.02	\$8,217.33
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$128.71	\$6,795.82
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$28,191.07
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$115.38	\$28,153.87
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$115.38	\$7,707.70
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$115.38	\$4,523.08
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$115.38	\$1,661.54
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$155.86	\$8,977.28
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$155.86	\$1,003.71
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$155.86	\$1,359.06
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$115.38	\$9,115.39

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$155.91	\$3,040.29
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$113.05	\$4,748.13
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$77,132.97
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$155.91	\$4,053.72
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$115.38	\$1,903.85
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$113.05	\$6,330.84
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$22,892.22
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$115.38	\$14,307.71
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$155.91	\$8,107.43
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$113.05	\$9,496.26
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER								613	\$75,361.13
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL								130	\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,690.56
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$192.61	\$105,935.50
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$123.50	\$67,923.35
	(c) Mechanic			1.00	ea	55.00	550.00	\$79.31	\$43,620.50
	(d) Truck Driver			1.00	ea	55.00	550.00	\$67.98	\$37,389.00
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$28.33	\$15,578.75
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$39.66	\$21,810.25
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							3,300		\$312,382.35
SUB TOTAL: SYSTEMS A TO L							8,447		\$914,518.44
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$115,328.34
SUB TOTAL ADDITIONAL ITEMS							0		\$354,093.34
GRAND TOTAL							8,447		\$1,268,611.78

Mountain, A, 10,500-21,000 HP
 Transmission

Total Labor MH 5,147
 Average Labor Rate \$117.00
 Total Labor Cost \$602,136.00

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Mountain, A, 5,000-10,500 HP
 State: Wisconsin
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$111.54	\$55,214.21
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$111.54	\$27,885.96
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$92.45	\$11,094.34
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$115.38	\$27,692.33
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$134.89	\$6,070.27
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$129.60	\$7,776.23
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$115.38	\$6,923.08
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$115.38	\$3,461.54
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$199,659.02
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$122.87	\$37,353.65
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$122.87	\$3,931.96
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$122.87	\$11,795.89
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$155.91	\$1,216.11
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$113.05	\$1,899.25
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$87,702.20
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$94.17	\$8,357.09
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$110.27	\$2,868.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$102.02	\$1,952.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$102.02	\$8,217.33
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$128.71	\$6,795.82
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$28,191.07
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$115.38	\$19,707.71
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$115.38	\$3,853.85
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$115.38	\$2,261.54
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$115.38	\$1,107.69
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$155.86	\$8,977.28
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$155.86	\$1,003.71
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$155.86	\$1,019.29
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$57,490.51
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$155.91	\$3,040.29
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$115.38	\$1,523.08
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$113.05	\$4,748.13
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$19,915.31
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER								572	\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL								130	\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$8,690.56
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$192.61	\$84,748.40
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$123.50	\$54,338.68
	(c) Mechanic			1.00	ea	44.00	440.00	\$79.31	\$34,896.40
	(d) Truck Driver			1.00	ea	44.00	440.00	\$67.98	\$29,911.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								2,640	\$249,905.88
SUB TOTAL: SYSTEMS A TO L								7,309	\$797,019.87
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$97,549.49
SUB TOTAL ADDITIONAL ITEMS								0	\$276,024.49
GRAND TOTAL								7,309	\$1,073,044.35

Mountain, A, 5,000-10,500 HP
 Transmission

Total Labor MH 4,669
 Average Labor Rate \$117.19
 Total Labor Cost \$547,113.99

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: New Windsor, A, 0-5,000 HP
 State: Illinois
 Capacity: 0-5,000 HP

Transmission

of Compressors 7

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		7.00	ea	495.00	3465.00	\$141.67	\$490,887.66
	(b) Remove air intake systems	6C		7.00	ea	120.00	840.00	\$141.67	\$119,003.07
	(c) Remove exhaust systems	6C		7.00	ea	120.00	840.00	\$141.67	\$119,003.07
	(d) Remove glycol coolers	6C		7.00	ea	250.00	1750.00	\$141.67	\$247,923.06
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$120.65	\$9,652.25
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$140.97	\$22,554.86
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$163.75	\$4,912.57
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$159.25	\$6,370.18
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$140.97	\$2,819.36
	SUB TOTAL SYSTEM A: STATION LAYOUT						7,425		\$1,051,432.04
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		366.23	cy	2.45	896.00	\$150.08	\$134,469.15
	(b) Remove engine blocks	2A		869.79	cy	2.45	2128.00	\$150.08	\$319,364.24
	(c) Remove operating floor structural slab	2A		183.11	cy	2.45	448.00	\$150.08	\$67,234.58
	(d) Remove yard equipment foundations	2A		91.56	cy	2.45	224.00	\$150.08	\$33,617.29
	(e) Remove above grade pipe piers & valve supports	2A		274.67	cy	2.45	672.00	\$150.08	\$100,851.86
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		549.34	cy	0.10	54.60	\$178.27	\$9,733.34
	(b) Backfill with excavated native material	2C		549.34	cy	0.21	117.60	\$141.58	\$16,649.77
	(c) Backfill with imported gravel	2C		2288.91	cy	0.21	490.00	\$141.58	\$69,374.04
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						5,030		\$751,294.27
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1280.91	sy	0.48	621.18	\$119.80	\$74,419.49
	(b) Remove metal roof deck	3B		1280.91	sy	0.14	182.07	\$137.78	\$25,086.36
	(c) Remove wall cladding, door windows & louvers	3C		728.36	sy	0.18	133.98	\$125.48	\$16,811.78
	(d) Remove structural steel frame (roof, walls & columns)	3C		6145.73	cy	0.09	563.85	\$125.48	\$70,751.76
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		36.96	ton	10.00	369.60	\$154.52	\$57,110.05
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,871		\$244,179.43
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1377.73	ft	0.74	1024.80	\$140.97	\$144,463.86
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	344.43	ft	0.51	175.35	\$140.97	\$24,718.71
	- NPS 10 HP above grade suction & discharge	6B	10	321.47	ft	0.30	96.04	\$140.97	\$13,538.55
	- NPS 12 HP bypass	6B	12	91.85	ft	0.37	33.60	\$140.97	\$4,736.52
	(b) Flame Cutting								
	- NPS 30	6A	30	56.00	ea	7.20	403.20	\$168.01	\$67,742.67
	- NPS 16	6A	16	28.00	ea	1.61	45.08	\$168.01	\$7,574.01
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	28.00	ea	1.09	30.52	\$168.01	\$5,127.74
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$140.97	\$8,240.98

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$178.27	\$2,665.08
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$141.58	\$4,558.87
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,972		\$291,916.50
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$178.27	\$2,317.46
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$140.97	\$1,395.58
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$141.58	\$3,964.23
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$20,554.89
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$140.97	\$15,732.01
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$178.27	\$7,647.62
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$141.58	\$3,171.38
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM F: COOLING WATER							572		\$85,856.14
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$24,017.79
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM H: LUBE OIL							130		\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		803.67	ft	0.03	24.50	\$120.65	\$2,956.00
	(b) 1:2-DC	3E		803.67	ft	0.03	24.50	\$120.65	\$2,956.00
	(c) L1-SB	3E		803.67	ft	0.03	24.50	\$120.65	\$2,956.00
	(d) L1-DB	3E		803.67	ft	0.03	24.50	\$120.65	\$2,956.00
SUB TOTAL SYSTEM K: ELECTRICAL								178	\$21,476.26
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$187,429.41
SUB TOTAL: SYSTEMS A TO L								19,773	\$2,746,204.68
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			42.00	days			\$4,500.00	\$189,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		70.00	days			\$85.00	\$5,950.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		35.00	days			\$73.00	\$2,555.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$304,964.97
SUB TOTAL ADDITIONAL ITEMS								0	\$608,409.97
GRAND TOTAL								19,773	\$3,354,614.64

New Windsor, A, 0-5,000 HP
 Transmission

Total Labor MH 17,793
 Average Labor Rate \$143.80
 Total Labor Cost \$2,558,775.27

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: New Windsor, B, 0-5,000 HP
 State: Illinois
 Capacity: 0-5,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$141.67	\$70,126.81
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$141.67	\$35,417.58
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$120.65	\$9,652.25
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$140.97	\$22,554.86
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$163.75	\$4,912.57
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$159.25	\$6,370.18
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$140.97	\$2,819.36
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$214,160.45
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$150.08	\$19,209.88
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$150.08	\$45,623.46
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$150.08	\$9,604.94
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$150.08	\$4,802.47
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$150.08	\$14,407.41
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$178.27	\$1,390.48
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$141.58	\$2,378.54
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$107,327.75
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$119.80	\$10,631.36
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$137.78	\$3,583.77
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$125.48	\$2,401.68
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$125.48	\$10,107.39
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$154.52	\$8,158.58
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$34,882.78
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$140.97	\$20,637.69
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$140.97	\$3,531.24
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$140.97	\$1,934.08
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$140.97	\$676.65
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$168.01	\$9,677.52
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$168.01	\$1,082.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$168.01	\$732.53
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$140.97	\$8,240.98

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$178.27	\$2,665.08
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$141.58	\$4,558.87
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								422	\$62,286.16
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$178.27	\$2,317.46
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$140.97	\$1,395.58
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$141.58	\$3,964.23
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$20,554.89
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$140.97	\$15,732.01
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$178.27	\$7,647.62
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$141.58	\$3,171.38
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM F: COOLING WATER								572	\$85,856.14
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$24,017.79
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM H: LUBE OIL								130	\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$11,341.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$187,429.41
SUB TOTAL: SYSTEMS A TO L								6,314	\$815,904.70
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$95,005.97
SUB TOTAL ADDITIONAL ITEMS								0	\$229,160.97
GRAND TOTAL								6,314	\$1,045,065.67

New Windsor, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$145.00	\$628,475.29

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Patterson, A, 5,000-10,500 HP
 State: Louisiana
 Capacity: 5,000-10,500 HP

Transmission

of Compressors 3

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		3.00	ea	495.00	1485.00	\$71.31	\$105,896.86
	(b) Remove air intake systems	6C		3.00	ea	120.00	360.00	\$71.31	\$25,671.97
	(c) Remove exhaust systems	6C		3.00	ea	120.00	360.00	\$71.31	\$25,671.97
	(d) Remove glycol coolers	6C		3.00	ea	250.00	750.00	\$71.31	\$53,483.27
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$45.82	\$5,498.22
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$67.84	\$16,282.57
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$91.93	\$4,136.92
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$88.18	\$5,290.88
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$67.84	\$4,070.64
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$71.31	\$8,557.32
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$67.84	\$2,035.32
	SUB TOTAL SYSTEM A: STATION LAYOUT						3,750		\$265,153.27
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		156.95	cy	2.45	384.00	\$62.97	\$24,181.30
	(b) Remove engine blocks	2A		372.77	cy	2.45	912.00	\$62.97	\$57,430.59
	(c) Remove operating floor structural slab	2A		78.48	cy	2.45	192.00	\$62.97	\$12,090.65
	(d) Remove yard equipment foundations	2A		39.24	cy	2.45	96.00	\$62.97	\$6,045.33
	(e) Remove above grade pipe piers & valve supports	2A		117.72	cy	2.45	288.00	\$62.97	\$18,135.98
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		235.43	cy	0.10	23.40	\$84.01	\$1,965.88
	(b) Backfill with excavated native material	2C		235.43	cy	0.21	50.40	\$62.22	\$3,136.11
	(c) Backfill with imported gravel	2C		980.96	cy	0.21	210.00	\$62.22	\$13,067.12
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						2,156		\$136,052.95
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		548.96	sy	0.48	266.22	\$40.10	\$10,674.59
	(b) Remove metal roof deck	3B		548.96	sy	0.14	78.03	\$60.66	\$4,733.36
	(c) Remove wall cladding, door windows & louvers	3C		312.15	sy	0.18	57.42	\$47.95	\$2,753.21
	(d) Remove structural steel frame (roof, walls & columns)	3C		2633.89	cy	0.09	241.65	\$47.95	\$11,586.77
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		15.84	ton	10.00	158.40	\$70.36	\$11,144.91
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						802		\$40,892.84
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	688.86	ft	0.74	512.40	\$67.84	\$34,763.29
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	196.82	ft	0.51	100.20	\$67.84	\$6,797.97
	- NPS 10 HP above grade suction & discharge	6B	10	196.82	ft	0.30	58.80	\$67.84	\$3,989.23
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$67.84	\$1,953.91
	(b) Flame Cutting								
	- NPS 30	6A	30	24.00	ea	7.20	172.80	\$94.53	\$16,334.13
	- NPS 16	6A	16	12.00	ea	1.61	19.32	\$94.53	\$1,826.25
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$94.53	\$173.93
	- NPS 12	6A	12	18.00	ea	1.09	19.62	\$94.53	\$1,854.60
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$71.31	\$2,852.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$88.18	\$878.29
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$88.18	\$366.83
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$88.18	\$179.89
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$67.84	\$3,966.16

