Storage TNS Estimate Summary

All Storage Fields

	Estimated
Component	Cost (\$2015)
Storage well plug and abandonment estimate	\$13,683,421
Storage pipeline TNS estimate	\$35,867,367
Storage compressor station TNS estimate	\$28,490,952
Storage meter station estimate	\$3,037,268
Total	\$81,079,008

Well Plug and Abandonment Estimate Summary

All Storage Fields

Wholly-Owned		Cost to
Storage	No. of	P&A all
Fields	Wells	Wells
Charlton	10	\$816,871
Chester	9	\$649,009
Cold Springs 1	7	\$507,140
Muttonville	17	\$738,466
Winfield	96	\$8,713,635
Subtotal:	139	\$11,425,121
Leased		Cost to
Storage	No. of	P&A all
Fields	Wells	Wells
Austin	11	\$989,700
Goodwell	19	\$178,000
Goodwell Loreed	19 9	
		\$178,000
Loreed		\$178,000 \$1,020,700
Loreed Reed City	9 1	\$178,000 \$1,020,700 \$69,900

Well Plug and Abandonment Estimate

Description of Work

Estimates below reflect work required to P&A injection/withdrawal, observation, and disposal wells and remove well head equipment. Estimates also include environmental inspection, pipeline company inspection, and pipeline company management and overhead costs. Environmental contractor monitors work and checks for presence of hazardous materials. Work involves inspection, sampling, evaluation, and report writing.

I. Charlton storage field

A. Welll contractor cost

				2014 Estimated	Escalation	2015 Estimated
	Field	Well No.	Type of Well	P&A Cost	Factor	P&A Cost
1	Charlton	Brown 4-1	Category 1	\$45,700	1.03	\$47,071
2	Charlton	CHA 6-1	Category 1	\$45,700	1.03	\$47,071
3	Charlton	CHA 7-1	Category 1	\$45,700	1.03	\$47,071
4	Charlton	CHA 8-1	Category 1	\$45,700	1.03	\$47,071
5	Charlton	CHA 9-1	Category 1	\$45,700	1.03	\$47,071
6	Charlton	CHA 11-1 "Skid Hole"	Category 2	\$35,700	1.03	\$36,771
7	Charlton	CHA 10-1	Category 2	\$35,700	1.03	\$36,771
8	Charlton	CHA 13-1	Category 3	\$94,800	1.03	\$97,644
9	Charlton	Rosen-Simpson 1-7	Category 3	\$94,800	1.03	\$97,644
10	Charlton	Campbell 1-1	Category 4	\$70,600	1.03	\$72,718
			Subtotal:	\$560,100		\$576,903
			Total well contra	ctor cost:		\$576,903

B. Environmental contractor costs (5% of well contractor cost)

				\$28,845
	Total environmer	ntal contractor co	ost:	\$28,845
C. Pipeline company inspection costs		No. of	Days Per	Total No.
		Wells	Well	of Days
1. Number of inspector days		10	4	40
2. Company cost per day				1,000
	Total company in	spection cost:		\$40,000
D. Pipeline company management and overhea	ad costs (15% of A	+ B + C)		\$96,862
	Total manageme	nt and overhead	cost:	\$96,862
E. Contingency (10% of A + B + C + D)				\$74,261
F. Total estimated cost to P&A Charlton storage	ge wells (A + B + C	+ D + E):		\$816,871

Well Plug and Abandonment Estimate

II. Chester storage field

				2014 Estimated	Escalation	2015 Estimated
	Field	Well No.	Type of Well	P&A Cost	Factor	P&A Cost
1	Chester	M.W.P.L. Co. CH-2	Category 1	\$45,700	1.03	\$47,071
2	Chester	M.W.P.L. Co. CH-3	Category 1	\$45,700	1.03	\$47,071
3	Chester	M.W.P.L. Co. CH-4	Category 1	\$45,700	1.03	\$47,071
4	Chester	M.W.P.L. Co. CH-5	Category 1	\$45,700	1.03	\$47,071
5	Chester	M.W.P.L. Co. CH-6	Category 1	\$45,700	1.03	\$47,071
6	Chester	M.W.P.L. Co. CH-7	Category 2	\$35,700	1.03	\$36,771
7	Chester	M.W.P.L. Co. CH-8A	Category 2	\$35,700	1.03	\$36,771
8	Chester	State Chester N-1	Category 4	\$70,600	1.03	\$72,718
9	Chester	St.Chest. HE-1(Antrim)	Category 4	\$70,600	1.03	\$72,718
				\$441,100		\$454,333

Total well contractor cost:

\$454,333

B. Environmental contractor costs (5% of well contractor cost)

	\$22,717
Total environmental contractor cost:	\$22,717

C. Pipeline company inspection costs	No. of	Days Per	Total No.
	Wells	Well	of Days
1. Number of inspector days	9	4	36
2. Company cost per day			\$1,000
Total company ir	nspection cost:		\$36,000

D. Pipeline company management and overhead costs (15% of A + B + C)

		\$76,958
	Total management and overhead cost:	\$76,958
E.	Contingency (10% of A + B + C + D)	\$59,001
F.	Total estimated cost to P&A Charlton storage wells (A + B + C + D + E):	\$649,009

III. Cold Springs 1

A. Well contractor cost

				2014 Estimated	Escalation	2015 Estimated
	Field	Well No.	Type of Well	P&A Cost	Factor	P&A Cost
1	Cold Springs 1	CS1-1HD1	Category 1	\$45,700	1.03	\$47,071
2	Cold Springs 1	CS1-2HD1	Category 1	\$45,700	1.03	\$47,071
3	Cold Springs 1	CS1-3HD1	Category 1	\$45,700	1.03	\$47,071
4	Cold Springs 1	CS1-4HD1	Category 1	\$45,700	1.03	\$47,071
5	Cold Springs 1	CS1-5HD1	Category 1	\$45,700	1.03	\$47,071
6	Cold Springs 1	CS1-6HD1	Category 1	\$45,700	1.03	\$47,071
7	Cold Springs 1	State Blue Lake 1-6	Category 4	\$70,600	1.03	\$72,718
			Subtotal:	\$344,800		\$355,144

Well Plug and Abandonment Estimate

III. Cold Springs 1 (continued)

A. Well contractor cost	Total well contractor cost:			\$355,144
B. Environmental contractor costs (5% of well c	ontractor cost)			
				\$17,757
	Total environmer	tal contractor co	ost:	\$17,757
C. Pipeline company inspection costs		No. of	Days Per	Total No.
		Wells	Well	of Days
1. Number of inspector days		7	4	28
2. Company cost per day				\$1,000
	Total company in	spection cost:		\$28,000
D. Pipeline company management and overhea	ad costs (15% of A	+ B + C)		
				\$60,135
	Total manageme	nt and overhead	cost:	\$60,135
E. Contingency (10% of A + B + C + D)				\$46,104
F. Total estimated cost to P&A Cold Springs st	torage wells (A + B	+ C + D + E):		\$507,140

IV. Muttonville

A. Well contractor cost

				2014 Estimated	Escalation	2015 Estimated
	Field	Well No.	Type of Well	P&A Cost	Factor	P&A Cost
1	Muttonville	C.W. Faw. et al 1	Category 1	\$27,300	1.03	\$28,119
2	Muttonville	C.W. Faw. et al 2	Category 1	\$27,300	1.03	\$28,119
3	Muttonville	G. Kethe 1	Category 1	\$27,300	1.03	\$28,119
4	Muttonville	D. Paonessa 1	Category 1	\$27,300	1.03	\$28,119
5	Muttonville	G.K. Claggett et al 1	Category 1	\$27,300	1.03	\$28,119
6	Muttonville	G. Kethe 3	Category 1	\$27,300	1.03	\$28,119
7	Muttonville	W.B.D. Paonessa 2	Category 1	\$27,300	1.03	\$28,119
8	Muttonville	M.W.P.L. Co. M-4	Category 1	\$27,300	1.03	\$28,119
9	Muttonville	M.W.P.L. Co. M-5	Category 1	\$27,300	1.03	\$28,119
10	Muttonville	M.W.P.L. Co. M-6	Category 1	\$27,300	1.03	\$28,119
11	Muttonville	Mi.W.P.L. Co. M-7	Category 1	\$27,300	1.03	\$28,119
12	Muttonville	M.W.P.L. Co. M-8	Category 1	\$27,300	1.03	\$28,119
13	Muttonville	M.W.P.L. Co. M-9	Category 1	\$27,300	1.03	\$28,119
14	Muttonville	M.W.P.L. Co. M-10	Category 2	\$30,500	1.03	\$31,415
15	Muttonville	M.W.P.L. Co. M-11	Category 2	\$30,500	1.03	\$31,415
16	Muttonville	M.W.P.L. Co. M-12	Category 2	\$30,500	1.03	\$31,415
17	Muttonville	M.W.P.L. Co. M-13	Category 2	\$30,500	1.03	\$31,415
			Subtotal:	\$476,900		\$491,207

Total well contractor cost:

\$491,207

Well Plug and Abandonment Estimate

IV. Muttonville (continued)

B. Environmental contractor costs (5% of well contractor cost)

			_	\$24,560
	Total environmen	tal contractor co	ost:	\$24,560
C. Pipeline company inspection costs		No. of	Days Per	Total No.
		Wells	Well	of Days
1. Number of inspector days		17	4	68
2. Company cost per day				\$1,000
	Total company in	spection cost:		\$68,000
D. Pipeline company management and overhead	d costs (15% of A	+ B + C)		
				\$87,565
	Total manageme	nt and overhead	cost:	\$87,565
E. Contingency (10% of A + B + C + D)				\$67,133
F. Total estimated cost to P&A Muttonville stora	age wells (A + B +	C + D + E):		\$738,466

V. Winfield

A. Well contractor cost

				2014 Estimated	Escalation	2015 Estimated
	Field	Well No.	Type of Well	P&A Cost	Factor	P&A Cost
1	Winfield	J. Baxter 1	Category 1	\$30,800	1.03	\$31,724
2	Winfield	Briggs 1	Category 1	\$30,800	1.03	\$31,724
3	Winfield	C.L. Crimmins 1	Category 1	\$30,800	1.03	\$31,724
4	Winfield	C.L. Crimmins 3	Category 1	\$30,800	1.03	\$31,724
5	Winfield	Croff 1	Category 1	\$30,800	1.03	\$31,724
6	Winfield	W. Jack 1	Category 1	\$30,800	1.03	\$31,724
7	Winfield	W. Jack 2	Category 1	\$30,800	1.03	\$31,724
8	Winfield	Jack-Schnick 4	Category 1	\$30,800	1.03	\$31,724
9	Winfield	H. Knapp 1	Category 1	\$30,800	1.03	\$31,724
10	Winfield	Hansen 14	Category 1	\$30,800	1.03	\$31,724
11	Winfield	M, S, M Lovegran 1	Category 1	\$30,800	1.03	\$31,724
12	Winfield	M, S, M Lovegran 2	Category 1	\$30,800	1.03	\$31,724
13	Winfield	Lovegran-Crimmins 20	Category 1	\$30,800	1.03	\$31,724
14	Winfield	Frank Schnick 1	Category 4	\$94,800	1.03	\$97,644
15	Winfield	Schnick A-1	Category 4	\$94,800	1.03	\$97,644
16	Winfield	Schnick A-2	Category 4	\$94,800	1.03	\$97,644
17	Winfield	Schnick A-3	Category 4	\$94,800	1.03	\$97,644
18	Winfield	Schnick 2	Category 4	\$94,800	1.03	\$97,644
19	Winfield	Schnick 3	Category 4	\$94,800	1.03	\$97,644
20	Winfield	Frank Schnick 4	Category 4	\$94,800	1.03	\$97,644
21	Winfield	Schnick 5	Category 4	\$94,800	1.03	\$97,644
22	Winfield	S-B-O 11	Category 4	\$94,800	1.03	\$97,644
23	Winfield	Frank Schnick T-1	Category 4	\$94,800	1.03	\$97,644
24	Winfield	Schnick T-2	Category 4	\$94,800	1.03	\$97,644

Well Plug and Abandonment Estimate

V. Winfield (continued)

25	Winfield	Schnick-Hayes 21	Category 4	\$94,800	1.03	\$97,644
26	Winfield	J. Staffen 1	Category 4	\$94,800	1.03	\$97,644
27	Winfield	J. Staffen 2	Category 4	\$94,800	1.03	\$97,644
28	Winfield	J. Staffen 3	Category 4	\$94,800	1.03	\$97,644
29	Winfield	Weatherby 1	Category 4	\$94,800	1.03	\$97,644
30	Winfield	Weatherby 2	Category 4	\$94,800	1.03	\$97,644
31	Winfield	A. Weikert 1	Category 4	\$94,800	1.03	\$97,644
32	Winfield	R. Weikert 2	Category 4	\$94,800	1.03	\$97,644
33	Winfield	Weikert-Schnick 13	Category 4	\$94,800	1.03	\$97,644
34	Winfield	Workings-Jack 19	Category 4	\$94,800	1.03	\$97,644
35	Winfield	Winfield 22	Category 4	\$94,800	1.03	\$97,644
36	Winfield	Winfield 23	Category 4	\$94,800	1.03	\$97,644
37	Winfield	Winfield 24	Category 4	\$94,800	1.03	\$97,644
38	Winfield	Winfield 25	Category 4	\$94,800	1.03	\$97,644
39	Winfield	Winfield 26	Category 2	\$53,000	1.03	\$54,590
40	Winfield	Winfield 27	Category 2	\$53,000	1.03	\$54,590
41	Winfield	Winfield 28	Category 2	\$53,000	1.03	\$54,590
42	Winfield	Winfield 29	Category 2	\$53,000 \$53,000	1.03	\$54,590
43	Winfield	Winfield 30	Category 1	\$30,800 \$30,800	1.03	\$31,724
43 44	Winfield	Winfield 31	Category 1	\$30,800 \$30,800	1.03	\$31,724
44 45	Winfield	Winfield 32	Category 1	\$30,800 \$30,800	1.03	\$31,724
45 46	Winfield	Winfield 33	Category 1	\$30,800 \$30,800	1.03	\$31,724 \$31,724
40 47	Winfield	Winfield 34			1.03	
47 48			Category 1	\$30,800 \$30,800	1.03	\$31,724
	Winfield	Winfield 35	Category 1	\$30,800 \$30,800		\$31,724
49 50	Winfield	Winfield 36	Category 1	\$30,800 \$30,800	1.03	\$31,724
50	Winfield Winfield	Winfield 37 Winfield 38	Category 1	\$30,800 \$30,800	1.03	\$31,724
51 52			Category 1	\$30,800 \$30,800	1.03	\$31,724
52	Winfield	Winfield 39	Category 1	\$30,800	1.03	\$31,724
53	Winfield	Winfield 40	Category 1	\$30,800	1.03	\$31,724
54	Winfield	Winfield 41	Category 1	\$30,800	1.03	\$31,724
55	Winfield	Winfield 42	Category 1	\$30,800	1.03	\$31,724
56	Winfield	Winfield 43	Category 1	\$30,800	1.03	\$31,724
57	Winfield	Winfield 44	Category 1	\$30,800	1.03	\$31,724
58	Winfield	Winfield 45	Category 1	\$30,800	1.03	\$31,724
59	Winfield	Winfield 46	Category 1	\$30,800	1.03	\$31,724
60	Winfield	Winfield 47	Category 1	\$30,800	1.03	\$31,724
61	Winfield	Winfield 48	Category 1	\$30,800	1.03	\$31,724
62	Winfield	Winfield 49	Category 1	\$30,800	1.03	\$31,724
63	Winfield	Winfield 50	Category 1	\$30,800	1.03	\$31,724
64	Winfield	Winfield 51	Category 1	\$30,800	1.03	\$31,724
65	Winfield	Winfield 52	Category 1	\$30,800	1.03	\$31,724
66	Winfield	Winfield 53	Category 1	\$30,800	1.03	\$31,724
67	Winfield	Winfield 54	Category 1	\$30,800	1.03	\$31,724
68	Winfield	Winfield 55	Category 1	\$30,800	1.03	\$31,724
69	Winfield	Winfield 56	Category 1	\$30,800	1.03	\$31,724
70	Winfield	Winfield 57	Category 1	\$30,800	1.03	\$31,724
71	Winfield	Winfield 58	Category 1	\$30,800	1.03	\$31,724

\$792,149

ANR Pipeline Company Storage TNS Estimate

Well Plug and Abandonment Estimate

V. Winfield (continued)

72	Winfield	Winfield 59	Category 1	\$30,800	1.03	\$31,724
73	Winfield	Winfield 60	Category 4	\$94,800	1.03	\$97,644
74	Winfield	Winfield 61	Category 4	\$94,800	1.03	\$97,644
75	Winfield	Winfield 62	Category 4	\$94,800	1.03	\$97,644
76	Winfield	Winfield 63	Category 4	\$94,800	1.03	\$97,644
77	Winfield	Winfield 64	Category 4	\$94,800	1.03	\$97,644
78	Winfield	Winfield 65	Category 4	\$94,800	1.03	\$97,644
79	Winfield	Underwood 2	Category 4	\$94,800	1.03	\$97,644
80	Winfield	Underwood 1	Category 4	\$94,800	1.03	\$97,644
81	Winfield	D. C. Blair 1	Category 4	\$94,800	1.03	\$97,644
82	Winfield	J. & F. Nicholson 1	Category 4	\$94,800	1.03	\$97,644
83	Winfield	M.C.G.C. 1	Category 4	\$94,800	1.03	\$97,644
84	Winfield	Heminger 1	Category 4	\$94,800	1.03	\$97,644
85	Winfield	Williams 2	Category 4	\$94,800	1.03	\$97,644
86	Winfield	A. Olsen 1	Category 4	\$94,800	1.03	\$97,644
87	Winfield	Leo Olsen 1	Category 4	\$64,100	1.03	\$66,023
88	Winfield	Underwood A-1	Category 5	\$94,800	1.03	\$97,644
89	Winfield	Winfield 67	Category 3	\$72,000	1.03	\$74,160
90	Winfield	Winfield 68HD	Category 4	\$94,800	1.03	\$97,644
91	Winfield	Winfield 69HD	Category 4	\$94,800	1.03	\$97,644
92	Winfield	Charles Buck 1	Category 3	\$72,000	1.03	\$74,160
93	Winfield	K-Anderson 2 (Stray)	Category 3	\$72,000	1.03	\$74,160
94	Winfield	Lint-Heirs 1 (Stray)	Category 3	\$72,000	1.03	\$74,160
95	Winfield	M.C.G.C. 2 (Stray)	Category 3	\$72,000	1.03	\$74,160
96	Winfield	Nicholson A-1 (Stray)	Category 3	\$72,000	1.03	\$74,160
			Subtotal:	\$6,014,100		\$6,194,523
			Total well contract	or cost:		\$6,194,523
B. En	vironmental cor	ntractor costs (5% of stora	ge contractor costs)			
		,	,			\$309,726
			Total environment	al contractor co	st:	\$309,726
C. Pir	peline company	inspection costs		No. of	Days Per	Total No.
-· · ·r				Wells	Well	of Days
1.	Number of insp	ector davs	-	96	4	384
	Company cost					\$1,000
			Total company ins	pection cost:		\$384,000
D. Pir	peline company	management and overhea	ad costs (15% of A +	B + C)		
Б. ГЦ		management and overhe		2.0,		\$1,033,237
			Total managemen	t and overhead	cost:	\$1,033,237

F. Total estimated cost to P&A Winfield storage wells (A + B + C + D + E): \$8,713,635

E. Contingency (10% of A + B + C + D)

Well Plug and Abandonment Estimate

VI. Miscellaneous Wells in Leased Storage Fields 1/

A. Well plug and abandonment costs.

				Estimated	2015 Estimated
	Field	Type of Well	No. of Wells	Ret. Year	P&A Cost
1	Goodwell	Warer well	18	2016	\$68,900
2	Loreed	Monitoring well	4	2016	\$471,400
3	Austin	Monitoring well	7	2016	\$529,800
4	Goodwell	Monitoring well	1	2017	\$109,100
5	Austin	Monitoring well	4	2017	\$459,900
6	Loreed	Monitoring well	5	2017	\$549,300
7	Reed City	Monitoring well	1	2017	\$69,900
			40		\$2,258,300

<u>1</u>/ Producing fields converted to storage fields. ANR responsible for plug and abandonment of monitoring wells and water wells based on agreement with Michigan DEQ. Plug and abandonment cost estimate provided by ANR. Refer to storage TNS estimate supporting documents.

Well Plug and Abandonment Summary

Wholly-Owned		Est. Cost to
Storage	No. of	P&A all
Fields	Wells	Wells
I. Charlton	10	\$816,871
II. Chester	9	\$649,009
III. Cold Springs 1	7	\$507,140
IV. Muttonville	17	\$738,466
V. Winfield	96	\$8,713,635
Subtotal:	139	\$11,425,121
Leased		Est. Cost to
Storage	No. of	P&A all
Fields	Wells	Wells
VI. Miscellaneous wells		
A. Austin	11	\$989,700
B. Goodwell	19	\$178,000
C. Loreed	9	\$1,020,700
D. Reed City	1	\$69,900
	40	\$2,258,300
Total All Fields:	179	\$13,683,421

Storage Pipeline TNS Estimate Summary

All Storage Fields

	Pipeline	Pipeline	Estimated
	Diameter (in)	Length (miles)	Cost (2015\$)
3.5		0.381	\$287,758
4.5		101.763	\$15,840,599
6.625		56.015	\$8,041,344
8.625		30.858	\$4,171,915
10.75		9.729	\$1,280,346
12.75		18.897	\$2,739,498
14		0.002	\$126,648
16		17.810	\$2,514,594
18		0.002	\$131,333
20		6.662	\$281,497
22		2.445	\$141,993
24		1.439	\$150,634
26		0.001	\$159,208
	Grand Total:	246.004	\$35,867,367

Project	:	ANR TNS Estimate - Storage	Date	:	23-Nov-2015
Line Segment	:	All 3.5" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	3.500			
Pipe Length (mi)	:	0.38	PL Crossings	:	0
Roads	:	0	Water Crossings	:	0
Valves	:	86	Above Ground Facilities	:	0
Pipe Removal	:	0.01	# of Line Segments	:	1

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	3,931
2.	PIPELINE MATERIALS:		TB000	376
3.	CONSTRUCTION:		TC000	94,798
	a. Prime contract		TC100	94,636
	 i) Pipeline Abandon in Place ii) Road Crossing 			(762,131)
	iii) Valve Removals			840,298
	iv) Pipeline Removal			7,519
	 v) Launchers or Receivers vi) Pipeline Cleaning 			- 8,950
	vii) Pipeline Crossing			-
	viii) Water Crossing			-
	b. Pipeline Pump Down Contract		TC600	162
4.	PIPE SALVAGE COST:			(63)
5.	ENGINEERING:	2.25 %	TD000	5,055
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	6,740
7.	LAND - DAMAGES:		TF000	129,483
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	11,233
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	8
10.	RECOVERABLE LINE PACK @ 850 PSI	G:		(25)
11.	Sub Total Direct Cost			\$ 251,536
11.	Sub-Total - Direct Cost			\$ 251,536
12.	Contingency:	10.00 %	TY000	25,154
13.	Sub-Total:			276,690
15.				210,090
14.	Overhead:	4.00 %	TZ000	11,068
15.	Sub-Total:			287,758
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 287,758
			1	

Cost / Mile	\$	755,132
Cost / Foot	\$	143.02
Cost / Meter	0	469.22

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 3.5" Storage

0.01 # of Miles to Remove

2% Percent of total mileage Removed

Contract								0.01 #	of Miles to Ref	nove	
Contract	Unit Cost			# of Units			-	2 D	ay M&D		
Segment Miles		miles/day		0.38		3	3 5		ile/Day		
Abandonment Crew	19,541.83	,	х	(39)	=	(762,131)			ays/Road or Pi	peline	
Roads Crossing Crew	18,486.13		х	0	=	-	,		avs/L&R		
Valve Crew	19,541.83	5	х	43	=	840,298			ays/Valve		
Pipeline Removal	7,518.67		х	1	=	7,519			ays/ Mile of Pip	eline Remov	al
Launcher/Receiver Crew	19,541.83	,	х	0	=	-			inimum Days /		
Pipeline Cleaning Crew	8,949.82	,	х	1	=	8,950			ays/Water		
Pipeline Crossing Crew	18,486.13	/ day	х	0	=	-			,		
Water Crossing Crew	18,486.13		х	0	=	-		3.5" line equa	ls 6 miles/day		
0		,							nber of Days / S	Segment is 3	Days
Gas Pump Down	0.38	miles	х	425.41	=	162			2 days/segment	-	,
Materials											
								Unit Cost			
Road Fill Concrete	0.152	cy/road	Х	0	=	-	total/cy	100.00	=	-	
Steel Plate	0	pieces	х	0.0851	=	-	total/sf	5.30	=	-	
Cleaning Pigs		pig/cleaning	х	1	=	3	3 total pigs	112.18	=	336.54	
Cleaning Compounds	0.086	gal/mile/clean	Х	0.38	=	0.03	total/gal.	30.00	=	0.98	
Pipeline Fill Concrete	0.076	cy/pipeline	Х	0	=	-	total/cy	100.00	=	-	
Water Crossing Concrete	0.152	cy/pipeline	Х	0	=	-	total/cy	100.00	=	-	
Misc. Materials				5.00	%					16.88	
State Taxes				6.00	%					21.26	
										376.00	
Land Damages											
Spot Dig Sites	86	# of digs	х	1,500.00	=	129,000.00		each dig = 50	ft		
Footage of Removed Pipe		# of feet	x	12.00	=	482.89		damages = \$			
rootage of Kentovea ripe	-0.2-		^	12.00		129,482.89		damages – v	12.00710		
						120,402.00					
Contract Labour Rates											
		LA Rate (2015)		State Adjust							LA Rate (2009
	Abandon	16,421.70	х	1.190	=	19,541.83					\$ 14,494.00
	Roads	15,534.56	х	1.190		18,486.13			stment (2015)		\$ 13,711.00
	Valves	16,421.70	х	1.190	=	19,541.83		113.3%			\$ 14,494.00
	Cleaning	7,520.85	х	1.190	=	8,949.82					\$ 6,638.00
•	eline Crossing	15,534.56	х	1.190		18,486.13					\$ 13,711.00
V	Vater Crossing	15,534.56	х	1.190	=	18,486.13					\$ 13,711.00
	Dina Domoval	6 2 1 0 2 1	v	1 100	_	7 5 1 9 6 7					¢ 52 027 20

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 4.5" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	4.500			
Pipe Length (mi)	:	101.76	PL Crossings	:	0
Roads	:	13	Water Crossings	:	7
Valves	:	1284	Above Ground Facilities	:	0
Pipe Removal	:	2.04	# of Line Segments	:	102

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	216,822
2.	PIPELINE MATERIALS:		ТВ000	50,530
3.	CONSTRUCTION:		TC000	10,224,372
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing 		TC100	10,181,081 (3,673,863) 480,639 12,545,852 197,860 - 501,190 -
	viii) Water Crossing			129,403
	b. Pipeline Pump Down Contract		TC600	43,291
4.	PIPE SALVAGE COST:			(22,401)
5.	ENGINEERING:	2.25 %	TD000	278,772
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	371,696
7.	LAND - DAMAGES:		TF000	2,114,954
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	619,493
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	3,360
10.	RECOVERABLE LINE PACK @ 850 PS	IG:		(10,921)
11.	Sub-Total - Direct Cost			\$ 13,846,677
12.	Contingency:	10.00 %	TY000	1,384,668
13.	Sub-Total:			15,231,345
14.	Overhead:	4.00 %	TZ000	609,254
15.	Sub-Total:			15,840,599
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 15,840,599

Cost / Mile	\$	155,662
Cost / Foot	\$	29.48
Cost / Meter	0	96.72

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 4.5" Storage

2% Percent of total mileage Removed2.04 # of Miles to Remove

Contract								2.04 #	FOI MILES L	o Remove		
	Unit Cost			# of Units			-	204 [Day M&D			
Segment Miles	6 miles/d	av		101.76		221	510		/ile/Day			
Abandonment Crew	19,541.83 / day	- ,	х	(188)	=	(3,673,863)			,	l or Pipeline		
Roads Crossing Crew	18,486.13 / day		х	26	=	480,639			Davs/L&R			
Valve Crew	19,541.83 / day		х	642	=	12,545,852		0.5 [Days/Valve	e		
Pipeline Removal	7,914.39 / day		х	25	=	197,860		12 [Days/ Mile	of Pipeline Remo	oval	
Launcher/Receiver Crew	19,541.83 / day		х	0	=	-		306 N	/inimum E	Days / Segment		
Pipeline Cleaning Crew	8,949.82 / day		х	56	=	501,190			Days/Wate			
Pipeline Crossing Crew	18,486.13 / day		х	0	=	-						
Water Crossing Crew	18,486.13 / day		Х	7	=	129,403		4.5" line equ				
								Minimum Nu	mber of D	ays / Segment is	3 Da	ys
Gas Pump Down	101.76 miles		Х	425.41	=	43,291		M&D equals	2 days/se	gment		
Materials												
	0.005			40		0.74	4-4-1/	Unit Cost		070 50		
Road Fill Concrete	0.285 cy/road		х	13			total/cy	100.00 5.30	=	370.50 59.61		
Steel Plate	80 pieces		х	0.1406	=		total/sf		=			
Cleaning Pigs	3 pig/clea		х	102 101.76	=		total pigs	144.24 30.00	=	44,137.44 633.17		
Cleaning Compounds Pipeline Fill Concrete	0.2074 gal/mile 0.143 cy/pipe		x x	01.76	_	-	total/gal. total/cy	100.00	=	-		
Water Crossing Concrete	0.143 cy/pipe 0.285 cy/pipe		x	-	-		total/cy	100.00	=	- 199.50		
Misc. Materials	0.200 су/ріре		^	5.00		2.00	ioia//cy	100.00	-	2,270.01		
State Taxes				6.00						2,270.01		
State Taxes				0.00	70					50,530.00		
										50,000.00		
Land Damages												
Spot Dig Sites	1324 # of dig	S	х	1,500.00	=	1,986,000.00		each dig = 5	0 ft			
Footage of Removed Pipe	10746.18 # of fee	et	х	12.00	=	128,954.22	_	damages = \$	5 12.00 / ft			
						2,114,954.22						
Contract Labour Rates												
		Rate (2015)		State Adjust		40 544 00						Rate (2009)
	Abandon	16,421.70	х	1.190		19,541.83					\$	14,494.00
	Roads	15,534.56	х	1.190		18,486.13		Inflation Adj	ustment (2	2015)	\$	13,711.00
	Valves	16,421.70	X	1.190		19,541.83		113.3%			\$	14,494.00
Dia	Cleaning	7,520.85	X	1.190 1.190		8,949.82					\$	6,638.00
•	eline Crossing	15,534.56	X			18,486.13					\$ \$	13,711.00
V	Vater Crossing	15,534.56 6,650.74	X X	1.190 1.190		18,486.13 7,914.39					ծ Տ	13,711.00 53,927.30
	Pipe Removal	0,000.74	X	1.190	-	7,914.39					φ	53,927.30

 Valve (t/mi)
 Pipe (t/mi)

 Material Salvage Cost
 114.88
 =
 114.877
 x
 (195.00)
 (22,400.96)
 **Assume 0.500 W.T. & \$195/t salvage cost

Project	:	ANR TNS Estimate	Date	:	24-Nov-2015
Line Segment	:	All 6.625" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	6.625			
Pipe Length (mi)	:	56.01	PL Crossings	:	0
Roads	:	4	Water Crossings	:	4
Valves	:	439	Above Ground Facilities	:	0
Pipe Removal	:	1.12	# of Line Segments	:	56

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	110,266
2.	PIPELINE MATERIALS:		TB000	41,799
3.	CONSTRUCTION:		TC000	5,505,655
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing viii) Water Crossing 		TC100	5,481,826 566,713 147,889 4,299,202 116,633 - 277,444 - 73,945
	b. Pipeline Pump Down Contract		TC600	23,829
4.	PIPE SALVAGE COST:			(18,881)
5.	ENGINEERING:	2.25 %	TD000	141,771
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	189,028
7.	LAND - DAMAGES:		TF000	753,482
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	315,047
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	4,009
10.	RECOVERABLE LINE PACK @ 850 PS	IG:		(13,029)
11.	Sub-Total - Direct Cost			\$ 7,029,147
12.	Contingency:	10.00 %	TY000	702,915
13.	Sub-Total:			7,732,062
14.	Overhead:	4.00 %	TZ000	309,282
15.	Sub-Total:			8,041,344
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 8,041,344

