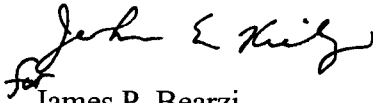


June K. Dreith
September 29, 2000
Page 2

Attached is the signed Work Plan Approval page. If you have any questions or comments, please contact Steve Pullen at (505) 827-1558 ext. 1020.

Sincerely,



for
James P. Bearzi
Chief
Hazardous Waste Bureau

Enclosures

cc: w/o attachments

Greg Lewis, NMED WWMD
John Kieling, HWB
Susan McMichael, NMED OGC
Stephanie Kruse, HWB
Steve Pullen, HWB
David Cobrain, HWB

read file
TP file – red/2000

09/12/00

F. FINANCIAL ASSURANCE WORKSHEET

ENTERED

Prepared by NMEC

UNIT NAME Drum Handling Unit

TRASSIC Park Closure/PC Cost Estimates.

Activity	TP Assumptions	TP Volume	TP Unit Cost	TP total cost	HWB assumptions	Reasons for changing assumptions	HWB Volume	HWB Unit Cost	HWB total Cost
Excav. Of Contaminated Soil	0.5' thickness beneath bldg only, no cleanup of gravel apron	913 yd ³	8 ⁰⁰ /yd ³	7,307	increase yd ³ 1 x 2	Limitations of removing only 0.5' Fluff factor 100' x 418' gravel apron/docks cleanup	1620 yd ³ number 180 yd ³ haz	3,10 yd ³ number 1430 yd ³ haz	5022 2574 <u>7596</u>
Disposal Of Contaminated Soil			includes disposal		increase disposal costs for 10% of material as hazardous	hazard materials may require PPE & special handling	1620 yd ³ number 180 haz	650 yd ³ number 30 yd ³ haz	10530 5400 <u>15930</u>
Backfill		913 yd ³	2 ⁰⁰ /yd ³	1827	increase yd ³ x 2	Gravel Apron Removal	1000 yd ³	4.50 yd ³ 2 ⁰⁰ /yd ³	4,500 <u>1827</u>
Reveg.	No estimate provided				220' x 418' area includes bldg. footprint and gravel apron		91,960 ft ²	100/ft ² 002	91,960 <u>1840</u>
Soil Sampling	Beneath Bldg. 25 Sumps/Drains 35 Loading Dock 8	68 samples	80 ⁰⁰ /hr	138,720	Bldg. Footprint 25 Sumps/Drains 35 Gravel Apron/docks 8	None Gravel apron not accounted for	68 Samples	80/hr (2 samples/hr)	
Chem Analysis		68 samples	2040/sample				68 samples	2040 10% discount is OK	138,720
Bldg Demo	Bldg. Volume = 418 x 118 x 15	739,860	0.21/ft ³	155,371	Demo 120 hrs at track 125/hr = 15,000 Debris loading 600 yd ³ (footprint) 1.75/ton = 1575 Debris disposal in landfill 8.00/ton = 7200	see		23,775	
Unit Demo	Concrete base 1.5' thick x 418' x 118'	2740 yd ³	disposal cost 8.00/yd ³	21,922	500 hrs trucking w/ breaker 100 ft/hr (165/hr) = 82,500 Debris loading 2740 yd ³ (4110 ton) 1.75/ton = 7,190 Debris transport/disposal in landfill (8.00/ton) 32,880			122,570	
Reporting	Closure report → 1 → 5,000 Closure inspection → 1 → 3,000			8,000	Report will include all applicable data, figures & certifications/notifications	5,000 is not enough to cover a complete report, P.E. certification, deadweight etc.	1 → 1	20,000 3,000	23,000
Bldg. Decm Wash water Fluid Sampling	5000 gal. (23 tons) + 215 tons reagent total = 235 tons	235 tons	Reagent 60/ton Disposal 8/ton	14,630	Same as RP	Re addition error.			14,660
Chem Analysis	No estimate provided				3 samples tested for full suite	fluids must be sampled prior to disposal to meet LDR etc	3	2040	6,120
Bldg. Decm Maintenance	Steam clean bldg & recover decm water for testing & disposal	120 hrs	60/hr	7,200	Steam clean bldg interior & recover decm water for disposal	None	120 hrs	60/hr	7,200
Waste Inventory disposal	Waste remaining 309 tons (1120 full 55 gal. drums @ 10 lbs/gallon)	Reagent 494 Waste 309 disposal 803	Reagent 60/ton Disposal 8/ton	36,071	Same as RP	Re addition discrepancy			36,064