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$84.01	\$1,255.98
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$62.22	\$2,003.62
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,076	\$79,196.52
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$84.01	\$1,638.23
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$67.84	\$895.54
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$62.22	\$2,613.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$84.01	\$327.65
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$62.22	\$522.68
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$84.01	\$600.69
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$67.84	\$757.14
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$67.84	\$925.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$62.22	\$958.26
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$84.01	\$436.86
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$67.84	\$315.47
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$62.22	\$696.91
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$11,108.88
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$88.18	\$7,054.51
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$88.18	\$1,763.63
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$67.84	\$7,571.39
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$84.01	\$3,604.11
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$62.22	\$1,393.83
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$88.18	\$2,645.44
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$88.18	\$440.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM F: COOLING WATER								572	\$42,946.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$12,482.03
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM H: LUBE OIL								130	\$10,650.09
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$88.18	\$11,463.58
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$14,177.34
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$67.84	\$3,575.38
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$84.01	\$1,680.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$73.84	\$590.70

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$62.97	\$2,821.15
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$39.20	\$513.54
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$62.22	\$174.23
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$9,775.88
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		344.43	ft	0.03	10.50	\$45.82	\$481.09
	(b) 1:2-DC	3E		344.43	ft	0.03	10.50	\$45.82	\$481.09
	(c) L1-SB	3E		344.43	ft	0.03	10.50	\$45.82	\$481.09
	(d) L1-DB	3E		344.43	ft	0.03	10.50	\$45.82	\$481.09
SUB TOTAL SYSTEM K: ELECTRICAL							122		\$5,589.86
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$80.44	\$35,394.92
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$60.05	\$26,421.56
	(c) Mechanic			1.00	ea	44.00	440.00	\$55.52	\$24,427.48
	(d) Truck Driver			1.00	ea	44.00	440.00	\$55.52	\$24,427.48
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$23.79	\$10,468.92
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$29.46	\$12,961.52
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							2,640		\$150,201.88
SUB TOTAL: SYSTEMS A TO L							11,886		\$778,228.46
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			27.00	days			\$4,500.00	\$121,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		45.00	days			\$85.00	\$3,825.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$104,171.35
SUB TOTAL ADDITIONAL ITEMS							0		\$367,656.35
GRAND TOTAL							11,886		\$1,145,884.81

Patterson, A 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
9,246	\$67.92	\$628,026.58

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Patterson, B, 0-5,000 HP
 State: Louisiana
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$71.31	\$70,597.91
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$71.31	\$17,114.64
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$71.31	\$17,114.64
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$71.31	\$35,655.51
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$45.82	\$3,665.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$67.84	\$10,855.05
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$91.93	\$2,757.95
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$88.18	\$3,527.26
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$71.31	\$5,704.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$71.31	\$5,704.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$67.84	\$1,356.88
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$176,768.85
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$62.97	\$16,120.87
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$62.97	\$38,287.06
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$62.97	\$8,060.43
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$62.97	\$4,030.22
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$62.97	\$12,090.65
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$84.01	\$1,310.59
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$62.22	\$2,090.74
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$62.22	\$8,711.41
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$90,701.97
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$40.10	\$7,116.39
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$60.66	\$3,155.58
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$47.95	\$1,835.47
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$47.95	\$7,724.51
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$70.36	\$7,429.94
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$27,261.89
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$67.84	\$19,864.73
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$67.84	\$1,861.64
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$67.84	\$651.30
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$94.53	\$10,889.42
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$94.53	\$1,217.50
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$94.53	\$173.93
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$94.53	\$824.27
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$71.31	\$2,852.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$88.18	\$878.29
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$88.18	\$366.83
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$88.18	\$179.89
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$67.84	\$3,966.16

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$84.01	\$1,255.98
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$62.22	\$2,003.62
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						680		\$50,384.99
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$84.01	\$1,092.16
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$67.84	\$671.66
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$62.22	\$1,742.28
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$84.01	\$327.65
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$62.22	\$522.68
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$84.01	\$600.69
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$67.84	\$757.14
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$67.84	\$925.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$62.22	\$958.26
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$84.01	\$436.86
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$67.84	\$315.47
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$62.22	\$696.91
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						138		\$9,467.78
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$88.18	\$7,054.51
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$88.18	\$1,763.63
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$67.84	\$3,398.99
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$67.84	\$7,571.39
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$84.01	\$3,604.11
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$62.22	\$1,393.83
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$62.22	\$4,355.71
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$88.18	\$2,645.44
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$88.18	\$440.91
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
	SUB TOTAL SYSTEM F: COOLING WATER						572		\$42,946.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$88.18	\$1,763.63
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$67.84	\$5,427.52
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$12,482.03
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$88.18	\$3,527.26
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$88.18	\$881.81
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$10,650.09
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$88.18	\$11,463.58
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$67.84	\$2,713.76
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C						170		\$14,177.34
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$67.84	\$3,575.38
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$84.01	\$1,680.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$73.84	\$590.70

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$62.97	\$2,821.15
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$39.20	\$513.54
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$67.84	\$420.63
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$62.22	\$174.23
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$9,775.88
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$45.82	\$1,832.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$45.82	\$320.73
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$45.82	\$320.73
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$45.82	\$320.73
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$45.82	\$320.73
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$4,948.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$80.44	\$26,546.19
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$60.05	\$19,816.17
	(c) Mechanic			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(d) Truck Driver			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$23.79	\$7,851.69
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$29.46	\$9,721.14
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$112,651.41
SUB TOTAL: SYSTEMS A TO L								8,557	\$562,217.55
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$72,458.76
SUB TOTAL ADDITIONAL ITEMS								0	\$234,828.76
GRAND TOTAL								8,557	\$797,046.31

Patterson, B, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$68.35	\$449,566.14

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Portland, A, 0-5,000 HP
 State: Indiana
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 6

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		6.00	ea	495.00	2970.00	\$108.01	\$320,786.40
	(b) Remove air intake systems	6C		6.00	ea	120.00	720.00	\$108.01	\$77,766.40
	(c) Remove exhaust systems	6C		6.00	ea	120.00	720.00	\$108.01	\$77,766.40
	(d) Remove glycol coolers	6C		6.00	ea	250.00	1500.00	\$108.01	\$162,013.34
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						6,440		\$695,580.99
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		313.91	cy	2.45	768.00	\$117.12	\$89,946.79
	(b) Remove engine blocks	2A		745.53	cy	2.45	1824.00	\$117.12	\$213,623.62
	(c) Remove operating floor structural slab	2A		156.95	cy	2.45	384.00	\$117.12	\$44,973.39
	(d) Remove yard equipment foundations	2A		78.48	cy	2.45	192.00	\$117.12	\$22,486.70
	(e) Remove above grade pipe piers & valve supports	2A		235.43	cy	2.45	576.00	\$117.12	\$67,460.09
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		470.86	cy	0.10	46.80	\$148.64	\$6,956.27
	(b) Backfill with excavated native material	2C		470.86	cy	0.21	100.80	\$109.07	\$10,994.65
	(c) Backfill with imported gravel	2C		1961.93	cy	0.21	420.00	\$109.07	\$45,811.04
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						4,312		\$502,252.54
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1097.92	sy	0.48	532.44	\$89.10	\$47,439.94
	(b) Remove metal roof deck	3B		1097.92	sy	0.14	156.06	\$109.20	\$17,041.52
	(c) Remove wall cladding, door windows & louvers	3C		624.31	sy	0.18	114.84	\$96.07	\$11,032.34
	(d) Remove structural steel frame (roof, walls & columns)	3C		5267.77	cy	0.09	483.30	\$96.07	\$46,429.21
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		31.68	ton	10.00	316.80	\$125.07	\$39,622.77
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,603		\$161,565.79
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1180.91	ft	0.74	878.40	\$109.12	\$95,850.33
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	295.23	ft	0.51	150.30	\$109.12	\$16,400.62
	- NPS 10 HP above grade suction & discharge	6B	10	275.55	ft	0.30	82.32	\$109.12	\$8,982.70
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$109.12	\$3,142.63
	(b) Flame Cutting								
	- NPS 30	6A	30	48.00	ea	7.20	345.60	\$156.04	\$53,926.30
	- NPS 16	6A	16	24.00	ea	1.61	38.64	\$156.04	\$6,029.26
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	24.00	ea	1.09	26.16	\$156.04	\$4,081.92
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,714	\$207,174.87
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$16,189.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								572	\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		688.86	ft	0.03	21.00	\$86.95	\$1,825.87
	(b) 1:2-DC	3E		688.86	ft	0.03	21.00	\$86.95	\$1,825.87
	(c) L1-SB	3E		688.86	ft	0.03	21.00	\$86.95	\$1,825.87
	(d) L1-DB	3E		688.86	ft	0.03	21.00	\$86.95	\$1,825.87
SUB TOTAL SYSTEM K: ELECTRICAL								164	\$14,259.21
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	(c) Mechanic			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	(d) Truck Driver			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$184,064.40
SUB TOTAL: SYSTEMS A TO L								17,530	\$1,920,854.75
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			36.00	days			\$4,500.00	\$162,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		60.00	days			\$85.00	\$5,100.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$219,608.48
SUB TOTAL ADDITIONAL ITEMS								0	\$494,838.48
GRAND TOTAL								17,530	\$2,415,693.23

Portland, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
15,550	\$111.69	\$1,736,790.35

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Portland, B, 5,000-10,500 HP
 State: Indiana
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$108.01	\$106,928.80
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$108.01	\$25,922.13
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$108.01	\$25,922.13
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$108.01	\$54,004.45
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$86.95	\$10,433.57
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$109.12	\$26,188.62
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$131.84	\$5,932.61
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$126.25	\$7,575.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$109.12	\$6,547.15
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$109.12	\$3,273.58
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,765		\$298,650.19
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$117.12	\$29,982.26
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$117.12	\$71,207.87
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$117.12	\$22,486.70
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$148.64	\$2,318.76
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$109.07	\$3,664.88
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$109.07	\$15,270.35
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$167,417.51
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$89.10	\$15,813.31
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$109.20	\$5,680.51
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$96.07	\$3,677.45
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$96.07	\$15,476.40
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$125.07	\$13,207.59
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$53,855.26
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	459.24	ft	0.74	341.60	\$109.12	\$37,275.13
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$109.12	\$7,289.16
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$109.12	\$4,277.47
	- NPS 12 HP bypass	6B	12	52.48	ft	0.37	19.20	\$109.12	\$2,095.09
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$156.04	\$17,975.43
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$156.04	\$2,009.75
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	12.00	ea	1.09	13.08	\$156.04	\$2,040.96
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								772	\$91,724.10
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$148.64	\$2,898.45
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$109.12	\$1,440.37
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$109.07	\$4,581.10
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$19,042.98
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								572	\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
SUB TOTAL SYSTEM K: ELECTRICAL							108		\$9,390.21
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$181.28	\$79,763.20
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$117.83	\$51,846.08
	(c) Mechanic			1.00	ea	44.00	440.00	\$77.04	\$33,899.36
	(d) Truck Driver			1.00	ea	44.00	440.00	\$77.04	\$33,899.36
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							2,640		\$245,419.20
SUB TOTAL: SYSTEMS A TO L							9,597		\$1,025,266.72
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			18.00	days			\$4,500.00	\$81,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		30.00	days			\$85.00	\$2,550.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		20.00	days			\$73.00	\$1,460.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$124,624.67
SUB TOTAL ADDITIONAL ITEMS							0		\$345,604.67
GRAND TOTAL							9,597		\$1,370,871.39

Portland, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,957	\$112.09	\$779,847.52

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Portland, B, 10,500-21,000 HP
 State: Indiana
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$108.01	\$53,464.40
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$108.01	\$27,002.22
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$86.95	\$13,911.43
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$109.12	\$34,918.15
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$131.84	\$7,910.15
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$126.25	\$7,575.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$108.01	\$17,281.42
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$108.01	\$17,281.42
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$218,360.65
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$117.12	\$35,603.94
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$117.12	\$3,747.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$117.12	\$11,243.35
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$148.64	\$1,159.38
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$109.07	\$1,832.44
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$83,708.76
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$89.10	\$7,906.66
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$109.20	\$2,840.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$96.07	\$1,838.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$96.07	\$7,738.20
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$125.07	\$6,603.79
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$26,927.63
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$109.12	\$26,625.09
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$109.12	\$7,289.16
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$109.12	\$4,277.47
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$109.12	\$1,571.32
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$156.04	\$8,987.72
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$156.04	\$1,004.88
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$156.04	\$1,360.64
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$109.12	\$8,620.42