Cost / Mile	\$	143,558
Cost / Foot	\$	27.19
Cost / Meter	0	89.20

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 6.625" Storage

2% Percent of total mileage Removed1.12 # of Miles to Remove

Contract								1.12 #	FOI WINES LO	Remove		
Contract	Unit Cost			# of Units			-	112 [Day M&D			
Segment Miles	6 mile	es/day		56.01		122	280) 61	/lile/Day			
Abandonment Crew	19,541.83 / da	y	х	29	=	566,713		2 [Jays/Road o	or Pipeline		
Roads Crossing Crew	18,486.13 / da		х	8	=	147,889			Days/L&R	•		
Valve Crew	19,541.83 / da	ý	х	220	=	4,299,202		0.5 [Days/Valve			
Pipeline Removal	8,330.93 / da	y	х	14	=	116,633		12 [Days/ Mile o	f Pipeline Remo	val	
Launcher/Receiver Crew	19,541.83 / da	y	х	0	=	-		168 N	Ainimum Da	iys / Segment		
Pipeline Cleaning Crew	8,949.82 / da	y	х	31	=	277,444		1 [Days/Water			
Pipeline Crossing Crew	18,486.13 / da	y	х	0	=	-						
Water Crossing Crew	18,486.13 / day	y	х	4	=	73,945		6.625" line e	quals 6 mile	es/day		
								Minimum Nu	mber of Day	ys / Segment is	3 Da	ys
Gas Pump Down	56.01 mile	es	х	425.41	=	23,829		M&D equals	2 days/segr	ment		
Materials												
								Unit Cost				
Road Fill Concrete	0.704 cy/r	oad	х	-	=	2.82	total/cy	100.00	=	281.60		
Steel Plate	32 piec		х	0.3048	=	9.75	total/sf	5.30	=	51.69		
Cleaning Pigs		cleaning	Х	56	=		total pigs	212.35	=	35,674.80		
Cleaning Compounds	0.7531 gal/		х	56.01	=	42.18	total/gal.	30.00	=	1,265.54		
Pipeline Fill Concrete	0.352 cy/p		Х	0	=	-	total/cy	100.00	=	-		
Water Crossing Concrete	0.704 cy/p	pipeline	Х		=	2.82	total/cy	100.00	=	281.60		
Misc. Materials				5.00						1,877.76		
State Taxes				6.00	%				_	2,365.98 41,799.00	•	
										41,799.00		
Land Damages												
Spot Dig Sites	455 # of	digs	х	1,500.00	=	682,500.00		each dig = 5	0 ft			
Footage of Removed Pipe	5915.15 # of	feet	х	12.00	=	70,981.79	_	damages = \$	\$ 12.00 / ft			
						753,481.79						
Contract Labour Rates				Otata Adiuat							1.4	Dete (0000)
		LA Rate (2015)		State Adjust	-	10 544 00						Rate (2009)
	Abandon	16,421.70	х	1.190		19,541.83			unter a - 1 /00		\$	14,494.00
	Roads	15,534.56	х	1.190		18,486.13		Inflation Adj	ustment (20	115)	\$	13,711.00
	Valves	16,421.70	х	1.190		19,541.83		113.3%			\$	14,494.00
	Cleaning	7,520.85	х	1.190		8,949.82					\$	6,638.00
	eline Crossing	15,534.56	х		=	18,486.13					\$	13,711.00
V	Vater Crossing	15,534.56	х	1.190		18,486.13					\$	13,711.00
	Pipe Removal	7,000.78	х	1.190	=	8,330.93					\$	53,927.30

 Valve (t/mi)
 Pipe (t/mi)

 Material Salvage Cost
 96.83 =
 96.825 x
 (195.00)
 (18,880.96)
 **Assume 0.500 W.T. & \$195/t salvage cost

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 8.625" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	8.625			
Pipe Length (mi)	:	30.86	PL Crossings	:	0
Roads	:	2	Water Crossings	:	3
Valves	:	86	Above Ground Facilities	:	0
Pipe Removal	:	0.62	# of Line Segments	:	31

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	57,328
2.	PIPELINE MATERIALS:		ТВ000	31,185
3.	CONSTRUCTION:		TC000	3,061,603
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing viii) Water Crossing 		TC100	3,048,476 1,856,473 73,945 840,298 70,155 - 152,147 - 55,458
	b. Pipeline Pump Down Contract		TC600	13,127
4.	PIPE SALVAGE COST:			(13,798)
5.	ENGINEERING:	2.25 %	TD000	73,708
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	98,277
7.	LAND - DAMAGES:		TF000	183,103
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	163,795
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	3,743
10.	RECOVERABLE LINE PACK @ 850 PS	IG:		(12,166)
11.	Sub-Total - Direct Cost			\$ 3,646,779
12.	Contingency:	10.00 %	TY000	364,678
13.	Sub-Total:			4,011,457
14.	Overhead:	4.00 %	TZ000	160,458
15.	Sub-Total:			4,171,915
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 4,171,915

Cost / Mile	\$	135,197
Cost / Foot	\$	25.61
Cost / Meter	0	84.01

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 8.625" Storage

2% Percent of total mileage Removed0.62 # of Miles to Remove

Contract								0.02 -	# OF IVILLES LO	o Remove		
Contract	Unit Cost			# of Units			-	62	Day M&D			
Segment Miles		es/dav		30.86		68	155		Mile/Day			
Abandonment Crew	19,541.83 / da	,	х	95	=	1,856,473			,	or Pipeline		
Roads Crossing Crew	18,486.13 / da	,	x	4	=	73,945			Days/L&R			
Valve Crew	19,541.83 / da	,	x	43	=	840,298			Days/Valve			
Pipeline Removal	8,769.40 / da	•	х	8	=	70,155				of Pipeline Remo	oval	
Launcher/Receiver Crew	,	,	x	0	=	-				ays / Segment	, and	
Pipeline Cleaning Crew	8,949.82 / da	,	x	17		152,147			Days/Wate			
Pipeline Crossing Crew	18,486.13 / da		x	0		102,147			Days, Water	1		
Water Crossing Crew	18,486.13 / da	•	x	3		55,458		8.625" line e	auale 6 mil	lee/day		
Water Crossing Crew	10,400.15 / ua	у	^	5	-	55,450				ays / Segment is	2 0 0	1 0
	20.96 mile			105 11	_	10 107					5 Da	y5
Gas Pump Down	30.86 mile	25	х	425.41	=	13,127		M&D equals	s z days/seę	gment		
Materials												
								Unit Cost				
Road Fill Concrete	1.259 cy/r	road	х	2	=	2.52	total/cy	100.00	=	251.80		
Steel Plate	20 piec	ces	х	0.5166	=	10.33	total/sf	5.30	=	54.76		
Cleaning Pigs	3 pig/	cleaning	х	31	=	93	total pigs	276.45	=	25,709.85		
Cleaning Compounds	1.7547 gal/	mile/clean	х	30.86	=	54.15	total/gal.	30.00	=	1,624.40		
Pipeline Fill Concrete	0.63 cy/p		х	0	=	-	total/cy	100.00	=	-		
Water Crossing Concrete			х	3	=	3.78	total/cy	100.00	=	377.70		
Misc. Materials	, ,	•		5.00	%		,			1,400.93		
State Taxes				6.00						1,765.17		
										31,185.00		
Land Damages												
Spot Dig Sites	96 # of	f diac	v	1,500.00	=	144,000.00		each dig = 5	:0 ft			
Footage of Removed Pipe			x x	12.00	-	39,103.40		damages =				
roolage of Removed Pip	e 3230.02 # 01	leel	x	12.00	-	183,103.40		uamages -	φ 12.00 / IL			
						105,105.40						
Contract Labour Rates												
		LA Rate (2015)		State Adjust								Rate (2009)
	Abandon	16,421.70		1.190		19,541.83					\$	14,494.00
	Roads	15,534.56	х	1.190		18,486.13		Inflation Ad	justment (2	:015)	\$	13,711.00
	Valves	16,421.70	х	1.190		19,541.83		113.3%			\$	14,494.00
	Cleaning	7,520.85	х	1.190		8,949.82					\$	6,638.00
	Pipeline Crossing	15,534.56	х	1.190		18,486.13					\$	13,711.00
	Water Crossing	15,534.56	х	1.190	=	18,486.13					\$	13,711.00
	Pipe Removal	7,369.25	х	1.190	=	8,769.40					\$	53,927.30
	Valve (t/mi)	Pipe (t/mi)										
Material Salvage Cost			=	70.758	х	(195.00)		(13,797.77)		**Assume 0.500 W. ⁻	Г. & \$1	95/t salvage cos

ANR Pipeline Company Transmission TNS Estimate

Project	:	ANR TNS Estimate	Date	:	24-Nov-2015
Line Segment	:	All 10.75" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	10.750			
Pipe Length (mi)	:	9.73	PL Crossings	:	0
Roads	:	0	Water Crossings	:	0
Valves	:	25	Above Ground Facilities	:	0
Pipe Removal	:	0.19	# of Line Segments	:	10

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	17,637
2.	PIPELINE MATERIALS:		TB000	12,654
3.	CONSTRUCTION:		TC000	945,372
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal 		TC100	941,233 605,797 - 254,044 27,693
	v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing viii) Water Crossing			- 53,699 - -
	b. Pipeline Pump Down Contract		TC600	4,139
4.	PIPE SALVAGE COST:			(5,488)
5.	ENGINEERING:	2.25 %	TD000	22,677
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	30,236
7.	LAND - DAMAGES:		TF000	49,828
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	50,393
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	1,833
10.	RECOVERABLE LINE PACK @ 850 PS	IG:		(5,958)
11.	Sub-Total - Direct Cost			\$ 1,119,184
12.	Contingency:	10.00 %	TY000	111,918
13.	Sub-Total:			1,231,102
14.	Overhead:	4.00 %	TZ000	49,244
15.	Sub-Total:			1,280,346
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 1,280,346

Cost / Mile	\$	131,604
Cost / Foot	\$	24.92
Cost / Meter	0	81.77

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 10.75" Storage

2% Percent of total mileage Removed0.19 # of Miles to Remove

Contract								0.19 # 011		move	
Contract	Unit Cost			# of Units			-	20 Day I	M&D		
Segment Miles	5	miles/day		9.73		22	50	5 Mile/	Day		
Abandonment Crew	19,541.83	/ day	х	31	=	605,797		2 Days	/Road or P	ipeline	
Roads Crossing Crew	18,486.13	-	х	0	=	-		3 Days			
Valve Crew	19,541.83	/ day	х	13	=	254,044		0.5 Days			
Pipeline Removal	9,230.95	/ dav	х	3	=	27,693				peline Remova	al
Launcher/Receiver Crew	19,541.83	,	х	0	=	-			num Days /		
Pipeline Cleaning Crew	8,949.82	,	x	6	=	53,699		1 Days		eeginein	
Pipeline Crossing Crew	18,486.13	-	x	0	=	-		. 20,0			
Water Crossing Crew	18,486.13	,	x	0	=	_		10.75" line equal	s 5 miles/d	av	
	10,100.10	, duy	~	Ũ				Minimum Numbe			Davs
Gas Pump Down	9.73	miles	х	425.41	=	4,139		M&D equals 2 da			Duyo
Materials											
								Unit Cost			
Road Fill Concrete	2.037	cy/road	х	0	=	-	total/cy	100.00	=	-	
Steel Plate		pieces	х	0.8025	=	-	total/sf	5.30	=	-	
Cleaning Pigs	3	, pig/cleaning	х	10	=	30	total pigs	344.57	=	10,337.10	
Cleaning Compounds		gal/mile/clean	х	9.73	=		total/gal.	30.00	=	1,032.61	
Pipeline Fill Concrete		cy/pipeline	х	0	=	-	total/cy	100.00	=	-	
Nater Crossing Concrete		cy/pipeline	х	0	=	-	total/cy		=	-	
Visc. Materials		- 7 -		5.00	%		·····			568.49	
State Taxes				6.00						716.29	
										12,654.00	
Land Damages											
Spot Dig Sites	25	# of digs	х	1,500.00	=	37,500.00		each dig = 50 ft			
Footage of Removed Pipe	1027.36	# of feet	х	12.00	=	12,328.34		damages = \$ 12.	.00 / ft		
5						49,828.34		0			
Contract Labour Rates		LA Rate (2015)		State Adjust							LA Rate (2009
	Abandon	16.421.70	х	5.ate Aujust 1.190	_	19,541.83					14,494.00
		-, -		1.190		,		Inflation Adjuster	aant (2015)		. ,
	Roads	15,534.56	X			18,486.13		Inflation Adjustr	ient (2015)		\$ 13,711.00 \$ 14,404.00
	Valves	16,421.70	Х	1.190		19,541.83		113.3%			\$ 14,494.00
~	Cleaning	7,520.85	Х	1.190		8,949.82					\$ 6,638.00
	Pipeline Crossing	15,534.56	Х	1.190		18,486.13					\$ 13,711.00
	Water Crossing	15,534.56	Х	1.190		18,486.13					\$ 13,711.00
	Pipe Removal	7,757.10	Х	1.190	=	9,230.95					\$ 53,927.30
	Valve (t/mi)	Pipe (t/mi)									
Material Salvage Cost		28.14	=	28.143	х	(195.00)		(5,487.81)	**Assi	ume 0.500 W.T. 8	& \$195/t salvage (
		20111				()		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 12.75" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	12.750			
Pipe Length (mi)	:	18.90	PL Crossings	:	0
Roads	:	4	Water Crossings	:	3
Valves	:	18	Above Ground Facilities	:	0
Pipe Removal	:	0.38	# of Line Segments	:	19

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	37,792
2.	PIPELINE MATERIALS:		ТВ000	32,196
3.	CONSTRUCTION:		TC000	2,055,390
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing 		TC100	2,047,351 1,465,637 147,889 175,876 48,584 - 98,448
	viii) Water Crossing			110,917
	b. Pipeline Pump Down Contract		TC600	8,039
4.	PIPE SALVAGE COST:			(12,739)
5.	ENGINEERING:	2.25 %	TD000	48,589
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	64,786
7.	LAND - DAMAGES:		TF000	71,946
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	107,977
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	5,009
10.	RECOVERABLE LINE PACK @ 850 PS	IG:		(16,280)
11.	Sub-Total - Direct Cost			\$ 2,394,666
12.	Contingency:	10.00 %	TY000	239,467
13.	Sub-Total:			2,634,133
14.	Overhead:	4.00 %	TZ000	105,365
15.	Sub-Total:			2,739,498
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 2,739,498

Cost / Mile	\$	144,969
Cost / Foot	\$	27.46
Cost / Meter	0	90.08

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 12.75" Storage

2% Percent of total mileage Removed0.38 # of Miles to Remove

Contract								0.38 # Of IV	lies to Remove		
Contract	Unit Cost			# of Units				38 Day M	1&D		
Segment Miles		iles/day		18.90		42	95	,			
Abandonment Crew	19,541.83 / 0		х	75	=	1,465,637			Road or Pipeline	2	
Roads Crossing Crew	18.486.13 / 0		x	8	=	147.889		3 Days/		-	
Valve Crew	19,541.83 / 0		x	9	=	175,876		0.5 Days/			
Pipeline Removal	9,716.79 / 0	•	x	5	=	48,584			Mile of Pipeline	Removal	
Launcher/Receiver Crew	19,541.83 / 0	,	x	0	=				um Days / Segr		
Pipeline Cleaning Crew	8,949.82 / 0	,	x	11	_	98,448		2 Days/		nent	
Pipeline Crossing Crew	18,486.13 / 0		x	0	_	30,770		2 Days/	valei		
Water Crossing Crew	18,486.13 / 0	•	x	6	=	110,917		12.75" line equals	5 milos/day		
Water Crossing Crew	10,400.13 /0	ау	х	0	-	110,917		Minimum Number		antia 2 Dava	
	40.00			405 44		0.000				ient is 5 Days	
Gas Pump Down	18.90 m	lles	х	425.41	=	8,039		M&D equals 2 day	ys/segment		
Materials											
								Unit Cost			
Road Fill Concrete	2.926 cy	//road	х	4	=	11.70	total/cy	100.00 =	1,1	70.40	
Steel Plate	28 pi	eces	х	1.1289	=	31.61	total/sf	5.30 =	1	67.53	
Cleaning Pigs	3 pi	g/cleaning	х	19	=	57	total pigs	408.67 =	23,2	94.19	
Cleaning Compounds	6.0282 ga	al/mile/clean	х	18.90	=	113.92	total/gal.	30.00 =	3,4	17.47	
Pipeline Fill Concrete	1.463 cy	//pipeline	х	0	=	-	total/cy	100.00 =		-	
Water Crossing Concrete		//pipeline	х	3	=		total/cy	100.00 =	8	77.80	
Misc. Materials				5.00	%				1.4	46.37	
State Taxes				6.00						22.43	
				0.00	,.					96.00	
Land Damages											
Spot Dig Sites	32 #	of digs	х	1,500.00	=	48,000.00		each dig = 50 ft			
Footage of Removed Pipe	1995.54 #	-	x	12.00	-	23,946.45		damages = \$ 12.0)0 / ft		
r oolage of Kenioved Fipe	1993.34 #	orieet	^	12.00	-	71,946.45		uamayes – ¢ 12.0	10 / IL		
						,					
Contract Labour Rates		LA Rate (2015)		State Adjust						LA Rate ((2000)
	Abandon	16,421.70	v	51218 Aujust 1.190	_	19,541.83				,	(2009) 194.00
								Inflation Adjuster	opt (2015)		
	Roads	15,534.56	х	1.190		18,486.13		Inflation Adjustm	eni (2015)		11.00
	Valves	16,421.70	х	1.190		19,541.83		113.3%			94.00
	Cleaning	7,520.85	х	1.190		8,949.82				. ,	38.00
	beline Crossing	15,534.56	х	1.190		18,486.13					11.00
V	Vater Crossing	15,534.56	Х	1.190		18,486.13					11.00
	Pipe Removal	8,165.37	х	1.190	=	9,716.79				\$ 53,9	27.30
	Valve (t/mi)	Pipe (t/mi)									
Material Salvage Cost		65.33	=	65.330	х	(195.00)		(12,739.38)	**Assume 0.	500 W.T. & \$195/t sal	lvage cost

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 14" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	14.000			
Pipe Length (mi)	:	0.00	PL Crossings	:	0
Roads	:	0	Water Crossings	:	0
Valves	:	0	Above Ground Facilities	:	0
Pipe Removal	:	0.00	# of Line Segments	:	1

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	1,730
2.	PIPELINE MATERIALS:		ТВ000	1,499
3.	CONSTRUCTION:		TC000	97,346
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing viii) Water Crossing 		TC100	97,345 78,167 - - 10,228 - 8,950 - - -
	b. Pipeline Pump Down Contract		TC600	1
4.	PIPE SALVAGE COST:			(1)
5.	ENGINEERING:	2.25 %	TD000	2,224
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	2,965
7.	LAND - DAMAGES:		TF000	2
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	4,942
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	1
10.	RECOVERABLE LINE PACK @ 850 PS	SIG:		(2)
11.	Sub-Total - Direct Cost			\$ 110,706
12.	Contingency:	10.00 %	TY000	11,071
13.	Sub-Total:			121,777
14.	Overhead:	4.00 %	TZ000	4,871
15.	Sub-Total:			126,648
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 126,648

Cost / Mile	\$	70,672,828
Cost / Foot	\$	13,385.01
Cost / Meter	0	43,914.06

ANR Pipeline Company Transmission TNS Estimate

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 14" Storage

2% Percent of total mileage Removed 0.00 # of Miles to Remove

Contract								0.00 # 0	f Miles to Re	move		
Contract	Unit Cost			# of Units				2 Da	y M&D			
Segment Miles	5	miles/day		0.00		3	5		e/Day			
Abandonment Crew	19,541.83		х	4	=	78,167			ys/Road or P	ipeline		
Roads Crossing Crew	18,486.13	-	х	0	=	-			ys/L&R			
Valve Crew	19,541.83	,	x	0	=	-			ys/Valve			
Pipeline Removal	10,228.20	5	х	1	=	10,228			•	peline Remov	/al	
Launcher/Receiver Crew		-	x	0	=	-			nimum Days /			
Pipeline Cleaning Crew	8.949.82	,	x	1	=	8,950			ys/Water	ooginoin		
Pipeline Crossing Crew	18,486.13		x	0	=	-			jerrater			
Water Crossing Crew	18,486.13	,	x	0	=	_		14" line equals	5 miles/day			
Water crossing crew	10,400.10	/ duy	~	0				Minimum Num		Segment is ?	λ Daγ	19
Gas Pump Down	0.00	miles	х	425.41	=	1		M&D equals 2			, Duy	0
Cas I unp Down	0.00	Thies	^	425.41	-	1		MOD Equais 2	uays/segmen	it.		
Materials												
								Unit Cost				
Road Fill Concrete	3.556	cy/road	х	0	=	- to	otal/cy	100.00	=	-		
Steel Plate	0	pieces	х	1.3611	=	- to	otal/sf	5.30	=	-		
Cleaning Pigs	3	pig/cleaning	х	1	=	3 to	otal pigs	448.74	=	1,346.22		
Cleaning Compounds	8.0427	gal/mile/clean	х	0.00	=	0.01 to	otal/gal.	30.00	=	0.43		
Pipeline Fill Concrete	1.778	cy/pipeline	х	0	=	- to	otal/cy	100.00	=	-		
Water Crossing Concrete	e 3.556	cy/pipeline	х	0	=	- to	otal/cy	100.00	=	-		
Misc. Materials				5.00	%		-			67.33		
State Taxes				6.00	%					84.84		
										1,499.00		
Land Damages												
Spot Dig Sites	0	# of digs	х	1,500.00	=			each dig = 50 f	4			
Footage of Removed Pip		# of feet	x	12.00		2.27		damages = \$ 1				
Toolage of Removed Fip	0.19		^	12.00	-	2.27		uainages – ș i	2.00711			
Contract Labour Rates				Otata A divet								Data (0000)
	Aborden	LA Rate (2015)		State Adjust	_	10 544 00						Rate (2009)
	Abandon	- / -		1.190		19,541.83					\$	14,494.00
	Roads	-,	х	1.190		18,486.13		Inflation Adjus	stment (2015))	\$	13,711.00
	Valves	- , -	х	1.190		19,541.83		113.3%			\$	14,494.00
	Cleaning	,		1.190		8,949.82					\$	6,638.00
	Pipeline Crossing		х	1.190		18,486.13					\$	13,711.00
	Water Crossing		х	1.190		18,486.13					\$	13,711.00
	Pipe Removal	8,595.13	х	1.190	=	10,228.20					\$	53,927.30
	Valve (t/mi)	Pipe (t/mi)										
Material Salvage Cost		0.01	_	0.007	v	(195.00)		(1.33)	** ^ ~~~	ume 0.500 W.T.	8 ¢10	
material Salvaye COSt		0.01	-	0.007	^	(195.00)		(1.55)	ASS	une 0.500 W.I.	α φ 19	Sit salvage CO

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 16" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	16.000			
Pipe Length (mi)	:	17.81	PL Crossings	:	0
Roads	:	0	Water Crossings	:	5
Valves	:	9	Above Ground Facilities	:	0
Pipe Removal	:	0.36	# of Line Segments	:	18

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	34,844
2.	PIPELINE MATERIALS:		ТВ000	40,881
3.	CONSTRUCTION:		TC000	1,899,114
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers 		TC100	1,891,538 1,387,470 - 175,876 53,833
	vi) Pipeline Cleaning vii) Pipeline Crossing			89,498
	viii) Water Crossing			184,861
	b. Pipeline Pump Down Contract		TC600	7,576
4.	PIPE SALVAGE COST:			(15,192)
5.	ENGINEERING:	2.25 %	TD000	44,799
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	59,732
7.	LAND - DAMAGES:		TF000	51,069
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	99,553
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	7,435
10.	RECOVERABLE LINE PACK @ 850 PS	IG:		(24,163)
11.	Sub-Total - Direct Cost			\$ 2,198,072
12.	Contingency:	10.00 %	TY000	219,807
13.	Sub-Total:			2,417,879
14.	Overhead:	4.00 %	TZ000	96,715
15.	Sub-Total:			2,514,594
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 2,514,594

Cost / Mile	\$	141,192
Cost / Foot	\$	26.74
Cost / Meter	0	87.73

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 16" Storage

2% Percent of total mileage Removed 0.36 # of Miles to Remove

Contract							_				
	Unit Cost			# of Units			_		Day M&D		
Segment Miles		iles/day		17.81		40	90		Mile/Day		
Abandonment Crew	19,541.83 / 0		Х	71	=	1,387,470				l or Pipeline	
Roads Crossing Crew	18,486.13 / 0		Х	0	=	-			Days/L&R		
Valve Crew	19,541.83 / 0	•	х	9	=	175,876			Days/Valve		
Pipeline Removal	10,766.53 / 0		х	5	=	53,833				of Pipeline Remo	val
Launcher/Receiver Crew	19,541.83 / c	day	х	0	=	-				ays / Segment	
Pipeline Cleaning Crew	8,949.82 / 0	,	х	10	=	89,498		2	Days/Wate	er	
Pipeline Crossing Crew	18,486.13 / 0	,	х	0	=	-					
Water Crossing Crew	18,486.13 / c	lay	х	10	=	184,861		16" line equa			
								Minimum Nu	Imber of D	ays / Segment is	3 Days
Gas Pump Down	17.81 m	iles	х	425.41	=	7,576		M&D equals	2 days/se	gment	
Materials											
								Unit Cost			
Road Fill Concrete	4.704 cy		х	-	=	-	total/cy	100.00	=	-	
Steel Plate	20 pi		х	1.7778	=	35.56	total/sf	5.30	=	188.45	
Cleaning Pigs		g/cleaning	Х		=		total pigs	512.84	=	27,693.36	
Cleaning Compounds		al/mile/clean	х	17.81	=	216.57	total/gal.	30.00	=	6,497.02	
Pipeline Fill Concrete	2.352 cy		Х	0	=	-	total/cy	100.00	=	-	
Water Crossing Concrete	4.704 cy	//pipeline	Х	-	=	23.52	total/cy	100.00	=	2,352.00	
Misc. Materials				5.00						1,836.54	
State Taxes				6.00	%					2,314.04	
										40,881.00	
Land Damages											
Spot Dig Sites	19 #	of digs	х	1,500.00	=	28,500.00		each dig = 5	0 ft		
Footage of Removed Pipe	1880.72 #		х	12.00	=	22,568.59		damages =			
						51,068.59					
Contract Labour Rates											
		LA Rate (2015)		State Adjust							LA Rate (20
	Abandon	16,421.70	х	1.190	=	19,541.83					\$ 14,494
	Roads	15,534.56	х	1.190	=	18,486.13		Inflation Ad	justment (2	2015)	\$ 13,711
	Valves	16,421.70	х	1.190	=	19,541.83		113.3%			\$ 14,494
	Cleaning	7,520.85	х	1.190	=	8,949.82					\$ 6,638
	beline Crossing	15,534.56	х	1.190	=	18,486.13					\$ 13,711
V	Vater Crossing	15,534.56	х	1.190	=	18,486.13					\$ 13,711
	Pipe Removal	9,047.50	х	1.190	=	10,766.53					\$ 53,927

 Valve (t/mi)
 Pipe (t/mi)

 Material Salvage Cost
 77.91
 77.906
 x
 (195.00)
 (15,191.73)
 **Assume 0.500 W.T. & \$195/t salvage cost

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 18" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	18.000			
Pipe Length (mi)	:	0.00	PL Crossings	:	0
Roads	:	0	Water Crossings	:	0
Valves	:	0	Above Ground Facilities	:	0
Pipe Removal	:	0.00	# of Line Segments	:	1

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	1,794
2.	PIPELINE MATERIALS:		ТВ000	1,928
3.	CONSTRUCTION:		TC000	100,576
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing viii) Water Crossing 		TC100	100,575 78,167 - - 13,458 - 8,950 - - -
	b. Pipeline Pump Down Contract		TC600	1
4.	PIPE SALVAGE COST:			(2)
5.	ENGINEERING:	2.25 %	TD000	2,306
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	3,075
7.	LAND - DAMAGES:		TF000	2
8.	ENVIRONMENTAL MONITORING:	5.00 %	ТХ000	5,125
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	1
10.	RECOVERABLE LINE PACK @ 850 PS	SIG:		(3)
11.	Sub-Total - Direct Cost			\$ 114,802
12.	Contingency:	10.00 %	TY000	11,480
13.	Sub-Total:			126,282
14.	Overhead:	4.00 %	TZ000	5,051
15.	Sub-Total:			131,333
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 131,333

Cost / Mile	\$	67,657,095
Cost / Foot	\$	12,813.84
Cost / Meter	0	42,040.17

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

0.01 =

Material Salvage Cost

Michigan - 18" Storage

(1.87)

**Assume 0.500 W.T. & \$195/t salvage cost

2% Percent of total mileage Removed 0.00 # of Miles to Remove

Contract								0.00 # 01 1	lies to Remov	e	
CUILLACL	Unit Cost			# of Units			-	2 Day I	M&D		
Segment Miles		miles/day		0.00		3	5	,			
Abandonment Crew	19,541.83	•	х	4	=	78,167	Ĵ		/Road or Pipeli	ne	
Roads Crossing Crew	18,486.13		x	0	=	-		3 Days			
Valve Crew	19,541.83		x	Ŭ Ŭ	=	_		1 Days			
Pipeline Removal	13,458.16	,	x	1	=	13,458			/ Mile of Pipelir	na Ramova	ı
Launcher/Receiver Crew	19,541.83	,		0	_	13,430					1
	'	,	х	1		-			num Days / Seg	gment	
Pipeline Cleaning Crew	8,949.82		х	•	=	8,950		2 Days	vvaler		
Pipeline Crossing Crew	18,486.13		х	0	=	-					
Water Crossing Crew	18,486.13	/ day	Х	0	=	-		18" line equals 5			_
								Minimum Numbe		iment is 3 [Days
Gas Pump Down	0.00	miles	х	425.41	=	1		M&D equals 2 da	iys/segment		
Materials											
								Unit Cost			
Road Fill Concrete		cy/road	Х		=	-	total/cy		=	-	
Steel Plate		pieces	х	2.2500	=	-	total/sf	0.00	=	-	
Cleaning Pigs		pig/cleaning	х	1	=	3	total pigs	576.95	= 1,	,730.85	
Cleaning Compounds	17.4499	gal/mile/clean	х	0.00	=	0.03	total/gal.	30.00 =	=	1.02	
Pipeline Fill Concrete	3	cy/pipeline	х	0	=	-	total/cy	100.00 =	=	-	
Water Crossing Concrete	6	cy/pipeline	х	0	=	-	total/cy	100.00 =	=	-	
Misc. Materials		,,,,		5.00	%		,			86.59	
State Taxes				6.00						109.11	
				0.00	,.					,928.00	
Land Damages											
Spot Dig Sites	0	# of digs	х	1,500.00	=	_		each dig = 50 ft			
Footage of Removed Pipe		# of feet	x	12.00		2.46		damages = \$ 12.	00 / ft		
	0.20		^	12.00	_	2.46		damages – v 12.	00711		
Contract Labour Rates											
		LA Rate (2015)		State Adjust							A Rate (2009
	Abandon	16,421.70	х	1.190	=	19,541.83				\$,
	Roads	15,534.56	х	1.190	=	18,486.13		Inflation Adjustm	nent (2015)	\$	13,711.00
	Valves	16,421.70	х	1.190	=	19,541.83		113.3%	. ,	\$	
	Cleaning	7,520.85	х	1.190		8,949.82				\$	
F	Pipeline Crossing	15,534.56	x	1.190		18,486.13				\$	-,
·	Water Crossing	15,534.56	x	1.190		18,486.13				\$	
	Pipe Removal	11,309.38	x	1.190		13,458.16				φ \$	
		11,000.00	~	1.100		10,100.10				Ψ	00,027.00
	Valve (t/mi)	Pipe (t/mi)									
Material Salvage Cost		0.01	_	0.010	v	(105.00)		(1 07)	** ^		¢105/4 aph/200

0.010 x

(195.00)

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 20" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	20.000			
Pipe Length (mi)	:	6.66	PL Crossings	:	0
Roads	:	0	Water Crossings	:	0
Valves	:	4	Above Ground Facilities	:	0
Pipe Removal	:	0.13	# of Line Segments	:	2

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	4,109
2.	PIPELINE MATERIALS:		ТВ000	9,659
3.	CONSTRUCTION:		TC000	210,713
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers 		TC100	207,879 78,167 - 78,167 33,645 -
	vi) Pipeline Cleaning vii) Pipeline Crossing viii) Water Crossing			17,900 - -
	b. Pipeline Pump Down Contract		TC600	2,834
4.	PIPE SALVAGE COST:			(7,149)
5.	ENGINEERING:	2.25 %	TD000	5,283
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	7,044
7.	LAND - DAMAGES:		TF000	14,442
8.	ENVIRONMENTAL MONITORING:	5.00 %	ТХ000	11,741
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	4,345
10.	RECOVERABLE LINE PACK @ 850 PS	SIG:		(14,123)
11.	Sub-Total - Direct Cost			\$ 246,064
12.	Contingency:	10.00 %	TY000	24,606
13.	Sub-Total:			270,670
14.	Overhead:	4.00 %	TZ000	10,827
15.	Sub-Total:			281,497
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 281,497