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$148.64	\$2,898.45
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$109.07	\$4,581.10
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$73,863.92
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$148.64	\$3,864.60
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$109.12	\$1,800.47
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$109.07	\$6,108.14
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$21,896.26
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$109.12	\$13,530.78
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$148.64	\$7,729.19
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$109.07	\$9,162.21
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								613	\$72,291.45
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,172.96
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			2.50	Mo				
	1. Supervisory Personnel								
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$181.28	\$99,704.00
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$117.83	\$64,807.60
	(c) Mechanic			1.00	ea	55.00	550.00	\$77.04	\$42,374.20
	(d) Truck Driver			1.00	ea	55.00	550.00	\$77.04	\$42,374.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$28.33	\$15,578.75
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$39.66	\$21,810.25
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							3,300		\$306,774.00
SUB TOTAL: SYSTEMS A TO L							8,447		\$884,314.97
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$112,308.00
SUB TOTAL ADDITIONAL ITEMS							0		\$351,073.00
GRAND TOTAL							8,447		\$1,235,387.97

Portland, B, 10,500-21,000 HP
 Transmission

Total Labor MH 5,147
 Average Labor Rate \$112.22
 Total Labor Cost \$577,540.97

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Sandwich, A, 0-5,000 HP
 State: Illinois
 Capacity: 0-5,000 HP

Transmission

of Compressors 3

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		3.00	ea	495.00	1485.00	\$141.67	\$210,380.43
	(b) Remove air intake systems	6C		3.00	ea	120.00	360.00	\$141.67	\$51,001.32
	(c) Remove exhaust systems	6C		3.00	ea	120.00	360.00	\$141.67	\$51,001.32
	(d) Remove glycol coolers	6C		3.00	ea	250.00	750.00	\$141.67	\$106,252.74
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$120.65	\$9,652.25
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$140.97	\$22,554.86
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$163.75	\$4,912.57
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$159.25	\$6,370.18
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$141.67	\$11,333.63
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$140.97	\$2,819.36
	SUB TOTAL SYSTEM A: STATION LAYOUT						3,485		\$493,250.98
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		156.95	cy	2.45	384.00	\$150.08	\$57,629.64
	(b) Remove engine blocks	2A		372.77	cy	2.45	912.00	\$150.08	\$136,870.39
	(c) Remove operating floor structural slab	2A		78.48	cy	2.45	192.00	\$150.08	\$28,814.82
	(d) Remove yard equipment foundations	2A		39.24	cy	2.45	96.00	\$150.08	\$14,407.41
	(e) Remove above grade pipe piers & valve supports	2A		117.72	cy	2.45	288.00	\$150.08	\$43,222.23
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		235.43	cy	0.10	23.40	\$178.27	\$4,171.43
	(b) Backfill with excavated native material	2C		235.43	cy	0.21	50.40	\$141.58	\$7,135.62
	(c) Backfill with imported gravel	2C		980.96	cy	0.21	210.00	\$141.58	\$29,731.73
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						2,156		\$321,983.26
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		548.96	sy	0.48	266.22	\$119.80	\$31,894.07
	(b) Remove metal roof deck	3B		548.96	sy	0.14	78.03	\$137.78	\$10,751.30
	(c) Remove wall cladding, door windows & louvers	3C		312.15	sy	0.18	57.42	\$125.48	\$7,205.05
	(d) Remove structural steel frame (roof, walls & columns)	3C		2633.89	cy	0.09	241.65	\$125.48	\$30,322.18
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		15.84	ton	10.00	158.40	\$154.52	\$24,475.74
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						802		\$104,648.33
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	590.45	ft	0.74	439.20	\$140.97	\$61,913.08
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	147.61	ft	0.51	75.15	\$140.97	\$10,593.73
	- NPS 10 HP above grade suction & discharge	6B	10	137.77	ft	0.30	41.16	\$140.97	\$5,802.24
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$140.97	\$2,029.94
	(b) Flame Cutting								
	- NPS 30	6A	30	24.00	ea	7.20	172.80	\$168.01	\$29,032.57
	- NPS 16	6A	16	12.00	ea	1.61	19.32	\$168.01	\$3,246.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	12.00	ea	1.09	13.08	\$168.01	\$2,197.60
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$140.97	\$8,240.98

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$178.27	\$2,665.08
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$141.58	\$4,558.87
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								939	\$138,829.61
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$178.27	\$2,317.46
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$140.97	\$1,395.58
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$141.58	\$3,964.23
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$20,554.89
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$140.97	\$15,732.01
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$178.27	\$7,647.62
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$141.58	\$3,171.38
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM F: COOLING WATER								572	\$85,856.14
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$24,017.79
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM H: LUBE OIL								130	\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		344.43	ft	0.03	10.50	\$120.65	\$1,266.86
	(b) 1:2-DC	3E		344.43	ft	0.03	10.50	\$120.65	\$1,266.86
	(c) L1-SB	3E		344.43	ft	0.03	10.50	\$120.65	\$1,266.86
	(d) L1-DB	3E		344.43	ft	0.03	10.50	\$120.65	\$1,266.86
SUB TOTAL SYSTEM K: ELECTRICAL								122	\$14,719.69
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$187,429.41
SUB TOTAL: SYSTEMS A TO L								10,801	\$1,459,338.02
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			18.00	days			\$4,500.00	\$81,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		30.00	days			\$85.00	\$2,550.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$164,992.30
SUB TOTAL ADDITIONAL ITEMS								0	\$355,577.30
GRAND TOTAL								10,801	\$1,814,915.33

Sandwich, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
8,821	\$144.20	\$1,271,908.61

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Sandwich, B, 10,500-21,000 HP
 State: Illinois
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$141.67	\$70,126.81
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$141.67	\$35,417.58
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$120.65	\$19,304.51
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$140.97	\$45,109.72
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$163.75	\$9,825.15
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$159.25	\$9,555.27
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$141.67	\$22,667.25
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$141.67	\$22,667.25
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$285,590.55
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$150.08	\$19,209.88
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$150.08	\$45,623.46
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$150.08	\$9,604.94
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$150.08	\$4,802.47
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$150.08	\$14,407.41
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$178.27	\$1,390.48
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$141.58	\$2,378.54
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$107,327.75
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$119.80	\$10,631.36
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$137.78	\$3,583.77
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$125.48	\$2,401.68
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$125.48	\$10,107.39
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$154.52	\$8,158.58
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$34,882.78
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$140.97	\$34,396.16
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$140.97	\$9,416.65
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$140.97	\$5,525.94
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$140.97	\$2,029.94
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$168.01	\$9,677.52
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$168.01	\$1,082.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$168.01	\$1,465.07
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$140.97	\$11,136.46

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$178.27	\$3,476.19
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$141.58	\$5,946.35
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$92,701.79
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$178.27	\$4,634.92
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$140.97	\$2,325.97
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$141.58	\$7,928.46
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$27,766.97
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$140.97	\$17,480.01
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$178.27	\$9,269.84
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$141.58	\$3,964.23
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$141.58	\$11,892.69
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM F: COOLING WATER								613	\$92,001.32
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$24,017.79
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM H: LUBE OIL								130	\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$11,341.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$192.61	\$105,935.50
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$123.50	\$67,923.35
	(c) Mechanic			1.00	ea	55.00	550.00	\$79.31	\$43,620.50
	(d) Truck Driver			1.00	ea	55.00	550.00	\$67.98	\$37,389.00
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$28.33	\$15,578.75
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$39.66	\$21,810.25
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,300	\$312,382.35
SUB TOTAL: SYSTEMS A TO L								8,447	\$1,056,060.63
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$129,482.56
SUB TOTAL ADDITIONAL ITEMS								0	\$368,247.56
GRAND TOTAL								8,447	\$1,424,308.20

Sandwich, B, 10,500-21,000 HP
 Transmission

Total Labor MH 5,147
 Average Labor Rate \$144.50
 Total Labor Cost \$743,678.28

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Sandwich, C, 5,000-10,500 HP
 State: Illinois
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$141.67	\$70,126.81
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$141.67	\$35,417.58
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$120.65	\$14,478.38
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$140.97	\$33,832.29
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$163.75	\$7,368.86
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$159.25	\$9,555.27
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$140.97	\$8,458.07
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$140.97	\$4,229.04
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$251,468.05
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$150.08	\$19,209.88
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$150.08	\$45,623.46
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$150.08	\$9,604.94
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$150.08	\$4,802.47
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$150.08	\$14,407.41
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$178.27	\$1,390.48
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$141.58	\$2,378.54
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$107,327.75
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$119.80	\$10,631.36
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$137.78	\$3,583.77
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$125.48	\$2,401.68
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$125.48	\$10,107.39
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$154.52	\$8,158.58
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$34,882.78
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$140.97	\$24,077.31
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$140.97	\$4,708.33
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$140.97	\$2,762.97
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$140.97	\$1,353.29
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$168.01	\$9,677.52
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$168.01	\$1,082.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$168.01	\$1,098.80
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$140.97	\$8,240.98

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$178.27	\$2,665.08
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$141.58	\$4,558.87
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$68,774.66
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$178.27	\$3,476.19
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$140.97	\$1,860.78
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$141.58	\$5,946.35
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$24,160.93
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$140.97	\$15,732.01
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$178.27	\$7,647.62
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$141.58	\$3,171.38
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM F: COOLING WATER								572	\$85,856.14
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$24,017.79
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM H: LUBE OIL								130	\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$11,341.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$192.61	\$84,748.40
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$123.50	\$54,338.68
	(c) Mechanic			1.00	ea	44.00	440.00	\$79.31	\$34,896.40
	(d) Truck Driver			1.00	ea	44.00	440.00	\$67.98	\$29,911.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								2,640	\$249,905.88
SUB TOTAL: SYSTEMS A TO L								7,309	\$925,783.30
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$110,425.83
SUB TOTAL ADDITIONAL ITEMS								0	\$288,900.83
GRAND TOTAL								7,309	\$1,214,684.14

Sandwich, C, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$144.77	\$675,877.42

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Sardis, A, 0-5,000 HP
 State: Mississippi
 Capacity: 0-5,000 HP

Transmission

of Compressors 5

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		5.00	ea	495.00	2475.00	\$53.64	\$132,749.64
	(b) Remove air intake systems	6C		5.00	ea	120.00	600.00	\$53.64	\$32,181.73
	(c) Remove exhaust systems	6C		5.00	ea	120.00	600.00	\$53.64	\$32,181.73
	(d) Remove glycol coolers	6C		5.00	ea	250.00	1250.00	\$53.64	\$67,045.28
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.14	\$2,891.42
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$52.19	\$8,349.76
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.39	\$2,051.64
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.37	\$2,614.96
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$53.64	\$4,290.90
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$52.19	\$1,043.72
	SUB TOTAL SYSTEM A: STATION LAYOUT						5,455		\$291,779.11
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		261.59	cy	2.45	640.00	\$48.93	\$31,317.93
	(b) Remove engine blocks	2A		621.28	cy	2.45	1520.00	\$48.93	\$74,380.09
	(c) Remove operating floor structural slab	2A		130.80	cy	2.45	320.00	\$48.93	\$15,658.97
	(d) Remove yard equipment foundations	2A		65.40	cy	2.45	160.00	\$48.93	\$7,829.48
	(e) Remove above grade pipe piers & valve supports	2A		196.19	cy	2.45	480.00	\$48.93	\$23,488.45
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		392.39	cy	0.10	39.00	\$78.13	\$3,047.14
	(b) Backfill with excavated native material	2C		392.39	cy	0.21	84.00	\$45.00	\$3,780.23
	(c) Backfill with imported gravel	2C		1634.94	cy	0.21	350.00	\$45.00	\$15,750.97
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						3,593		\$175,253.26
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		914.93	sy	0.48	443.70	\$30.32	\$13,452.58
	(b) Remove metal roof deck	3B		914.93	sy	0.14	130.05	\$49.99	\$6,500.93
	(c) Remove wall cladding, door windows & louvers	3C		520.26	sy	0.18	95.70	\$36.47	\$3,490.30
	(d) Remove structural steel frame (roof, walls & columns)	3C		4389.81	cy	0.09	402.75	\$36.47	\$14,688.80
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		26.40	ton	10.00	264.00	\$54.55	\$14,402.24
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,336		\$52,534.86
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	984.09	ft	0.74	732.00	\$52.19	\$38,200.14
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	246.02	ft	0.51	125.25	\$52.19	\$6,536.29
	- NPS 10 HP above grade suction & discharge	6B	10	229.62	ft	0.30	68.60	\$52.19	\$3,579.96
	- NPS 12 HP bypass	6B	12	65.61	ft	0.37	24.00	\$52.19	\$1,252.46
	(b) Flame Cutting								
	- NPS 30	6A	30	40.00	ea	7.20	288.00	\$63.79	\$18,370.92
	- NPS 16	6A	16	20.00	ea	1.61	32.20	\$63.79	\$2,053.97
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	20.00	ea	1.09	21.80	\$63.79	\$1,390.58
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,455	\$80,371.53
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$78.13	\$1,015.71
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$52.19	\$516.64
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,497.60
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								572	\$32,871.40
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		574.05	ft	0.03	17.50	\$36.14	\$632.50
	(b) 1:2-DC	3E		574.05	ft	0.03	17.50	\$36.14	\$632.50
	(c) L1-SB	3E		574.05	ft	0.03	17.50	\$36.14	\$632.50
	(d) L1-DB	3E		574.05	ft	0.03	17.50	\$36.14	\$632.50
SUB TOTAL SYSTEM K: ELECTRICAL								150	\$5,421.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$55.52	\$18,320.61
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$43.05	\$14,207.82
	(c) Mechanic			1.00	ea	33.00	330.00	\$36.26	\$11,964.48
	(d) Truck Driver			1.00	ea	33.00	330.00	\$32.86	\$10,842.81
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$19.26	\$6,356.13
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$80,122.98
SUB TOTAL: SYSTEMS A TO L								15,287	\$761,567.57
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			30.00	days			\$4,500.00	\$135,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		50.00	days			\$85.00	\$4,250.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		25.00	days			\$73.00	\$1,825.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$100,858.26
SUB TOTAL ADDITIONAL ITEMS								0	\$347,873.26
GRAND TOTAL								15,287	\$1,109,440.82

Sardis, A, 0-5,000 HP
 Transmission

Total Labor MH 13,307
 Average Labor Rate \$51.21
 Total Labor Cost \$681,444.59

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Sardis, B, 10,500-21,000 HP
 State: Mississippi
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$53.64	\$26,549.93
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$53.64	\$13,409.06
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$36.14	\$5,782.83
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$52.19	\$16,699.51
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$68.39	\$4,103.27
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$65.37	\$3,922.45
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$53.64	\$8,581.80
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$53.64	\$8,581.80
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$106,765.65
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$48.93	\$6,263.59
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$48.93	\$14,876.02
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$48.93	\$3,131.79
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$48.93	\$1,565.90
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$48.93	\$4,697.69
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$78.13	\$609.43
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$45.00	\$756.06
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,050.65
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$30.32	\$2,690.52
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.99	\$1,300.19
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$36.47	\$698.06
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$36.47	\$2,937.76
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$54.55	\$2,880.45
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,506.97
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$52.19	\$12,733.38
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$52.19	\$3,486.02
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$52.19	\$2,045.69
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$52.19	\$751.48
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$63.79	\$3,674.18
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$63.79	\$410.79
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$63.79	\$556.23
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$52.19	\$4,122.69

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$78.13	\$1,523.57
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$45.00	\$1,890.12
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$34,513.42
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$78.13	\$2,031.42
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$52.19	\$861.07
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$45.00	\$2,520.15
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$10,117.81
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$52.19	\$6,471.06
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$78.13	\$4,062.85
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$45.00	\$1,260.08
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$45.00	\$3,780.23
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								613	\$35,111.56
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$3,397.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$55.52	\$30,534.35
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$43.05	\$23,679.70
	(c) Mechanic			1.00	ea	55.00	550.00	\$36.26	\$19,940.80
	(d) Truck Driver			1.00	ea	55.00	550.00	\$32.86	\$18,071.35
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$19.26	\$10,593.55
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$19.26	\$10,593.55
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							3,300		\$133,538.30
SUB TOTAL: SYSTEMS A TO L							8,447		\$404,717.21
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$64,348.22
SUB TOTAL ADDITIONAL ITEMS							0		\$303,113.22
GRAND TOTAL							8,447		\$707,830.43

Sardis, B, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
5,147	\$52.69	\$271,178.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Sardis, B, 5,000-10,500 HP
 State: Mississippi
 Capacity: 5,000-10,500 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$53.64	\$26,549.93
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$53.64	\$13,409.06
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$36.14	\$4,337.12
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$52.19	\$12,524.64
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$68.39	\$3,077.45
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$65.37	\$3,922.45
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$52.19	\$3,131.16
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$53.64	\$6,436.35
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$52.19	\$1,565.58
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$94,262.77
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$48.93	\$6,263.59
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$48.93	\$14,876.02
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$48.93	\$3,131.79
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$48.93	\$1,565.90
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$48.93	\$4,697.69
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$78.13	\$609.43
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$45.00	\$756.05
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,050.65
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$30.32	\$2,690.52
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.99	\$1,300.19
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$36.47	\$698.06
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$36.47	\$2,937.76
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$54.55	\$2,880.45
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,506.97
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$52.19	\$8,913.37
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$52.19	\$1,743.01
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$52.19	\$1,022.85
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$52.19	\$500.99
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$63.79	\$3,674.18
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$63.79	\$410.79
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$63.79	\$117.37
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$63.79	\$417.17
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$53.64	\$2,145.45
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.37	\$651.13
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.37	\$271.96
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.37	\$133.36
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$52.19	\$3,050.79

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$78.13	\$1,168.07
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$45.00	\$1,449.09
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$25,669.57
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$78.13	\$1,523.57
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$52.19	\$688.85
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$45.00	\$1,890.12
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$78.13	\$304.71
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$52.19	\$323.55
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$45.00	\$378.02
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$78.13	\$558.64
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$52.19	\$582.40
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$52.19	\$711.82
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$45.00	\$693.04
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$78.13	\$406.28
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$52.19	\$242.66
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$45.00	\$504.03
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$8,807.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.37	\$5,229.93
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.37	\$1,307.48
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$52.19	\$2,614.52
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$52.19	\$5,823.96
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$78.13	\$3,351.85
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$45.00	\$1,008.06
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$45.00	\$3,150.19
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.37	\$1,961.22
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.37	\$326.87
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM F: COOLING WATER								572	\$32,871.40
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.37	\$1,307.48
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$52.19	\$4,174.88
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,404.81
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.37	\$2,614.96
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.37	\$653.74
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM H: LUBE OIL								130	\$7,971.11
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.37	\$8,498.63
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$52.19	\$2,087.44
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,586.07
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$52.19	\$2,750.20
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$78.13	\$1,562.63
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$48.40	\$387.21

	<i>(b) Breakup and remove concrete</i>	2A		18.31	cy	2.45	44.80	\$48.93	\$2,192.26
	<i>(c) Hand Excavate to expose drain pipes</i>	2D		13.08	cy	1.00	13.10	\$31.42	\$411.58
	<i>(d) Carefully remove drain piping</i>	6B	6	32.80	ft	0.19	6.20	\$52.19	\$323.55
	<i>(e) Backfill with imported gravel</i>	2C		13.08	cy	0.21	2.80	\$45.00	\$126.01
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$7,753.44
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	<i>(a) Remove station and generator control panels</i>	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	<i>(b) Remove motor control centers (MCC)</i>	3E		1.00	ea	40.00	40.00	\$36.14	\$1,445.71
	2. Remove all Cables in trenwa trench								
	<i>(a) 1:2-SC</i>	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	<i>(b) 1:2-DC</i>	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	<i>(c) L1-SB</i>	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
	<i>(d) L1-DB</i>	3E		114.81	ft	0.03	3.50	\$36.14	\$126.50
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$3,397.41
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			2.00	Mo				
	1. Supervisory Personnel								
	<i>(a) Project Superintendent</i>			1.00	ea	44.00	440.00	\$55.52	\$24,427.48
	<i>(b) Safety Coordinator</i>			1.00	ea	44.00	440.00	\$43.05	\$18,943.76
	<i>(c) Mechanic</i>			1.00	ea	44.00	440.00	\$36.26	\$15,952.64
	<i>(d) Truck Driver</i>			1.00	ea	44.00	440.00	\$32.86	\$14,457.08
	2. Equipment								
	<i>(a) Pickup Truck, 4x4</i>			1.00	ea	44.00	440.00	\$19.26	\$8,474.84
	<i>(b) Truck, Mechanic Rig 4x4</i>			1.00	ea	44.00	440.00	\$19.26	\$8,474.84
	3. Miscellaneous Expenses								
	<i>(a) Trailer Office</i>			2.00	mo			\$230.00	\$460.00
	<i>(b) Telephone</i>			2.00	mo			\$1,150.00	\$2,300.00
	<i>(c) Cellular Phones</i>			2.00	mo			\$1,150.00	\$2,300.00
	<i>(d) Office Equipment: Fax, Copier, Computers, etc.</i>			2.00	mo			\$1,150.00	\$2,300.00
	<i>(e) Utility Bills: Electric, Water, etc.</i>			2.00	mo			\$575.00	\$1,150.00
	<i>(f) Daily Consumables</i>			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							2,640		\$106,830.64
SUB TOTAL: SYSTEMS A TO L							7,309		\$353,112.55
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$53,158.76
SUB TOTAL ADDITIONAL ITEMS							0		\$231,633.76
GRAND TOTAL							7,309		\$584,746.31

Sardis, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$52.75	\$246,281.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Shelbyville, A, 0-5,000 HP
 State: Indiana
 Capacity: 0-5,000 HP

Transmission

of Compressors 7

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		7.00	ea	495.00	3465.00	\$108.01	\$374,250.80
	(b) Remove air intake systems	6C		7.00	ea	120.00	840.00	\$108.01	\$90,727.47
	(c) Remove exhaust systems	6C		7.00	ea	120.00	840.00	\$108.01	\$90,727.47
	(d) Remove glycol coolers	6C		7.00	ea	250.00	1750.00	\$108.01	\$189,015.56
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						7,425		\$801,969.75
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		366.23	cy	2.45	896.00	\$117.12	\$104,937.92
	(b) Remove engine blocks	2A		869.79	cy	2.45	2128.00	\$117.12	\$249,227.55
	(c) Remove operating floor structural slab	2A		183.11	cy	2.45	448.00	\$117.12	\$52,468.96
	(d) Remove yard equipment foundations	2A		91.56	cy	2.45	224.00	\$117.12	\$26,234.48
	(e) Remove above grade pipe piers & valve supports	2A		274.67	cy	2.45	672.00	\$117.12	\$78,703.44
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		549.34	cy	0.10	54.60	\$148.64	\$8,115.65
	(b) Backfill with excavated native material	2C		549.34	cy	0.21	117.60	\$109.07	\$12,827.09
	(c) Backfill with imported gravel	2C		2288.91	cy	0.21	490.00	\$109.07	\$53,446.22
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						5,030		\$585,961.30
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		1280.91	sy	0.48	621.18	\$89.10	\$55,346.59
	(b) Remove metal roof deck	3B		1280.91	sy	0.14	182.07	\$109.20	\$19,881.78
	(c) Remove wall cladding, door windows & louvers	3C		728.36	sy	0.18	133.98	\$96.07	\$12,871.07
	(d) Remove structural steel frame (roof, walls & columns)	3C		6145.73	cy	0.09	563.85	\$96.07	\$54,167.42
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		36.96	ton	10.00	369.60	\$125.07	\$46,226.56
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,871		\$188,493.42
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	1377.73	ft	0.74	1024.80	\$109.12	\$111,825.39
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	344.43	ft	0.51	175.35	\$109.12	\$19,134.06
	- NPS 10 HP above grade suction & discharge	6B	10	321.47	ft	0.30	96.04	\$109.12	\$10,479.81
	- NPS 12 HP bypass	6B	12	91.85	ft	0.37	33.60	\$109.12	\$3,666.41
	(b) Flame Cutting								
	- NPS 30	6A	30	56.00	ea	7.20	403.20	\$156.04	\$62,914.02
	- NPS 16	6A	16	28.00	ea	1.61	45.08	\$156.04	\$7,034.14
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	28.00	ea	1.09	30.52	\$156.04	\$4,762.24
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,972		\$238,577.16
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30	
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28	
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$16,189.71
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$67,447.92
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$18,829.55
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94	