Cost / Mile	\$	42,253
Cost / Foot	\$	8.00
Cost / Meter	0	26.26

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 20" Storage

2% Percent of total mileage Removed

0.13 # of Miles to Remove

Contract								0.13 # 0	of Milles to Re	emove		
Contract	Unit Cost			# of Units				4 Da	iv M&D			
Segment Miles		miles/day		6.66		6	10		le/Day			
Abandonment Crew	19,541.83	,	х	4	=	78,167			iys/Road or P	Pipeline		
Roads Crossing Crew	18,486.13	,	x	0	=	-			iys/L&R	.pom o		
Valve Crew	19,541.83	5	x	4	=	78,167			iys/Valve			
Pipeline Removal	16,822.70	,	х	2	=	33,645			•	ipeline Remov	val	
Launcher/Receiver Crew	19,541.83	,	x	0	=	-			nimum Days			
Pipeline Cleaning Crew	8,949.82		x	2	=	17,900			iys/Water	, ooginoni		
Pipeline Crossing Crew	18,486.13	-	x	0	=	-		2 0 0	iyo, Wator			
Water Crossing Crew	18,486.13	,	x	0	=	-		20" line equals	4 miles/day			
Water crossing crew	10,400.10	, ddy	~	0				Minimum Num		Segment is 2	3 Dav	' S
Gas Pump Down	6 66	miles	х	425.41	_	2.834		M&D equals 2			JDay	3
Oas I unip Down	0.00	111100	^	425.41	-	2,004		MGD Equais 2	days/segmen	in the second seco		
Materials												
								Unit Cost				
Road Fill Concrete	7.481	cy/road	х	0	=	-	total/cy	100.00	=	-		
Steel Plate	0	pieces	х	2.7778	=	-	total/sf	5.30	=	-		
Cleaning Pigs	3	pig/cleaning	х	2	=	6	total pigs	641.05	=	3,846.30		
Cleaning Compounds	24.1776	gal/mile/clean	х	6.66	=	161.07	total/gal.	30.00	=	4,832.22		
Pipeline Fill Concrete	3.741	cy/pipeline	х	0	=	-	total/cy	100.00	=	-		
Water Crossing Concrete	7.481	cy/pipeline	х	0	=	-	total/cy	100.00	=	-		
Misc. Materials				5.00	%					433.93		
State Taxes				6.00	%					546.75		
										9,659.00		
Land Damages												
Spot Dig Sites	4	# of digs	х	1,500.00	=	6,000.00		each dig = 50 t	ft			
Footage of Removed Pipe		# of feet	x	12.00	=	8,442.24		damages = \$ 1				
						14,442.24						
Contract Labour Rates												
	A In	LA Rate (2015)		State Adjust		40 544 00						Rate (2009)
	Abandon	-, -		1.190		19,541.83				``		14,494.00
	Roads	-,	Х	1.190		18,486.13		Inflation Adjus	stment (2015))		13,711.00
	Valves	- , -	х	1.190		19,541.83		113.3%			•	14,494.00
	Cleaning	,	х	1.190		8,949.82					\$	6,638.00
ſ	Pipeline Crossing	15,534.56	х	1.190		18,486.13						13,711.00
	Water Crossing	15,534.56	х	1.190		18,486.13						13,711.00
	Pipe Removal	14,136.72	Х	1.190	=	16,822.70					\$	53,927.30
	Volue (the :)											
Material Salvage Cost	Valve (t/mi)	Pipe (t/mi) 36.66	=	36.663	v	(195.00)		(7,149.30)	** ^		Q @40	
material Salvaye Cost		50.00	-	30.003	*	(195.00)		(1, 149.00)	ASS	sume 0.500 W.T.	α φ 19	on salvage c

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 22" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	22.000			
Pipe Length (mi)	:	2.45	PL Crossings	:	0
Roads	:	0	Water Crossings	:	0
Valves	:	0	Above Ground Facilities	:	0
Pipe Removal	:	0.05	# of Line Segments	:	1

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	2,052
2.	PIPELINE MATERIALS:		ТВ000	4,999
3.	CONSTRUCTION:		TC000	109,185
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing 		TC100	108,145 78,167 - - 21,028 - 8,950 -
	viii) Water Crossing		TC600	
	b. Pipeline Pump Down Contract		10600	1,040
4.	PIPE SALVAGE COST:			(2,893)
5.	ENGINEERING:	2.25 %	TD000	2,639
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	3,518
7.	LAND - DAMAGES:		TF000	3,099
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	5,864
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	1,930
10.	RECOVERABLE LINE PACK @ 850 PS	SIG:		(6,272)
11.	Sub-Total - Direct Cost			\$ 124,120
12.	Contingency:	10.00 %	TY000	12,412
13.	Sub-Total:			136,532
14.	Overhead:	4.00 %	TZ000	5,461
15.	Sub-Total:			141,993
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 141,993

Cost / Mile	\$	58,069
Cost / Foot	\$	11.00
Cost / Meter	0	36.08

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 22" Storage

2% Percent of total mileage Removed

			0.0	. Donars				2 /0 1		a mileage iver	1000	u
								0.05 #	≠ of Miles to R	emove		
Contract							_					
	Unit Cost			# of Units		_	_		Day M&D			
Segment Miles	4 miles/	day		2.45		3	5		/lile/Day			
Abandonment Crew	19,541.83 / day		х	4	=	78,167			Days/Road or	Pipeline		
Roads Crossing Crew	18,486.13 / day		х	0	=	-			Days/L&R			
Valve Crew	19,541.83 / day		х	0	=	-			Days/Valve			
Pipeline Removal	21,028.37 / day		х	1	=	21,028				Pipeline Remo	val	
Launcher/Receiver Crew	19,541.83 / day		х	0	=	-			Vinimum Days	s / Segment		
Pipeline Cleaning Crew	8,949.82 / day		х	1	=	8,950		2 [Days/Water			
Pipeline Crossing Crew	18,486.13 / day		х	0	=	-						
Water Crossing Crew	18,486.13 / day		х	0	=	-			als 4 miles/day			
										/ Segment is	3 Da	ys
Gas Pump Down	2.45 miles		х	425.41	=	1,040		M&D equals	2 days/segme	ent		
Materials												
Inatornalo								Unit Cost				
Road Fill Concrete	9.111 cy/roa	d	х	0	=	-	total/cy	100.00	=	-		
Steel Plate	0 pieces		x	3.3611	=	-	total/sf	5.30	=	_		
Cleaning Pigs	3 pig/cle		x	1	=	3	total pigs	705.16	=	2,115.48		
Cleaning Compounds	32.3875 gal/m		x	2.45	=		total/gal.	30.00	=	2,375.88		
Pipeline Fill Concrete	4.556 cy/pip		x	0	=	-	total/cy	100.00	=			
Water Crossing Concrete	9.111 cy/pip			e e	=	-	total/cy	100.00	=	_		
Misc. Materials	0.111 03/pip		~	5.00	%		cotall oy	100.00		224.57		
State Taxes				6.00						282.96		
				0.00	/0					4,999.00	1	
											1	
Land Damages												
Spot Dig Sites	0 # of d	igs	х	1,500.00	=	-		each dig = 5	0 ft			
Footage of Removed Pipe	258.22 # of fe		х	12.00	=	3,098.64		damages = \$				
0						3,098.64		0				
Contract Labour Rates												
	LA	A Rate (2015)		State Adjust							LA	Rate (2009)
	Abandon	16,421.70	х	1.190	=	19,541.83					\$	14,494.00
	Roads	15,534.56	x	1.190		18,486.13		Inflation Adi	ustment (201	5)	\$	13,711.00
	Valves	16,421.70	x	1.190		19,541.83		113.3%	(,	\$	14,494.00
	Cleaning	7,520.85	x	1.190		8,949.82					\$	6,638.00
Pir	beline Crossing	15,534.56	x	1.190		18,486.13					\$	13,711.00
	Vater Crossing	15,534.56	x	1.190	=	18,486.13					\$	13,711.00
	Pipe Removal	17,670.90	x	1.190		21,028.37					\$	53,927.30
		,				,0_0.01					Ŧ	

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 24" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	24.000			
Pipe Length (mi)	:	1.44	PL Crossings	:	0
Roads	:	0	Water Crossings	:	0
Valves	:	1	Above Ground Facilities	:	0
Pipe Removal	:	0.03	# of Line Segments	:	1

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	2,134
2.	PIPELINE MATERIALS:		ТВ000	4,605
3.	CONSTRUCTION:		TC000	114,014
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing 		TC100	113,402 58,625 -
	iii) Valve Removals iv) Pipeline Removal			19,542 26,285
	v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing viii) Water Crossing			- 8,950 -
	b. Pipeline Pump Down Contract		TC600	612
4.	PIPE SALVAGE COST:			(1,861)
5.	ENGINEERING:	2.25 %	TD000	2,744
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	3,658
7.	LAND - DAMAGES:		TF000	3,324
8.	ENVIRONMENTAL MONITORING:	5.00 %	TX000	6,097
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	1,352
10.	RECOVERABLE LINE PACK @ 850 PS	ilG:		(4,393)
11.	Sub-Total - Direct Cost			\$ 131,673
12.	Contingency:	10.00 %	TY000	13,167
13.	Sub-Total:			144,840
14.	Overhead:	4.00 %	TZ000	5,794
15.	Sub-Total:			150,634
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 150,634

Cost / Mile	\$	104,665
Cost / Foot	\$	19.82
Cost / Meter	0	65.04

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 24" Storage

2% Percent of total mileage Removed

	1 11	S Estimate - 2015	0.0	b. Dollars				2% Per	cent of total m	lieage Rem	Jveu	
_								0.03 # of	Miles to Rem	ove		
Contract	Unit Cost			the of Lineite			-					
Sogmont Milos		miles/day		# of Units 1.44		3		5 4 Mile	/ M&D			
Segment Miles		,		3	=		(s/Road or Pip	olino		
Abandonment Crew	19,541.83	,	X	3	=	58,625				eine		
Roads Crossing Crew Valve Crew	18,486.13		X X	0	=	- 19,542			/s/L&R /s/Valve			
	19,541.83			-		· · · · · · · · · · · · · · · · · · ·				line Demo	ام	
Pipeline Removal	26,285.46	,	х	1	=	26,285			s/ Mile of Pipe		a	
Launcher/Receiver Crew	-,	,	х	0	=	-			imum Days / S	segment		
Pipeline Cleaning Crew	8,949.82	,	х	1	=	8,950		2 Day	/water			
Pipeline Crossing Crew	18,486.13	,	х	0	=	-			4			
Water Crossing Crew	18,486.13	/ day	х	0	=	-		24" line equals			-	
								Minimum Numb		egment is 3	Days	6
Gas Pump Down	1.44	miles	х	425.41	=	612		M&D equals 2 of	lays/segment			
Materials												
	10	<i>,</i> ,		-				Unit Cost				
Road Fill Concrete		cy/road	Х		=	-	total/cy	100.00	=	-		
Steel Plate		pieces	Х	4.0000		-	total/sf	5.30	=	-		
Cleaning Pigs		pig/cleaning	Х	1	=		total pigs	769.27	=	2,307.81		
Cleaning Compounds		gal/mile/clean	Х	1.44	=	60.98	total/gal.	30.00	=	1,829.31		
Pipeline Fill Concrete		cy/pipeline	Х	0	=	-	total/cy	100.00	=	-		
Water Crossing Concret	e 10.926	cy/pipeline	Х	0	=	-	total/cy	100.00	=	-		
Misc. Materials				5.00						206.86		
State Taxes				6.00	%					260.64		
										4,605.00		
Land Damage												
Land Damages												
Spot Dig Sites	1	# of digs	х	1,500.00	=	1,500.00		each dig = 50 ft				
Footage of Removed Pip	be 151.98	# of feet	х	12.00	=	1,823.76		damages = \$ 12	2.00 / ft			
						3,323.76		-				
Contract Labour Rates	i											((2222)
		LA Rate (2015)		State Adjust		10 - 11 - 5-						ate (2009)
	Abandon	16,421.70		1.190		19,541.83						14,494.00
	Roads	15,534.56	Х	1.190		18,486.13		Inflation Adjust	ment (2015)			13,711.00
	Valves	16,421.70	Х	1.190		19,541.83		113.3%				14,494.00
	Cleaning	7,520.85	Х	1.190		8,949.82					\$	6,638.00
	Pipeline Crossing	15,534.56	Х	1.190		18,486.13						13,711.00
	Water Crossing	15,534.56	Х	1.190		18,486.13						13,711.00
	Pipe Removal	22,088.62	х	1.190	=	26,285.46					\$ 5	53,927.30
Matarial Salvara Cast	Valve (t/mi)	Pipe (t/mi)	=	9.545	v	(405.00)		(1 961 96)	** *		0 0405	4 a a h
Material Salvage Cost		9.54	-	9.040	X	(195.00)		(1,861.26)	Assum	ne 0.500 W.T.	& \$195	n salvage c

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Project	:	ANR TNS Estimate	Date	:	23-Nov-2015
Line Segment	:	All 26" Lines in Michigan			
State	:	Michigan			
Pipe Dia.	:	26.000			
Pipe Length (mi)	:	0.00	PL Crossings	:	0
Roads	:	0	Water Crossings	:	0
Valves	:	1	Above Ground Facilities	:	0
Pipe Removal	:	0.00	# of Line Segments	:	1

ITEM	DESCRIPTION		CBS CODE	AMOUNT
1.	PROJECT MANAGEMENT:	1.75 %	TA100	2,175
2.	PIPELINE MATERIALS:		ТВ000	2,784
3.	CONSTRUCTION:		TC000	119,974
	 a. Prime contract i) Pipeline Abandon in Place ii) Road Crossing iii) Valve Removals iv) Pipeline Removal v) Launchers or Receivers vi) Pipeline Cleaning vii) Pipeline Crossing 		TC100	119,974 58,625 - 19,542 32,857 - 8,950 -
	viii) Water Crossing			-
	b. Pipeline Pump Down Contract		TC600	-
4.	PIPE SALVAGE COST:			(1)
5.	ENGINEERING:	2.25 %	TD000	2,796
6.	CONSTRUCTION MANAGEMENT:	3.00 %	TE000	3,728
7.	LAND - DAMAGES:		TF000	1,501
8.	ENVIRONMENTAL MONITORING:	5.00 %	ТХ000	6,213
9.	BLOW DOWN GAS @ 200 PSIG:		TX000	1
10.	RECOVERABLE LINE PACK @ 850 PS	IG:		(3)
11.	Sub-Total - Direct Cost			\$ 139,168
12.	Contingency:	10.00 %	ТҮ000	13,917
13.	Sub-Total:			153,085
14.	Overhead:	4.00 %	TZ000	6,123
15.	Sub-Total:			159,208
16.	AFUDC:	0.00 %	TZ000	-
17.	GRAND TOTAL			\$ 159,208

 Cost / Mile
 \$ 210,189,282

 Cost / Foot
 \$ 39,808.58

 Cost / Meter
 0 130,605.56

Pipeline and Appurtenances TNS Estimate - 2015 U.S. Dollars

Michigan - 26" Storage

2% Percent of total mileage Removed 0.00 # of Miles to Remove

Contract								0.00 #	t of Miles to F	Remove	
Contract	Unit Cost			# of Units				2 [Day M&D		
Segment Miles		iles/day		0.00		3	5		/lile/Day		
Abandonment Crew	19,541.83 / 0	,	х	3	=	58,625	-		Days/Road or	Pipeline	
Roads Crossing Crew	18,486.13 / 0		x	0	=	-			Days/L&R	, benue	
Valve Crew	19,541.83 / 0	,	x	1	=	19,542			Days/Valve		
Pipeline Removal	32,856.83 / 0		х	1	=	32,857			•	Pipeline Remova	al
Launcher/Receiver Crew	19,541.83 / 0	,	x	0	=	-			/linimum Day		
Pipeline Cleaning Crew	8,949.82 / 0	,	x	1	=	8,950			Days/Water	o / oogmont	
Pipeline Crossing Crew	18,486.13 / 0		x	0	=	0,000		2 1	Jayo, Water		
Water Crossing Crew	18,486.13 / 0	•	x	0	=	_		26" line equa	als 4 miles/da	IV.	
	10,400.10 / 0	idy	^	0						s / Segment is 3	Dave
Gas Pump Down	0.00 m	ilos	х	425.41	-	-		M&D equals		•	Days
	0.00 m	1105	^	423.41	-			Mad equals	z udys/segin	ient	
Materials											
								Unit Cost			
Road Fill Concrete	12.889 cy	//road	х	0	=	-	total/cy	100.00	=	-	
Steel Plate	0 pi	eces	х	4.6944	=	-	total/sf	5.30	=	-	
Cleaning Pigs	3 pi	g/cleaning	х	1	=	3	total pigs	833.37	=	2,500.11	
Cleaning Compounds	54.1466 ga	al/mile/clean	х	0.00	=	0.04	total/gal.	30.00	=	1.23	
Pipeline Fill Concrete	6.444 cy	//pipeline	х	0	=	-	total/cy	100.00	=	-	
Nater Crossing Concrete	12.889 cy		х	0	=	-	total/cy	100.00	=	-	
Misc. Materials	-			5.00	%					125.07	
State Taxes				6.00	%					157.58	
										2,784.00	
Land Damages											
Spot Dig Sites	1 #	of digs	х	1,500.00	=	1,500.00		each dig = 50	n fi		
Footage of Removed Pipe	0.08 #		x	12.00	_	0.96		damages = \$			
oolage of Kentoved Tipe	0.00 #	oneet	^	12.00	-	1,500.96		uamages – 4	5 12.007 It		
						1,000.00					
. . .											
Contract Labour Rates		LA Rate (2015)		State Adjust							LA Rate (2009
	Abandon	16,421.70	v	1.190	=	19,541.83					\$ 14,494.00
	Roads	15,534.56	x	1.190		18,486.13		Inflation Adi	ustment (201		\$ 13,711.00
	Valves	16,421.70	x X	1.190		19,541.83		113.3%	usument (201		\$ 13,711.00 \$ 14,494.00
	Cleaning	7,520.85		1.190		8,949.82		113.3%			\$
n:	ipeline Crossing	15,534.56		1.190		8,949.82 18,486.13					\$
	Water Crossing	,	X X	1.190		18,486.13					\$
	0	15,534.56		1.190							
	Pipe Removal	27,610.78	х	1.190	=	32,856.83					\$ 53,927.30
	Valve (t/mi)	Pipe (t/mi)									
Material Salvage Cost	valve (viiii)		=	0.005	v	(195.00)		(1.06)	** A		\$ \$105/t colucion
naterial Salvaye 005t		0.01	-	0.005	^	(195.00)		(1.00)	A	ssume 0.500 W.T. 8	x φ ι σο/ι salvage d

Storage Compressor Station TNS Estimate Summary

Description	Amount
Demolition Cost - Buildings	\$20,702,810
Environmental Sampling Cost (5% of Demolition Cost)	\$1,035,140
Deactivation Cost (20% of Demolition Cost)	\$4,140,562
Contamination Removal Cost	\$1,541,345
Fenced Property - Agricultural Use	\$1,237,500
Cost of Removal Subtotal:	\$28,657,357
Contingency (10%)	\$2,865,736
Cost of Removal Total:	\$31,523,093
Bldg Scrap Metal Salvage Value (5% of Demolition Cost)	(\$1,035,140)
CS Unit Salvage Value from Salvage Table	(\$1,997,000)
Gross Salvage Total:	(\$3,032,140)
Storage Compressor Station TNS Estimate:	\$28,490,952

ANR Pipeline Company Storage TNS Estimate

Storage Compressor Station TNS Estimate

Compressor			Unit	No. of		Demolition Cost	Sampling	Deactivation	Contamination	Agricultural	C.O.R. Excl.
Station	State	Bldg	HP Range	Units	Year Range	Per Building	Cost (5%)	Cost (20%)	Removal Cost	Use	Contingency
Central Charlton	Michigan	А	0-5,000 HP	2	1981 - 1990	\$1,109,384	\$55,469	\$221,877	\$0	\$82,500	\$1,469,230
Cold Springs 1	Michigan	А	5,000-10,500 HP	1	Post - 1991	\$970,149	\$48,507	\$194,030	\$0	\$82,500	\$1,295,187
Goodwell	Michigan	В	5,000-10,500 HP	2	Post - 1991	\$1,275,922	\$63,796	\$255,184	\$0	\$82,500	\$1,677,402
Lincoln	Michigan	А	5,000-10,500 HP	1	1971 - 1980	\$970,149	\$48,507	\$194,030	\$97,015	\$82,500	\$1,392,202
Lincoln	Michigan	А	0-5,000 HP	2	1971 - 1980	\$1,109,384	\$55,469	\$221,877	\$110,938	\$82,500	\$1,580,169
Muttonville	Michigan	А	0-5,000 HP	2	1971 - 1980	\$1,109,384	\$55,469	\$221,877	\$110,938	\$82,500	\$1,580,169
Reed City	Michigan	А	5,000-10,500 HP	1	1971 - 1980	\$970,149	\$48,507	\$194,030	\$97,015	\$82,500	\$1,392,202
Reed City	Michigan	А	0-5,000 HP	6	Pre - 1970	\$2,248,827	\$112,441	\$449,765	\$224,883	\$82,500	\$3,118,416
Reed City	Michigan	A1	0-5,000 HP	2	1971 - 1980	\$1,109,384	\$55,469	\$221,877	\$110,938	\$82,500	\$1,580,169
South Chester	Michigan	А	0-5,000 HP	2	1981 - 1990	\$1,109,384	\$55,469	\$221,877	\$0	\$82,500	\$1,469,230
Winfield	Michigan	А	0-5,000 HP	3	1971 - 1980	\$1,394,245	\$69,712	\$278,849	\$139,424	\$82,500	\$1,964,731
Woolfolk	Michigan	А	0-5,000 HP	13	Pre - 1970	\$4,242,851	\$212,143	\$848,570	\$424,285	\$82,500	\$5,810,348
Woolfolk	Michigan	В	0-5,000 HP	2	Pre - 1970	\$1,109,384	\$55,469	\$221,877	\$110,938	\$82,500	\$1,580,169
Woolfolk	Michigan	С	10,500-21,000 HP	1	Pre - 1970	\$1,149,689	\$57,484	\$229,938	\$114,969	\$82,500	\$1,634,580
Woolfolk	Michigan	D	0-5,000 HP	1	1981 - 1990	\$824,524	\$41,226	\$164,905	\$0	\$82,500	\$1,113,155
Tota	al:			41		\$20,702,810	\$1,035,140	\$4,140,562	\$1,541,345	\$1,237,500	\$28,657,357

Compressor	Contingency	C.O.R. Incl.	Building Scrap	Equip. Salvage	Total	Comp. Station
Station	(10%)	Contingency	Value (5%)	Value	Salvage	TNS Cost
Central Charlton	\$146,923	\$1,616,153	(\$55,469)	(\$104,000)	(\$159,469)	\$1,456,684
Cold Springs 1	\$129,519	\$1,424,705	(\$48,507)	(\$132,000)	(\$180,507)	\$1,244,198
Goodwell	\$167,740	\$1,845,142	(\$63,796)	(\$264,000)	(\$327,796)	\$1,517,346
Lincoln	\$139,220	\$1,531,422	(\$48,507)	(\$80,000)	(\$128,507)	\$1,402,914
Lincoln	\$158,017	\$1,738,186	(\$55,469)	(\$82,000)	(\$137,469)	\$1,600,716
Muttonville	\$158,017	\$1,738,186	(\$55,469)	(\$82,000)	(\$137,469)	\$1,600,716
Reed City	\$139,220	\$1,531,422	(\$48,507)	(\$80,000)	(\$128,507)	\$1,402,914
Reed City	\$311,842	\$3,430,257	(\$112,441)	(\$198,000)	(\$310,441)	\$3,119,816
Reed City	\$158,017	\$1,738,186	(\$55,469)	(\$82,000)	(\$137,469)	\$1,600,716
South Chester	\$146,923	\$1,616,153	(\$55,469)	(\$104,000)	(\$159,469)	\$1,456,684
Winfield	\$196,473	\$2,161,204	(\$69,712)	(\$123,000)	(\$192,712)	\$1,968,491
Woolfolk	\$581,035	\$6,391,383	(\$212,143)	(\$429,000)	(\$641,143)	\$5,750,241
Woolfolk	\$158,017	\$1,738,186	(\$55,469)	(\$66,000)	(\$121,469)	\$1,616,716
Woolfolk	\$163,458	\$1,798,038	(\$57,484)	(\$119,000)	(\$176,484)	\$1,621,554
Woolfolk	\$111,315	\$1,224,470	(\$41,226)	(\$52,000)	(\$93,226)	\$1,131,244
Total:	\$2,865,736	\$31,523,093	(\$1,035,140)	(\$1,997,000)	(\$3,032,140)	\$28,490,952

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Central Charlton, A, 0-5,000 HP

State: Michigan

	Michigan 0-5,000 HP	# of Compressors 2										
ITEM	DESCRIPTION		Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost			
Α	SYSTEM A: STATION LAYOUT				<u>ــــــ</u>							
<u>~</u>	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						
	(b) Remove air intake systems	6C		2.00	ea	120.00						
	(c) Remove exhaust systems	6C		2.00	ea	120.00						
	(d) Remove glycol coolers	6C		2.00	ea	250.00						
	(e) Remove lighting system (f) Remove associated piping system	3E 6B		1.00 1.00	Lot Lot	80.00						
	(g) Remove associated piping system (g) Remove miscellaneous valves	6E		1.00	Lot	30.00						
	(b) Removed compressed air system	6D		1.00	Lot	40.00						
	2. Remove Plant Boiler and all Hot Water Piping	00		1.00	LOI	40.00	+0.00	φ110.00	ψ+,075.2			
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.8			
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00			\$4,078.8			
	3. Remove Auxiliary Wing associated Equipment								÷ .,• . •			
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.8			
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00						
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$249,371.7			
B	SYSTEM B: REINFORCED CONCRETE											
	1. Compressor Building Basement Walls and Unit											
	Blocks are to be Cut Off 3 feet below grade and		L									
	backfilled.			104.04		0.45	050.00	\$100.40	* 00.000.0			
	(a) Remove foundation walls and pilasters	2A 2A		104.64	су	2.45 2.45	256.00 608.00					
	(b) Remove engine blocks (c) Remove operating floor structural slab	2A 2A		248.51 52.32	CY	2.45						
	(d) Remove yard equipment foundations	2A 2A		26.16	cy cy	2.45						
	(e) Remove above grade pipe piers & valve supports	2A 2A		78.48	cy	2.45						
	2. Excavation & Backfilling.			70.10	09	2.10	102.00	\$100.10	Ψ21,022.0			
	(a) Excavate for foundation walls & yard concrete	2B		156.95	су	0.10	15.60	\$139.63	\$2,178.2			
	(b) Backfill with excavated native material	2C		156.95	cy	0.21						
	(c) Backfill with imported gravel	2C		653.98	cy	0.21	140.00	\$102.25	\$14,315.4			
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE				<u> </u>		1,437		\$156,576.8			
<u>C</u>	SYSTEM C: BUILDINGS & STRUCTURAL STEEL											
	1. Remove Compressor Building and all Associated		L									
	Structural Seel, Including Cranes			005.07		0.40	477.40	*************				
	(a) Remove built-up roofing system	3A 3B		365.97	sy	0.48						
	(b) Remove metal roof deck (c) Remove wall cladding, door windows & lourvers	3B 3C		365.97 208.10	sy	0.14		\$98.81 \$88.17				
	(d) Remove structural steel frame (roof, walls & columns)	3C 3C		1755.92	sy cy	0.18						
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol	30		1755.92	Cy	0.09	101.10	φ00.17	\$14,204.2			
	Coolers and Associated Structural Steel											
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$116.67	\$12,319.8			
									\$12,01010			
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL			i i i i i i i i i i i i i i i i i i i			534		\$49,350.4			
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			\$29,856.8			
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10					
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30		\$101.97				
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$101.97	\$978.9			
	(b) Flame Cutting - NPS 30	6.4	30	16.00		7.20	115.00	¢122.07	¢1E 400 0			
	- NPS 30 - NPS 16	6A 6A	16	16.00 8.00	ea ea	1.61	115.20 12.88	\$133.97 \$133.97				
	- NPS 10	6A 6A	10	2.00	ea	0.92		\$133.97				
	- NPS 12	6A	10	8.00	ea	1.09			\$1,168.1			
	 Dismantle and Remove all Unit Valves and Operators, 		12	0.00	cu	1.09	0.12	ψ100.01	ψ1,100.			
	Plant Suction Scrubbers, Valves & Vent Pipes					1	t					
		6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.4			
	(a) Remove horizontal scrubber											
		6D	30	1.00	ea	9.96	9.96	\$116.98	\$1.165.1			
	(a) Remove horizontal scrubber (b) Remove NPS 30 suction valve & operator (c) Remove NPS 12 bypass valve and operator	6D 6D	30 12	1.00 1.00	ea ea	9.96 4.16						

ļ	(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	су	0.10	14.95	\$139.63	\$2,087.48
┣───	(g) Backfill with native excavated material	2C		150.41	су	0.21	32.20	\$102.25	\$3,292.55
							690	l	¢74 522 50
E	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS SYSTEM E: FUEL AND STARTING GAS					<u>n </u>	680	l	\$74,532.59
<u> </u>	1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply								
	Piping								
	(a) Excavate underground piping by machine	2B		130.80	су	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	су	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	4	39.24	cy #	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping (c) Backfill with native excavated material	6B 2C	4	32.80 39.24	ft cy	0.19	6.20 8.40	\$101.97 \$102.25	\$632.21 \$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping	20		39.24	Су	0.21	0.40	\$102.25	\$000.93
	and Valves								
	(a) Excavate underground piping by machine	2B		71.94	су	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	су	0.21	15.40	\$102.25	\$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping	2B		52.32		0.10	5.20	\$139.63	\$726.08
	(a) Excavate underground piping by machine (b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	cy If	0.10	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C	1.5	52.32	cy	0.03	11.20	\$102.25	\$1,145.24
		_•		02.02	~y	0.21	. 1.20	<u>.</u>	ψ., 110.2 -
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS			<u> </u>			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 glucol pumps (c) Remove NPS 16 underground glycol cooling piping	6D 6B	16	2.00 98.41	ea ft	10.00 0.51	20.00 50.10	\$116.98 \$101.97	\$2,339.65 \$5,108.70
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.01	111.60	\$101.97	\$11,379.85
	(e) Excavate underground piping by machine	2B	Ű	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	су	0.21	70.00	\$102.25	\$7,157.73
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks								
	(a) Remove OCW expansion tank	6D 6D		1.00	ea	20.00 40.00	20.00 40.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank (c) Remove domestic water tank	6D 6D		1.00	ea ea	30.00	30.00	\$116.98 \$116.98	\$4,679.29 \$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	02	20.00	20.00	\$116.98	\$2,339.65
l	(a) Remove air compressors (b) Remvoe air receiver tanks	6D		1.00	ea ea	40.00	40.00	\$116.98	\$2,339.05
	(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			ļļ		<u> </u>	160		\$17,516.18
<u>H</u>	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage			\vdash					
┣────	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 gumps	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
<u> </u>	SYSTEM I: HEATING, VENTALATION & A/C								
	1. Remove Heating Systems associates with the Compressor			\vdash					
	Building, Auxilairy Wing, etc. (to be removed with buildings)	60		12.00	~~	10.00	120.00	¢110.00	¢15 007 00
	(a) Remove unit steam / electrical heaters	6D 6B		13.00 1.00	ea	10.00 40.00	130.00 40.00	\$116.98	\$15,207.69
┣────	(b) Remove associated piping / cabling	0B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.80
	SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C						170		\$19,286.49
	SYSTEM J: SANITARY & STORM SEWERS			┝────┦		<u>nl</u>		ł	ψ13,200.49
<u>⊢ </u>	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeking tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
		6B 2B	6	278.83 1.00	ft ea	0.19 20.00	52.70 20.00	\$101.97 \$139.63	\$5,373.82 \$2,792.62

n	Dida Electrica Environmental Accessment		1	1		<u>г г</u>			
	Bldg. Floor for Environmental Assessment	05		05.04	0	0.40	0.00	\$405.00	00.40.44
	(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	су	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D	6	13.08	су	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	су	0.21	2.80	\$102.25	\$286.31
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
<u>K</u>	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		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	SUB TOTAL SYSTEM K: ELECTRICAL						108		\$8,559.36
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Мо				
	1. Supervisory Personnel								
	(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						8,557		\$846,161.18
	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				\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00				\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00				\$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	%				\$100,853.12
	SUB TOTAL ADDITIONAL ITEMS			-			0		\$263,223.12

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Central Charlton, A, 0-5,000 HP Storage

Total Average Labor MH Labor Rate 6,577 \$103.96

Total e Labor Cost 6 \$683,782.40

\$1,109,384.29

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Cold Springs 1, A, 5,000-10,500 HP State: Michigan

apacity:	Michigan 5,000-10,500 HP	# of Cor	npressors	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.			1.00		405.00	405.00	* 00.04	
	(a) Remove engines and compressors	6C 6C		1.00 1.00	ea	495.00	495.00 120.00	\$99.64 \$99.64	\$49,319.8 \$11,956.3
	(b) Remove air intake systems (c) Remove exhaust systems	6C 6C		1.00	ea ea	120.00	120.00	\$99.64	\$11,956.3
	(d) Remove glycol coolers	6C		1.00	ea	250.00	250.00		\$24,909.0
	(e) Remove lighting system	3E		1.00	Lot	120.00	120.00		\$9,510.4
	(f) Remove associated piping system	6B		1.00	Lot	240.00	240.00		\$24,472.8
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00	45.00	\$123.13	\$5,541.0
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$116.98	\$7,018.9
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00	120.00	\$99.64	\$11,956.3
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$101.97	\$6,118.2
	3. Remove Auxiliary Wing associated Equipment			1.00		100.00	100.00	* 00.04	644 050
	(a) Remove auxiliary power unit (b) Remove all associated hot water piping	6C		1.00	ea	120.00	120.00	\$99.64	\$11,956.
	(b) Remove all associated not water piping	6B		1.00	Lot	30.00	30.00	\$101.97	\$3,059.
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$177,774.
В	SUBTOTAL STSTEM A: STATION LATOUT SYSTEM B: REINFORCED CONCRETE			┣━━━━┩			1,700		φι//,//4.
D	SYSTEM B: REINFORCED CONCRETE Compressor Building Basement Walls and Unit			╟───┤		<u> </u>			
	Blocks are to be Cut Off 3 feet below grade and								
	backfilled.								
	(a) Remove foundation walls and pilasters	2A		52.32	су	2.45	128.00	\$109.49	\$14,015.
	(b) Remove engine blocks	2A		124.26	cy	2.45	304.00	\$109.49	\$33,285.
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$109.49	\$7,007.
	(d) Remove yard equipment foundations	2A		13.08	cý	2.45	32.00	\$109.49	\$3,503.
	(e) Remove above grade pipe piers & valve supports	2A		39.24	cy	2.45	96.00	\$109.49	\$10,511.
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	су	0.10	7.80	\$139.63	\$1,089.
	(b) Backfill with excavated native material	2C		78.48	су	0.21	16.80	\$102.25	\$1,717.
	(c) Backfill with imported gravel	2C		326.99	су	0.21	70.00	\$102.25	\$7,157.
							740		*70.000
0	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$78,288.
<u>C</u>	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	01/	0.48	88.74	\$80.64	\$7,155.
	(b) Remove metal roof deck	3B		182.99	sy sy	0.40	26.01	\$98.81	\$2,570.
	(c) Remove wall cladding, door windows & lourvers	3C		102.05	sy	0.14	19.14	\$88.17	\$1,687.
	(d) Remove structural steel frame (roof, walls & columns)	3C		877.96	cy	0.09	80.55	\$88.17	\$7,102.
	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.
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$24,675.
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	\$101.97	\$17,416.
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40	\$101.97 \$101.07	\$3,405
	- NPS 10 HP above grade suction & discharge - NPS 12 HP bypass	6B 6B	10 12	65.61	ft ft	0.30	19.60 9.60	\$101.97	\$1,998 \$978
	(b) Flame Cutting	08	12	26.24	π	0.37	9.00	\$101.97	\$978.
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$133.97	\$7,716
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$133.97	\$862
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246.
	- NPS 12	6A	10	6.00	ea	1.09	6.54	\$133.97	\$876.
	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.
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16		\$116.98	\$486.
	(d) Remove NPS 6 bypass valve and operator	6D	6	1.00	ea	2.04	2.04	\$116.98	\$238.