	<i>(b) Breakup and remove concrete</i>	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	<i>(c) Hand Excavate to expose drain pipes</i>	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	<i>(d) Carefully remove drain piping</i>	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	<i>(e) Backfill with imported gravel</i>	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	<i>(a) Remove station and generator control panels</i>	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	<i>(b) Remove motor control centers (MCC)</i>	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	<i>(a) 1:2-SC</i>	3E		803.67	ft	0.03	24.50	\$86.95	\$2,130.19
	<i>(b) 1:2-DC</i>	3E		803.67	ft	0.03	24.50	\$86.95	\$2,130.19
	<i>(c) L1-SB</i>	3E		803.67	ft	0.03	24.50	\$86.95	\$2,130.19
	<i>(d) L1-DB</i>	3E		803.67	ft	0.03	24.50	\$86.95	\$2,130.19
SUB TOTAL SYSTEM K: ELECTRICAL								178	\$15,476.46
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	<i>(a) Project Superintendent</i>			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	<i>(b) Safety Coordinator</i>			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	<i>(c) Mechanic</i>			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	<i>(d) Truck Driver</i>			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	<i>(a) Pickup Truck, 4x4</i>			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	<i>(b) Truck, Mechanic Rig 4x4</i>			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	<i>(a) Trailer Office</i>			1.50	mo			\$230.00	\$345.00
	<i>(b) Telephone</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(c) Cellular Phones</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(d) Office Equipment: Fax, Copier, Computers, etc.</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(e) Utility Bills: Electric, Water, etc.</i>			1.50	mo			\$575.00	\$862.50
	<i>(f) Daily Consumables</i>			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$184,064.40
SUB TOTAL: SYSTEMS A TO L								19,773	\$2,170,499.44
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			42.00	days			\$4,500.00	\$189,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		70.00	days			\$85.00	\$5,950.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		35.00	days			\$73.00	\$2,555.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$247,394.44
SUB TOTAL ADDITIONAL ITEMS								0	\$550,839.44
GRAND TOTAL								19,773	\$2,721,338.88

Shelbyville, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
17,793	\$111.64	\$1,986,435.04

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Shelbyville, B, 5,000-10,500 HP
 State: Indiana
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$108.01	\$53,464.40
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$108.01	\$27,002.22
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$86.95	\$10,433.57
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$109.12	\$26,188.62
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$131.84	\$5,932.61
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$126.25	\$7,575.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$109.12	\$6,547.15
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$109.12	\$3,273.58
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$192,261.43
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$117.12	\$35,603.94
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$117.12	\$3,747.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$117.12	\$11,243.35
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$148.64	\$1,159.38
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$109.07	\$1,832.44
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$83,708.76
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$89.10	\$7,906.66
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$109.20	\$2,840.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$96.07	\$1,838.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$96.07	\$7,738.20
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$125.07	\$6,603.79
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$26,927.63
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$109.12	\$18,637.56
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$109.12	\$3,644.58
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$109.12	\$2,138.74
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$109.12	\$1,047.54
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$156.04	\$8,987.72
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$156.04	\$1,004.88
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$156.04	\$1,020.48
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$55,242.60
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$148.64	\$2,898.45
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$109.12	\$1,440.37
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$109.07	\$4,581.10
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$19,042.98
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								572	\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$8,172.96
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$181.28	\$79,763.20
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$117.83	\$51,846.08
	(c) Mechanic			1.00	ea	44.00	440.00	\$77.04	\$33,899.36
	(d) Truck Driver			1.00	ea	44.00	440.00	\$77.04	\$33,899.36
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								2,640	\$245,419.20
SUB TOTAL: SYSTEMS A TO L								7,309	\$770,542.82
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$94,901.78
SUB TOTAL ADDITIONAL ITEMS								0	\$273,376.78
GRAND TOTAL								7,309	\$1,043,919.60

Shelbyville, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$112.48	\$525,123.62

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Shelbyville, B, 10,500-21,000 HP
 State: Indiana
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$108.01	\$53,464.40
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$108.01	\$27,002.22
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$86.95	\$13,911.43
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$109.12	\$34,918.15
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$131.84	\$7,910.15
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$126.25	\$7,575.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$108.01	\$17,281.42
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$108.01	\$17,281.42
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$218,360.65
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$117.12	\$35,603.94
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$117.12	\$3,747.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$117.12	\$11,243.35
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$148.64	\$1,159.38
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$109.07	\$1,832.44
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$83,708.76
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$89.10	\$7,906.66
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$109.20	\$2,840.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$96.07	\$1,838.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$96.07	\$7,738.20
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$125.07	\$6,603.79
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$26,927.63
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	328.03	ft	0.74	244.00	\$109.12	\$26,625.09
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	131.21	ft	0.51	66.80	\$109.12	\$7,289.16
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30	39.20	\$109.12	\$4,277.47
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$109.12	\$1,571.32
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$156.04	\$8,987.72
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$156.04	\$1,004.88
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$156.04	\$1,360.64
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$109.12	\$8,620.42

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$148.64	\$2,898.45
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$109.07	\$4,581.10
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								636	\$73,863.92
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$148.64	\$3,864.60
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$109.12	\$1,800.47
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$109.07	\$6,108.14
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$21,896.26
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$109.12	\$13,530.78
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$148.64	\$7,729.19
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$109.07	\$9,162.21
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER								613	\$72,291.45
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL								130	\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,172.96
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			2.50	Mo				
	1. Supervisory Personnel								
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$181.28	\$99,704.00
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$117.83	\$64,807.60
	(c) Mechanic			1.00	ea	55.00	550.00	\$77.04	\$42,374.20
	(d) Truck Driver			1.00	ea	55.00	550.00	\$77.04	\$42,374.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$28.33	\$15,578.75
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$39.66	\$21,810.25
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							3,300		\$306,774.00
SUB TOTAL: SYSTEMS A TO L							8,447		\$884,314.97
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			15.00	days			\$4,500.00	\$67,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00	days			\$73.00	\$1,095.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$112,308.00
SUB TOTAL ADDITIONAL ITEMS							0		\$351,073.00
GRAND TOTAL							8,447		\$1,235,387.97

Shelbyville, B, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
5,147	\$112.22	\$577,540.97

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: St. John, A, 0-5,000 HP
 State: Indiana
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$108.01	\$53,464.40
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$108.01	\$12,961.07
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$108.01	\$27,002.22
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$163,637.21
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$117.12	\$35,603.94
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$117.12	\$3,747.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$117.12	\$11,243.35
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$148.64	\$1,159.38
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$109.07	\$1,832.44
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$83,708.76
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$89.10	\$7,906.66
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$109.20	\$2,840.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$96.07	\$1,838.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$96.07	\$7,738.20
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$125.07	\$6,603.79
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$26,927.63
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$109.12	\$15,975.06
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$109.12	\$2,733.44
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$109.12	\$1,497.12
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$109.12	\$523.77
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$156.04	\$8,987.72
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$156.04	\$1,004.88
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$156.04	\$680.32
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14	
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18	
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							422		\$50,163.39
E	SYSTEM E: FUEL AND STARTING GAS									
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping									
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30	
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28	
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07	
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69	
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54	
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22	
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves									
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76	
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77	
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39	
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74	
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping									
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92	
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40	
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63	
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$16,189.71
F	SYSTEM F: COOLING WATER									
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.									
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02	
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00	
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87	
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71	
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58	
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26	
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17	
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks									
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00	
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51	
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25	
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54	
	SUB TOTAL SYSTEM F: COOLING WATER							572		\$67,447.92
G	SYSTEM G: COMPRESSED AIR									
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping									
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00	
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54	
	SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$18,829.55
H	SYSTEM H: LUBE OIL									
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement									
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01	
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50	
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77	
	SUB TOTAL SYSTEM H: LUBE OIL							130		\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C									
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)									
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52	
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77	
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS									
	1. Remove Weeping Tiles and Manholes									
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58	
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77	
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment									
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94	

	<i>(b) Breakup and remove concrete</i>	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	<i>(c) Hand Excavate to expose drain pipes</i>	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	<i>(d) Carefully remove drain piping</i>	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	<i>(e) Backfill with imported gravel</i>	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	<i>(a) Remove station and generator control panels</i>	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	<i>(b) Remove motor control centers (MCC)</i>	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	<i>(a) 1:2-SC</i>	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	<i>(b) 1:2-DC</i>	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	<i>(c) L1-SB</i>	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
	<i>(d) L1-DB</i>	3E		114.81	ft	0.03	3.50	\$86.95	\$304.31
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$8,172.96
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	<i>(a) Project Superintendent</i>			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	<i>(b) Safety Coordinator</i>			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	<i>(c) Mechanic</i>			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	<i>(d) Truck Driver</i>			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	<i>(a) Pickup Truck, 4x4</i>			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	<i>(b) Truck, Mechanic Rig 4x4</i>			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	<i>(a) Trailer Office</i>			1.50	mo			\$230.00	\$345.00
	<i>(b) Telephone</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(c) Cellular Phones</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(d) Office Equipment: Fax, Copier, Computers, etc.</i>			1.50	mo			\$1,150.00	\$1,725.00
	<i>(e) Utility Bills: Electric, Water, etc.</i>			1.50	mo			\$575.00	\$862.50
	<i>(f) Daily Consumables</i>			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$184,064.40
SUB TOTAL: SYSTEMS A TO L								6,314	\$672,631.31
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$80,678.63
SUB TOTAL ADDITIONAL ITEMS								0	\$214,833.63
GRAND TOTAL								6,314	\$887,464.94

St. John, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$112.72	\$488,566.91

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: St. John, A1, 0-5,000 HP
 State: Indiana
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 4

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		4.00	ea	495.00	1980.00	\$108.01	\$213,857.60
	(b) Remove air intake systems	6C		4.00	ea	120.00	480.00	\$108.01	\$51,844.27
	(c) Remove exhaust systems	6C		4.00	ea	120.00	480.00	\$108.01	\$51,844.27
	(d) Remove glycol coolers	6C		4.00	ea	250.00	1000.00	\$108.01	\$108,008.89
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						4,470		\$482,803.48
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		209.27	cy	2.45	512.00	\$117.12	\$59,964.52
	(b) Remove engine blocks	2A		497.02	cy	2.45	1216.00	\$117.12	\$142,415.74
	(c) Remove operating floor structural slab	2A		104.64	cy	2.45	256.00	\$117.12	\$29,982.26
	(d) Remove yard equipment foundations	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(e) Remove above grade pipe piers & valve supports	2A		156.95	cy	2.45	384.00	\$117.12	\$44,973.39
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		313.91	cy	0.10	31.20	\$148.64	\$4,637.51
	(b) Backfill with excavated native material	2C		313.91	cy	0.21	67.20	\$109.07	\$7,329.77
	(c) Backfill with imported gravel	2C		1307.95	cy	0.21	280.00	\$109.07	\$30,540.69
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						2,874		\$334,835.03
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		731.95	sy	0.48	354.96	\$89.10	\$31,626.62
	(b) Remove metal roof deck	3B		731.95	sy	0.14	104.04	\$109.20	\$11,361.02
	(c) Remove wall cladding, door windows & louvers	3C		416.20	sy	0.18	76.56	\$96.07	\$7,354.89
	(d) Remove structural steel frame (roof, walls & columns)	3C		3511.85	cy	0.09	322.20	\$96.07	\$30,952.81
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		21.12	ton	10.00	211.20	\$125.07	\$26,415.18
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,069		\$107,710.52
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	787.27	ft	0.74	585.60	\$109.12	\$63,900.22
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	196.82	ft	0.51	100.20	\$109.12	\$10,933.75
	- NPS 10 HP above grade suction & discharge	6B	10	183.70	ft	0.30	54.88	\$109.12	\$5,988.46
	- NPS 12 HP bypass	6B	12	52.48	ft	0.37	19.20	\$109.12	\$2,095.09
	(b) Flame Cutting								
	- NPS 30	6A	30	32.00	ea	7.20	230.40	\$156.04	\$35,950.87
	- NPS 16	6A	16	16.00	ea	1.61	25.76	\$156.04	\$4,019.51
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	16.00	ea	1.09	17.44	\$156.04	\$2,721.28
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,197		\$144,370.28
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$16,189.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER							572		\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL							130		\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		459.24	ft	0.03	14.00	\$86.95	\$1,217.25
	(b) 1:2-DC	3E		459.24	ft	0.03	14.00	\$86.95	\$1,217.25
	(c) L1-SB	3E		459.24	ft	0.03	14.00	\$86.95	\$1,217.25
	(d) L1-DB	3E		459.24	ft	0.03	14.00	\$86.95	\$1,217.25
SUB TOTAL SYSTEM K: ELECTRICAL								136	\$11,824.71
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	(c) Mechanic			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	(d) Truck Driver			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$184,064.40
SUB TOTAL: SYSTEMS A TO L								13,044	\$1,421,565.37
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			24.00	days			\$4,500.00	\$108,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		40.00	days			\$85.00	\$3,400.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		20.00	days			\$73.00	\$1,460.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$164,036.54
SUB TOTAL ADDITIONAL ITEMS								0	\$382,836.54
GRAND TOTAL								13,044	\$1,804,401.91

St. John, A1, 0-5,000 HP
 Transmission

Total Labor MH 11,064
 Average Labor Rate \$111.85
 Total Labor Cost \$1,237,500.97

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: St. John, B, 10,500-21,000 HP
 State: Indiana
 Capacity: 10,500-21,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$108.01	\$106,928.80
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$108.01	\$25,922.13
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$108.01	\$25,922.13
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$108.01	\$54,004.45
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$86.95	\$13,911.43
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$109.12	\$34,918.15
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$131.84	\$7,910.15
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$126.25	\$7,575.01
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$108.01	\$17,281.42
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$108.01	\$17,281.42
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	SUB TOTAL SYSTEM A: STATION LAYOUT						3,010		\$324,749.41
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$117.12	\$29,982.26
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$117.12	\$71,207.87
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$117.12	\$22,486.70
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$148.64	\$2,318.76
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$109.07	\$3,664.88
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$109.07	\$15,270.35
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$167,417.51
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$89.10	\$15,813.31
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$109.20	\$5,680.51
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$96.07	\$3,677.45
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$96.07	\$15,476.40
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$125.07	\$13,207.59
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$53,855.26
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	656.06	ft	0.74	488.00	\$109.12	\$53,250.18
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	262.42	ft	0.51	133.60	\$109.12	\$14,578.33
	- NPS 10 HP above grade suction & discharge	6B	10	262.42	ft	0.30	78.40	\$109.12	\$8,554.95
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$109.12	\$3,142.63
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$156.04	\$17,975.43
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$156.04	\$2,009.75
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	16.00	ea	1.09	17.44	\$156.04	\$2,721.28
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$109.12	\$8,620.42

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$148.64	\$2,898.45
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$109.07	\$4,581.10
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							1,073		\$124,980.20
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$148.64	\$3,864.60
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$109.12	\$1,800.47
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$109.07	\$6,108.14
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							185		\$21,896.26
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$109.12	\$13,530.78
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$148.64	\$7,729.19
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$109.07	\$9,162.21
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM F: COOLING WATER							613		\$72,291.45
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM H: LUBE OIL							130		\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$9,390.21
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$181.28	\$99,704.00
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$117.83	\$64,807.60
	(c) Mechanic			1.00	ea	55.00	550.00	\$77.04	\$42,374.20
	(d) Truck Driver			1.00	ea	55.00	550.00	\$77.04	\$42,374.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$28.33	\$15,578.75
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$39.66	\$21,810.25
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,300	\$306,774.00
SUB TOTAL: SYSTEMS A TO L								10,869	\$1,153,673.65
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			30.00	days			\$4,500.00	\$135,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		40.00	days			\$85.00	\$3,400.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$146,273.36
SUB TOTAL ADDITIONAL ITEMS								0	\$455,333.36
GRAND TOTAL								10,869	\$1,609,007.01

St. John, B, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
7,569	\$111.90	\$846,899.65

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Stevens Point, A, 5,000-10,500 HP
 State: Wisconsin
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$111.54	\$55,214.21
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$111.54	\$27,885.96
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$92.45	\$11,094.34
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$115.38	\$27,692.33
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$134.89	\$6,070.27
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$129.60	\$7,776.23
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$115.38	\$6,923.08
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$115.38	\$3,461.54
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$199,659.02
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$122.87	\$37,353.65
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$122.87	\$3,931.96
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$122.87	\$11,795.89
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$155.91	\$1,216.11
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$113.05	\$1,899.25
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$87,702.20
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$94.17	\$8,357.09
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$110.27	\$2,868.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$102.02	\$1,952.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$102.02	\$8,217.33
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$128.71	\$6,795.82
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$28,191.07
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$115.38	\$19,707.71
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$115.38	\$3,853.85
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$115.38	\$2,261.54
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$115.38	\$1,107.69
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$155.86	\$8,977.28
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$155.86	\$1,003.71
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$155.86	\$1,019.29
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$57,490.51
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$155.91	\$3,040.29
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$115.38	\$1,523.08
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$113.05	\$4,748.13
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$19,915.31
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER								572	\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL								130	\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,690.56
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$192.61	\$84,748.40
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$123.50	\$54,338.68
	(c) Mechanic			1.00	ea	44.00	440.00	\$79.31	\$34,896.40
	(d) Truck Driver			1.00	ea	44.00	440.00	\$67.98	\$29,911.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							2,640		\$249,905.88
SUB TOTAL: SYSTEMS A TO L							7,309		\$797,019.87
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$97,549.49
SUB TOTAL ADDITIONAL ITEMS							0		\$276,024.49
GRAND TOTAL							7,309		\$1,073,044.35

Stevens Point, A, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$117.19	\$547,113.99

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Sulphur Springs, A, 0-5,000 HP
 State: Indiana
 Capacity: 0-5,000 HP

Transmission

of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$108.01	\$106,928.80
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$108.01	\$25,922.13
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$108.01	\$25,922.13
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$108.01	\$54,004.45
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$86.95	\$6,955.71
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$109.12	\$17,459.08
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$131.84	\$3,955.08
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$126.25	\$5,050.01
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$108.01	\$8,640.71
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$109.12	\$2,182.38
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$270,025.96
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$117.12	\$29,982.26
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$117.12	\$71,207.87
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$117.12	\$14,991.13
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$117.12	\$7,495.57
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$117.12	\$22,486.70
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$148.64	\$2,318.76
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$109.07	\$3,664.88
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$109.07	\$15,270.35
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$167,417.51
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$89.10	\$15,813.31
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$109.20	\$5,680.51
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$96.07	\$3,677.45
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$96.07	\$15,476.40
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$125.07	\$13,207.59
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$53,855.26
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$109.12	\$31,950.11
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$109.12	\$2,994.23
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$109.12	\$1,047.54
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$156.04	\$17,975.43
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$156.04	\$2,009.75
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$156.04	\$287.11
	- NPS 12	6A	12	8.00	ea	1.09	8.72	\$156.04	\$1,360.64
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$108.01	\$4,320.36
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$126.25	\$1,257.45
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$126.25	\$525.20
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$126.25	\$257.55
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$109.12	\$6,379.11

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$148.64	\$2,222.14
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$109.07	\$3,512.18
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						680		\$81,565.69
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$148.64	\$1,932.30
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$109.12	\$1,080.28
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$109.07	\$3,054.07
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$148.64	\$579.69
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$109.07	\$916.22
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$148.64	\$1,062.76
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$109.12	\$1,217.77
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$109.12	\$1,488.39
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$109.07	\$1,679.74
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$148.64	\$772.92
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$109.12	\$507.40
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$109.07	\$1,221.63
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						138		\$16,189.71
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$126.25	\$10,100.02
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$126.25	\$2,525.00
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$109.12	\$5,466.87
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$109.12	\$12,177.71
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$148.64	\$6,376.58
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$109.07	\$2,443.26
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$109.07	\$7,635.17
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$126.25	\$3,787.51
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$126.25	\$631.25
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
	SUB TOTAL SYSTEM F: COOLING WATER						572		\$67,447.92
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$126.25	\$2,525.00
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$109.12	\$8,729.54
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$18,829.55
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$126.25	\$5,050.01
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$126.25	\$1,262.50
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$15,727.29
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$126.25	\$16,412.52
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$109.12	\$4,364.77
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C						170		\$20,777.29
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$109.12	\$5,750.58
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$148.64	\$2,972.77
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.62	\$876.94

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$117.12	\$5,246.90
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$88.25	\$1,156.07
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$109.12	\$676.54
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$109.07	\$305.41
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$16,985.20
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$86.95	\$3,477.86
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$86.95	\$608.62
SUB TOTAL SYSTEM K: ELECTRICAL							108		\$9,390.21
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Mo				
	1. Supervisory Personnel								
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$181.28	\$59,822.40
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$117.83	\$38,884.56
	(c) Mechanic			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	(d) Truck Driver			1.00	ea	33.00	330.00	\$77.04	\$25,424.52
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$184,064.40
SUB TOTAL: SYSTEMS A TO L							8,557		\$922,276.00
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00	days			\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$108,464.60
SUB TOTAL ADDITIONAL ITEMS							0		\$270,834.60
GRAND TOTAL							8,557		\$1,193,110.60

Sulphur Springs, A, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
6,577	\$112.23	\$738,211.60

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Transok, B, 0-5,000 HP
 State: Oklahoma
 Capacity: 0-5,000 HP

Transmission

of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$52.71	\$26,090.04
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$52.71	\$6,324.86
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$52.71	\$13,176.79
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$36.62	\$2,929.48
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$56.77	\$9,083.94
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$68.08	\$2,042.46
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$65.22	\$2,608.62
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$52.71	\$4,216.57
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$56.77	\$1,135.49
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$80,420.68
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$49.60	\$6,349.15
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$49.60	\$15,079.23
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$49.60	\$3,174.58
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$49.60	\$1,587.29
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$49.60	\$4,761.86
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$79.16	\$617.47
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$48.32	\$811.82
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$35,763.97
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$29.28	\$2,598.02
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$49.32	\$1,282.80
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$35.90	\$687.22
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$35.90	\$2,892.13
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$56.23	\$2,968.99
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$10,429.15
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$56.77	\$8,311.81
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$56.77	\$1,422.20
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$56.77	\$778.95
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$56.77	\$272.52
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$71.47	\$4,116.65
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$71.47	\$460.26
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$71.47	\$131.50
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$71.47	\$311.61
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$52.71	\$2,108.29
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$65.22	\$649.55
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$65.22	\$271.30
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$65.22	\$133.04
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$56.77	\$3,319.04

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$79.16	\$1,183.48
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$48.32	\$1,555.98
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								422	\$25,026.18
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$79.16	\$1,029.12
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$56.77	\$562.07
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$48.32	\$1,353.03
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$79.16	\$308.73
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$48.32	\$405.91
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$79.16	\$566.01
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$56.77	\$633.60
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$56.77	\$774.41
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$48.32	\$744.17
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$79.16	\$411.65
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$56.77	\$264.00
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$48.32	\$541.21
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								138	\$7,945.91
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$65.22	\$5,217.24
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$65.22	\$1,304.31
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$56.77	\$2,844.41
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$56.77	\$6,336.05
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$79.16	\$3,396.08
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$48.32	\$1,082.42
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$48.32	\$3,382.57
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$65.22	\$1,956.46
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$65.22	\$326.08
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM F: COOLING WATER								572	\$34,300.52
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$65.22	\$1,304.31
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$56.77	\$4,541.97
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$9,759.21
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$65.22	\$2,608.62
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$65.22	\$652.15
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM H: LUBE OIL								130	\$8,140.38
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$65.22	\$8,478.01
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$56.77	\$2,270.99
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$10,749.00
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$56.77	\$2,992.02
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$79.16	\$1,583.25
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$50.49	\$403.89

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$49.60	\$2,222.20
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$31.72	\$415.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$56.77	\$352.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$48.32	\$135.30
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$8,104.26
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$36.62	\$1,464.74
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$36.62	\$128.16
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$3,442.14
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Mo				
	1. Supervisory Personnel								
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$48.72	\$16,077.27
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$40.79	\$13,460.04
	(c) Mechanic			1.00	ea	33.00	330.00	\$37.39	\$12,338.37
	(d) Truck Driver			1.00	ea	33.00	330.00	\$35.12	\$11,590.59
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$20.39	\$6,730.02
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$22.66	\$7,477.80
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$79,749.09
SUB TOTAL: SYSTEMS A TO L							6,314		\$313,830.49
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$44,798.55
SUB TOTAL ADDITIONAL ITEMS							0		\$178,953.55
GRAND TOTAL							6,314		\$492,784.04

Transok, B, 0-5,000 HP
 Transmission

Total Labor MH 4,334
 Average Labor Rate \$54.01
 Total Labor Cost \$234,081.40

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Weyauwega, A, 0-5,000 HP
 State: Wisconsin
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$111.54	\$55,214.21
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$111.54	\$27,885.96
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$92.45	\$7,396.22
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$115.38	\$18,461.56
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$134.89	\$4,046.85
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$129.60	\$5,184.15
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$115.38	\$2,307.69
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$169,729.57
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$122.87	\$37,353.65
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$122.87	\$3,931.96
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$122.87	\$11,795.89
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$155.91	\$1,216.11
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$113.05	\$1,899.25
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$87,702.20
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$94.17	\$8,357.09
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$110.27	\$2,868.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$102.02	\$1,952.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$102.02	\$8,217.33
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$128.71	\$6,795.82
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$28,191.07
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$115.38	\$16,892.32
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$115.38	\$2,890.39
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$115.38	\$1,583.08
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$115.38	\$553.85
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$155.86	\$8,977.28
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$155.86	\$1,003.71
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$155.86	\$679.53
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							422		\$52,139.59
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$155.91	\$2,026.86
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$115.38	\$1,142.31
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$16,938.40
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER							572		\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL							130		\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,690.56
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$187,429.41
SUB TOTAL: SYSTEMS A TO L							6,314		\$696,286.12
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$83,044.11
SUB TOTAL ADDITIONAL ITEMS							0		\$217,199.11
GRAND TOTAL							6,314		\$913,485.23