Į	(a) Remove NRS 8 underground yeart mining	6D	0	242.74	£	0.24	E0 46	¢101 07	¢E 061 17
a	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24 0.10	58.46 14.95	\$101.97 \$139.63	\$5,961.17 \$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						468		\$50,718.69
<u>E</u>	<u>SYSTEM E: FUEL AND STARTING GAS</u> 1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply								
	Piping								
	(a) Excavate underground piping by machine	2B		196.19	су	0.10	19.50	\$139.63	\$2,722.80
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$101.97	\$1,346.00
	(c) Backfill with native excavated material	2C		196.19	су	0.21	42.00	\$102.25	\$4,294.64
	Excavate, Remove & Dispose of Domestic Fuel Gas Piping (a) Excavate underground piping by machine	2B		39.24	су	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping by machine	6B	4	32.80	ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	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	су	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.10	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	су	0.21	15.40	\$102.25	\$1,574.70
	Excavate, Remove & Dispose of "normal" Fuel Gas Piping (a) Excavate underground piping by machine	2B		52.32	су	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.10	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	су	0.21	11.20	\$102.25	\$1,145.24
									A 1
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS SYSTEM F: COOLING WATER					ļ <u>ļ</u>	162		\$17,846.54
<u>F</u>	SYSTEM F: COOLING WATER 1. Remove all Glycol and Jacket Water Cooling Systems	<u> </u>							
	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 glucol pumps (c) Remove NPS 16 underground glycol cooling piping	6D 6B	16	2.00 98.41	ea ft	10.00 0.51	20.00 50.10	\$116.98 \$101.97	\$2,339.65 \$5,108.70
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.51	111.60	\$101.97	\$11,379.85
	(e) Excavate underground piping by machine	2B	<u> </u>	431.62	су	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	су	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	су	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	¢E04 01
	(a) Demonsional experience of minimum	CD							\$584.91
I <u> </u>	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
		6B					80.00		\$8,157.60
G	(e) Remove all associated piping SUB TOTAL SYSTEM F: COOLING WATER SYSTEM G: COMPRESSED AIR	6B							
<u> </u>	SUB TOTAL SYSTEM F: COOLING WATER SYSTEM G: COMPRESSED AIR 1. Remove all Air Compressors located	6B					80.00		\$8,157.60
<u> </u>	SUB TOTAL SYSTEM F: COOLING WATER SYSTEM G: COMPRESSED AIR 1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks	6B					80.00		\$8,157.60
<u> </u>	SUB TOTAL SYSTEM F: COOLING WATER 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	6B					80.00		\$8,157.60
<u> </u>	SUB TOTAL SYSTEM F: COOLING WATER 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	6B 6D		1.00 			80.00		\$8,157.60
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remvee air receiver tanks	6D 6D		1.00 	Lot ea ea	80.00 20.00 40.00	80.00 572 20.00 40.00	\$101.97 	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remvee air receiver tanks (c) Remove instrument air storage tank	6D 6D 6D		1.00 1.00 1.00 1.00	Lot ea ea ea	80.00 20.00 40.00 10.00	80.00 572 20.00 40.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air cerver tanks (c) Remove instrument air storage tank (d) Remove condensate tank	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remvee air receiver tanks (c) Remove instrument air storage tank	6D 6D 6D		1.00 1.00 1.00 1.00	Lot ea ea ea	80.00 20.00 40.00 10.00	80.00 572 20.00 40.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air cerver tanks (c) Remove instrument air storage tank (d) Remove condensate tank	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 receiver tanks (c) Remove air receiver tanks (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 80.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 80.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air compressors (c) Remove air contressors (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement	6D 6D 6D 6D 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot	80.00 20.00 40.00 10.00 80.00	80.00 572 20.00 40.00 10.00 10.00 80.00 160	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 80.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (c) Remove condensate tank (d) Remove condensate tank (c) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil storage tank (c) Remove lub oil drainage tank (c) Remove lub oil drainage tank	6D 6D 6D 6B 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea ea ea ea	80.00 20.00 40.00 10.00 80.00 0 40.00 40.00 10.00	80.00 572 20.00 40.00 10.00 80.00 160 40.00 40.00 40.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,679.20
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove ordensate tank (d) Remove condensate tank (e) Remove associated piping 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 (b) Remove lub oil storage tank	6D 6D 6D 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 80.00 20.00 40.00 40.00	80.00 572 20.00 40.00 10.00 10.00 10.00 160 40.00 40.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,679.20
	SUB TOTAL SYSTEM F: COOLING WATER 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, Crane Supply and Engine Starting Air System Piping, (a) Remove air compressors (b) Remove air ceciver tanks (c) Remove onterceiver tanks (c) Remove onterceiver tanks (c) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drain pumps (c) Remove lub oil drain pumps	6D 6D 6D 6B 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea ea ea ea	80.00 20.00 40.00 10.00 80.00 0 40.00 40.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 40.00 40.00 40.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,078.80 \$4,078.80
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (c) Remove condensate tank (d) Remove condensate tank (c) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil storage tank (c) Remove lub oil drainage tank (c) Remove lub oil drainage tank	6D 6D 6D 6B 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea ea ea ea	80.00 20.00 40.00 10.00 80.00 0 40.00 40.00 10.00	80.00 572 20.00 40.00 10.00 80.00 160 40.00 40.00 40.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,679.20
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (c) Remove condensate tank (d) Remove condensate tank (e) Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil atrainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (d) Remove lub cil drainage tank (c) Remove lub cil drainage tank (d) Remove lub cil drainage tank (c) Remove lub cil drainage tank (d) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (d) Remove associated piping (d) Remove associated piping	6D 6D 6D 6B 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea ea ea ea	80.00 20.00 40.00 10.00 80.00 0 40.00 40.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 40.00 40.00 40.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,078.80 \$4,078.80
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings)	6D 6D 6D 6B 6B 6D 6D 6D 6D 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea Lot	80.00 20.00 40.00 10.00 80.00 40.00 40.00 40.00 40.00 40.00	80.00 572] 20.00 40.00 10.00 10.00 80.00 160] 40.00 40.00 40.00 10.00 40.00 10.0	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$10	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,679.20 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air compressors (c) Remove air compressors (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Hating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unt steam / electrical heaters	6D 6D 6D 6B 6B 6D 6D 6D 6B		1.00 1.00	Lot ea ea ea ea ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 40.00 160 10.00 40.00 10.00 10.00 130 130.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$1,169.82 \$4,679.29 \$4,078.80 \$4,078.80 \$4,078.80 \$15,207.69
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings)	6D 6D 6D 6B 6B 6D 6D 6D 6D 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea Lot	80.00 20.00 40.00 10.00 80.00 40.00 40.00 40.00 40.00 40.00	80.00 572] 20.00 40.00 10.00 10.00 80.00 160] 40.00 40.00 40.00 10.00 40.00 10.0	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$10	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,679.29 \$4,679.29 \$4,679.29 \$1,169.82 \$4,679.29 \$1,169.82 \$4,679.29 \$1,169.82 \$4,679.29 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove air receiver tanks (c) Remove condensate tank (d) Remove condensate tank (c) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL 1. Remove lub oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove associated piping / cabling	6D 6D 6D 6B 6B 6D 6D 6B 6D 6B		1.00 1.00	Lot ea ea ea ea ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 40.00 160 10.00 40.00 10.00 10.00 130 130.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,078.80 \$4,078.80 \$4,078.80
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air compressors (c) Remove air compressors (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Hating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unt steam / electrical heaters	6D 6D 6D 6B 6B 6D 6D 6B 6D 6B		1.00 1.00	Lot ea ea ea ea ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 160 10.00 40.00 10.00 40.00 130 130.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,679.20 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air compressors (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove unit steam / electrical heaters (b) Remove associated piping / cabling (a) Remove unit steam / electrical heaters	6D 6D 6D 6B 6B 6D 6B 6B 6B 6B		1.00 1.00	Lot ea ea ea Lot ea ea Lot ea Lot	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 40.00 10.00 40.00 10.00 40.00 10	80.00 572 20.00 40.00 10.00 10.00 80.00 160 40.00 40.00 40.00 130.00 40.00 130.00 130.00 170	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$116.98 \$101.97 \$116.98 \$101.97 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,078.80 \$11,69.82 \$4,078.80 \$11,928.49 \$4,078.80 \$19,286.49 \$19,286.49 \$19,286.49 \$10,286.
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping U SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Hating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping SYSTEM I: HEATING, VENTALATION & A/C 1. Remove dust steam / electrical heaters (b) Remove associated piping / cabling <td>6D 6D 6D 6B 6B 6D 6D 6B 6D 6B</td> <td></td> <td>1.00 1.00</td> <td>Lot ea ea ea ea ea ea ea Lot ea ea ea</td> <td>80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00</td> <td>80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 160 10.00 40.00 10.00 40.00 130 130.00 40.00</td> <td>\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98</td> <td>\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,078.80</td>	6D 6D 6D 6B 6B 6D 6D 6B 6D 6B		1.00 1.00	Lot ea ea ea ea ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 160 10.00 40.00 10.00 40.00 130 130.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,078.80

n	Dida. Elsas for Environmental Assessment		1 1	1		. I			
	Bldg. Floor for Environmental Assessment			05.04		0.40	0.00		
	(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	су	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	су	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	су	0.21	2.80	\$102.25	\$286.31
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
K	SYSTEM K: ELECTRICAL								
	 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
	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			2.00	Mo				
	1. Supervisory Personnel								
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$143.89	\$63,312.04
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$96.31	\$42,374.20
	(c) Mechanic			1.00	ea	44.00	440.00	\$71.38	\$31,406.76
	(d) Truck Driver			1.00	ea	44.00	440.00	\$78.18	\$34,397.88
	2. Equipment								
_	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$27.19	\$11,964.48
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$38.52	\$16,949.68
	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		\$216,505.04
	SUB TOTAL: SYSTEMS A TO L						7,309		\$703,478.91
	ADDITIONAL ITEMS								
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00				\$4,500.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00				\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00				\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			969.00				\$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	%				\$88,195.39
L				L					
	SUB TOTAL ADDITIONAL ITEMS						0		\$266,670.39

7,309

Total Labor Cost \$486,973.87

\$970,149.30

Cold Springs 1, A, 5,000-10,500 HP Storage

Total Average Labor MH Labor Rate 4,669 \$104.31

Project: 2015 Terminal Negative Salvage - ARO - IFRS

Location: Goodwell, B, 5,000-10,500 HP

State: Michigan

Capacity: 5,000-10,500 HP # of Compressors 2 ITEM DESCRIPTION Crew ID Pipe Dia. Quantity Unit MH/Unit Total MH Crew Rate **Total Cost** SYSTEM A: STATION LAYOUT Α 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 \$99.64 \$98.639.66 (b) Remove air intake systems 6C 2.00 120.00 240.00 \$99.64 \$23,912.64 ea 6C 2.00 120.00 240.00 \$99.64 (c) Remove exhaust systems ea \$23.912.64 (d) Remove glycol coolers 6C 2.00 ea 250.00 500.00 \$99.64 \$49,818.01 (e) Remove lighting system 3E 1.00 120.00 120.00 \$79.25 \$9,510.40 Lot (f) Remove associated piping system 6B 1.00 Lot 240.00 240.00 \$101.97 \$24,472.80 (g) Remove miscellaneous valves 6E 1.00 Lot 45.00 45.00 \$123.13 \$5,541.05 (h) Removed compressed air system 6D 1.00 Lot 60.00 60.00 \$116.98 \$7.018.94 Remove Plant Boiler and all Hot Water Piping (a) Remove plant boiler 6C 1.00 120.00 120.00 \$99.64 \$11,956.32 ea (b) Remove all associated hot water piping 6B 1.00 Lot 60.00 60.00 \$101.97 \$6.118.20 Remove Auxiliary Wing associated Equipment 6C 120.00 120.00 (a) Remove auxiliary power unit 1.00 \$99.64 \$11.956.32 ea (b) Remove all associated hot water piping 6B 1.00 Lot 30.00 30.00 \$101.97 \$3,059.10 SUB TOTAL SYSTEM A: STATION LAYOUT 2,765 \$275,916.09 В SYSTEM B: REINFORCED CONCRETE 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 2.45 256.00 \$109.49 \$28,030.24 су \$66.571.82 (b) Remove engine blocks 2A 248.51 2.45 608.00 \$109.49 су (c) Remove operating floor structural slab 2A 52.32 2.45 128.00 \$109.49 \$14,015.12 су (d) Remove yard equipment foundations 2A 26.16 2.45 64.00 \$109.49 \$7.007.56 су (e) Remove above grade pipe piers & valve supports 2A 78.48 с٧ 2.45 192.00 \$109.49 \$21,022.68 Excavation & Backfilling. (a) Excavate for foundation walls & yard concrete 2B 156.95 0.10 15.60 \$139.63 \$2,178.24 су (b) Backfill with excavated native material 2C 156.95 0.21 33.60 \$102.25 \$3,435.71 су

	(c) Backfill with imported gravel	2C		653.98	су	0.21	140.00	\$102.25	\$14,315.46
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$156,576.82
С	SYSTEM C: BUILDINGS & STRUCTURAL STEEL					<u>n n</u>	.,	/L	<i><i><i>x</i> : <i>c</i> : : <i>c</i> : : <i>c</i> : </i></i>
<u> </u>	1. Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	01/	0.48	177.48	\$80.64	\$14,311.21
	(b) Remove metal roof deck	3A 3B		365.97	sy sy	0.40	52.02	\$98.81	\$5,140.04
	(c) Remove wall cladding, door windows & lourvers	3D 3C		208.10	sy sy	0.14	38.28	\$98.01	\$3,375.15
	(d) Remove structural steel frame (roof, walls & columns)	3C 3C		1755.92	,	0.18	161.10	\$88.17	\$14,204.20
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol	30		1755.92	су	0.09	101.10	φοο.1 <i>1</i>	\$14,204.20
	Coolers and Associated Structural Steel	3D		10.56	40.00	10.00	105.60	¢110.07	\$12,319.83
	(a) Dismantle and remove structural steel	30		10.00	ton	10.00	105.60	\$116.67	\$12,319.83
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$49,350.42
D	SYSTEM D: HIGH PRESSURE GAS						Ï		
	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	\$101.97	\$34,832.95
	- 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	52.48	ft	0.37	19.20	\$101.97	\$1,957.82
	(b) Flame Cutting							T	<i>•</i> • , • • • • • •
	- NPS 30	6A	30	16.00	ea	7.20	115.20	\$133.97	\$15,432.87
	- NPS 16	6A	16	8.00	ea	1.61	12.88	\$133.97	\$1,725.48
	- 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					1 1			
	(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	су	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						772		\$83,973.80
<u>E</u>	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	су	0.10	19.50	\$139.63	\$2,722.80
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$101.97	\$1,346.00
	(c) Backfill with native excavated material	2C		196.19	су	0.21	42.00	\$102.25	\$4,294.64

	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine	2B		39.24	су	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	0.10	8.40	\$102.25	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping			00.24	0y	0.21	0.40	ψ102.20	4000 .00
	and Valves					1 1			
	(a) Excavate underground piping by machine	2B		71.94	су	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.10	11.16	\$101.97	\$1,137.99
	(c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.10	13.64	\$101.97	\$1,390.87
	(d) Backfill with native excavated material	2C		71.94	су	0.10	15.40	\$102.25	\$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping			11.01	J	0.21	10.10	\$10 <u>2</u> .20	ψ1,07 H10
	(a) Excavate underground piping by machine	2B		52.32	су	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	1.0	52.32	су	0.21	11.20	\$102.25	\$1,145.24
				01.01	•)	0		÷:•=:=•	¢.,
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						162		\$17,846.54
<u> </u>	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 glucol 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	су	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	су	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	су	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		[<u> </u>	J12		₹02,030.05
<u> </u>	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) Remvoe 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

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	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
<u> </u>	SYSTEM I: HEATING, VENTALATION & A/C								
	 Remove Heating Systems associates with the Compressor 								
	Building, Auxilairy 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, VENTALATION & A/C						170		\$19,286.49
	SYSTEM J: SANITARY & STORM SEWERS								ψ13,200. 4 3
<u> </u>	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeking tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B	0	1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr.			1.00	cu	20.00	20.00	φ100.00	ψ2,1 02.02
	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	су	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	CV	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	су	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		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	SUB TOTAL SYSTEM K: ELECTRICAL						108	i	\$8,559.36
	SYSTEM L: SITE OVERHEAD & SUPERVISION		<u> </u>	2.00	Мо		100		ψ0,009.00
<u> </u>	STOTEWIL, OTTE OVERTEAD & OUPERVISION			2.00	IVIO				

1. Supervisory Personnel				г			
(a) Project Superintendent		 1.00	ea	44.00	440.00	\$143.89	\$63,312.04
(b) Safety Coordinator		1.00	ea	44.00	440.00	\$96.31	\$42,374.20
(c) Mechanic		 1.00	ea	44.00	440.00	\$71.38	\$31,406.76
(d) Truck Driver		 1.00	ea	44.00	440.00	\$78.18	\$34,397.88
2. Equipment		 1.00	ea	44.00	440.00	φ <i>1</i> Ο. ΙΟ	<i> </i>
(a) Pickup Truck, 4x4		 1.00		44.00	440.00	\$27.19	¢11 064 49
		 1.00	ea	44.00	440.00	\$38.52	\$11,964.48 \$16.949.68
(b) Truck, Mechanic Rig 4x4		 1.00	ea	44.00	440.00	\$38.5Z	\$10,949.08
3. Miscellaneous Expenses		 2.00				\$230.00	¢460.00
(a) Trailer Office		2.00	mo			1	\$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		\$216,505.04
		 1					
SUB TOTAL: SYSTEMS A TO L					9,597		\$938,948.67
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
Load and Haul Debris (Trucking to Dumpsite)	2F	30.00	days			\$85.00	\$2,550.00
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	%				\$115,992.87
SUB TOTAL ADDITIONAL ITEMS					0	ľ	\$336,972.87

GRAND TOTAL		9,597	\$1 275 921 53
		0,001	<i><i><i><i></i></i></i></i>

Goodwell, B, 5,000-10,500 HP Storage Labor Man Average Rat Total Labor Cost 6,957 103.83742 \$722,443.63

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Lincoln, A, 5,000-10,500 HP State: Michigan

apacity:	5,000-10,500 HP	# of Cor	npressors	1		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	\$49,319.8
	(b) Remove air intake systems	6C		1.00	ea	120.00			
	(c) Remove exhaust systems	6C		1.00	ea	120.00			
	(d) Remove glycol coolers	6C		1.00	ea	250.00			
	(e) Remove lighting system	3E 6B		1.00	Lot	120.00			
	(f) Remove associated piping system (g) Remove miscellaneous valves	6E		1.00	Lot Lot	45.00			
	(h) Removed compressed air system	6D		1.00	Lot	60.00			
	2. Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	120.00			
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$101.97	\$6,118.2
	3. Remove Auxiliary Wing associated Equipment			1.00		100.00	100.00	£00.04	¢11.050.0
	(a) Remove auxiliary power unit (b) Remove all associated hot water piping	6C 6B		1.00 1.00	ea Lot	120.00 30.00			
		05		1.00	LOI	50.00	00.00	φ101.5 <i>1</i>	ψ0,000.1
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$177,774.6
B	SYSTEM B: REINFORCED CONCRETE								,
	1. Compressor Building Basement Walls and Unit								
	Blocks are to be Cut Off 3 feet below grade and								
	backfilled.			50.00		0.45	400.00	¢400.40	0 44.045.4
	(a) Remove foundation walls and pilasters (b) Remove engine blocks	2A 2A		52.32 124.26	cy	2.45 2.45	128.00 304.00		
	(c) Remove operating floor structural slab	2A 2A		26.16	cy cy	2.45			
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45			
	(e) Remove above grade pipe piers & valve supports	2A		39.24	су	2.45			
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	су	0.10			
	(b) Backfill with excavated native material (c) Backfill with imported gravel	2C 2C		78.48 326.99	су	0.21	16.80 70.00		
		20		320.99	су	0.21	70.00	\$102.25	φ <i>1</i> ,13 <i>1</i> .7
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$78,288.4
С	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48	88.74	\$80.64	
	(b) Remove metal roof deck (c) Remove wall cladding, door windows & lourvers	3B 3C		182.99 104.05	sy	0.14		\$98.81 \$88.17	\$2,570.0 \$1,687.5
	(d) Remove structural steel frame (roof, walls & columns)	3C 3C		877.96	sy cy	0.18		\$88.17	
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol			011.00	0y	0.00	00.00	\$00.11	¢7,102.
	Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$116.67	\$6,159.9
5	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						267		\$24,675.2
<u>D</u>	<u>SYSTEM D: HIGH PRESSURE GAS</u> 1. Dismantle and Remove all Above and Below Grade High								
	Pressure Gas Piping					1			
	(a) Remove high pressure gas piping					1			
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$101.97	
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.51	33.40		
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30	19.60		
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$101.97	\$978.9
	(b) Flame Cutting - NPS 30	6A	30	8.00	ea	7.20	57.60	\$133.97	\$7,716.4
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$133.97	
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246.
	- NPS 12	6A	12	6.00	ea	1.09	6.54	\$133.97	
	2. Dismantle and Remove all Unit Valves and Operators,								
	Plant Suction Scrubbers, Valves & Vent Pipes			1.00		10.00	10.00	600 C 1	#0.00 -
	(a) Remove horizontal scrubber	6C	20	1.00	ea	40.00	40.00		\$3,985.4
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00 1.00	ea	9.96 4.16	9.96 4.16		
	(c) Remove NPS 12 bypass valve and operator	6D	12		ea			\$116.98	\$486.

	(a) Pomovo NPS 8 underground vont piping	6P	8	242.74	#	0.24	58.46	¢101.07	¢5 061 17
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24	58.46 14.95	\$101.97 \$139.63	\$5,961.17 \$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						468		\$50,718.69
<u>E</u>	<u>SYSTEM E: FUEL AND STARTING GAS</u> 1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply								
	Piping								
	(a) Excavate underground piping by machine	2B		196.19	су	0.10	19.50	\$139.63	\$2,722.80
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$101.97	\$1,346.00
	(c) Backfill with native excavated material	2C		196.19	су	0.21	42.00	\$102.25	\$4,294.64
	Excavate, Remove & Dispose of Domestic Fuel Gas Piping (a) Excavate underground piping by machine	2B		39.24	су	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	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	су	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.10	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	су	0.21	15.40	\$102.25	\$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping	2B		52.22	01	0.10	5 20	\$120.62	\$726.09
	(a) Excavate underground piping by machine (b) Remove NPS 1-1/2 underground piping	2B 6B	1.5	52.32 49.20	cy If	0.10	5.20 4.65	\$139.63 \$101.97	\$726.08 \$474.16
	(c) Backfill with native excavated material	2C	1.0	52.32	су	0.03	11.20	\$102.25	\$1,145.24
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						162		\$17,846.54
<u>F</u>	SYSTEM F: COOLING WATER			┣───┤					
<u> </u>	Remove all Glycol and Jacket Water Cooling Systems Including Air System Cooling, Engine Cooling and APU	1		┣───┤		├			
	Cooling Piping.								
	(a) Remove JCW and OCW pumps	6D		2.00	ea	40.00	80.00	\$116.98	\$9,358.58
	(b) Remove glucol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65
	(c) Remove NPS 16 underground glycol cooling piping (d) Remove NPS 6 underground glycol cooling piping	6B 6B	16 6	98.41 590.45	ft ft	0.51	50.10 111.60	\$101.97 \$101.97	\$5,108.70 \$11,379.85
	(e) Excavate underground piping by machine	2B	0	431.62	су	0.19	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	су	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		20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank	6D		1.00	ea ea	40.00	40.00	\$116.98	\$2,339.65
	(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		1				572		\$62,896.05
G	SYSTEM G: COMPRESSED AIR						072		φ02,000.00
	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) Remvoe 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
<u> </u>	(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
Н			Υ <u></u>						. ,
	SYSTEM H: LUBE OIL								
	1. Remove all New and Used Oil Storage								
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement	6D		4.00		40.00	40.00	¢110.00	¢ 4 670 00
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank	6D 6D		1.00	ea	40.00	40.00 40.00	\$116.98 \$116.98	
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement	6D 6D 6D		1.00 1.00 1.00	ea ea ea	40.00 40.00 10.00	40.00 40.00 10.00	\$116.98 \$116.98 \$116.98	\$4,679.29
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29 \$1,169.82
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00 40.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82 \$4,078.80
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82 \$4,078.80
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00 40.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82 \$4,078.80
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL	6D 6D		1.00 1.00 1.00	ea ea	40.00 10.00	40.00 10.00 40.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82 \$4,078.80
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilary Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters	6D 6B 6B		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings)	6D 6D 6B		1.00 1.00 1.00	ea ea Lot	40.00 10.00 40.00	40.00 10.00 40.00 130	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove associated piping / cabling	6D 6B 6B		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00 40.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80
	I. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C	6D 6B 6B		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00	\$116.98 \$116.98 \$101.97	\$4.679.29 \$4.679.29 \$1.169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80 \$19,286.49
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove associated piping / cabling	6D 6B 6B		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00 40.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping / cabling SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C	6D 6B 6B		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00 40.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80

n									
	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	су	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	су	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	су	0.21	2.80	\$102.25	\$286.31
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
<u>K</u>	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			2.00	Мо				
	1. Supervisory Personnel								
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$143.89	\$63,312.04
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$96.31	\$42,374.20
	(c) Mechanic			1.00	ea	44.00	440.00	\$71.38	\$31,406.76
	(d) Truck Driver			1.00	ea	44.00	440.00	\$78.18	\$34,397.88
	2. Equipment								
	(a) Pickup Truck, 4x4			1.00	ea	44.00	440.00	\$27.19	\$11,964.48
	(b) Truck, Mechanic Rig 4x4			1.00	ea	44.00	440.00	\$38.52	\$16,949.68
	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		\$216,505.04
	SUB TOTAL: SYSTEMS A TO L						7,309		\$703,478.91
	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	%				\$88,195.39
	SUB TOTAL ADDITIONAL ITEMS		Γ				0		\$266,670.39

7,309

Lincoln, A, 5,000-10,500 HP Storage Total Average Labor MH Labor Rate 4,669 \$104.31