Weyauwega, A, 0-5,000 HP
 Transmission

Total Labor MH 4,334
 Average Labor Rate \$117.40
 Total Labor Cost \$508,856.71

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Weyauwega, A1, 0-5,000 HP
 State: Wisconsin
 Capacity: 0-5,000 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
	1. Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$111.54	\$55,214.21
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$111.54	\$27,885.96
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$92.45	\$7,396.22
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$115.38	\$18,461.56
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$134.89	\$4,046.85
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$129.60	\$5,184.15
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$115.38	\$2,307.69
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$169,729.57
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$122.87	\$37,353.65
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$122.87	\$3,931.96
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$122.87	\$11,795.89
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$155.91	\$1,216.11
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$113.05	\$1,899.25
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$87,702.20
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$94.17	\$8,357.09
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$110.27	\$2,868.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$102.02	\$1,952.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$102.02	\$8,217.33
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$128.71	\$6,795.82
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$28,191.07
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	196.82	ft	0.74	146.40	\$115.38	\$16,892.32
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	25.05	\$115.38	\$2,890.39
	- NPS 10 HP above grade suction & discharge	6B	10	45.92	ft	0.30	13.72	\$115.38	\$1,583.08
	- NPS 12 HP bypass	6B	12	13.12	ft	0.37	4.80	\$115.38	\$553.85
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$155.86	\$8,977.28
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$155.86	\$1,003.71
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	4.00	ea	1.09	4.36	\$155.86	\$679.53
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS							422		\$52,139.59
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$155.91	\$2,026.86
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$115.38	\$1,142.31
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS							138		\$16,938.40
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER							572		\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR							160		\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL							130		\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C							170		\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,690.56
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							1,980		\$187,429.41
SUB TOTAL: SYSTEMS A TO L							6,314		\$696,286.12
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			6.00	days			\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00	days			\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00	days			\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$83,044.11
SUB TOTAL ADDITIONAL ITEMS							0		\$217,199.11
GRAND TOTAL							6,314		\$913,485.23

Weyauwega, A1, 0-5,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,334	\$117.40	\$508,856.71

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Weyauwega, B, 5,000-10,500 HP
 State: Wisconsin
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$111.54	\$55,214.21
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$111.54	\$27,885.96
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$92.45	\$11,094.34
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$115.38	\$27,692.33
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$134.89	\$6,070.27
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$129.60	\$7,776.23
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$115.38	\$6,923.08
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$111.54	\$13,385.26
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$115.38	\$3,461.54
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$199,659.02
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$122.87	\$37,353.65
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$122.87	\$7,863.93
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$122.87	\$3,931.96
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$122.87	\$11,795.89
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$155.91	\$1,216.11
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$113.05	\$1,899.25
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$87,702.20
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$94.17	\$8,357.09
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$110.27	\$2,868.25
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$102.02	\$1,952.57
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$102.02	\$8,217.33
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$128.71	\$6,795.82
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$28,191.07
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$115.38	\$19,707.71
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$115.38	\$3,853.85
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$115.38	\$2,261.54
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$115.38	\$1,107.69
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$155.86	\$8,977.28
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$155.86	\$1,003.71
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$155.86	\$1,019.29
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$57,490.51
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$155.91	\$3,040.29
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$115.38	\$1,523.08
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$113.05	\$4,748.13
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$19,915.31
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM F: COOLING WATER								572	\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM H: LUBE OIL								130	\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS							148		\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$92.45	\$323.58
SUB TOTAL SYSTEM K: ELECTRICAL							94		\$8,690.56
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$192.61	\$84,748.40
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$123.50	\$54,338.68
	(c) Mechanic			1.00	ea	44.00	440.00	\$79.31	\$34,896.40
	(d) Truck Driver			1.00	ea	44.00	440.00	\$67.98	\$29,911.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION							2,640		\$249,905.88
SUB TOTAL: SYSTEMS A TO L							7,309		\$797,019.87
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$97,549.49
SUB TOTAL ADDITIONAL ITEMS							0		\$276,024.49
GRAND TOTAL							7,309		\$1,073,044.35

Weyauwega, B, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$117.19	\$547,113.99

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Woodstock, A, 10,500-21,000 HP
 State: Illinois
 Capacity: 10,500-21,000 HP

Transmission
 # of Compressors 2

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$141.67	\$140,253.62
	(b) Remove air intake systems	6C		2.00	ea	120.00	240.00	\$141.67	\$34,000.88
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$141.67	\$34,000.88
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$141.67	\$70,835.16
	(e) Remove lighting system	3E		1.00	Lot	160.00	160.00	\$120.65	\$19,304.51
	(f) Remove associated piping system	6B		1.00	Lot	320.00	320.00	\$140.97	\$45,109.72
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00	60.00	\$163.75	\$9,825.15
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$159.25	\$9,555.27
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	160.00	160.00	\$141.67	\$22,667.25
	(b) Remove all associated hot water piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	160.00	160.00	\$141.67	\$22,667.25
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
	SUB TOTAL SYSTEM A: STATION LAYOUT						3,010		\$425,135.82
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	cy	2.45	256.00	\$150.08	\$38,419.76
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$150.08	\$91,246.93
	(c) Remove operating floor structural slab	2A		52.32	cy	2.45	128.00	\$150.08	\$19,209.88
	(d) Remove yard equipment foundations	2A		26.16	cy	2.45	64.00	\$150.08	\$9,604.94
	(e) Remove above grade pipe piers & valve supports	2A		78.48	cy	2.45	192.00	\$150.08	\$28,814.82
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	cy	0.10	15.60	\$178.27	\$2,780.95
	(b) Backfill with excavated native material	2C		156.95	cy	0.21	33.60	\$141.58	\$4,757.08
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$141.58	\$19,821.16
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$214,655.51
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$119.80	\$21,262.71
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$137.78	\$7,167.53
	(c) Remove wall cladding, door windows & louvers	3C		208.10	sy	0.18	38.28	\$125.48	\$4,803.36
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09	161.10	\$125.48	\$20,214.79
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$154.52	\$16,317.16
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$69,765.55
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	656.06	ft	0.74	488.00	\$140.97	\$68,792.32
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	262.42	ft	0.51	133.60	\$140.97	\$18,833.31
	- NPS 10 HP above grade suction & discharge	6B	10	262.42	ft	0.30	78.40	\$140.97	\$11,051.88
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$140.97	\$4,059.87
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$168.01	\$19,355.05
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$168.01	\$2,164.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	16.00	ea	1.09	17.44	\$168.01	\$2,930.14
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	328.03	ft	0.24	79.00	\$140.97	\$11,136.46

	(f) Excavate by machine	2B		196.19	cy	0.10	19.50	\$178.27	\$3,476.19
	(g) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$141.58	\$5,946.35
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								1,073	\$156,295.07
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	cy	0.10	26.00	\$178.27	\$4,634.92
	(b) Remove NPS 2 underground piping	6B	2	164.02	ft	0.10	16.50	\$140.97	\$2,325.97
	(c) Backfill with native excavated material	2C		261.59	cy	0.21	56.00	\$141.58	\$7,928.46
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								185	\$27,766.97
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	656.06	ft	0.19	124.00	\$140.97	\$17,480.01
	(e) Excavate underground piping by machine	2B		523.18	cy	0.10	52.00	\$178.27	\$9,269.84
	(f) Backfill with native excavated material (75%)	2C		130.80	cy	0.21	28.00	\$141.58	\$3,964.23
	(g) Backfill with imported gravel (25%)	2C		392.39	cy	0.21	84.00	\$141.58	\$11,892.69
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM F: COOLING WATER								613	\$92,001.32
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$24,017.79
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM H: LUBE OIL								130	\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$120.65	\$844.57
SUB TOTAL SYSTEM K: ELECTRICAL								108	\$13,030.54
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.50	Mo				
	(a) Project Superintendent			1.00	ea	55.00	550.00	\$192.61	\$105,935.50
	(b) Safety Coordinator			1.00	ea	55.00	550.00	\$123.50	\$67,923.35
	(c) Mechanic			1.00	ea	55.00	550.00	\$79.31	\$43,620.50
	(d) Truck Driver			1.00	ea	55.00	550.00	\$67.98	\$37,389.00
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	55.00	550.00	\$28.33	\$15,578.75
	(b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$39.66	\$21,810.25
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.50	mo			\$230.00	\$575.00
	(b) Telephone			2.50	mo			\$1,150.00	\$2,875.00
	(c) Cellular Phones			2.50	mo			\$1,150.00	\$2,875.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.50	mo			\$1,150.00	\$2,875.00
	(e) Utility Bills: Electric, Water, etc.			2.50	mo			\$575.00	\$1,437.50
	(f) Daily Consumables			55.00	day			\$172.50	\$9,487.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								3,300	\$312,382.35
SUB TOTAL: SYSTEMS A TO L								10,869	\$1,403,098.86
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			30.00	days			\$4,500.00	\$135,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		40.00	days			\$85.00	\$3,400.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		30.00	days			\$73.00	\$2,190.00
	5. Daily Subsistence Allowance (Per Diem)			1219.00	Mdays			\$130.00	\$158,470.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$171,215.89
SUB TOTAL ADDITIONAL ITEMS								0	\$480,275.89
GRAND TOTAL								10,869	\$1,883,374.74

Woodstock, A, 10,500-21,000 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
7,569	\$144.11	\$1,090,716.51

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Woodstock, A, 0-5,000 HP
 State: Wisconsin
 Capacity: 0-5,000 HP

Transmission

of Compressors 4

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		4.00	ea	495.00	1980.00	\$111.54	\$220,856.82
	(b) Remove air intake systems	6C		4.00	ea	120.00	480.00	\$111.54	\$53,541.05
	(c) Remove exhaust systems	6C		4.00	ea	120.00	480.00	\$111.54	\$53,541.05
	(d) Remove glycol coolers	6C		4.00	ea	250.00	1000.00	\$111.54	\$111,543.85
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00	\$92.45	\$7,396.22
	(f) Remove associated piping system	6B		1.00	Lot	160.00	160.00	\$115.38	\$18,461.56
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00	\$134.89	\$4,046.85
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$129.60	\$5,184.15
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$111.54	\$8,923.51
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$115.38	\$2,307.69
	SUB TOTAL SYSTEM A: STATION LAYOUT						4,470		\$499,341.65
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		209.27	cy	2.45	512.00	\$122.87	\$62,911.41
	(b) Remove engine blocks	2A		497.02	cy	2.45	1216.00	\$122.87	\$149,414.60
	(c) Remove operating floor structural slab	2A		104.64	cy	2.45	256.00	\$122.87	\$31,455.71
	(d) Remove yard equipment foundations	2A		52.32	cy	2.45	128.00	\$122.87	\$15,727.85
	(e) Remove above grade pipe piers & valve supports	2A		156.95	cy	2.45	384.00	\$122.87	\$47,183.56
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		313.91	cy	0.10	31.20	\$155.91	\$4,864.46
	(b) Backfill with excavated native material	2C		313.91	cy	0.21	67.20	\$113.05	\$7,597.01
	(c) Backfill with imported gravel	2C		1307.95	cy	0.21	280.00	\$113.05	\$31,654.21
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						2,874		\$350,808.80
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		731.95	sy	0.48	354.96	\$94.17	\$33,428.34
	(b) Remove metal roof deck	3B		731.95	sy	0.14	104.04	\$110.27	\$11,473.00
	(c) Remove wall cladding, door windows & louvers	3C		416.20	sy	0.18	76.56	\$102.02	\$7,810.29
	(d) Remove structural steel frame (roof, walls & columns)	3C		3511.85	cy	0.09	322.20	\$102.02	\$32,869.34
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		21.12	ton	10.00	211.20	\$128.71	\$27,183.30
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,069		\$112,764.27
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	787.27	ft	0.74	585.60	\$115.38	\$67,569.29
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	196.82	ft	0.51	100.20	\$115.38	\$11,561.55
	- NPS 10 HP above grade suction & discharge	6B	10	183.70	ft	0.30	54.88	\$115.38	\$6,332.31
	- NPS 12 HP bypass	6B	12	52.48	ft	0.37	19.20	\$115.38	\$2,215.39
	(b) Flame Cutting								
	- NPS 30	6A	30	32.00	ea	7.20	230.40	\$155.86	\$35,909.10
	- NPS 16	6A	16	16.00	ea	1.61	25.76	\$155.86	\$4,014.84
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$155.86	\$286.77
	- NPS 12	6A	12	16.00	ea	1.09	17.44	\$155.86	\$2,718.12
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$111.54	\$4,461.75
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$129.60	\$1,290.85
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$129.60	\$539.15
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$129.60	\$264.39
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$115.38	\$6,745.39