Total e Labor Cost 1 \$486,973.87

\$970,149.30

Project: 2015 Terminal Negative Salvage - ARO - IFRS

Location: Lincoln, A, 0-5,000 HP State: Michigan

	Michigan 0-5,000 HP	# of Cor	npressors	2					
ITEM	DESCRIPTION		Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
Α	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.			0.00		105.00		000.04	
	(a) Remove engines and compressors	6C		2.00	ea	495.00		\$99.64	\$98,639.66
	(b) Remove air intake systems	6C 6C		2.00 2.00	ea	120.00 120.00		\$99.64 \$99.64	\$23,912.64 \$23,912.64
	(c) Remove exhaust systems (d) Remove glycol coolers	6C 6C		2.00	ea ea	250.00			\$49,818.01
	(e) Remove lighting system	3E		1.00	Lot	80.00		\$79.25	\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00			\$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
	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		\$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	<u> </u>					2,500		\$249,371.71
В	SUB TOTAL STSTEM A: STATION LAYOUT SYSTEM B: REINFORCED CONCRETE						2,500		φ ∠ 43,371.7
D	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	су	2.45	256.00	\$109.49	\$28,030.24
	(b) Remove engine blocks	2A		248.51	cý	2.45	608.00	\$109.49	\$66,571.82
	(c) Remove operating floor structural slab	2A		52.32	су	2.45	128.00	\$109.49	\$14,015.12
	(d) Remove yard equipment foundations	2A		26.16	су	2.45		\$109.49	\$7,007.56
	(e) Remove above grade pipe piers & valve supports	2A		78.48	су	2.45	192.00	\$109.49	\$21,022.68
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B 2C		156.95	су	0.10		\$139.63 \$102.25	\$2,178.24
	(b) Backfill with excavated native material (c) Backfill with imported gravel	2C 2C		156.95 653.98	cy cy	0.21		\$102.25	\$3,435.71 \$14,315.46
		20		000.90	Cy	0.21	140.00	\$102.25	φ14,515.40
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$156,576.82
С	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
-	1. Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$80.64	\$14,311.21
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$98.81	\$5,140.04
	(c) Remove wall cladding, door windows & lourvers	3C		208.10	sy	0.18		\$88.17	\$3,375.15
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	су	0.09	161.10	\$88.17	\$14,204.20
	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	\$116.67	\$12,319.83
		30		10.50	lon	10.00	105.00	\$110.07	φ12,319.03
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL					1	534		\$49,350.42
D	SYSTEM D: HIGH PRESSURE GAS								<i>•</i> ,
<u></u>	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		\$101.97	\$29,856.82
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30		\$101.97	\$2,798.00
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$101.97	\$978.91
	(b) Flame Cutting - NPS 30	6.4	20	16.00	66	7.00	115.00	¢100.07	¢15 400 0
	- NPS 30 - NPS 16	6A 6A	30 16	16.00 8.00	ea ea	7.20	115.20 12.88	\$133.97 \$133.97	\$15,432.87 \$1,725.48
	- NPS 10	6A 6A	10	2.00	ea	0.92	12.00	\$133.97	\$246.50
	- NPS 10 - NPS 12	6A	10	8.00	ea	1.09		\$133.97	\$1,168.18
	 Dismantle and Remove all Unit Valves and Operators. 			0.00	54	1.00	0.72	φ.00.01	÷.,100.10
	Plant Suction Scrubbers, Valves & Vent Pipes					1	1		
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.4
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96		\$116.98	\$1,165.14
			10	1.00		4.40	4.40	¢110.00	\$486.6
	(c) Remove NPS 12 bypass valve and operator (d) Remove NPS 6 bypass valve and operator	6D 6D	12 6	1.00 1.00	ea ea	4.16		\$116.98 \$116.98	\$480.00

n n	(a) Romovo NRS 8 underground vont piping	60	8	242 74	#	0.24	58.46	¢101.07	¢5 061 17
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24	58.46 14.95	\$101.97 \$139.63	\$5,961.17 \$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						680		\$74,532.59
<u>E</u> 1	SYSTEM E: FUEL AND STARTING GAS . Excavate, Remove & Dispose of Emergency Fuel Gas Supply								
	Piping								
	(a) Excavate underground piping by machine	2B		130.80	су	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	су	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		0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	39.24	cy ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	0.21	8.40	\$102.25	\$858.93
3	Excavate, Remove & Dispose of Fuel & Starting Gas Piping				1				•
	and Valves			74.04		0.40		* 4 * * *	
	(a) Excavate underground piping by machine (b) Remove NPS 4 underground starting gas piping	2B 6B	6	71.94 59.05	cy ft	0.10	7.15 11.16	\$139.63 \$101.97	\$998.36 \$1,137.99
	(c) Remove NPS 4 underground starting 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	су	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	су	0.10	5.20	\$139.63	\$726.08
┣───┣	(b) Remove NPS 1-1/2 underground piping (c) Backfill with native excavated material	6B 2C	1.5	49.20 52.32	lf	0.09	4.65 11.20	\$101.97 \$102.25	\$474.16 \$1,145.24
╞───┠		∠ ∪		52.32	су	0.21	11.20	φ102.25	φı, 145.24
┢───┤└	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS		i – – – –			i l	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		40.00	80.00	\$116.98	\$9,358.58
	(b) Remove glucol pumps	6D		2.00	ea ea	40.00	20.00	\$116.98	\$9,350.50
	(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	су	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	су	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	су	0.21	70.00	\$102.25	\$7,157.73
Ľ	. 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						572		\$02,030.03
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			1.00					<u> </u>
┣───┣	(a) Remove air compressors (b) Remvoe air receiver tanks	6D 6D		1.00 1.00	ea	20.00 40.00	20.00 40.00	\$116.98 \$116.98	\$2,339.65 \$4,679.29
╞───┠	(b) Remove air receiver tanks (c) Remove instrument air storage tank	6D 6D		1.00	ea ea	40.00	40.00	\$116.98	\$4,679.29
╞───┟	(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			<u> </u>		ļļ	160		\$17,516.18
<u>H</u>	SYSTEM H: LUBE OIL			┣────┤		├			
	. 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
┝───┤	SYSTEM I: HEATING, VENTALATION & A/C					<u> </u>	130		ψ1 4 ,007.20
1	. Remove Heating Systems associates with the Compressor		1						
Ľ	Building, Auxilairy 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
									A40 000
┝───	SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C		ļ			<u> </u>	170		\$19,286.49
<u>J</u>	SYSTEM J: SANITARY & STORM SEWERS . Remove Weeping Tiles and Manholes		<u> </u>			┟──┤			
┝───╢╵	(a) Remove weeking tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B	Ť	1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	. Excavate and carefully Remove Drain Piping Under Compr.							-	

n					-				
	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	су	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	су	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	су	0.21	2.80	\$102.25	\$286.31
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
<u>K</u>	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		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	SUB TOTAL SYSTEM K: ELECTRICAL						108		\$8,559.36
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Мо				
	1. Supervisory Personnel								
	(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								
ļ	(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 (b) Telephone			1.50	mo			\$230.00	\$345.00
				1.50	mo			\$1,150.00 \$1.150.00	\$1,725.00
	(c) Cellular Phones (d) Office Equipment: Fax, Copier, Computers, etc.			1.50 1.50	mo			\$1,150.00	\$1,725.00 \$1,725.00
	(a) Onice Equipment: Pax, Copier, Computers, etc. (e) Utility Bills: Electric, Water, etc.			1.50	mo mo			\$1,150.00	\$1,725.00
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
	(1) Daily consumables			33.00	uay			ψ172.50	ψ3,032.30
	SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION						1,980		\$162,378.78
	SOB TOTAL STSTEME. SHE OVERHEAD & SOPERVISION						1,300		\$102,570.70
	SUB TOTAL: SYSTEMS A TO L			 1			8,557		\$846,161.18
	SUB TOTAL. STSTEMS A TO L						0,007		\$040,101.10
									1
	ADDITIONAL ITEMS 1. Mobilization and Demobilization			1.00	LS			£10,000,00	£10.000.00
	Mobilization and Demobilization Allowance for Hydrovac Unit			1.00	LS days			\$10,000.00 \$4,500.00	\$10,000.00 \$54,000.00
	Allowance for Hydrovac Unit Allowance for Hydrovac Unit Source and Haul Debris (Trucking to Dumpsite)	2F	<u> </u>	20.00	days days			\$4,500.00 \$85.00	\$54,000.00 \$1,700.00
	Load and Haul Debris (Trucking to Dumpsite) Load and Haul Heavy Equipment (Trucking offsite)	2F 6F		20.00	days			\$85.00	\$1,700.00 \$730.00
	5. Daily Subsistence Allowance (Per Diem)	0F		738.00	Mdays			\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	wuays %			φ130.00	\$95,940.00 \$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$100,853.12
				10.00	70				ψ100,000.1Z
	SUB TOTAL ADDITIONAL ITEMS						0		\$263,223.12
	300 TOTAL ADDITIONAL ITEMS	1					J		4200,220.1Z

8,557

Total Labor Cost \$683,782.40

\$1,109,384.29

Total Average Labor MH Labor Rate 6,577 \$103.96

Lincoln, A, 0-5,000 HP Storage

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Muttonville, A, 0-5,000 HP

State: Michigan

	Michigan 0-5,000 HP	# of Cor	npressors	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.			0.00		105.00			
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00		\$98,639.66
	(b) Remove air intake systems (c) Remove exhaust systems	6C 6C		2.00	ea ea	120.00 120.00	240.00 240.00		\$23,912.64 \$23,912.64
	(d) Remove glycol coolers	6C 6C		2.00	ea	250.00	500.00		\$49,818.01
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00		\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00			\$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
	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00		\$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			1.00		00.00	00.00	* 00.04	A7 070 00
	(a) Remove auxiliary power unit (b) Remove all associated hot water piping	6C 6B		1.00 1.00	ea Lot	80.00	80.00 20.00		\$7,970.88 \$2,039.40
	(b) Remove all associated not water piping	00		1.00	LOI	20.00	20.00	\$101.97	\$2,039.40
	SUB TOTAL SYSTEM A: STATION LAYOUT					1	2,500		\$249,371.71
В	SYSTEM B: REINFORCED CONCRETE						2,000		φ 2 40,071.7
D	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	су	2.45	256.00	\$109.49	\$28,030.24
	(b) Remove engine blocks	2A		248.51	су	2.45	608.00	\$109.49	\$66,571.82
	(c) Remove operating floor structural slab	2A		52.32	су	2.45	128.00		
	(d) Remove yard equipment foundations	2A		26.16	су	2.45	64.00		
	(e) Remove above grade pipe piers & valve supports	2A		78.48	су	2.45	192.00	\$109.49	\$21,022.68
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	су	0.10	15.60		\$2,178.24
	(b) Backfill with excavated native material (c) Backfill with imported gravel	2C 2C		156.95 653.98	су	0.21	33.60 140.00		\$3,435.71 \$14,315.46
		20		000.00	су	0.21	140.00	ψ102.23	φ14,515.40
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$156,576.82
С	SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,407		\$100,010.02
<u> </u>	1. Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$80.64	\$14,311.2
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02		\$5,140.04
	(c) Remove wall cladding, door windows & lourvers	3C		208.10	sy	0.18	38.28		\$3,375.15
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	су	0.09	161.10	\$88.17	\$14,204.20
	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	\$116.67	\$12,319.83
						1			
_	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$49,350.42
<u>D</u>	SYSTEM D: HIGH PRESSURE GAS								
	Dismantle and Remove all Above and Below Grade High Discourse Cap Dising								
	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	\$101.97	\$29,856.8
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.74	50.10		\$5,108.7
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30			\$2,798.0
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60		\$978.9
		1							
	(b) Flame Cutting			40.00	00	7.20	115.20	\$133.97	\$15,432.8
	- NPS 30	6A	30	16.00	ea				
	- NPS 30 - NPS 16	6A 6A	16	8.00	ea	1.61	12.88	\$133.97	\$1,725.4
	- NPS 30 - NPS 16 - NPS 10						12.88 1.84	\$133.97	\$246.5
	- NPS 30 - NPS 16 - NPS 10 - NPS 12	6A	16	8.00	ea	1.61		\$133.97	\$246.5
	- NPS 30 - NPS 16 - NPS 10 - NPS 12 2. Dismantle and Remove all Unit Valves and Operators,	6A 6A	16 10	8.00 2.00	ea ea	1.61 0.92	1.84	\$133.97	\$246.5
	- NPS 30 - NPS 16 - NPS 10 - NPS 12 Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes	6A 6A 6A	16 10	8.00 2.00 8.00	ea ea ea	1.61 0.92 1.09	1.84 8.72	\$133.97 \$133.97	\$246.5 \$1,168.1
	- NPS 30 - NPS 16 - NPS 10 - NPS 12 2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes (a) Remove horizontal scrubber	6A 6A 6A 6C	16 10 12	8.00 2.00 8.00 1.00	ea ea ea	1.61 0.92 1.09 40.00	1.84 8.72 40.00	\$133.97 \$133.97 \$199.64	\$246.5 \$1,168.1 \$3,985.4
	- NPS 30 - NPS 16 - NPS 10 - NPS 12 Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes	6A 6A 6A	16 10	8.00 2.00 8.00	ea ea ea	1.61 0.92 1.09	1.84 8.72 40.00 9.96	\$133.97 \$133.97 \$99.64 \$116.98	

n 1	(c) Demonstration of the second	A D		040 74	0	0.04	50.40	#404 07	AF 004 47
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cv	0.24 0.10	58.46 14.95	\$101.97 \$139.63	\$5,961.17 \$2,087.48
	(j) Excavate by machine (g) Backfill with native excavated material	2B 2C		150.41	cy	0.10	32.20	\$102.25	\$2,007.40
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						680		\$74,532.59
<u>E</u>	SYSTEM E: FUEL AND STARTING GAS								
	 Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping 								
	(a) Excavate underground piping by machine	2B		130.80	су	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	су	0.21	28.00	\$102.25	\$2,863.09
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine (b) Remove NPS 4 underground piping	2B 6B	4	39.24 32.80	cy ft	0.10	3.90 6.20	\$139.63 \$101.97	\$544.56 \$632.21
	(c) Backfill with native excavated material	2C	4	39.24	су	0.19	8.40	\$101.97	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping			00.21	0)	0.21	0.10	¢:02.20	<i><i><i></i></i></i>
	and Valves								
	(a) Excavate underground piping by machine (b) Remove NPS 4 underground starting gas piping	2B 6B	6	71.94 59.05	cy ft	0.10	7.15 11.16	\$139.63 \$101.97	\$998.36 \$1,137.99
	(c) Remove NPS 4 underground starting gas piping (c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$101.97	\$1,137.99
	(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	су	0.10	5.20	\$139.63	\$726.08
<u> </u>	(b) Remove NPS 1-1/2 underground piping (c) Backfill with native excavated material	6B 2C	1.5	49.20 52.32	lf cv	0.09	4.65 11.20	\$101.97 \$102.25	\$474.16 \$1,145.24
		20		52.32	су	U.Z I	11.20	ψ102.20	ψ1,1 4 3.24
	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 glucol 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 (f) Backfill with native excavated material (75%)	2B 2C		431.62 104.64	cy cy	0.10	42.90 22.40	\$139.63 \$102.25	\$5,990.17 \$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				- 1	-			
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank (c) Remove domestic water tank	6D 6D		1.00	ea ea	40.00 30.00	40.00 30.00	\$116.98 \$116.98	\$4,679.29 \$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 6D	┟───┤	1.00	ea	20.00 40.00	20.00 40.00	\$116.98 \$116.98	\$2,339.65
	(b) Remvoe air receiver tanks (c) Remove instrument air storage tank	6D 6D	┼──┤	1.00 1.00	ea ea	40.00	40.00	\$116.98 \$116.98	\$4,679.29 \$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
				<u> </u>		<u> </u>	400		\$47 E40 40
	SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL		<u> </u>	<u> </u>		<u> </u>	160		\$17,516.18
<u>H</u>	1. Remove all New and Used Oil Storage	1							
	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	<u> </u>	1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	(c) Remove lube oil drain pumps (d) Remove associated piping	6D 6B	┼──┤	1.00	ea Lot	10.00 40.00	10.00 40.00	\$116.98 \$101.97	\$1,169.82 \$4,078.80
	(/ / · · · · · · · · · · · · · · · · ·								÷ .,070.00
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$14,607.20
l	SYSTEM I: HEATING, VENTALATION & A/C								
	Remove Heating Systems associates with the Compressor Building, Auxilairy 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, VENTALATION & A/C						170		\$19,286.49
J	SYSTEM J: SANITARY & STORM SEWERS		├───┤						
	Remove Weeping Tiles and Manholes (a) Remove weeking tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B	Ť	1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr.	-				1			

n		1							
	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	су	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	су	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	су	0.21	2.80	\$102.25	\$286.31
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
<u>K</u>	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		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
L	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	SUB TOTAL SYSTEM K: ELECTRICAL						108		\$8,559.36
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Мо				
	1. Supervisory Personnel								
	(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		33.00	330.00	\$27.19	\$8,973.36
	(a) Pickup Truck, 4x4 (b) Truck, Mechanic Rig 4x4			1.00	ea	33.00	330.00	\$27.19	\$8,973.36
	3. Miscellaneous Expenses			1.00	ea	33.00	330.00	\$38.5Z	\$12,712.20
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$230.00	\$345.00 \$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
-	(i) Daily consumatics			00.00	uay			ψ172.00	ψ0,002.00
	SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION			1			1,980		\$162,378.78
							1,000		\$102,010.10
	SUB TOTAL: SYSTEMS A TO L						8,557		\$846,161.18
							0,007		φ040,101.10
	ADDITIONAL ITEMS		1			I		-	i
┣────	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			12.00				\$4,500.00	\$54,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00				\$85.00	\$1,700.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00				\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)			738.00				\$130.00	\$95,940.00
	6. Prime Cost Allowance (Contingency)			0.00	%			ψ100.00	\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$100,853.12
					,,,				÷.00,000.12
	SUB TOTAL ADDITIONAL ITEMS						0		\$263,223.12
							U		w200,220.12

8,557

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Muttonville, A, 0-5,000 HP Storage Total Average Labor MH Labor Rate 6,577 \$103.96

Total e Labor Cost \$ \$683,782.40

\$1,109,384.29

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Reed City, A, 5,000-10,500 HP State: Michigan

	Michigan 5,000-10,500 HP	# of Cor	npressors	1					
ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
Α	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	\$49,319.8
	(b) Remove air intake systems	6C		1.00	ea	120.00	120.00	\$99.64	\$11,956.3
	(c) Remove exhaust systems	6C		1.00	ea	120.00			\$11,956.3
	(d) Remove glycol coolers	6C		1.00	ea	250.00			\$24,909.0
	(e) Remove lighting system	3E		1.00	Lot	120.00			\$9,510.4
	(f) Remove associated piping system	6B		1.00	Lot	240.00			\$24,472.8
	(g) Remove miscellaneous valves	6E		1.00	Lot	45.00			\$5,541.
	(h) Removed compressed air system	6D		1.00	Lot	60.00	60.00	\$116.98	\$7,018.9
	2. Remove Plant Boiler and all Hot Water Piping			1.00		400.00	100.00		
	(a) Remove plant boiler	6C		1.00	ea	120.00		\$99.64	\$11,956.
	(b) Remove all associated hot water piping	6B		1.00	Lot	60.00	60.00	\$101.97	\$6,118.2
	3. Remove Auxiliary Wing associated Equipment			4.00		400.00	400.00	* 00.04	011 050
	(a) Remove auxiliary power unit	6C		1.00	ea	120.00		\$99.64	\$11,956.
	(b) Remove all associated hot water piping	6B		1.00	Lot	30.00	30.00	\$101.97	\$3,059.
					1	1	4 = 0.0		A
_	SUB TOTAL SYSTEM A: STATION LAYOUT						1,780		\$177,774.
<u>B</u>	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	су	2.45		\$109.49	\$14,015.
	(b) Remove engine blocks	2A		124.26	су	2.45		\$109.49	\$33,285.
	(c) Remove operating floor structural slab	2A		26.16	су	2.45			\$7,007.
	(d) Remove yard equipment foundations	2A		13.08	су	2.45			\$3,503.
	(e) Remove above grade pipe piers & valve supports	2A		39.24	су	2.45	96.00	\$109.49	\$10,511.
	2. Excavation & Backfilling.	0.5		70.40		0.40	7.00	#100.00	64 000
	(a) Excavate for foundation walls & yard concrete	2B		78.48	су	0.10		\$139.63	\$1,089.
	(b) Backfill with excavated native material	2C		78.48	су	0.21			\$1,717.
	(c) Backfill with imported gravel	2C		326.99	су	0.21	70.00	\$102.25	\$7,157.
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$78,288.
0							/13		\$70,200.
<u>C</u>	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	Remove Compressor Building and all Associated Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	01/	0.48	88.74	\$80.64	\$7,155.
	(b) Remove metal roof deck	3A 3B		182.99	sy	0.40		\$00.04	\$2,570.
	(c) Remove wall cladding, door windows & lourvers	3D 3C		102.99	sy sy	0.14			\$2,570.
	(d) Remove structural steel frame (roof, walls & columns)	3C 3C		877.96	cy	0.10			\$7,102
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol	30		077.30	Cy	0.03	00.55	φ00.17	ψ1,102.
	Coolers and Associated Structural Steel					-			
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$116.67	\$6,159
		00		0.20	ton	10.00	52.00	ψ110.07	ψ0,100
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL					1	267		\$24,675
D	SYSTEM D: HIGH PRESSURE GAS						201		Ψ24,070
U						1			
	Dismantle and Remove all Above and Below Grade High Pressure Gas Piping					1			
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	229.62	ft	0.74	170.80	\$101.97	\$17,416
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	65.61	ft	0.74	33.40	\$101.97	\$3,405
	- NPS 10 HP above grade suction & discharge	6B	10	65.61	ft	0.30			\$1,998
	- NPS 12 HP bypass	6B	10	26.24	ft	0.37	9.60	\$101.97	\$978
	(b) Flame Cutting		12	20.24		0.07	5.00	φ101.37	ψ070
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$133.97	\$7,716
	- NPS 16	6A	16	4.00	ea	1.61	6.44	\$133.97	\$862
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	\$246
	- NPS 12	6A	10	6.00	ea	1.09		\$133.97	\$876
	 Dismantle and Remove all Unit Valves and Operators, 	~~	12	0.00	Ju	1.03	0.04	<i>\\\\</i> 100.31	ψυγυ
	Plant Suction Scrubbers, Valves & Vent Pipes					1			
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96		\$116.98	\$1,165
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16			\$486
				1.00		2.04			\$238.

Į	(a) Remove NRS 8 underground yeart mining	6D	0	242.74	£	0.24	E0 46	¢101 07	¢E 061 17
a	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24 0.10	58.46 14.95	\$101.97 \$139.63	\$5,961.17 \$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						468		\$50,718.69
<u>E</u>	<u>SYSTEM E: FUEL AND STARTING GAS</u> 1. Excavate, Remove & Dispose of Emergency Fuel Gas Supply								
	Piping								
	(a) Excavate underground piping by machine	2B		196.19	су	0.10	19.50	\$139.63	\$2,722.80
	(b) Remove NPS 2 underground piping	6B	2	131.21	ft	0.10	13.20	\$101.97	\$1,346.00
	(c) Backfill with native excavated material	2C		196.19	су	0.21	42.00	\$102.25	\$4,294.64
	Excavate, Remove & Dispose of Domestic Fuel Gas Piping (a) Excavate underground piping by machine	2B		39.24	су	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping by machine	6B	4	32.80	ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	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	су	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.10	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	су	0.21	15.40	\$102.25	\$1,574.70
	Excavate, Remove & Dispose of "normal" Fuel Gas Piping (a) Excavate underground piping by machine	2B		52.32	су	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.10	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	су	0.21	11.20	\$102.25	\$1,145.24
									A 1
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS SYSTEM F: COOLING WATER					ļ <u>ļ</u>	162		\$17,846.54
<u>F</u>	SYSTEM F: COOLING WATER 1. Remove all Glycol and Jacket Water Cooling Systems	<u> </u>							
	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 glucol pumps (c) Remove NPS 16 underground glycol cooling piping	6D 6B	16	2.00 98.41	ea ft	10.00 0.51	20.00 50.10	\$116.98 \$101.97	\$2,339.65 \$5,108.70
	(d) Remove NPS 6 underground glycol cooling piping	6B	6	590.45	ft	0.51	111.60	\$101.97	\$11,379.85
	(e) Excavate underground piping by machine	2B	<u> </u>	431.62	су	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	су	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	су	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	¢E04 01
	(a) Barray all appreciated pining	CD							\$584.91
I <u> </u>	(e) Remove all associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
		6B					80.00		\$8,157.60
G	(e) Remove all associated piping SUB TOTAL SYSTEM F: COOLING WATER SYSTEM G: COMPRESSED AIR	6B							
<u> </u>	SUB TOTAL SYSTEM F: COOLING WATER SYSTEM G: COMPRESSED AIR 1. Remove all Air Compressors located	6B					80.00		\$8,157.60
<u> </u>	SUB TOTAL SYSTEM F: COOLING WATER SYSTEM G: COMPRESSED AIR 1. Remove all Air Compressors located in the Auxiliary Wing, with all Associated Receiver Tanks	6B					80.00		\$8,157.60
<u> </u>	SUB TOTAL SYSTEM F: COOLING WATER 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	6B					80.00		\$8,157.60
<u> </u>	SUB TOTAL SYSTEM F: COOLING WATER 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	6B 6D		1.00 			80.00		\$8,157.60
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remvee air receiver tanks	6D 6D		1.00 	Lot ea ea	80.00 20.00 40.00	80.00 572 20.00 40.00	\$101.97 	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remvee air receiver tanks (c) Remove instrument air storage tank	6D 6D 6D		1.00 1.00 1.00 1.00	Lot ea ea ea	80.00 20.00 40.00 10.00	80.00 572 20.00 40.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air ceriver tanks (c) Remove instrument air storage tank (d) Remove condensate tank	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remvee air receiver tanks (c) Remove instrument air storage tank	6D 6D 6D		1.00 1.00 1.00 1.00	Lot ea ea ea	80.00 20.00 40.00 10.00	80.00 572 20.00 40.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air ceriver tanks (c) Remove instrument air storage tank (d) Remove condensate tank	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 receiver tanks (c) Remove air receiver tanks (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 80.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 80.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air compressors (c) Remove air contressors (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement	6D 6D 6D 6D 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot	80.00 20.00 40.00 10.00 80.00	80.00 572 20.00 40.00 10.00 10.00 80.00 160	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage	6D 6D 6D 6D		1.00 1.00 1.00 1.00 1.00	Lot ea ea ea ea	80.00 20.00 40.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 80.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (c) Remove condensate tank (d) Remove condensate tank (c) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil storage tank (c) Remove lub oil drainage tank (c) Remove lub oil drainage tank	6D 6D 6D 6B 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea ea ea ea	80.00 20.00 40.00 10.00 80.00 0 40.00 40.00 10.00	80.00 572 20.00 40.00 10.00 80.00 160 40.00 40.00 40.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove ordensate tank (d) Remove condensate tank (e) Remove associated piping 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 (b) Remove lub oil storage tank	6D 6D 6D 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 80.00 20.00 40.00 40.00	80.00 572 20.00 40.00 10.00 10.00 10.00 160 40.00 40.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29
	SUB TOTAL SYSTEM F: COOLING WATER 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, Crane Supply and Engine Starting Air System Piping, (a) Remove air compressors (b) Remove air ceciver tanks (c) Remove air compressors (c) Remove ondensate tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drainage tank (c) Remove lub oil drain pumps (d) Remove associated piping	6D 6D 6D 6B 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea ea ea ea	80.00 20.00 40.00 10.00 80.00 0 40.00 40.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 40.00 40.00 40.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,078.80 \$4,078.80
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (c) Remove condensate tank (d) Remove condensate tank (c) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil storage tank (c) Remove lub oil drainage tank (c) Remove lub oil drainage tank	6D 6D 6D 6B 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea ea ea ea	80.00 20.00 40.00 10.00 80.00 0 40.00 40.00 10.00	80.00 572 20.00 40.00 10.00 80.00 160 40.00 40.00 40.00 10.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (c) Remove condensate tank (d) Remove condensate tank (e) Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil atrainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (d) Remove lub cil drainage tank (c) Remove lub cil drainage tank (d) Remove lub cil drainage tank (c) Remove lub cil drainage tank (d) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (c) Remove lub cil drainage tank (d) Remove associated piping (d) Remove associated piping	6D 6D 6D 6B 6B 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea ea ea ea	80.00 20.00 40.00 10.00 80.00 0 40.00 40.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 40.00 40.00 40.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,078.80 \$4,078.80
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings)	6D 6D 6D 6B 6B 6D 6D 6D 6D 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea Lot	80.00 20.00 40.00 10.00 80.00 40.00 40.00 40.00 40.00 40.00	80.00 572] 20.00 40.00 10.00 10.00 80.00 160] 40.00 40.00 40.00 10.00 40.00 10.0	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$10	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,679.20 \$4,679.20 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air compressors (c) Remove air compressors (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Hating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unt steam / electrical heaters	6D 6D 6D 6B 6B 6D 6D 6B 6D 6B		1.00 1.00	Lot ea ea ea ea ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 40.00 160 10.00 40.00 10.00 10.00 130 130.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$1,169.82 \$4,679.29 \$4,078.80 \$4,078.80 \$4,078.80 \$15,207.69
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings)	6D 6D 6D 6B 6B 6D 6D 6D 6D 6B		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Lot ea ea ea Lot ea ea ea Lot	80.00 20.00 40.00 10.00 80.00 40.00 40.00 40.00 40.00 40.00	80.00 572] 20.00 40.00 10.00 10.00 80.00 160] 40.00 40.00 40.00 10.00 40.00 10.0	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$10	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,679.29 \$4,679.29 \$4,679.29 \$1,169.82 \$4,679.29 \$1,169.82 \$4,679.29 \$1,169.82 \$4,679.29 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove air receiver tanks (c) Remove condensate tank (d) Remove condensate tank (c) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL 1. Remove lub oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove associated piping / cabling	6D 6D 6D 6B 6B 6D 6D 6D 6B		1.00 1.00	Lot ea ea ea ea ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 40.00 160 10.00 40.00 10.00 10.00 130 130.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98	\$8,157.60 \$62,896.05 \$2,339.65 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,078.80 \$4,078.80
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air compressors (c) Remove air compressors (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL 1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Hating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unt steam / electrical heaters	6D 6D 6D 6B 6B 6D 6D 6D 6B		1.00 1.00	Lot ea ea ea ea ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 160 10.00 40.00 10.00 40.00 130 130.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$8,157.60 \$17,516.18 \$4,679.29 \$4,679.20 \$4,679.20 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82 \$4,078.80 \$1,169.82
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air compressors (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drainage tank (c) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove ube oil drain pumps (d) Remove ube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove unit steam / electrical heaters (b) Remove associated piping / cabling	6D 6D 6D 6B 6B 6D 6B 6B 6B 6B		1.00 1.00	Lot ea ea ea Lot ea ea Lot ea Lot	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 40.00 10.00 40.00 10.00 40.00 10	80.00 572 20.00 40.00 10.00 10.00 80.00 160 40.00 40.00 40.00 130.00 40.00 130.00 130.00 170	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$116.98 \$101.97 \$116.98 \$101.97 \$116.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,078.80 \$11,69.82 \$4,078.80 \$11,928.49 \$4,078.80 \$19,286.49 \$19,286.49 \$19,286.49 \$10,286.
	SUB TOTAL SYSTEM F: COOLING WATER 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 (b) Remove air receiver tanks (c) Remove instrument air storage tank (d) Remove condensate tank (e) Remove associated piping SUB TOTAL SYSTEM G: COMPRESSED AIR 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 (b) Remove lub oil drainage tank (c) Remove lub oil drainage tank (d) Remove associated piping U SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Hating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping SYSTEM I: HEATING, VENTALATION & A/C 1. Remove dust steam / electrical heaters (b) Remove associated piping / cabling <td>6D 6D 6D 6B 6B 6D 6D 6D 6B</td> <td></td> <td>1.00 1.00</td> <td>Lot ea ea ea ea ea ea ea Lot ea ea ea</td> <td>80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00</td> <td>80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 160 10.00 40.00 10.00 40.00 130 130.00 40.00</td> <td>\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98</td> <td>\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,078.80</td>	6D 6D 6D 6B 6B 6D 6D 6D 6B		1.00 1.00	Lot ea ea ea ea ea ea ea Lot ea ea ea	80.00 20.00 40.00 10.00 10.00 80.00 40.00 40.00 40.00 10.00 10.00 10.00 10.00 10.00 10.00	80.00 572 20.00 40.00 10.00 10.00 10.00 40.00 160 10.00 40.00 10.00 40.00 130 130.00 40.00	\$101.97 \$116.98 \$116.98 \$116.98 \$116.98 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.97 \$101.98	\$8,157.60 \$62,896.05 \$4,679.29 \$1,169.82 \$1,169.82 \$1,169.82 \$1,169.82 \$4,679.29 \$4,078.80

1	Bldg. Floor for Environmental Assessment		1	1		<u>г</u>			
	(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		0.19	6.20	\$101.97	\$632.21
	(e) Backfill with imported gravel	2C	0	13.08	cy	0.13	2.80	\$102.25	\$286.31
		20		10.00	Cy	0.21	2.00	φ102.20	φ200.01
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
<u>K</u>	SYSTEM K: ELECTRICAL								
	 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
	SYSTEM L: SITE OVERHEAD & SUPERVISION			2.00	Mo				
	1. Supervisory Personnel								
	(a) Project Superintendent			1.00	ea	44.00	440.00	\$143.89	\$63,312.04
	(b) Safety Coordinator			1.00	ea	44.00	440.00	\$96.31	\$42,374.20
	(c) Mechanic			1.00	ea	44.00	440.00	\$71.38	\$31,406.76
ļ	(d) Truck Driver			1.00	ea	44.00	440.00	\$78.18	\$34,397.88
	2. Equipment			1.00		44.00	440.00	¢07.40	¢11.001.40
	(a) Pickup Truck, 4x4 (b) Truck, Mechanic Rig 4x4			1.00	ea	44.00 44.00	440.00	\$27.19 \$38.52	\$11,964.48 \$16,949.68
	3. Miscellaneous Expenses			1.00	ea	44.00	440.00	\$38.5 2	\$10,949.08
	(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		\$216,505.04
	SUB TOTAL: SYSTEMS A TO L						7,309		\$703,478.91
i	ADDITIONAL ITEMS	1	1	I					
	ADDITIONAL ITEMS 1. Mobilization and Demobilization		<u> </u>	1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			9.00				\$10,000.00	\$40,500.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		15.00				\$85.00	\$1,275.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		10.00				\$73.00	\$730.00
	5. Daily Subsistence Allowance (Per Diem)	.		969.00				\$130.00	\$125,970.00
	6. Prime Cost Allowance (Contingency)			0.00	%			¢.00.00	\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$88,195.39
	· · · · · · · · · · · · · · · · · · ·								
	SUB TOTAL ADDITIONAL ITEMS						0		\$266,670.39