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$155.91	\$2,330.89
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$113.05	\$3,640.23
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						1,197		\$149,880.04
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		130.80	cy	0.10	13.00	\$155.91	\$2,026.86
	(b) Remove NPS 2 underground piping	6B	2	98.41	ft	0.10	9.90	\$115.38	\$1,142.31
	(c) Backfill with native excavated material	2C		130.80	cy	0.21	28.00	\$113.05	\$3,165.42
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$155.91	\$608.06
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$113.05	\$949.63
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$155.91	\$1,114.77
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$115.38	\$1,287.69
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$115.38	\$1,573.85
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$113.05	\$1,740.98
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$155.91	\$810.74
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$115.38	\$536.54
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$113.05	\$1,266.17
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						138		\$16,938.40
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$129.60	\$10,368.31
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$129.60	\$2,592.08
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$115.38	\$5,780.77
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$115.38	\$12,876.93
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$155.91	\$6,688.63
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$113.05	\$2,532.34
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$113.05	\$7,913.55
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$129.60	\$3,888.12
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$129.60	\$648.02
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
	SUB TOTAL SYSTEM F: COOLING WATER						572		\$70,295.76
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$129.60	\$2,592.08
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$115.38	\$9,230.78
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$19,599.09
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$129.60	\$5,184.15
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$129.60	\$1,296.04
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$16,279.74
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$129.60	\$16,848.50
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$115.38	\$4,615.39
	SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C						170		\$21,463.89
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$115.38	\$6,080.77
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$155.91	\$3,118.24
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$109.95	\$879.57

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$122.87	\$5,504.75
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$92.49	\$1,211.58
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$115.38	\$715.39
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$113.05	\$316.54
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$17,826.84
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$92.45	\$3,698.11
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		459.24	ft	0.03	14.00	\$92.45	\$1,294.34
	(b) 1:2-DC	3E		459.24	ft	0.03	14.00	\$92.45	\$1,294.34
	(c) L1-SB	3E		459.24	ft	0.03	14.00	\$92.45	\$1,294.34
	(d) L1-DB	3E		459.24	ft	0.03	14.00	\$92.45	\$1,294.34
SUB TOTAL SYSTEM K: ELECTRICAL								136	\$12,573.58
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			1.50	Mo				
	(a) Project Superintendent			1.00	ea	33.00	330.00	\$192.61	\$63,561.30
	(b) Safety Coordinator			1.00	ea	33.00	330.00	\$123.50	\$40,754.01
	(c) Mechanic			1.00	ea	33.00	330.00	\$79.31	\$26,172.30
	(d) Truck Driver			1.00	ea	33.00	330.00	\$67.98	\$22,433.40
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	33.00	330.00	\$28.33	\$9,347.25
	(b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$39.66	\$13,086.15
	3. Miscellaneous Expenses								
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones			1.50	mo			\$1,150.00	\$1,725.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			1.50	mo			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc.			1.50	mo			\$575.00	\$862.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								1,980	\$187,429.41
SUB TOTAL: SYSTEMS A TO L								13,044	\$1,475,201.47
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			24.00	days			\$4,500.00	\$108,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		40.00	days			\$85.00	\$3,400.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		20.00	days			\$73.00	\$1,460.00
	5. Daily Subsistence Allowance (Per Diem)			738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$169,400.15
SUB TOTAL ADDITIONAL ITEMS								0	\$388,200.15
GRAND TOTAL								13,044	\$1,863,401.62

Woodstock, A, 0-5,000 HP
 Transmission

Total Labor MH 11,064
 Average Labor Rate \$116.39
 Total Labor Cost \$1,287,772.06

ANR Pipeline Company
Compressor Station TNS Estimate

Project: 2015 Terminal Negative Salvage - ARO - IFRS
 Location: Woodstock, A, 5,000-10,500 HP
 State: Illinois
 Capacity: 5,000-10,500 HP

Transmission
 # of Compressors 1

ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
1.	Remove Plant Engines and Compressor, Air Intake Systems, Exhaust Systems, Glycol Coolers, all Associated Accessories, including Lights, Piping, Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		1.00	ea	495.00	495.00	\$141.67	\$70,126.81
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(c) Remove exhaust systems	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00	\$141.67	\$35,417.58
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00	\$120.65	\$14,478.38
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00	\$140.97	\$33,832.29
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$163.75	\$7,368.86
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$159.25	\$9,555.27
2.	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$140.97	\$8,458.07
3.	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00	120.00	\$141.67	\$17,000.44
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$140.97	\$4,229.04
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$251,468.05
B	SYSTEM B: REINFORCED CONCRETE								
1.	Compressor Building Basement Walls and Unit Blocks are to be Cut Off 3 feet below grade and backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	cy	2.45	128.00	\$150.08	\$19,209.88
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$150.08	\$45,623.46
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$150.08	\$9,604.94
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$150.08	\$4,802.47
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$150.08	\$14,407.41
2.	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	cy	0.10	7.80	\$178.27	\$1,390.48
	(b) Backfill with excavated native material	2C		78.48	cy	0.21	16.80	\$141.58	\$2,378.54
	(c) Backfill with imported gravel	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$107,327.75
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
1.	Remove Compressor Building and all Associated Structural Steel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$119.80	\$10,631.36
	(b) Remove metal roof deck	3B		182.99	sy	0.14	26.01	\$137.78	\$3,583.77
	(c) Remove wall cladding, door windows & louvers	3C		104.05	sy	0.18	19.14	\$125.48	\$2,401.68
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$125.48	\$10,107.39
2.	Remove Air Intake Systems, Exhaust Mufflers, Glycol Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$154.52	\$8,158.58
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$34,882.78
D	SYSTEM D: HIGH PRESSURE GAS								
1.	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$140.97	\$24,077.31
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$140.97	\$4,708.33
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60	\$140.97	\$2,762.97
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$140.97	\$1,353.29
	(b) Flame Cutting								
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$168.01	\$9,677.52
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$168.01	\$1,082.00
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$168.01	\$309.14
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$168.01	\$1,098.80
2.	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes								
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$141.67	\$5,666.81
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$159.25	\$1,586.17
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$159.25	\$662.50
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$159.25	\$324.88
	(e) Remove NPS 8 underground vent piping	6B	8	242.74	ft	0.24	58.46	\$140.97	\$8,240.98

	(f) Excavate by machine	2B		150.41	cy	0.10	14.95	\$178.27	\$2,665.08
	(g) Backfill with native excavated material	2C		150.41	cy	0.21	32.20	\$141.58	\$4,558.87
SUB TOTAL SYSTEM D: HIGH PRESSURE GAS								468	\$68,774.66
E	SYSTEM E: FUEL AND STARTING GAS								
	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		196.19	cy	0.10	19.50	\$178.27	\$3,476.19
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$140.97	\$1,860.78
	(c) Backfill with native excavated material	2C		196.19	cy	0.21	42.00	\$141.58	\$5,946.35
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	cy	0.10	3.90	\$178.27	\$695.24
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(c) Backfill with native excavated material	2C		39.24	cy	0.21	8.40	\$141.58	\$1,189.27
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping and Valves								
	(a) Excavate underground piping by machine	2B		71.94	cy	0.10	7.15	\$178.27	\$1,274.60
	(b) Remove NPS 2 underground starting gas piping	6B	6	59.05	ft	0.19	11.16	\$140.97	\$1,573.20
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$140.97	\$1,922.80
	(d) Backfill with native excavated material	2C		71.94	cy	0.21	15.40	\$141.58	\$2,180.33
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		52.32	cy	0.10	5.20	\$178.27	\$926.98
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.09	4.65	\$140.97	\$655.50
	(c) Backfill with native excavated material	2C		52.32	cy	0.21	11.20	\$141.58	\$1,585.69
SUB TOTAL SYSTEM E: FUEL AND STARTING GAS								162	\$24,160.93
F	SYSTEM F: COOLING WATER								
	1. Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$159.25	\$12,740.36
	(b) Remove glycol pumps	6D		2.00	ea	10.00	20.00	\$159.25	\$3,185.09
	(c) Remove NPS 16 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$140.97	\$7,062.49
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.19	111.60	\$140.97	\$15,732.01
	(e) Excavate underground piping by machine	2B		431.62	cy	0.10	42.90	\$178.27	\$7,647.62
	(f) Backfill with native excavated material (75%)	2C		104.64	cy	0.21	22.40	\$141.58	\$3,171.38
	(g) Backfill with imported gravel (25%)	2C		326.99	cy	0.21	70.00	\$141.58	\$9,910.58
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove glycol storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove domestic water tank	6D		1.00	ea	30.00	30.00	\$159.25	\$4,777.63
	(d) Remove service pump	6D		1.00	ea	5.00	5.00	\$159.25	\$796.27
	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM F: COOLING WATER								572	\$85,856.14
G	SYSTEM G: COMPRESSED AIR								
	1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks and Piping, Including the Shop Air System Piping, Crane Supply and Engine Starting Air System Piping								
	(a) Remove air compressors	6D		1.00	ea	20.00	20.00	\$159.25	\$3,185.09
	(b) Remove air receiver tanks	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove instrument air storage tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$140.97	\$11,277.43
SUB TOTAL SYSTEM G: COMPRESSED AIR								160	\$24,017.79
H	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement								
	(a) Remove lub oil storage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$159.25	\$6,370.18
	(c) Remove lube oil drain pumps	6D		1.00	ea	10.00	10.00	\$159.25	\$1,592.54
	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM H: LUBE OIL								130	\$19,971.62
I	SYSTEM I: HEATING, VENTILATION & A/C								
	1. Remove Heating Systems associates with the Compressor Building, Auxiliary Wing, etc. (to be removed with buildings)								
	(a) Remove unit steam / electrical heaters	6D		13.00	ea	10.00	130.00	\$159.25	\$20,703.08
	(b) Remove associated piping / cabling	6B		1.00	Lot	40.00	40.00	\$140.97	\$5,638.71
SUB TOTAL SYSTEM I: HEATING, VENTILATION & A/C								170	\$26,341.80
J	SYSTEM J: SANITARY & STORM SEWERS								
	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeping tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$140.97	\$7,429.01
	(b) Remove manholes	2B		1.00	ea	20.00	20.00	\$178.27	\$3,565.32
	2. Excavate and carefully Remove Drain Piping Under Compr. Bldg. Floor for Environmental Assessment								
	(a) Sawcuts to basement slab	2E		65.61	ft	0.12	8.00	\$139.34	\$1,114.69

	(b) Breakup and remove concrete	2A		18.31	cy	2.45	44.80	\$150.08	\$6,723.46
	(c) Hand Excavate to expose drain pipes	2D		13.08	cy	1.00	13.10	\$124.55	\$1,631.61
	(d) Carefully remove drain piping	6B	6	32.80	ft	0.19	6.20	\$140.97	\$874.00
	(e) Backfill with imported gravel	2C		13.08	cy	0.21	2.80	\$141.58	\$396.42
SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS								148	\$21,734.52
K	SYSTEM K: ELECTRICAL								
	1. Remove and Dispose of Unit Control Panels and MCC's for Compressor Units								
	(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	(b) Remove motor control centers (MCC)	3E		1.00	ea	40.00	40.00	\$120.65	\$4,826.13
	2. Remove all Cables in trenwa trench								
	(a) 1:2-SC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(b) 1:2-DC	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(c) L1-SB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
	(d) L1-DB	3E		114.81	ft	0.03	3.50	\$120.65	\$422.29
SUB TOTAL SYSTEM K: ELECTRICAL								94	\$11,341.40
L	SYSTEM L: SITE OVERHEAD & SUPERVISION								
	1. Supervisory Personnel			2.00	Mo				
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$192.61	\$84,748.40
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$123.50	\$54,338.68
	(c) Mechanic			1.00	ea	44.00	440.00	\$79.31	\$34,896.40
	(d) Truck Driver			1.00	ea	44.00	440.00	\$67.98	\$29,911.20
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$28.33	\$12,463.00
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$39.66	\$17,448.20
	3. Miscellaneous Expenses								
	(a) Trailer Office			2.00	mo			\$230.00	\$460.00
	(b) Telephone			2.00	mo			\$1,150.00	\$2,300.00
	(c) Cellular Phones			2.00	mo			\$1,150.00	\$2,300.00
	(d) Office Equipment: Fax, Copier, Computers, etc.			2.00	mo			\$1,150.00	\$2,300.00
	(e) Utility Bills: Electric, Water, etc.			2.00	mo			\$575.00	\$1,150.00
	(f) Daily Consumables			44.00	day			\$172.50	\$7,590.00
SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION								2,640	\$249,905.88
SUB TOTAL: SYSTEMS A TO L								7,309	\$925,783.30
ADDITIONAL ITEMS									
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00	days			\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00	days			\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00	days			\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00	Mdays			\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%				\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$110,425.83
SUB TOTAL ADDITIONAL ITEMS								0	\$288,900.83
GRAND TOTAL								7,309	\$1,214,684.14

Woodstock, A, 5,000-10,500 HP
 Transmission

Total Labor MH	Average Labor Rate	Total Labor Cost
4,669	\$144.77	\$675,877.42