Storage

7,309

Reed City, A, 5,000-10,500 HP

Total Average Labor MH Labor Rate 4,669 \$104.31 Total Labor Cost \$486,973.87

\$970,149.30

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

	Michigan 0-5,000 HP	# of Cor	npressors	6					
ITEM	DESCRIPTION			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			
	(b) Remove air intake systems (c) Remove exhaust systems	6C 6C		6.00	ea	120.00		\$99.64	\$71,737.93
	(c) Remove exhaust systems (d) Remove glycol coolers	6C 6C		6.00 6.00	ea ea	120.00 250.00		\$99.64 \$99.64	\$71,737.93 \$149,454.03
	(e) Remove lighting system	3E		1.00	Lot	230.00	80.00	\$99.04	\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00			\$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			4.00				000.04	AT 070 00
	(a) Remove auxiliary power unit (b) Remove all associated hot water piping	6C 6B		1.00 1.00	ea Lot	80.00	80.00 20.00	\$99.64 \$101.97	\$7,970.88 \$2,039.40
		UD		1.00	LUI	20.00	20.00	φ101.97	φ2,039.40
	SUB TOTAL SYSTEM A: STATION LAYOUT						6,440		\$641,937.63
В	SUBTOTAL STSTEM A: STATION LATOUT SYSTEM B: REINFORCED CONCRETE					II	0,440		ψ0-11,331.03
<u>u</u>	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	су	2.45	768.00	\$109.49	\$84,090.72
	(b) Remove engine blocks	2A		745.53	су	2.45	1824.00	\$109.49	
	(c) Remove operating floor structural slab	2A		156.95	су	2.45	384.00	\$109.49	\$42,045.36
	(d) Remove yard equipment foundations	2A		78.48	су	2.45		\$109.49	\$21,022.68
	(e) Remove above grade pipe piers & valve supports	2A		235.43	су	2.45	576.00	\$109.49	\$63,068.04
	2. Excavation & Backfilling.	2B		470.86		0.40	40.00	£400.00	C C A Z
	(a) Excavate for foundation walls & yard concrete (b) Backfill with excavated native material	2B 2C		470.86	cy cy	0.10	46.80 100.80	\$139.63 \$102.25	\$6,534.73 \$10,307.13
	(c) Backfill with imported gravel	2C		1961.93	cy	0.21	420.00	\$102.25	\$42,946.37
				1001.00	0,	0.21	120.00	\$102.20	φ12,010.01
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						4,312		\$469,730.46
С	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								,
	1. Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		1097.92	sy	0.48	532.44	\$80.64	\$42,933.62
	(b) Remove metal roof deck	3B		1097.92	sy	0.14	156.06	\$98.81	\$15,420.12
	(c) Remove wall cladding, door windows & lourvers	3C		624.31	sy	0.18	114.84	\$88.17	\$10,125.45
	(d) Remove structural steel frame (roof, walls & columns)	3C		5267.77	су	0.09	483.30	\$88.17	\$42,612.59
	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	\$116.67	\$36,959.48
		30		51.00	ton	10.00	310.00	\$110.07	\$30,959.40
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL					1	1,603		\$148,051.26
D	SYSTEM D: HIGH PRESSURE GAS						1,005		φ140,031.20
<u>D</u>	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	\$101.97	\$89,570.45
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	295.23	ft	0.51	150.30	\$101.97	\$15,326.09
	 NPS 10 HP above grade suction & discharge 	6B	10	275.55	ft	0.30	82.32	\$101.97	\$8,394.17
	- NPS 12 HP bypass	6B	12	78.73	ft	0.37	28.80	\$101.97	\$2,936.74
	(b) Flame Cutting								
	- NPS 30	6A	30	48.00	ea	7.20	345.60	\$133.97	\$46,298.62
	- NPS 16	6A	16	24.00	ea	1.61	38.64	\$133.97	\$5,176.4
	- NPS 10 - NPS 12	6A	10	2.00	ea	0.92	1.84	\$133.97 \$133.97	\$246.50 \$3.504.50
	- NFS 12	6A	12	24.00	ea	1.09	26.16	\$133.97	\$3,504.5
						1			
	Dismantle and Remove all Unit Valves and Operators,								
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes	60		1 00	ea	40.00	40.00	\$99 64	\$3 985 4
	Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes (a) Remove horizontal scrubber	6C 6D	30	1.00	ea	40.00	40.00	\$99.64 \$116.98	\$3,985.44 \$1,165.14
	2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes	6C 6D 6D	30 12	1.00 1.00 1.00	ea ea ea	40.00 9.96 4.16	40.00 9.96 4.16	\$99.64 \$116.98 \$116.98	\$3,985.44 \$1,165.14 \$486.65

n n	(a) Remain NRS 8 underground vent nining	6P	0	242.74	#	0.24	E0 46	¢101.07	¢E 061 17
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24	58.46 14.95	\$101.97 \$139.63	\$5,961.17 \$2,087.48
╟───╢	(g) Backfill with native excavated material	2B 2C		150.41	cy	0.10	32.20	\$139.63	\$3,292.55
					,				
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						1,714		\$188,670.63
<u>E</u>	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	су	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	су	0.21	28.00	\$102.25	\$2,863.09
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping								
	(a) Excavate underground piping by machine (b) Remove NPS 4 underground piping	2B 6B	4	39.24 32.80	Cy #	0.10	3.90 6.20	\$139.63 \$101.97	\$544.56 \$632.21
	(c) Backfill with native excavated material	2C	4	39.24	ft cy	0.19	8.40	\$102.25	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping			00.21	U)	0.21	0.10	\$10 <u>2</u> .20	<i><i><i></i></i></i>
	and Valves								
	(a) Excavate underground piping by machine	2B 6B	6	71.94 59.05	cy ft	0.10	7.15 11.16	\$139.63 \$101.97	\$998.36 \$1,137.99
	(b) Remove NPS 4 underground starting gas piping (c) Remove NPS 4 underground fuel gas piping	6B	4	72.17	ft	0.19	13.64	\$101.97	\$1,137.99
	(d) Backfill with native excavated material	2C		71.94	су	0.21	15.40	\$102.25	\$1,574.70
4	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping				,				
	(a) Excavate underground piping by machine	2B		52.32	су	0.10	5.20	\$139.63	\$726.08
┣───┦	(b) Remove NPS 1-1/2 underground piping (c) Backfill with native excavated material	6B 2C	1.5	49.20 52.32	lf	0.09	4.65 11.20	\$101.97 \$102.25	\$474.16 \$1,145.24
╞───╢		20		52.32	су	0.21	11.20	ψ102.20	φ1,14 <u>3.</u> 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 glucol 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 (f) Backfill with native excavated material (75%) 	2B 2C		431.62 104.64	cy cy	0.10	42.90 22.40	\$139.63 \$102.25	\$5,990.17 \$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				- 1				
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank (c) Remove domestic water tank	6D 6D		1.00 1.00	ea ea	40.00 30.00	40.00 30.00	\$116.98 \$116.98	\$4,679.29 \$3,509.47
	(d) Remove service pump	6D 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
<u>G</u>	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 (b) Remvoe air receiver tanks	6D 6D	├	1.00 1.00	ea	20.00 40.00	20.00 40.00	\$116.98 \$116.98	\$2,339.65
╞───╢	(b) Remvoe air receiver tanks (c) Remove instrument air storage tank	6D 6D		1.00	ea ea	40.00	40.00	\$116.98 \$116.98	\$4,679.29 \$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
<u> </u>			<u> </u>				400		\$47 F40 40
	SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL		<u> </u>	<u> </u>		<u> </u>	160		\$17,516.18
<u>H</u>	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 (d) Remove associated piping	6D 6B		1.00 1.00	ea Lot	10.00 40.00	10.00 40.00	\$116.98 \$101.97	\$1,169.82 \$4,078.80
								÷.01.01	2.,070.00
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$14,607.20
<u> </u>	SYSTEM I: HEATING, VENTALATION & A/C								
[*]	 Remove Heating Systems associates with the Compressor Building, Auxilairy 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, VENTALATION & A/C						170		\$19,286.49
<u> </u>	SYSTEM J: SANITARY & STORM SEWERS								
├───╢	Remove Weeping Tiles and Manholes (a) Remove weeking tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B	Ť	1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr.								

n – – – – – – – – – – – – – – – – – – –									
	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	су	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D	-	13.08	су	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	су	0.21	2.80	\$102.25	\$286.31
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
<u>K</u>	SYSTEM K: ELECTRICAL								
	 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		688.86	ft	0.03	21.00	\$79.25	\$1,664.32
	(b) 1:2-DC	3E		688.86	ft	0.03	21.00	\$79.25	\$1,664.32
	(c) L1-SB	3E		688.86	ft	0.03	21.00	\$79.25	\$1,664.32
	(d) L1-DB	3E		688.86	ft	0.03	21.00	\$79.25	\$1,664.32
	SUB TOTAL SYSTEM K: ELECTRICAL						164		\$12,997.55
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Мо				
	1. Supervisory Personnel								
	(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						17,530		\$1,769,157.80
				I	-		· · ·	·	
	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	%				\$204,438.78
					,,				÷=== 1, 100.10
	SUB TOTAL ADDITIONAL ITEMS						0	1	\$479,668.78
	SOB TOTAL ADDITIONAL TIEMS						U		ψ-13,000.78

17,530 \$2,248,826.58

Reed City, A, 0-5,000 HP Storage TotalAverageTotalLabor MHLabor RateLabor Cost15,550\$103.33\$1,606,779.02

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Reed City, A1, 0-5,000 HP State: Michigan

	Michigan 0-5,000 HP	# of Cor	npressors	2					
ITEM	DESCRIPTION		Pipe Dia.		Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
<u> </u>	1. Remove Plant Engines and Compressor, Air								
	Intake Systems, Exhaust Systems, Glycol Coolers,					1			
	all Associated Accessories, including Lights, Piping,								
	Valves & Heaters, etc.								
	(a) Remove engines and compressors	6C		2.00	ea	495.00	990.00	\$99.64	\$98,639.66
	(b) Remove air intake systems	6C		2.00	ea	120.00			\$23,912.64
	(c) Remove exhaust systems	6C		2.00	ea	120.00	240.00	\$99.64	\$23,912.64
	(d) Remove glycol coolers	6C		2.00	ea	250.00	500.00	\$99.64	\$49,818.01
	(e) Remove lighting system	3E		1.00	Lot	80.00		\$79.25	\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00			\$16,315.20
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00			\$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			\$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			\$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						2,500		\$249,371.71
<u>B</u>	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit								
	Blocks are to be Cut Off 3 feet below grade and								
	backfilled.			101.01		0.15	050.00		
	(a) Remove foundation walls and pilasters	2A		104.64	су	2.45			\$28,030.24
	(b) Remove engine blocks	2A		248.51	су	2.45	608.00		\$66,571.82
	(c) Remove operating floor structural slab	2A		52.32	су	2.45			
	(d) Remove yard equipment foundations	2A 2A		26.16	су	2.45	64.00		\$7,007.56
	(e) Remove above grade pipe piers & valve supports 2. Excavation & Backfilling.	ZA		78.48	су	2.45	192.00	\$109.49	\$21,022.68
	(a) Excavate for foundation walls & yard concrete	2B		156.95	01/	0.10	15.60	\$139.63	\$2,178.24
	(b) Backfill with excavated native material	2D 2C		156.95	cy cy	0.10	33.60		
	(c) Backfill with imported gravel	20 20		653.98	cy	0.21	140.00		
				000.00	0,	0.21	110.00	\$102.20	φ11,010.10
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$156,576.82
С	SYSTEM C: BUILDINGS & STRUCTURAL STEEL						1,401]	\$100,010.02
<u> </u>	Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48	177.48	\$80.64	\$14,311.21
	(b) Remove metal roof deck	3B		365.97	sy	0.10	52.02		\$5,140.04
	(c) Remove wall cladding, door windows & lourvers	3C		208.10	sy	0.18			\$3,375.15
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	cy	0.09			\$14,204.20
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol				0)	0.00		¢00.111	\$11,201.20
	Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$116.67	\$12,319.83
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL					I	534		\$49,350.42
D	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High					1		1	
	Pressure Gas Piping					1		1	
	(a) Remove high pressure gas piping					1			
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74	292.80	\$101.97	\$29,856.82
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10		\$5,108.70
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44	\$101.97	\$2,798.06
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$101.97	\$978.91
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20	115.20		\$15,432.87
	- NPS 16	6A	16	8.00	ea	1.61	12.88		\$1,725.48
	- NPS 10	6A	10	2.00	ea	0.92	1.84		\$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,					<u> </u>			
		11							
	Plant Suction Scrubbers, Valves & Vent Pipes						40.00		\$3,985.44
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00			
	(a) Remove horizontal scrubber (b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.14
	(a) Remove horizontal scrubber		30 12 6				9.96 4.16	\$116.98 \$116.98	\$1,165.14 \$486.65

n	(a) Domovo NDS 9 underground vont nining	6P	8	242.74	4	0.24	58.46	¢101 07	¢E 061 17
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24 0.10	14.95	\$101.97 \$139.63	\$5,961.17 \$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						680		\$74,532.59
<u>E</u>	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	су	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	су	0.21	28.00	\$102.25	\$2,863.09
	Excavate, Remove & Dispose of Domestic Fuel Gas Piping (a) Excavate underground piping by machine	2B		39.24	су	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	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	су	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.10	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	су	0.21	15.40	\$102.25	\$1,574.70
	Excavate, Remove & Dispose of "normal" Fuel Gas Piping (a) Excavate underground piping by machine	2B		52.32	су	0.10	5.20	\$139.63	\$726.08
-	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.10	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	су	0.21	11.20	\$102.25	\$1,145.24
<u> </u>									A
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS SYSTEM F: COOLING WATER					ļ <u>ļ</u>	138		\$15,170.89
<u>F</u>	SYSTEM F: COOLING WATER 1. Remove all Glycol and Jacket Water Cooling Systems	1							
	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 glucol pumps (c) Remove NPS 16 underground glycol cooling piping	6D 6B	16	2.00 98.41	ea ft	10.00 0.51	20.00 50.10	\$116.98 \$101.97	\$2,339.65 \$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	су	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	су	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%) 2. Remove Glycol & Cooling Water Storage & Expansion Tanks	2C		326.99	су	0.21	70.00	\$102.25	\$7,157.73
	(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 (e) Remove all associated piping	6D 6B		1.00 1.00	ea Lot	5.00 80.00	5.00 80.00	\$116.98 \$101.97	\$584.91 \$8,157.60
		00		1.00	LUI	00.00	00.00	φ101.37	φ0, 107.00
	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
<u> </u>	(b) Remvoe air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
<u> </u>	(c) Remove instrument air storage tank (d) Remove condensate tank	6D 6D		1.00 1.00	ea ea	10.00 10.00	10.00 10.00	\$116.98 \$116.98	\$1,169.82 \$1,169.82
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.98	\$8,157.60
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$17,516.18
H						1 1			
<u> </u>	SYSTEM H: LUBE OIL					├			
	1. Remove all New and Used Oil Storage								
		6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00 40.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82 \$4,078.80
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lub oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00 40.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82 \$4,078.80
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings)	6D 6D 6B		1.00 1.00 1.00	ea ea Lot	40.00 10.00 40.00	40.00 10.00 40.00 130	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lube oil drain gumps (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilary Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters	6D 6D 6B 6D		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings)	6D 6D 6B		1.00 1.00 1.00	ea ea Lot	40.00 10.00 40.00	40.00 10.00 40.00 130	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lube oil drain gumps (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilary Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters	6D 6D 6B 6D		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping / cabling SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS	6D 6D 6B 6D		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00 40.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping / cabling SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS 1. Remove Weeping Tiles and Manholes	6D 6D 6B 6D 6B		1.00 1.00 1.00 1.00 13.00 1.00	ea ea Lot ea Lot	40.00 10.00 40.00 10.00 40.00 40.00	40.00 10.00 40.00 130 130.00 40.00 170	\$116.98 \$101.97 \$101.97 \$116.98 \$101.97 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80 \$19,286.49
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping / cabling SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS	6D 6D 6B 6D		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00 40.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80

п									
I	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	су	2.45	44.80	\$109.49	\$4,905.29
('	(c) Hand Excavate to expose drain pipes	2D		13.08	су	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	су	0.21	2.80	\$102.25	\$286.31
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
<u>K</u>	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		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	SUB TOTAL SYSTEM K: ELECTRICAL						108		\$8,559.36
L	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Мо				
	1. Supervisory Personnel								
	(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						8,557		\$846,161.18
	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	%				\$100,853.12
	SUB TOTAL ADDITIONAL ITEMS						0		\$263,223.12

8,557

Reed City, A1, 0-5,000 HP Storage Total Average Labor MH Labor Rate 6,577 \$103.96

Total e Labor Cost 5 \$683,782.40

\$1,109,384.29

Project: 2015 Terminal Negative Salvage - ARO - IFRS

Location: South Chester, A, 0-5,000 HP State: Michigan

	Michigan 0-5,000 HP	# of Cor	npressors	2					
ITEM	DESCRIPTION		Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT		<u> </u>						
	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			\$98,639.6
	(b) Remove air intake systems	6C		2.00	ea	120.00			\$23,912.6
	(c) Remove exhaust systems (d) Remove glycol coolers	6C 6C		2.00 2.00	ea ea	120.00 250.00			\$23,912.6 \$49,818.0
	(a) Remove given coners (e) Remove lighting system	3E		2.00	Lot	250.00			\$49,818.0
	(f) Remove associated piping system	6B		1.00	Lot	160.00			\$16,315.2
	(q) Remove miscellaneous valves	6E		1.00	Lot	30.00			\$3,694.0
	(h) Removed compressed air system	6D		1.00	Lot	40.00			\$4,679.2
	2. Remove Plant Boiler and all Hot Water Piping								• .,• • • •
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.8
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00	40.00	\$101.97	\$4,078.8
	3. Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00			\$7,970.8
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$101.97	\$2,039.4
					0				
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,500		\$249,371.7
B	SYSTEM B: REINFORCED CONCRETE								
	1. Compressor Building Basement Walls and Unit					-			
	Blocks are to be Cut Off 3 feet below grade and					-			
	backfilled.	2A		104.64		2.45	256.00	¢100.40	\$28,030.2
	(a) Remove foundation walls and pilasters (b) Remove engine blocks	2A 2A		104.64 248.51	су	2.45			\$26,030.2
	(c) Remove operating floor structural slab	2A 2A		52.32	cy cy	2.45			\$14,015.1
	(d) Remove yard equipment foundations	2A 2A		26.16	cy	2.45	64.00		\$7,007.5
	(e) Remove above grade pipe piers & valve supports	2A 2A		78.48	cy	2.45			\$21,022.6
	2. Excavation & Backfilling.			10.10	0,	2.10	102.00	\$100.10	Ψ <u></u> ,022.0
	(a) Excavate for foundation walls & yard concrete	2B		156.95	су	0.10	15.60	\$139.63	\$2,178.2
	(b) Backfill with excavated native material	2C		156.95	су	0.21	33.60		\$3,435.7
	(c) Backfill with imported gravel	2C		653.98	су	0.21	140.00	\$102.25	\$14,315.4
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$156,576.8
C	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48			\$14,311.2
	(b) Remove metal roof deck	3B 3C		365.97	sy	0.14	52.02		\$5,140.0
	(c) Remove wall cladding, door windows & lourvers	3C 3C		208.10 1755.92	sy	0.18			\$3,375.1 \$14.204.2
	(d) Remove structural steel frame (roof, walls & columns) 2. Remove Air Intake Systems, Exhaust Mufflers, Glycol	30		1755.92	су	0.09	101.10	φoo.17	\$14,204.2
	Coolers and Associated Structural Steel					-			
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$116.67	\$12,319.8
					1011			<i><i><i></i></i></i>	¢12,01010
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$49,350.4
D	SYSTEM D: HIGH PRESSURE GAS					1			
	1. Dismantle and Remove all Above and Below Grade High					1		1	
	Pressure Gas Piping								
	(a) Remove high pressure gas piping								
	- NPS 30 HP above grade suction & discharge	6B	30	393.64	ft	0.74			\$29,856.8
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10		\$5,108.7
	 NPS 10 HP above grade suction & discharge 	6B	10	91.85	ft	0.30			\$2,798.0
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$101.97	\$978.9
	(b) Flame Cutting								A 4 - 1
	- NPS 30	6A	30	16.00	ea	7.20	115.20		\$15,432.8
	- NPS 16	6A	16	8.00	ea	1.61	12.88		\$1,725.4
	- NPS 10	6A	10	2.00	ea	0.92	1.84		\$246.5
	 - NPS 12 2. Dismantle and Remove all Unit Valves and Operators, 	6A	12	8.00	ea	1.09	8.72	\$133.97	\$1,168.1
	Plant Suction Scrubbers, Valves & Vent Pipes					1			
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.4
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96			\$1,165.1
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16	4.16	\$116.98	\$486.6

n	(a) Domovo NDS 9 underground vont nining	6P	8	242.74	4	0.24	58.46	¢101 07	¢E 061 17
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24 0.10	14.95	\$101.97 \$139.63	\$5,961.17 \$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						680		\$74,532.59
<u>E</u>	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	су	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	су	0.21	28.00	\$102.25	\$2,863.09
	Excavate, Remove & Dispose of Domestic Fuel Gas Piping (a) Excavate underground piping by machine	2B		39.24	су	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	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	су	0.10	7.15	\$139.63	\$998.36
	(b) Remove NPS 4 underground starting gas piping	6B	6	59.05	ft	0.10	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	су	0.21	15.40	\$102.25	\$1,574.70
	Excavate, Remove & Dispose of "normal" Fuel Gas Piping (a) Excavate underground piping by machine	2B		52.32	су	0.10	5.20	\$139.63	\$726.08
-	(b) Remove NPS 1-1/2 underground piping	6B	1.5	49.20	lf	0.10	4.65	\$101.97	\$474.16
	(c) Backfill with native excavated material	2C		52.32	су	0.21	11.20	\$102.25	\$1,145.24
<u> </u>									A
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS SYSTEM F: COOLING WATER					ļ <u>ļ</u>	138		\$15,170.89
<u>F</u>	SYSTEM F: COOLING WATER 1. Remove all Glycol and Jacket Water Cooling Systems	1							
	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 glucol pumps (c) Remove NPS 16 underground glycol cooling piping	6D 6B	16	2.00 98.41	ea ft	10.00 0.51	20.00 50.10	\$116.98 \$101.97	\$2,339.65 \$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	су	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	су	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%) 2. Remove Glycol & Cooling Water Storage & Expansion Tanks	2C		326.99	су	0.21	70.00	\$102.25	\$7,157.73
	(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 (e) Remove all associated piping	6D 6B		1.00 1.00	ea Lot	5.00 80.00	5.00 80.00	\$116.98 \$101.97	\$584.91 \$8,157.60
		00		1.00	LUI	00.00	00.00	φ101.37	φ0,107.00
	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
<u> </u>	(b) Remvoe air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
<u> </u>	(c) Remove instrument air storage tank (d) Remove condensate tank	6D 6D		1.00 1.00	ea ea	10.00 10.00	10.00 10.00	\$116.98 \$116.98	\$1,169.82 \$1,169.82
	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.98	\$8,157.60
	SUB TOTAL SYSTEM G: COMPRESSED AIR						160		\$17,516.18
H						1 1			
<u> </u>	SYSTEM H: LUBE OIL					├ ───┤			
	1. Remove all New and Used Oil Storage								
		6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank	6D		1.00	ea	40.00	40.00	\$116.98	\$4,679.29
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00 40.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82 \$4,078.80
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lub oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor	6D 6D		1.00 1.00	ea ea	40.00 10.00	40.00 10.00 40.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82 \$4,078.80
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings)	6D 6D 6B		1.00 1.00 1.00	ea ea Lot	40.00 10.00 40.00	40.00 10.00 40.00 130	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lube oil drain gumps (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilary Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters	6D 6D 6B 6D		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings)	6D 6D 6B		1.00 1.00 1.00	ea ea Lot	40.00 10.00 40.00	40.00 10.00 40.00 130	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69
	Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lube oil drain gumps (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C I. Remove Heating Systems associates with the Compressor Building, Auxilary Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters	6D 6D 6B 6D		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping / cabling SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS	6D 6D 6B 6D		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00 40.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping / cabling SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS 1. Remove Weeping Tiles and Manholes	6D 6D 6B 6D 6B		1.00 1.00 1.00 1.00 13.00 1.00	ea ea Lot ea Lot	40.00 10.00 40.00 10.00 40.00 40.00	40.00 10.00 40.00 130 130.00 40.00 170	\$116.98 \$101.97 \$101.97 \$116.98 \$101.97 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80 \$19,286.49
	1. Remove all New and Used Oil Storage Tanks located in the Auxiliary Wing Basement (a) Remove lub oil storage tank (b) Remove lub oil drainage tank (c) Remove lube oil drain pumps (d) Remove associated piping SUB TOTAL SYSTEM H: LUBE OIL SYSTEM I: HEATING, VENTALATION & A/C Remove Heating Systems associates with the Compressor Building, Auxilairy Wing, etc. (to be removed with buildings) (a) Remove unit steam / electrical heaters (b) Remove associated piping / cabling SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS	6D 6D 6B 6D		1.00 1.00 1.00 1.00	ea ea Lot ea	40.00 10.00 40.00	40.00 10.00 40.00 130 130.00 40.00	\$116.98 \$116.98 \$101.97	\$4,679.29 \$1,169.82 \$4,078.80 \$14,607.20 \$15,207.69 \$4,078.80

n									
	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	су	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	су	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	су	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							* • • • • • •	<i>t</i> = 1 · · · · · ·
	(a) 1:2-SC	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(b) 1:2-DC	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
ŀ	(c) L1-SB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
	(d) L1-DB	3E		229.62	ft	0.03	7.00	\$79.25	\$554.77
		U L		220.02		0.00	1.00	ψ1 3.23	ψυυ-ι 1
	SUB TOTAL SYSTEM K: ELECTRICAL						108		\$8,559.36
	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Мо	<u> </u>	100		\$0,000.00
<u> </u>	1. Supervisory Personnel			1.50	IVIO				
	(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
				1.00		33.00		\$90.31	\$23,555.07
	(c) Mechanic			1.00	ea	33.00	330.00		\$23,555.07 \$25,798.41
	(d) Truck Driver			1.00	ea	33.00	330.00	\$78.18	\$25,798.4T
	2. Equipment (a) Pickup Truck, 4x4			1.00		33.00	330.00	\$27.19	\$8,973.36
	(a) Fickup Truck, 4x4 (b) Truck, Mechanic Rig 4x4			1.00	ea ea	33.00	330.00	\$38.52	\$0,973.30
	3. Miscellaneous Expenses			1.00	ea	33.00	330.00	\$38.5Z	\$12,712.20
				4.50				* 000.00	0045.00
	(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						8,557		\$846,161.18
				·					
	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
	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	%				\$100,853.12
	SUB TOTAL ADDITIONAL ITEMS						0		\$263,223.12

8,557

\$1,109,384.29

Total Labor Cost \$683,782.40

South Chester, A, 0-5,000 HP Storage

Total Average Labor MH Labor Rate 6,577 \$103.96

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Winfield, A, 0-5,000 HP

State: Michigan

	Michigan 0-5,000 HP	# of Cor	npressors	3					
ITEM	DESCRIPTION		Pipe Dia.		Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
<u>A</u>	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		\$147,959.49
	(b) Remove air intake systems	6C		3.00	ea	120.00		\$99.64	\$35,868.97
	(c) Remove exhaust systems	6C 6C		3.00	ea	120.00 250.00	360.00 750.00		\$35,868.97
	(d) Remove glycol coolers (e) Remove lighting system	3E		3.00	ea Lot	250.00			\$74,727.02 \$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00			\$16,315.20
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00	30.00		\$3,694.03
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00		\$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
	Remove Auxiliary Wing associated Equipment								
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00		\$7,970.88
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00	\$101.97	\$2,039.40
					1	1	0.405		AD 17 510 10
D	SUB TOTAL SYSTEM A: STATION LAYOUT	<u> </u>				<u> </u>	3,485		\$347,513.19
<u>B</u>	SYSTEM B: REINFORCED CONCRETE					-			
	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	су	2.45	384.00	\$109.49	\$42,045.36
	(b) Remove engine blocks	2A		372.77	cy	2.45	912.00		\$99,857.73
	(c) Remove operating floor structural slab	2A		78.48	cy	2.45			\$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	су	2.45	288.00	\$109.49	\$31,534.02
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		235.43	су	0.10	23.40	\$139.63	\$3,267.36
	(b) Backfill with excavated native material	2C		235.43	су	0.21			\$5,153.56
	(c) Backfill with imported gravel	2C		980.96	су	0.21	210.00	\$102.25	\$21,473.18
						1	2,156		\$234,865.23
С	SUB TOTAL SYSTEM B: REINFORCED CONCRETE SYSTEM C: BUILDINGS & STRUCTURAL STEEL						2,150		\$234,005.23
<u>c</u>	1. Remove Compressor Building and all Associated								
	Structural Seel, 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		\$7,710.06
	(c) Remove wall cladding, door windows & lourvers	3C		312.15	sy	0.18	57.42	\$88.17	\$5,062.72
	(d) Remove structural steel frame (roof, walls & columns)	3C		2633.89	су	0.09		\$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
					1				
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						802		\$74,025.63
<u>D</u>	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 30 HP above grade suction & discharge - NPS 16 HP above grade suction & discharge feeder lines	6B 6B	30 16	590.45 147.61	ft	0.74	439.20	\$101.97	\$7,663.05
	- NPS 10 HP above grade suction & discharge reeder lines	6B	10	137.77	ft	0.30	41.16		\$4,197.09
	- NPS 12 HP bypass	6B	10	39.36	ft	0.37	14.40		\$1,468.37
	(b) Flame Cutting			50.00		0.01		÷ / 00/	÷ .,
	- 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								<u> </u>
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00			\$3,985.44
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96	9.96	\$116.98	\$1,165.14
		<u> </u>	40	1 00			1 1 0	C440.00	¢ 400 0-
	(c) Remove NPS 12 bypass valve and operator (d) Remove NPS 6 bypass valve and operator	6D 6D	12 6	1.00	ea ea	4.16			\$486.65 \$238.64

n n	(a) Remarks NRC 8 underground yeart nining	6P	8	242.74	#	0.24	58.46	¢101 07	¢E 061 17
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24	58.46 14.95	\$101.97 \$139.63	\$5,961.17 \$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
<u>E</u>	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	су	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	су	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	01	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping by machine (b) Remove NPS 4 underground piping	6B	4	32.80	cy ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	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	01	0.10	7.15	\$139.63	\$998.36
	(a) Excavate underground piping by machine (b) Remove NPS 4 underground starting gas piping	6B	6	59.05	cy ft	0.10	11.16	\$139.63	\$998.30
	(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	су	0.21	15.40	\$102.25	\$1,574.70
4	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping			50.00		0.40	5.00	\$400.00	\$700.00
	(a) Excavate underground piping by machine (b) Remove NPS 1-1/2 underground piping	2B 6B	1.5	52.32 49.20	cy If	0.10	5.20 4.65	\$139.63 \$101.97	\$726.08 \$474.16
	(c) Backfill with native excavated material	2C	1.5	49.20 52.32	су	0.09	4.65	\$101.97	\$1,145.24
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS						138		\$15,170.89
<u>F</u>	SYSTEM F: COOLING WATER			<u> </u>		<u> </u>]			
┣───╢	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 glucol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65
	(c) Remove NPS 16 underground glycol cooling piping (d) Remove NPS 6 underground glycol cooling piping	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70 \$11,379.85
	(a) Remove NPS 6 underground glycol cooling piping (e) Excavate underground piping by machine	6B 2B	6	590.45 431.62	ft cy	0.19	111.60 42.90	\$101.97 \$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	су	0.21	70.00	\$102.25	\$7,157.73
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks			1.00					<u> </u>
	(a) Remove OCW expansion tank (b) Remove glycol storage tank	6D 6D		1.00 1.00	ea ea	20.00 40.00	20.00 40.00	\$116.98 \$116.98	\$2,339.65 \$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
			1				570		¢c0 000 05
G	SUB TOTAL SYSTEM F: COOLING WATER SYSTEM G: COMPRESSED AIR						572		\$62,896.05
<u> </u>	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	60		1.00		20.00	20.00	¢116.09	¢0.000.65
┢───╢	(a) Remove air compressors (b) Remvoe air receiver tanks	6D 6D		1.00 1.00	ea ea	20.00 40.00	20.00 40.00	\$116.98 \$116.98	\$2,339.65 \$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	1	\$17,516.18
Н	SYSTEM H: LUBE OIL					<u> </u> 	100		ψ11,010.10
	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 (c) Remove lube oil drain pumps	6D 6D		1.00	ea ea	40.00	40.00 10.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82
╞──╢	(d) Remove associated piping	6B		1.00	Lot	40.00	40.00	\$110.96	\$4,078.80
	SUB TOTAL SYSTEM H: LUBE OIL						130		\$14,607.20
	SYSTEM I: HEATING, VENTALATION & A/C			<u> </u>		<u> </u>]			
└─── <u> </u>	 Remove Heating Systems associates with the Compressor Building, Auxilairy 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, VENTALATION & A/C		<u> </u>			<u> </u>	170		\$19,286.49
<u>J</u>	SYSTEM J: SANITARY & STORM SEWERS			├		├			
├───╢	Remove Weeping Tiles and Manholes (a) Remove weeking tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B	Ŭ	1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	2. Excavate and carefully Remove Drain Piping Under Compr.		1					-	

n	Dide Clearfer Covincemental Accessory		1	r		1 1			
	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	2E 2A		18.31	cy	2.45	44.80	\$105.30	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2A 2D		13.08	,	1.00	13.10	\$82.60	\$1,082.00
	(d) Carefully remove drain piping	6B	6	32.80	cy ft	0.19	6.20	\$02.00 \$101.97	\$632.21
	(e) Backfill with imported gravel	2C	0	13.08		0.19	2.80	\$101.97	\$286.31
	(e) Backilli with imported graver	20		13.00	су	0.21	2.00	φ102.25	φ200.3 I
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
K	SYSTEM K: ELECTRICAL						140		\$15,914.00
<u>K</u>	SYSTEM K: ELECTRICAL Remove and Dispose of Unit Control Panels and MCC's								
	for Compressor Units (a) Remove station and generator control panels	3E		1.00		40.00	40.00	¢70.05	¢0 470 40
				1.00	ea			\$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	05		044.40	0	0.00	40.50	\$70.0F	* 000 40
	(a) 1:2-SC (b) 1:2-BC	3E 3E		344.43 344.43	ft	0.03	10.50 10.50	\$79.25	\$832.16
	(b) 1:2-DC (c) L1-SB	3E 3E		344.43	ft #	0.03	10.50	\$79.25 \$79.25	\$832.16 \$832.16
	(c) L1-SB (d) L1-DB	3E 3E		344.43	ft ft	0.03	10.50	\$79.25 \$79.25	\$832.16
		эE		344.43	π	0.03	10.50	\$19.25	⊅ 83∠.16
	SUB TOTAL SYSTEM K: ELECTRICAL						122		\$9,668.91
<u> </u>	SUB TOTAL STSTEM R. ELECTRICAL SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Мо	<u> </u>	122		49,000.91
<u> </u>	SYSTEM L: STE OVERHEAD & SUPERVISION Supervisory Personnel			1.50	IVIO				
	(a) Project Superintendent			1.00		33.00	330.00	\$143.89	\$47,484.03
	(b) Safety Coordinator			1.00	ea 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			1.00	ea	33.00	330.00	φ <i>1</i> 0.10	ψ25,730.41
	(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			1.00	u	00.00	000.00	\$00.02	ψ12,7 12.20
	(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		İ 🗌				1,980		\$162,378.78
	··								•
	SUB TOTAL: SYSTEMS A TO L						10,801		\$1,076,910.33
<u></u>							·	<u> </u>	•
	ADDITIONAL ITEMS								
	1. Mobilization and Demobilization			1.00	LS	1		\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			18.00	days	1		\$4,500.00	\$81,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		30.00				\$85.00	\$2,550.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		15.00				\$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

10,801

Winfield, A, 0-5,000 HP Storage Total Average Labor MH Labor Rate 8,821 \$103.68

Total e Labor Cost 3 \$914,531.55

\$1,394,244.87

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Woolfolk, A, 0-5,000 HP

State: Michigan

	Michigan 0-5,000 HP	# of Cor	npressors	13					
ITEM	DESCRIPTION		Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
Α	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		13.00	ea	495.00		\$99.64	
	(b) Remove air intake systems	6C		13.00	ea	120.00			
	(c) Remove exhaust systems	6C		13.00	ea	120.00			
	(d) Remove glycol coolers	6C		13.00	ea	250.00			
	(e) Remove lighting system (f) Remove associated piping system	3E 6B		1.00	Lot Lot	80.00 160.00		\$79.25 \$101.97	
	(g) Remove associated piping system (g) Remove miscellaneous valves	6E		1.00	Lot	30.00			
	(h) Removed compressed air system	6D		1.00	Lot	40.00			
	2. Remove Plant Boiler and all Hot Water Piping	00		1.00	LOI	40.00	+0.00	φ110.00	φ4,075.2
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.8
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00		\$101.97	
	3. Remove Auxiliary Wing associated Equipment							* · • · • · •	
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.8
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00	20.00		
	SUB TOTAL SYSTEM A: STATION LAYOUT						13,335		\$1,328,927.9
В	SYSTEM B: REINFORCED CONCRETE		1						
	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		680.13	су	2.45		\$109.49	
	(b) Remove engine blocks	2A		1615.32	су	2.45			
	(c) Remove operating floor structural slab	2A		340.07	су	2.45			
	(d) Remove yard equipment foundations	2A		170.03	су	2.45			
	(e) Remove above grade pipe piers & valve supports	2A		510.10	су	2.45	1248.00	\$109.49	\$136,647.4
	2. Excavation & Backfilling.	0 D		4000.00		0.40	404.40	¢400.00	0444505
	(a) Excavate for foundation walls & yard concrete	2B 2C		1020.20	су	0.10			
	(b) Backfill with excavated native material (c) Backfill with imported gravel	2C 2C		1020.20 4250.84	cy cy	0.21	218.40 910.00		
		20		4230.04	Cy	0.21	310.00	ψ102.23	ψ90,000.4
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE					1	9,342		\$1,017,749.3
С	SYSTEM C: BUILDINGS & STRUCTURAL STEEL						•,• ·=		•.,•,
<u> </u>	1. Remove Compressor Building and all Associated								1
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		2378.82	sy	0.48	1153.62	\$80.64	\$93,022.8
	(b) Remove metal roof deck	3B		2378.82	sy	0.14			
	(c) Remove wall cladding, door windows & lourvers	3C		1352.66	sý	0.18	248.82	\$88.17	\$21,938.4
	(d) Remove structural steel frame (roof, walls & columns)	3C		11413.51	су	0.09	1047.15	\$88.17	\$92,327.2
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol								
	Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		68.64	ton	10.00	686.40	\$116.67	\$80,078.8
									1
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						3,474		\$320,777.7
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	2558.63	ft	0.74		\$101.97	
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	639.66	ft	0.51	325.65	\$101.97	
	- NPS 10 HP above grade suction & discharge	6B	10	597.01	ft	0.30			
	- NPS 12 HP bypass (b) Elame Cutting	6B	12	170.58	ft	0.37	62.40	\$101.97	\$6,362.
	(b) Flame Cutting - NPS 30	6A	30	104.00	60	7.20	748.80	\$133.97	\$100,313.0
	- NPS 30 - NPS 16	6A 6A	30 16	52.00	ea ea	1.61	83.72	\$133.97	
	- NPS 10	6A	10	2.00	ea	0.92	1.84	\$133.97	
	- NPS 10	6A	10	52.00	ea	1.09		\$133.97	\$7,593.1
	 Dismantle and Remove all Unit Valves and Operators, 			52.00	54	1.00	55.50	÷100.07	¢1,000.
	Plant Suction Scrubbers, Valves & Vent Pipes					1			1
	(a) Remove horizontal scrubber	6C		1.00	ea	40.00	40.00	\$99.64	\$3,985.4
	(b) Remove NPS 30 suction valve & operator	6D	30	1.00	ea	9.96		\$116.98	
	(c) Remove NPS 12 bypass valve and operator	6D	12	1.00	ea	4.16		\$116.98	
l.	(c) Remove Nr 3 12 bypass valve and operator								

,	(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	0	150.41	cy	0.24	14.95	\$101.97	\$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						3,522		\$388,412.20
<u> </u>	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	су	0.10	13.00	\$139.63	\$1,815.20
	(b) Remove NPS 2 underground piping (c) Backfill with native excavated material	6B 2C	2	98.41 130.80	ft	0.10	9.90 28.00	\$101.97 \$102.25	\$1,009.50 \$2,863.09
	2. Excavate, Remove & Dispose of Domestic Fuel Gas Piping	20		130.00	су	0.21	20.00	\$102.25	\$2,603.09
	(a) Excavate underground piping by machine	2B		39.24	су	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 3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping 	2C		39.24	су	0.21	8.40	\$102.25	\$858.93
	and Valves								
	(a) Excavate underground piping by machine	2B		71.94	су	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 (d) Backfill with native excavated material	6B 2C	4	72.17 71.94	ft cy	0.19	13.64 15.40	\$101.97 \$102.25	\$1,390.87 \$1,574.70
	4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping			7 1.0 1	J	0.21	10.10	ψ102.20	\$1,071.10
	(a) Excavate underground piping by machine	2B		52.32	су	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping	6B 2C	1.5	49.20	lf	0.09	4.65	\$101.97	\$474.16 \$1.145.24
	(c) Backfill with native excavated material	20		52.32	су	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 glucol pumps	6D		2.00	ea	10.00	20.00	\$116.98	\$2,339.65
	(c) Remove NPS 16 underground glycol cooling piping (d) Remove NPS 6 underground glycol cooling piping	6B 6B	16 6	98.41 590.45	ft ft	0.51	50.10 111.60	\$101.97 \$101.97	\$5,108.70 \$11,379.85
	(a) Remove NPS 6 underground grycol cooling piping (e) Excavate underground piping by machine	2B	0	431.62	су	0.19	42.90	\$101.97 \$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	су	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 6B		1.00	ea	5.00 80.00	5.00 80.00	\$116.98 \$101.97	\$584.91 \$8,157.60
	(e) Remove all associated piping	00		1.00	Lot	80.00	60.00	\$101.97	ф 0,157.00
	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) Remvoe air receiver tanks (c) Remove instrument air storage tank	6D 6D		1.00 1.00	ea ea	40.00	40.00 10.00	\$116.98 \$116.98	\$4,679.29 \$1,169.82
	(d) Remove condensate tank	6D		1.00	ea	10.00	10.00	\$116.98	\$1,169.82
	(é) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.97	\$8,157.60
		1					400		\$17,516.18
H	SUB TOTAL SYSTEM G: COMPRESSED AIR SYSTEM H: LUBE OIL						160		718.18ھ1.18ھ
<u> </u>	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 (c) Remove lube oil drain pumps	6D 6D		1.00 1.00	ea ea	40.00	40.00 10.00	\$116.98 \$116.98	\$4,679.29 \$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					ļļ	130		\$14,607.20
<u> </u>	SYSTEM I: HEATING, VENTALATION & A/C 1. Remove Heating Systems associates with the Compressor					├			
	Building, Auxilairy 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, VENTALATION & A/C						170	1	\$19,286.49
	SUB TOTAL STSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS		///			<u>ı</u> l	170		φ13,200.49
<u> </u>	1. Remove Weeping Tiles and Manholes								
	(a) Remove weeking tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
		2B		1.00	ea	20.00	20.00	\$139.63	\$2,792.62
		6B 2B	6	278.83 1.00		0.19 20.00	52.70 20.00		

			1	n		,			
	Bldg. Floor for Environmental Assessment			L					
	(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	су	2.45	44.80	\$109.49	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2D		13.08	су	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	су	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		1492.54	ft	0.03	45.50	\$79.25	\$3,606.03
	(b) 1:2-DC	3E		1492.54	ft	0.03	45.50	\$79.25	\$3,606.03
	(c) L1-SB	3E		1492.54	ft	0.03	45.50	\$79.25	\$3,606.03
	(d) L1-DB	3E		1492.54	ft	0.03	45.50	\$79.25	\$3,606.03
						0.00	.0.00	¢. 0.20	\$0,000.00
	SUB TOTAL SYSTEM K: ELECTRICAL						262		\$20,764.38
1	SYSTEM L: SITE OVERHEAD & SUPERVISION			1.50	Мо		202		φ 20 ,70 4 .00
<u> </u>	1. Supervisory Personnel			1.50	IVIO	-			
	(a) Project Superintendent		1	1.00	ea	33.00	330.00	\$143.89	\$47,484.03
	(a) Project Superintendent (b) Safety Coordinator			1.00	ea	33.00	330.00	\$96.31	\$47,464.03
	(c) Mechanic			1.00	ea	33.00	330.00	\$90.31	\$23,555.07
	(d) Truck Driver			1.00	ea	33.00	330.00	\$78.18	\$25,798.41
	2. Equipment			1.00	ea	33.00	330.00	φ/0.10	φ20,790.4T
	(a) Pickup Truck, 4x4			1.00		33.00	330.00	\$27.19	\$8,973.36
	(a) Frickup Track, 4x4 (b) Truck, Mechanic Rig 4x4			1.00	ea ea	33.00	330.00	\$38.52	\$12,712.26
	3. Miscellaneous Expenses			1.00	ea	33.00	330.00	\$30.5Z	φ12,712.20
	(a) Trailer Office			1.50				\$230.00	\$345.00
	(b) Telephone			1.50	mo			\$230.00	\$345.00 \$1,725.00
					mo				\$1,725.00
	(c) Cellular Phones (d) Office Equipment: Fax, Copier, Computers, etc.			1.50 1.50	mo mo			\$1,150.00	
					-			\$1,150.00	\$1,725.00
	(e) Utility Bills: Electric, Water, etc. (f) Daily Consumables			1.50 33.00	mo			\$575.00 \$172.50	\$862.50 \$5,692.50
	(f) Daily Consumables			33.00	day			\$172.50	\$5,692.50
			<u> </u>				1 0 0 0		
	SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION						1,980		\$162,378.78
				4				1	
	SUB TOTAL: SYSTEMS A TO L						33,233		\$3,384,401.90
	ADDITIONAL ITEMS								
	1. Mobilization and Demobilization			1.00	LS			\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit			78.00	days			\$4,500.00	\$351,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		130.00	days			\$85.00	\$11,050.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F	T	65.00	days			\$73.00	\$4,745.00
	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	%				\$385,713.69
	· · ·								,

SUB TOTAL ADDITIONAL ITEMS

33,233 \$4,242,850.59

0

Woolfolk, A, 0-5,000 HP Storage

TotalAverageTotalLabor MHLabor RateLabor Cost31,253\$103.10\$3,222,023.12

\$858,448.69

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Woolfolk, B, 0-5,000 HP

State: Michigan

	Michigan 0-5,000 HP	# of Cor	npressors	2					
ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
Α	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		\$98,639.66
	(b) Remove air intake systems	6C 6C		2.00 2.00	ea	120.00 120.00	240.00 240.00		\$23,912.64
	(c) Remove exhaust systems (d) Remove glycol coolers	6C 6C		2.00	ea ea	250.00			\$23,912.64 \$49,818.01
	(e) Remove lighting system	3E		1.00	Lot	80.00	80.00		\$6,340.27
	(f) Remove associated piping system	6B		1.00	Lot	160.00			\$16,315.20
	(g) Remove miscellaneous valves	6E		1.00	Lot	30.00			\$3,694.03
	(h) Removed compressed air system	6D		1.00	Lot	40.00	40.00	\$116.98	\$4,679.29
	Remove Plant Boiler and all Hot Water Piping								
	(a) Remove plant boiler	6C		1.00	ea	80.00			\$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						2,500		\$249,371.71
В	SYSTEM B: REINFORCED CONCRETE					1	2,300		\$245,571.7
	1. Compressor Building Basement Walls and Unit			┣───┤		1			
	Blocks are to be Cut Off 3 feet below grade and								
	backfilled.								
	(a) Remove foundation walls and pilasters	2A		104.64	су	2.45	256.00	\$109.49	\$28,030.24
	(b) Remove engine blocks	2A		248.51	cy	2.45	608.00	\$109.49	\$66,571.82
	(c) Remove operating floor structural slab	2A		52.32	су	2.45	128.00		\$14,015.12
	(d) Remove yard equipment foundations	2A		26.16	су	2.45	64.00		\$7,007.56
	(e) Remove above grade pipe piers & valve supports	2A		78.48	су	2.45	192.00	\$109.49	\$21,022.68
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		156.95	су	0.10			\$2,178.24
	(b) Backfill with excavated native material	2C 2C		156.95 653.98	су	0.21	33.60 140.00		\$3,435.7
	(c) Backfill with imported gravel	20		053.98	су	0.21	140.00	\$102.25	\$14,315.46
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						1,437		\$156,576.82
С	SYSTEM C: BUILDINGS & STRUCTURAL STEEL					<u></u>			
	1. Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		365.97	sy	0.48		\$80.64	\$14,311.2 [,]
	(b) Remove metal roof deck	3B		365.97	sy	0.14	52.02	\$98.81	\$5,140.04
	(c) Remove wall cladding, door windows & lourvers	3C		208.10	sy	0.18		\$88.17	\$3,375.15
	(d) Remove structural steel frame (roof, walls & columns)	3C		1755.92	су	0.09	161.10	\$88.17	\$14,204.20
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol					-			
	Coolers and Associated Structural Steel	20		10.50	4.0.0	10.00	105.00	£440.07	£40.040.01
	(a) Dismantle and remove structural steel	3D		10.56	ton	10.00	105.60	\$116.67	\$12,319.83
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						534		\$49,350.42
D	SYSTEM D: HIGH PRESSURE GAS						004		¥40,000.42
<u>u</u>	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	\$101.97	\$29,856.82
	- NPS 16 HP above grade suction & discharge feeder lines	6B	16	98.41	ft	0.51	50.10	\$101.97	\$5,108.70
	- NPS 10 HP above grade suction & discharge	6B	10	91.85	ft	0.30	27.44		\$2,798.00
	- NPS 12 HP bypass	6B	12	26.24	ft	0.37	9.60	\$101.97	\$978.9 [.]
	(b) Flame Cutting								
	- NPS 30	6A	30	16.00	ea	7.20			\$15,432.8
	- NPS 16	6A	16	8.00	ea	1.61		\$133.97	\$1,725.48
	- NPS 10 - NPS 12	6A	10 12	2.00	ea	0.92			\$246.50 \$1,168.18
	 NPS 12 Dismantle and Remove all Unit Valves and Operators, 	6A	12	8.00	ea	1.09	8.72	\$133.97	φ1,10 0 .1
				┣────┤					
	Plant Suction Scrubbers Valves & Vent Pines								
	Plant Suction Scrubbers, Valves & Vent Pipes (a) Remove horizontal scrubber	60		1 00	ea	40.00	40.00	\$99.64	\$3 985 44
	(a) Remove horizontal scrubber	6C 6D	30	1.00	ea ea	40.00			
		6C 6D 6D	30 12	1.00 1.00 1.00	ea ea ea	40.00 9.96 4.16	9.96	\$116.98	\$3,985.44 \$1,165.14 \$486.65

n n	(a) Romovo NRS 8 underground vont piping	60	8	242 74	#	0.24	58.46	¢101.07	¢5 061 17
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24	58.46 14.95	\$101.97 \$139.63	\$5,961.17 \$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						680		\$74,532.59
<u>E</u> 1	SYSTEM E: FUEL AND STARTING GAS . Excavate, Remove & Dispose of Emergency Fuel Gas Supply								
	Piping								
	(a) Excavate underground piping by machine	2B		130.80	су	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	су	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		0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	39.24	cy ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	0.21	8.40	\$102.25	\$858.93
3	Excavate, Remove & Dispose of Fuel & Starting Gas Piping				1				•
	and Valves			74.04		0.40		* 4 * * *	
	(a) Excavate underground piping by machine (b) Remove NPS 4 underground starting gas piping	2B 6B	6	71.94 59.05	cy ft	0.10	7.15 11.16	\$139.63 \$101.97	\$998.36 \$1,137.99
	(c) Remove NPS 4 underground starting 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	су	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	су	0.10	5.20	\$139.63	\$726.08
┣───┣	(b) Remove NPS 1-1/2 underground piping (c) Backfill with native excavated material	6B 2C	1.5	49.20 52.32	lf	0.09	4.65 11.20	\$101.97 \$102.25	\$474.16 \$1,145.24
╞───┠		∠ ∪		52.32	су	0.21	11.20	φ102.25	φı, 145.24
┢───┤└	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS		i – – – –			i l	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		40.00	80.00	\$116.98	\$9,358.58
	(b) Remove glucol pumps	6D		2.00	ea ea	40.00	20.00	\$116.98	\$9,350.50
	(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	су	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	су	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	су	0.21	70.00	\$102.25	\$7,157.73
Ľ	. 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						572		\$02,030.03
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			1.00					<u> </u>
┣───┣	(a) Remove air compressors (b) Remvoe air receiver tanks	6D 6D		1.00 1.00	ea	20.00 40.00	20.00 40.00	\$116.98 \$116.98	\$2,339.65 \$4,679.29
╞───┠	(b) Remove air receiver tanks (c) Remove instrument air storage tank	6D 6D		1.00	ea ea	40.00	40.00	\$116.98	\$4,679.29
╞───┟	(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			<u> </u>		ļļ	160		\$17,516.18
<u>H</u>	SYSTEM H: LUBE OIL			┣───┤		├			
	. 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
┝───┤	SYSTEM I: HEATING, VENTALATION & A/C					<u> </u>	130		ψ1 4 ,007.20
1	. Remove Heating Systems associates with the Compressor		1						
Ľ	Building, Auxilairy 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
									A40 000
┝───	SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C		ļ			<u> </u>	170		\$19,286.49
<u>J</u>	SYSTEM J: SANITARY & STORM SEWERS . Remove Weeping Tiles and Manholes		<u> </u>			┟──┤			
┝───╢╵	(a) Remove weeking tiles around Compr. Bldg. Basement	6B	6	278.83	ft	0.19	52.70	\$101.97	\$5,373.82
	(b) Remove manholes	2B	Ť	1.00	ea	20.00	20.00	\$139.63	\$2,792.62
	. Excavate and carefully Remove Drain Piping Under Compr.							-	

(a) Sevects to basement size 2E 65.61 11 0.12 8.00 \$105.30 \$842.41 (b) Insaku and remove concrete 2A 13.81 cy 2.45 44.80 \$10.94.90 \$40.905.29 (c) Intel Exclusted to expose drain pips 5B 6B 6 32.80 ft 0.19 62.02 \$10.82 <t< th=""><th></th><th></th><th></th><th>-</th><th></th><th></th><th></th><th></th><th></th><th></th></t<>				-						
(b) Breakug and remove concrete 2A 18.31 cy 2.45 44.80 \$109.40 (c) Carefully remove drain pping 6B 6 32.80 ft 0.13.10 82.60 \$10.92.00 (d) Carefully remove drain pping 6B 6 32.80 ft 0.13.10 82.60 \$10.92.25 \$22.66.31 (e) Backfill with imported gravel 2C 13.08 cy 0.21 2.80 \$10.225 \$22.66.31 SUB TOTAL SYSTEM J. SANTARY & STORM SEWERS Image and tempore and biologo of Unit Cortrol panels and MCC's Image and tempore and biologo of Unit Cortrol panels 3E 1.00 ee 40.00 40.00 \$79.25 \$3.170.13 (a) Remove and biologo of Unit Cortrol panels 3E 1.00 ee 40.00 \$79.25 \$55.170.13 (a) Remove and biologo of Unit Cortrol panels 3E 2.96.2 ft 0.03 7.00 \$79.25 \$554.77 (d) 1.2-8C SUB TOTAL SYSTEM K: ELECTRICAL Image and		Bldg. Floor for Environmental Assessment								
(c) Hard Excitate to suppose dam pipes 2D 13.08 cv 1.00 13.10 S82.60 50.822.01 (c) Gardialy remove dam ping 6B 6 32.80 ft 0.19 6.20 \$50.82.21 (c) Backfill with imported gravel 2C 13.08 cv 0.21 2.80 \$10.27 \$52.82.31 SUB TOTAL SYSTEM J: SANTARY & STORM SEWERS 148 \$15.914.66 \$15.912.00 \$10.27.51 \$10.01										
(d) Carefully remove drain pping 6B 6 3280 ft 0.19 6.22 \$10.25 \$268.31 Image: Substrain and Substrain						су	-			
(e) Backfill with imported gravel 2C 13.08 cy 0.21 2.80 \$102.25 \$288.31 K SUB TOTAL SYSTEM J: SANTARY & STORM SEWERS Image: Santary & STORM SEWERS Image: Santary & Store State 148 \$15,914.66 K Nemove and Dispose of Unit Control Panels and MCC's Image: Santary & Santary & Store State Image: Santary & Santary										
SUB TOTAL SYSTEM J: SANTARY & STORM SEWERS Image: State of the storm of panels Image: State of the state of the storm of panels				6		ft				
K SYSTEM K: ELECTRICAL Image: Control panels and MCC's for Compressor Units image: Control panels and MCC's image: Control panels and MCC's (a) Remove station and generator control panels 3E 1.00 ea 40.00 40.00 \$72.25 \$33.170.13 2. Remove attaches interwa trench 3E 1.00 ea 40.00 40.00 \$72.25 \$55.477 (a) 12-SC 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (c) 1.1-DB 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (d) 1.1-DB 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (d) 1.1-DB 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (d) 1.1-DB 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (d) 1.1-DB 3E 229.62 ft 0.03 30.00 \$51.474 (d) 1.1-DB 3E 2.25.70 <td< td=""><td></td><td>(e) Backfill with imported gravel</td><td>2C</td><td></td><td>13.08</td><td>су</td><td>0.21</td><td>2.80</td><td>\$102.25</td><td>\$286.31</td></td<>		(e) Backfill with imported gravel	2C		13.08	су	0.21	2.80	\$102.25	\$286.31
K SYSTEM K: ELECTRICAL Image: Control panels and MCC's for Compressor Units image: Control panels and MCC's image: Control panels and MCC's (a) Remove station and generator control panels 3E 1.00 ea 40.00 40.00 \$72.25 \$33.170.13 2. Remove attaches interwa trench 3E 1.00 ea 40.00 40.00 \$72.25 \$55.477 (a) 12-SC 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (c) 1.1-DB 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (d) 1.1-DB 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (d) 1.1-DB 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (d) 1.1-DB 3E 229.62 ft 0.03 7.00 \$72.25 \$55.477 (d) 1.1-DB 3E 229.62 ft 0.03 30.00 \$51.474 (d) 1.1-DB 3E 2.25.70 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>										
I. Remove and Dispose of Unit Control Panels and MCC's Image: Compression Units Image: Compression		SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
I. Remove and Dispose of Unit Control Panels and MCC's Image: Compression Units Image: Compression	К	SYSTEM K: ELECTRICAL								
for Compressor Units set										
(a) Remove station and generator control panels 3E 1.00 ea 40.00 40.00 \$79.25 \$31.170.13 2. Remove all Cables in trenwa trench 3E 1.00 ea 40.00 \$79.25 \$31.170.13 2. Remove all Cables in trenwa trench 3E 229.62 ft 0.03 7.00 \$79.25 \$\$554.77 (a) 1.2-2C 3E 229.62 ft 0.03 7.00 \$79.25 \$\$554.77 (a) 1.2-2C 3E 228.62 ft 0.03 7.00 \$79.25 \$\$554.77 (a) L-D8 3E 228.62 ft 0.03 7.00 \$79.25 \$\$554.77 (b) L-D8 3E 1.00 ea 3.00 \$70.25 \$\$554.77 (c) L-D8 3E 1.00 ea 3.00 \$70.25 \$\$554.77 (d) L-D8 SYSTEML: SITE OVERHEAD & SUPERVISION 1.00 ea 3.00 3.00 \$\$14.39 \$47.44.03 </td <td></td>										
(b) Remove inder control centers (MCC) 3E 1.00 ea 40.00 \$79.25 \$3.170.13 2. Remove all Cables in trenva trench 7 8 229.62 ft 0.03 7 7 7 6 7 0.03 7 0.03 7 0.03 7 0.03 7 0.03 7 <td></td> <td>(a) Remove station and generator control panels</td> <td>3E</td> <td></td> <td>1.00</td> <td>ea</td> <td>40.00</td> <td>40.00</td> <td>\$79.25</td> <td>\$3,170,13</td>		(a) Remove station and generator control panels	3E		1.00	ea	40.00	40.00	\$79.25	\$3,170,13
2. Remove all Cables in trenva trench 0 1 0 1										
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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 \$0.00 7. Sales Tax 0.000 % \$100,853.12 9. 10.00 % \$100,853.12				<u> </u>						
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 0.000 % \$100,853.12 8. Markup 10.00 % \$100,853.12						-				
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<										
5. Daily Subsistence Allowance (Per Diem) 738.00 Mdays \$130.00 \$95,940.00 6. Prime Cost Allowance (Contingency) 0.00 % \$0.00 \$0.00 7. Sales Tax 0.00 % \$0.00 \$0.00 8. Markup 10.00 % \$100,853.12		3. Load and Haul Debris (Trucking to Dumpsite)								
6. Prime Cost Allowance (Contingency) 0.00 % \$0.00 7. Sales Tax 0.00 % \$0.00 8. Markup 10.00 % \$100,853.12			6F							
7. Sales Tax 0.00 % \$0.00 8. Markup 10.00 % \$100,853.12									\$130.00	
8. Markup 10.00 % \$100,853.12										\$0.00
										\$0.00
SUB TOTAL ADDITIONAL ITEMS 0 \$263,223.12		8. Markup			10.00	%				\$100,853.12
SUB TOTAL ADDITIONAL ITEMS 0 0 \$263,223.12										
		SUB TOTAL ADDITIONAL ITEMS						0		\$263,223.12

Тс

Woolfolk, B, 0-5,000 HP Storage Total Average Labor MH Labor Rate 6,577 \$103.96

8,557

Total E Labor Cost \$683,782.40

\$1,109,384.29

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

	10,500-21,000 HP	# of Cor	npressors	1					
ITEM	DESCRIPTION	Crew ID	Pipe Dia.	Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT					1			
<u> </u>	1. Remove Plant Engines and Compressor, Air								
	Intake Systems, Exhaust Systems, Glycol Coolers,								
	all Associated Accessories, including Lights, Piping,								
	Valves & Heaters, etc.			1.00		405.00	405.00	* 00.04	* 40, 040, 00
	(a) Remove engines and compressors (b) Remove air intake systems	6C 6C		1.00 1.00	ea ea	495.00 120.00			\$49,319.83 \$11,956.32
	(c) Remove exhaust systems	6C 6C		1.00	ea	120.00			\$11,956.32
	(d) Remove glycol coolers	6C		1.00	ea	250.00		1	\$24,909.01
	(e) Remove lighting system	3E		1.00	Lot	160.00			\$12,680.54
	(f) Remove associated piping system	6B		1.00	Lot	320.00			\$32,630.40
	(g) Remove miscellaneous valves	6E		1.00	Lot	60.00			\$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	~~~	160.00	160.00	\$99.64	£15 041 76
	(b) Remove all associated hot water piping	6C 6B		1.00	ea Lot	80.00		\$99.04	\$15,941.76 \$8,157.60
	3. Remove Auxiliary Wing associated Equipment	00		1.00	LUI	00.00	00.00	ψ101.97	\$0,157.00
	(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			\$4,078.80
	SUB TOTAL SYSTEM A: STATION LAYOUT						2,025		\$201,979.34
<u>B</u>	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	су	2.45	128.00	\$109.49	\$14,015.12
	(b) Remove engine blocks	2A 2A		124.26	cy	2.45		\$109.49	\$33,285.91
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00		\$7,007.56
	(d) Remove yard equipment foundations	2A		13.08	cý	2.45	32.00	\$109.49	\$3,503.78
	(e) Remove above grade pipe piers & valve supports	2A		39.24	су	2.45	96.00	\$109.49	\$10,511.34
	2. Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	су	0.10			\$1,089.12
	(b) Backfill with excavated native material (c) Backfill with imported gravel	2C 2C		78.48 326.99	cy cy	0.21	16.80 70.00		\$1,717.85 \$7,157.73
		20		320.33	Cy	0.21	70.00	ψT02.25	ψ1,101.10
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$78,288.41
С	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes								
	(a) Remove built-up roofing system	3A		182.99	sy	0.48		\$80.64	\$7,155.60
	(b) Remove metal roof deck	3B		182.99	sy	0.14		\$98.81	\$2,570.02
	(c) Remove wall cladding, door windows & lourvers (d) Remove structural steel frame (roof, walls & columns)	3C 3C		104.05 877.96	sy	0.18		\$88.17 \$88.17	\$1,687.57 \$7,102.10
	2. Remove Air Intake Systems, Exhaust Mufflers, Glycol	30		077.90	су	0.09	60.55	φoo.17	φ7,102.10
	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
<u>D</u>	SYSTEM D: HIGH PRESSURE GAS								
	1. Dismantle and Remove all Above and Below Grade High					<u> </u>			
	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	0.74	66.80	\$101.97	\$6,811.60
	- NPS 10 HP above grade suction & discharge	6B	10	131.21	ft	0.30			\$3,997.22
	- NPS 12 HP bypass	6B	12	39.36	ft	0.37	14.40	\$101.97	\$1,468.37
	(b) Flame Cutting	-							A
	- NPS 30	6A	30	8.00	ea	7.20	57.60	\$133.97	\$7,716.44
	- NPS 16 - NPS 10	6A 6A	16 10	4.00 2.00	ea ea	1.61 0.92	6.44 1.84	\$133.97 \$133.97	\$862.74 \$246.50
	- NPS 10 - NPS 12	6A 6A	10	2.00	ea	1.09		\$133.97 \$133.97	\$246.50 \$1,168.18
	 Dismantle and Remove all Unit Valves and Operators, 			0.00	54	1.00	0.72	÷100.01	÷.,100.10
	Plant Suction Scrubbers, Valves & Vent Pipes					1			
	(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		\$116.98	\$1,165.14
	(c) Remove NPS 12 bypass valve and operator (d) Remove NPS 6 bypass valve and operator	6D 6D	12 6	1.00 1.00	ea ea	4.16			\$486.65 \$238.64

n	(c) Demonstration (containing the statistics	45		000.00	0	0.04	70.00	\$404 07	* 0.055.00
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	328.03 196.19	ft cy	0.24	79.00 19.50	\$101.97 \$139.63	\$8,055.63 \$2,722.80
	(g) Backfill with native excavated material	2B 2C		196.19	cy cy	0.10	42.00	\$102.25	\$4,294.64
	SUB TOTAL SYSTEM D: HIGH PRESSURE GAS						636		\$68,100.67
<u>E</u>	SYSTEM E: FUEL AND STARTING GAS								
	Excavate, Remove & Dispose of Emergency Fuel Gas Supply Piping								
	(a) Excavate underground piping by machine	2B		261.59	су	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	су	0.21	56.00	\$102.25	\$5,726.18
	Excavate, Remove & Dispose of Domestic Fuel Gas Piping (a) Excavate underground piping by machine	2B		39.24	су	0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	32.80	ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	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	су	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 4. Excavate, Remove & Dispose of "normal" Fuel Gas Piping	2C		71.94	су	0.21	15.40	\$102.25	\$1,574.70
	(a) Excavate underground piping by machine	2B		52.32	су	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	су	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				الــــــــــــــــــــــــــــــــــــ	100		φ 20, 522.19
<u> </u>	Remove all Glycol and Jacket Water Cooling Systems								
	Including Air System Cooling, Engine Cooling and APU								
	Cooling Piping.	60		2.00		40.00	80.00	\$116.98	¢0.050.50
	(a) Remove JCW and OCW pumps (b) Remove glucol pumps	6D 6D		2.00	ea ea	40.00	20.00	\$116.98	\$9,358.58 \$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 (f) Backfill with native excavated material (75%)	2B 2C		523.18 130.80	су	0.10	52.00 28.00	\$139.63 \$102.25	\$7,260.81 \$2,863.09
	(g) Backfill with imported gravel (25%)	2C 2C		392.39	cy cy	0.21	84.00	\$102.25	\$2,663.09
	2. Remove Glycol & Cooling Water Storage & Expansion Tanks				-)			* · • • • • •	<i>T</i> OOOOOOOOOOOOO
	(a) Remove OCW expansion tank	6D		1.00	ea	20.00	20.00	\$116.98	\$2,339.65
	(b) Remove glycol storage tank (c) Remove domestic water tank	6D 6D		1.00 1.00	ea ea	40.00 30.00	40.00 30.00	\$116.98 \$116.98	\$4,679.29 \$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
0	SUB TOTAL SYSTEM F: COOLING WATER SYSTEM G: COMPRESSED AIR						613		\$67,435.29
G	<u>STSTEM G: COMPRESSED AIR</u> 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
	(a) Remove air compressors (b) Remvoe 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 6B		1.00	ea	10.00	10.00	\$116.98 \$101.07	\$1,169.82
	(e) Remove associated piping	08	┼──┤	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			l			130		\$14,607.20
1	SYSTEM I: HEATING, VENTALATION & A/C		<u> </u>			<u>الــــــــــــــــــــــــــــــــــــ</u>			÷,007.20
	1. Remove Heating Systems associates with the Compressor								
	Building, Auxilairy Wing, etc. (to be removed with buildings)	<u> </u>	<u> </u>	40.00		40.00	100.00	¢440.00	¢45 007 00
	(a) Remove unit steam / electrical heaters (b) Remove associated piping / cabling	6D 6B	┝──┤	13.00 1.00	ea Lot	10.00 40.00	130.00 40.00	\$116.98 \$101.97	\$15,207.69 \$4,078.80
				1.00	201	-70.00	10.00	ψ101.07	ψ1,070.00
	SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C						170		\$19,286.49
	SYSTEM J: SANITARY & STORM SEWERS								
J									
J	1. Remove Weeping Tiles and Manholes	60		270.00	ħ	0.40	E0 70	¢101 07	¢E 070 00
<u></u>		6B 2B	6	278.83 1.00	ft ea	0.19	52.70 20.00	\$101.97 \$139.63	\$5,373.82 \$2,792.62

n n	Dista Elever for Environmental Assessment		1 1						
	Bldg. Floor for Environmental Assessment	05		05.04	6	0.40	0.00	\$405 OO	0040 44
	(a) Sawcuts to basement slab	2E 2A		65.61 18.31	ft	0.12	8.00 44.80	\$105.30	\$842.41 \$4,905.29
	(b) Breakup and remove concrete (c) Hand Excavate to expose drain pipes	2A 2D		13.08	су	2.45	13.10	\$109.49 \$82.60	\$1.082.00
		2D 6B	6	32.80	cy #	0.19	6.20	\$82.60 \$101.97	1 / 2 2 2 2
	(d) Carefully remove drain piping (e) Backfill with imported gravel	2C	0	32.80	ft	0.19	2.80	\$101.97	\$632.21 \$286.31
	(e) Backilli with imported graver	20		13.00	су	0.21	2.00	φ102.25	\$200.3 I
			l				4.40		
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
<u>K</u>	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						0.50		A077.00
	(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
<u> </u>	(d) L1-DB	3E	├ ──┤	114.81	ft	0.03	3.50	\$79.25	\$277.39
			<u> </u>	<u> </u>					A7 440 C4
	SUB TOTAL SYSTEM K: ELECTRICAL						94		\$7,449.81
	SYSTEM L: SITE OVERHEAD & SUPERVISION			2.50	Мо				
	1. Supervisory Personnel			4.00		== 00			
	(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 55.00	550.00 550.00	\$71.38 \$78.18	\$39,258.45 \$42,997.35
	(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
	(a) Fickup Truck, 4x4 (b) Truck, Mechanic Rig 4x4			1.00	ea	55.00	550.00	\$38.52	\$21,187.10
	3. Miscellaneous Expenses			1.00	ea	55.00	550.00	φ30.0Z	φ21,107.10
	(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
	(i) Daily concarnables			00.00	uuy			φ172.00	φ0,101.00
	SUB TOTAL SYSTEM L: SITE OVERHEAD & SUPERVISION						3,300		\$270,631.30
			<u> </u>				0,000		\$210,001.00
	SUB TOTAL: SYSTEMS A TO L				1		8,447		\$806,406.76
	COB TOTAL: OTOTEMOA TO E		<u> </u>				0,111		\$000,400.10
	ADDITIONAL ITEMS		1						
┣────╢	1. Mobilization and Demobilization		<u>├</u>	1.00	LS	├		\$10,000.00	\$10,000.00
┣────╢	2. Allowance for Hydrovac Unit		<u>├</u>	15.00	-	├		\$10,000.00	\$67,500.00
<u> </u>	3. Load and Haul Debris (Trucking to Dumpsite)	2F		20.00	days			\$4,500.00	\$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	%			÷.00.00	\$0.00
	7. Sales Tax			0.00	%				\$0.00
	8. Markup			10.00	%				\$104,517.18
	· · · · p								,
	SUB TOTAL ADDITIONAL ITEMS		i d				0		\$343,282.18
					l		,		,, _ 00

8,447

Woolfolk, C, 10,500-21,000 HP Storage

Total Average Labor MH Labor Rate 5,147 \$104.10

Total Labor Cost \$535,775.46

\$1,149,688.94

Project: 2015 Terminal Negative Salvage - ARO - IFRS Location: Woolfolk, D, 0-5,000 HP

State: Michigan

State: Capacity:	0-5,000 HP	# of Cor	npressors	1					
ITEM	DESCRIPTION			Quantity	Unit	MH/Unit	Total MH	Crew Rate	Total Cost
A	SYSTEM A: STATION LAYOUT								
<u> </u>	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	\$49,319.8
	(b) Remove air intake systems	6C		1.00	ea	120.00		\$99.64	\$11,956.32
	(c) Remove exhaust systems	6C		1.00	ea	120.00			\$11,956.3
	(d) Remove glycol coolers	6C		1.00	ea	250.00			\$24,909.0
	(e) Remove lighting system	3E		1.00	Lot	80.00			\$6,340.2
	(f) Remove associated piping system	6B 6E		1.00	Lot	160.00			\$16,315.2
	(g) Remove miscellaneous valves (h) Removed compressed air system	6E 6D		1.00 1.00	Lot Lot	30.00 40.00			\$3,694.0 \$4,679.2
	2. Remove Plant Boiler and all Hot Water Piping	00		1.00	LOI	40.00	40.00	\$110.90	φ4,079.23
	(a) Remove plant boiler	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.8
	(b) Remove all associated hot water piping	6B		1.00	Lot	40.00		\$101.97	\$4,078.8
	3. Remove Auxiliary Wing associated Equipment	00		1.00	LUI	40.00	40.00	ψ101.97	ψ4,070.0
	(a) Remove auxiliary power unit	6C		1.00	ea	80.00	80.00	\$99.64	\$7,970.8
	(b) Remove all associated hot water piping	6B		1.00	Lot	20.00		\$101.97	\$2,039.4
									+_,
	SUB TOTAL SYSTEM A: STATION LAYOUT						1,515		\$151,230.2
В	SYSTEM B: REINFORCED CONCRETE					1	.,•.•		, , , , , , , , , , , , , , , , , , ,
<u> </u>	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	су	2.45	128.00	\$109.49	\$14,015.1
	(b) Remove engine blocks	2A		124.26	cý	2.45	304.00	\$109.49	\$33,285.9
	(c) Remove operating floor structural slab	2A		26.16	cy	2.45	64.00	\$109.49	\$7,007.5
	(d) Remove yard equipment foundations	2A		13.08	cy	2.45	32.00	\$109.49	\$3,503.7
	(e) Remove above grade pipe piers & valve supports	2A		39.24	су	2.45	96.00	\$109.49	\$10,511.3
	Excavation & Backfilling.								
	(a) Excavate for foundation walls & yard concrete	2B		78.48	су	0.10			\$1,089.12
	(b) Backfill with excavated native material	2C		78.48	су	0.21			\$1,717.8
	(c) Backfill with imported gravel	2C		326.99	су	0.21	70.00	\$102.25	\$7,157.73
	SUB TOTAL SYSTEM B: REINFORCED CONCRETE						719		\$78,288.4
<u>C</u>	SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
	1. Remove Compressor Building and all Associated								
	Structural Seel, Including Cranes			100.00		0.10	00.74	000.04	AR 155 A
	(a) Remove built-up roofing system	3A		182.99	sy	0.48		\$80.64	\$7,155.6
	(b) Remove metal roof deck	3B 3C		182.99	sy	0.14		\$98.81	\$2,570.0
	(c) Remove wall cladding, door windows & lourvers	3C 3C		104.05	sy	0.18		\$88.17 \$88.17	\$1,687.5 \$7,102.1
	(d) Remove structural steel frame (roof, walls & columns) 2. Remove Air Intake Systems, Exhaust Mufflers, Glycol	30		877.96	су	0.09	60.55	φοο.17	\$ 7,102.1
	Coolers and Associated Structural Steel								
	(a) Dismantle and remove structural steel	3D		5.28	ton	10.00	52.80	\$116.67	\$6,159.9
		05		0.20	ton	10.00	02.00	ψ110.07	<i>\\</i> 0,100.0
							267		\$24,675.2
	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL								
D	SUB TOTAL SYSTEM C: BUILDINGS & STRUCTURAL STEEL						207		1 1 2
<u>D</u>	SYSTEM D: HIGH PRESSURE GAS						207		
<u>D</u>	SYSTEM D: HIGH PRESSURE GAS 1. Dismantle and Remove all Above and Below Grade High						207		
D	SYSTEM D: HIGH PRESSURE GAS 1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping						207		
<u>D</u>	SYSTEM D: HIGH PRESSURE GAS 1. Dismantle and Remove all Above and Below Grade High		30	196.82	ft	0.74		\$101.97	
<u>D</u>	SYSTEM D: HIGH PRESSURE GAS 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 6B	30 16			0.74		\$101.97 \$101.97	\$14,928.4
<u>D</u>	SYSTEM D: HIGH PRESSURE GAS 1. Dismantle and Remove all Above and Below Grade High Pressure Gas Piping (a) Remove high pressure gas piping			196.82 49.20 45.92	ft ft ft		146.40 25.05		\$14,928.4 \$2,554.3
	SYSTEM D: HIGH PRESSURE GAS 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 - NPS 16 HP above grade suction & discharge feeder lines	6B	16	49.20	ft	0.51	146.40 25.05	\$101.97	\$14,928.4 \$2,554.3 \$1,399.0
	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 - NPS 16 HP above grade suction & discharge feeder lines - NPS 10 HP above grade suction & discharge - NPS 12 HP bypass (b) Flame Cutting	6B 6B 6B	16 10 12	49.20 45.92 13.12	ft ft	0.51 0.30 0.37	146.40 25.05 13.72 4.80	\$101.97 \$101.97 \$101.97	\$14,928.4 \$2,554.3 \$1,399.0 \$489.4
	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 - NPS 16 HP above grade suction & discharge feeder lines - NPS 10 HP above grade suction & discharge - NPS 12 HP bypass (b) Flame Cutting - NPS 30	6B 6B 6B 6A	16 10 12 30	49.20 45.92 13.12 8.00	ft ft	0.51 0.30 0.37 7.20	146.40 25.05 13.72 4.80 57.60	\$101.97 \$101.97 \$101.97 \$103.97 \$133.97	\$14,928.4 \$2,554.3 \$1,399.0 \$489.4 \$7,716.4
<u>D</u>	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 - NPS 16 HP above grade suction & discharge feeder lines - NPS 10 HP above grade suction & discharge - NPS 10 HP above grade suction & discharge - NPS 12 HP bypass (b) Flame Cutting - NPS 30 - NPS 16	6B 6B 6B 6A 6A	16 10 12 30 16	49.20 45.92 13.12 8.00 4.00	ft ft ft	0.51 0.30 0.37 7.20 1.61	146.40 25.05 13.72 4.80 57.60 6.44	\$101.97 \$101.97 \$101.97 \$133.97 \$133.97	\$14,928.4 \$2,554.3 \$1,399.0 \$489.4 \$7,716.4 \$862.7
	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 - NPS 16 HP above grade suction & discharge - NPS 10 HP above grade suction & discharge - NPS 12 HP bypass (b) Flame Cutting - NPS 30 - NPS 16 - NPS 10	6B 6B 6B 6A 6A 6A	16 10 12 30 16 10	49.20 45.92 13.12 8.00 4.00 2.00	ft ft ft ea ea ea	0.51 0.30 0.37 7.20 1.61 0.92	146.40 25.05 13.72 4.80 57.60 6.44 1.84	\$101.97 \$101.97 \$101.97 \$133.97 \$133.97 \$133.97	\$14,928.4 \$2,554.3 \$1,399.0 \$489.4 \$7,716.4 \$862.7 \$246.5
	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 - NPS 16 HP above grade suction & discharge - NPS 10 HP above grade suction & discharge - NPS 12 HP bypass (b) Flame Cutting - NPS 16 - NPS 10 - NPS 10	6B 6B 6B 6A 6A	16 10 12 30 16	49.20 45.92 13.12 8.00 4.00	ft ft ft ea ea	0.51 0.30 0.37 7.20 1.61	146.40 25.05 13.72 4.80 57.60 6.44 1.84	\$101.97 \$101.97 \$101.97 \$133.97 \$133.97	\$14,928.4 \$2,554.3 \$1,399.0 \$489.4 \$7,716.4 \$862.7 \$246.5
	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 - NPS 16 HP above grade suction & discharge feeder lines - NPS 10 HP above grade suction & discharge - NPS 12 HP bypass (b) Flame Cutting - NPS 10 - NPS 10 - NPS 12 2. Dismantle and Remove all Unit Valves and Operators,	6B 6B 6B 6A 6A 6A	16 10 12 30 16 10	49.20 45.92 13.12 8.00 4.00 2.00	ft ft ft ea ea ea	0.51 0.30 0.37 7.20 1.61 0.92	146.40 25.05 13.72 4.80 57.60 6.44 1.84	\$101.97 \$101.97 \$101.97 \$133.97 \$133.97 \$133.97	\$14,928.4 \$2,554.3 \$1,399.0 \$489.4 \$7,716.4 \$862.7 \$246.5
	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 - NPS 16 HP above grade suction & discharge feeder lines - NPS 10 HP above grade suction & discharge - NPS 12 HP bypass (b) Flame Cutting - NPS 16 - NPS 16 - NPS 12 2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes	6B 6B 6A 6A 6A 6A	16 10 12 30 16 10	49.20 45.92 13.12 8.00 4.00 2.00 4.00	ft ft ea ea ea ea	0.51 0.30 0.37 7.20 1.61 0.92 1.09	146.40 25.05 13.72 4.80 57.60 6.44 1.84 4.36	\$101.97 \$101.97 \$101.97 \$133.97 \$133.97 \$133.97 \$133.97	\$14,928.4 \$2,554.3 \$1,399.0 \$489.4 \$7,716.4 \$862.7 \$246.5 \$584.0
	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 - NPS 16 HP above grade suction & discharge - NPS 10 HP above grade suction & discharge - NPS 10 HP above grade suction & discharge - NPS 12 HP bypass (b) Flame Cutting - NPS 16 - NPS 10 - NPS 12 2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes (a) Remove horizontal scrubber	6B 6B 6A 6A 6A 6A 6A 6A 6A	16 10 12 30 16 10 12	49.20 45.92 13.12 8.00 4.00 2.00 4.00 1.00	ft ft ea ea ea ea ea	0.51 0.30 0.37 7.20 1.61 0.92 1.09 40.00	146.40 25.05 13.72 4.80 57.60 6.44 1.84 4.36 40.00	\$101.97 \$101.97 \$1101.97 \$133.97 \$133.97 \$133.97 \$133.97 \$133.97 \$199.64	\$14,928.4 \$2,554.3 \$1,399.0 \$489.4 \$7,716.4 \$862.7 \$246.5 \$584.0 \$3,985.4
	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 - NPS 16 HP above grade suction & discharge feeder lines - NPS 10 HP above grade suction & discharge - NPS 12 HP bypass (b) Flame Cutting - NPS 16 - NPS 16 - NPS 12 2. Dismantle and Remove all Unit Valves and Operators, Plant Suction Scrubbers, Valves & Vent Pipes	6B 6B 6A 6A 6A 6A	16 10 12 30 16 10	49.20 45.92 13.12 8.00 4.00 2.00 4.00	ft ft ea ea ea ea	0.51 0.30 0.37 7.20 1.61 0.92 1.09	146.40 25.05 13.72 4.80 57.60 6.44 1.84 4.36 40.00 9.96	\$101.97 \$101.97 \$133.97 \$133.97 \$133.97 \$133.97 \$133.97 \$133.97 \$133.97 \$133.97 \$133.97	\$14,928.4 \$2,554.3 \$1,399.0 \$489.4 \$7,716.4 \$862.7 \$246.5 \$584.0 \$3,985.4 \$1,165.1 \$486.6

r	(a) Pomovo NPS 8 underground vont piping	6P	8	242 74	#	0.24	58.46	¢101.07	¢5 061 17
	(e) Remove NPS 8 underground vent piping (f) Excavate by machine	6B 2B	8	242.74 150.41	ft cy	0.24	58.46 14.95	\$101.97 \$139.63	\$5,961.17 \$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						422		\$45,998.08
<u>E</u>	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	су	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	су	0.21	28.00	\$102.25	\$2,863.09
-	Excavate, Remove & Dispose of Domestic Fuel Gas Piping (a) Excavate underground piping by machine	2B		39.24		0.10	3.90	\$139.63	\$544.56
	(b) Remove NPS 4 underground piping	6B	4	39.24	cy ft	0.10	6.20	\$101.97	\$632.21
	(c) Backfill with native excavated material	2C		39.24	су	0.21	8.40	\$102.25	\$858.93
	3. Excavate, Remove & Dispose of Fuel & Starting Gas Piping								
	and Valves			74.04		0.40	7.45	.	
-	(a) Excavate underground piping by machine (b) Remove NPS 4 underground starting gas piping	2B 6B	6	71.94 59.05	cy ft	0.10	7.15 11.16	\$139.63 \$101.97	\$998.36 \$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	су	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	су	0.10	5.20	\$139.63	\$726.08
	(b) Remove NPS 1-1/2 underground piping (c) Backfill with native excavated material	6B 2C	1.5	49.20 52.32	lf	0.09	4.65 11.20	\$101.97 \$102.25	\$474.16 \$1,145.24
		20		52.32	су	0.21	11.20	φ102.25	φ1,145.24
	SUB TOTAL SYSTEM E: FUEL AND STARTING GAS		i –	ii		i l	138		\$15,170.89
F	SYSTEM F: COOLING WATER					<u> </u>			,
	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		40.00	80.00	\$116.98	\$9,358.58
-	(a) Remove JCW and OCW pumps (b) Remove glucol pumps	6D 6D		2.00	ea ea	40.00	20.00	\$116.98	\$9,358.58
-	(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	су	0.10	42.90	\$139.63	\$5,990.17
	(f) Backfill with native excavated material (75%)	2C		104.64	су	0.21	22.40	\$102.25	\$2,290.47
	(g) Backfill with imported gravel (25%)	2C		326.99	су	0.21	70.00	\$102.25	\$7,157.73
-	2. Remove Glycol & Cooling Water Storage & Expansion Tanks	60		1.00		20.00	20.00	£110.00	¢0,000,00
-	(a) Remove OCW expansion tank (b) Remove glycol storage tank	6D 6D		1.00 1.00	ea ea	40.00	40.00	\$116.98 \$116.98	\$2,339.65 \$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
			1						
	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) Remvoe air receiver tanks	6D		1.00	ea	40.00	40.00	\$116.98 \$116.08	\$4,679.29
	(c) Remove instrument air storage tank (d) Remove condensate tank	6D 6D		1.00 1.00	ea ea	10.00 10.00	10.00 10.00	\$116.98 \$116.98	\$1,169.82 \$1,169.82
<u> </u>	(e) Remove associated piping	6B		1.00	Lot	80.00	80.00	\$101.98	\$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	60		4.00		40.00	40.00	\$116.98	¢4 070 00
	(a) Remove lub oil storage tank (b) Remove lub oil drainage tank	6D 6D	+	1.00 1.00	ea ea	40.00 40.00	40.00 40.00	\$116.98 \$116.98	\$4,679.29 \$4,679.29
<u> </u>	(c) Remove lube oil drain gumps	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			<u> </u>		ļļ	130		\$14,607.20
	SYSTEM I: HEATING, VENTALATION & A/C								
	 Remove Heating Systems associates with the Compressor Building, Auxilairy 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
			1						
	SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C						170		\$19,286.49
	SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS						170		\$19,286.49
	SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS 1. Remove Weeping Tiles and Manholes			070.00	h			0404.05	i
	SUB TOTAL SYSTEM I: HEATING, VENTALATION & A/C SYSTEM J: SANITARY & STORM SEWERS	6B 2B	6	278.83	ft ea	0.19	52.70 20.00	\$101.97 \$139.63	\$19,286.49 \$5,373.82 \$2,792.62

n	Dida Electrica Environmental Accessories		1	r		1 1			
	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	2E 2A	-	18.31	-	2.45	44.80	\$105.30	\$4,905.29
	(c) Hand Excavate to expose drain pipes	2A 2D		13.08	су	1.00	13.10		\$4,905.29
	(d) Carefully remove drain piping	6B	6	32.80	cy ft	0.19	6.20		\$1,082.00
	(e) Backfill with imported gravel	2C	0	13.08		0.19	2.80	\$101.97	\$032.21
	(e) Backilli with imported graver	20		13.00	су	0.21	2.00	\$102.25	\$200.3 I
	SUB TOTAL SYSTEM J: SANITARY & STORM SEWERS						148		\$15,914.66
K	SYSTEM K: ELECTRICAL						140		\$15,914.00
<u>K</u>	SYSTEM K: ELECTRICAL I. Remove and Dispose of Unit Control Panels and MCC's								
				-					
	for Compressor Units (a) Remove station and generator control panels	3E		1.00		40.00	40.00	¢70.05	¢0 470 40
			-	1.00	ea			\$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	05		111.01	0	0.00	0.50		*077.00
	(a) 1:2-SC (b) 1:2-DC	3E 3E		114.81	ft	0.03	3.50 3.50	\$79.25	\$277.39
	(b) 1:2-DC (c) L1-SB	3E 3E	+	114.81	ft #	0.03		\$79.25 \$79.25	\$277.39 \$277.39
		3E 3E	-	<u>114.81</u> 114.81	ft ft	0.03	3.50 3.50	\$79.25	\$277.39
	(d) L1-DB	3E		114.81	π	0.03	3.50	\$79.25	\$217.39
<u> </u>	SUB TOTAL SYSTEM K: ELECTRICAL						94		\$7,449.81
				4.50	N4 -		94		٦/,449.0 1
	SYSTEM L: SITE OVERHEAD & SUPERVISION 1. Supervisory Personnel		+	1.50	Mo				
	(a) Project Superintendent			1.00		33.00	330.00	\$143.89	\$47,484.03
	(b) Safety Coordinator			1.00	ea ea	33.00	330.00	\$143.69	\$31,780.65
	(c) Mechanic		1	1.00	ea	33.00	330.00	\$90.31	\$23,555.07
	(d) Truck Driver		+	1.00	ea	33.00	330.00	\$78.18	\$25,798.41
	2. Equipment		+	1.00	ea	33.00	330.00	φ <i>1</i> 0.10	φ20,790.41
	(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			1.00	ou	00.00	000.00	\$00.0 <u>2</u>	ψ12,7 12.20
	(a) Trailer Office			1.50	mo			\$230.00	\$345.00
	(b) Telephone		1	1.50	mo			\$1,150.00	\$1,725.00
	(c) Cellular Phones		1	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						6,314		\$615,412.02
<u> </u>			-				·		•
	ADDITIONAL ITEMS								
	1. Mobilization and Demobilization		1	1.00	LS	1		\$10,000.00	\$10,000.00
	2. Allowance for Hydrovac Unit		1	6.00	days	1		\$4,500.00	\$27,000.00
	3. Load and Haul Debris (Trucking to Dumpsite)	2F		10.00				\$85.00	\$850.00
	4. Load and Haul Heavy Equipment (Trucking offsite)	6F		5.00				\$73.00	\$365.00
	5. Daily Subsistence Allowance (Per Diem)			738.00				\$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	%				\$74,956.70
	SUB TOTAL ADDITIONAL ITEMS						0		\$209,111.70

6,314

Woolfolk, D, 0-5,000 HP Storage Total Average Labor MH Labor Rate 4,334 \$104.52

Total e Labor Cost 2 \$453,033.24

\$824,523.72

ANR Pipeline Company Storage TNS Estimate

State	Removal Cost		Scrap Value		Combined Total		Adj. Factor		Storage Total	
Illinois	\$	17,243,000	\$	(298,000)	\$	16,945,000	0.0000	\$	-	
Indiana	\$	18,486,000	\$	(307,000)	\$	18,179,000	0.0000	\$	-	
Iowa	\$	14,007,000	\$	(233,000)	\$	13,774,000	0.0000	\$	-	
Kansas	\$	3,966,000	\$	(105,000)	\$	3,861,000	0.0000	\$	-	
Kentucky	\$	2,754,000	\$	(46,000)	\$	2,708,000	0.0000	\$	-	
Louisiana	\$	24,800,000	\$	(710,000)	\$	24,090,000	0.0000	\$	-	
Michigan	\$	33,430,000	\$	(695,000)	\$	32,735,000	0.0928	\$	3,037,268	
Mississippi	\$	2,281,000	\$	(87,000)	\$	2,194,000	0.0000	\$	-	
Missouri	\$	8,170,000	\$	(141,000)	\$	8,029,000	0.0000	\$	-	
Ohio	\$	15,231,000	\$	(259,000)	\$	14,972,000	0.0000	\$	-	
Oklahoma	\$	7,678,000	\$	(232,000)	\$	7,446,000	0.0000	\$	-	
Tennessee	\$	2,018,000	\$	(52,000)	\$	1,966,000	0.0000	\$	-	
Texas	\$	3,376,000	\$	(86,000)	\$	3,290,000	0.0000	\$	-	
Wisconsin	\$	57,967,000	\$	(1,032,000)	\$	56,935,000	0.0000	\$	-	
Grand Total	\$	211,407,000	\$	(4,283,000)	\$	207,124,000		\$	3,037,268	

Storage Meter Station TNS Estimate 1/

1/ Storage TNS estimate includes TNS costs for 9 storage meter stations in the State of Michigan.

Meter Station TNS Estimate - Transmission and Storage

State	Re	emoval Cost	Scrap Value	Сс	mbined Total	Adj. Factor	(Combined Total
Illinois	\$	17,243,000	\$ (298,000)	\$	16,945,000	1.0000	\$	16,945,000
Indiana	\$	18,486,000	\$ (307,000)	\$	18,179,000	1.0000	\$	18,179,000
lowa	\$	14,007,000	\$ (233,000)	\$	13,774,000	1.0000	\$	13,774,000
Kansas	\$	3,966,000	\$ (105,000)	\$	3,861,000	1.0000	\$	3,861,000
Kentucky	\$	2,754,000	\$ (46,000)	\$	2,708,000	1.0000	\$	2,708,000
Louisiana	\$	24,800,000	\$ (710,000)	\$	24,090,000	1.0000	\$	24,090,000
Michigan	\$	33,430,000	\$ (695,000)	\$	32,735,000	1.0000	\$	32,735,000
Mississippi	\$	2,281,000	\$ (87,000)	\$	2,194,000	1.0000	\$	2,194,000
Missouri	\$	8,170,000	\$ (141,000)	\$	8,029,000	1.0000	\$	8,029,000
Ohio	\$	15,231,000	\$ (259,000)	\$	14,972,000	1.0000	\$	14,972,000
Oklahoma	\$	7,678,000	\$ (232,000)	\$	7,446,000	1.0000	\$	7,446,000
Tennessee	\$	2,018,000	\$ (52,000)	\$	1,966,000	1.0000	\$	1,966,000
Texas	\$	3,376,000	\$ (86,000)	\$	3,290,000	1.0000	\$	3,290,000
Wisconsin	\$	57,967,000	\$ (1,032,000)	\$	56,935,000	1.0000	\$	56,935,000
Grand Total	\$	211,407,000	\$ (4,283,000)	\$	207,124,000		\$	207,124,000

Transmission and Storage Meter Station Adjustment Factors

State	Combined No. of Meter Sta.	No. of Transmission Meter Sta.	No. of Storage Meter Sta.	Transmission Adjustment Factor	Storage Adjustment Factor
Illinois	44	44		1.0000	0.0000
Indiana	47	47		1.0000	0.0000
Iowa	43	43		1.0000	0.0000
Kansas	21	21		1.0000	0.0000
Kentucky	8	8		1.0000	0.0000
Louisiana	124	124		1.0000	0.0000
Michigan	97	88		9 0.9072	0.0928
Mississippi	15	15		1.0000	0.0000
Missouri	27	27		1.0000	0.0000
Ohio	35	35		1.0000	0.0000
Oklahoma	38	38		1.0000	0.0000
Tennessee	8	8		1.0000	0.0000
Texas	16	16		1.0000	0.0000
Wisconsin	156	156		1.0000	0.0000
Grand Total	679	670	ç	1	