23,526

1827

1840

Cost is added into the cost of Chem analysis

23,775

122,570

23,000

2040

Totals

391,048

492,095 399,302

-4080

395,222

FINANCIAL ASSURANCE WORKSHEET

UNIT NAME Evaporation Pond (Surface Impoundment)

Activity	TP Assumptions	TP Volume	TP Unit Cost	TP total cost	HWB assumptions	Reasons for changing assumptions	HWB Volume	HWB Unit Cost	HWB total Cost
Excav. Of Contaminated Soil	Area = 92,232 ft ² Depth 0.5 ft	1708 yd ³	8/ yd ³	13,664	Area = 93620 No Δ in Rest. Depth = 1' + fluff increase x 2.5	Leak from liquid storage are likely to be larger	3843 yd ³ non haz 427 yd ³ haz	3.10/ yd ³ Non haz. 11.30/ yd ³ haz	11,913 6106 18,019
Disposal Of Contaminated Soil					Increase disposal cost for 10% as hazardous no stabilization required	haz. materials may require PPE & special handling	3843 yd ³ non haz 427 yd ³ haz	6.50/ yd ³ Non haz. 30/ yd ³ haz	24,980 12,810 37,790
Backfill		1708 yd ³	2/ yd ³	3,416	increase yd ³ x 2	1' thickness vs. 0.5' thickness	3916 yd ³	4.50 yd ³ 200 yd	15,372
Reveg.	No estimate provided				310' x 302' total area		93620	1/ ft ²	93,620
Soil Sampling	Beneath Surface Impoundment & Truck Discharge Stations	63	2040/ Sample		Same includes cost of collection		80/ hr	2 sample/ hr	
Chem Analysis	includes cost of sampling			128,520			63	2040/ Sample	128,520
Bldg Demo	Pump removal & Decom of Truck Stations & Pads	1 Pump → Decom water stabilization	4 hrs → 60/ hr 2500 gal decom water	240 7,315 7,555	TP assumption ok but could save the cost of decom water disposal if the	Truck discharge pads were washed before liquid evap. is complete and the liquid was placed in the evap ponds	Same	Same	7,555
Unit Demo	92,232 ft ² x 3'	10,248 yd ³	8/ yd ³	81,984	Same for impoundment add truck disch. Pad demo excavation/ disposal	Pad demo 6000 ft ² @ 100 ft ² / hr 60 hrs x 165 lb/ hr beaker = 9900 total debris = 6000 x 3' = 666 yd ³ exc. + disposal @ 2.25/ yd ³ = 1499	10,248 yd ³ impoundments + 6,500 yd ³ disposal	3.10/ yd ³ excavation 6.50 yd ³ disposal	98381 1499 99880
Reporting	Closure Rpt → Closure inspection →	1 1	5000 3,000	8,000	Rpt will include all applicable data figures certifications Notifications	5000 is not enough to cover a complete report P.E. cert/ dead notification	1 1	20,000 3,000	23,000
Fluid Sampling	No estimate provided				2 samples tested for full suite	Fluids must be sampled prior to disposal to meet LOR (may not be necessary see bldg Demo above)	2	2040	4080
Cover Maintenance									
Waste Inventory Disposal	2936 tons sludge 4698 reagent 7634 total disposed in LF	Reagent 4698 tons Waste 7634 tons disposed	60/ ton → 8/ ton	342,954	2533 tons (2936 ok)	None (measurement difference)	Same	Same	342,952

55809

6832

1873

2040

Totals

586093

770786 670,501
- 2040
668461

FINANCIAL ASSURANCE WORKSHEET

UNIT NAME Liquid Waste Receiving & Storage

Activity	TP Assumptions	TP Volume	TP Unit Cost	TP total cost	HWB assumptions	Reasons for changing assumptions	HWB Volume	HWB Unit Cost	HWB total Cost
Excav. Of Contaminated Soil	35' x 42' x 0.5' below concrete	27 yd ³	8/yd ³	218	35' x 42' x 1' x 2 units	TP only counted 1 unit limitations on removing only 0.5'. Fluff factor. Accorrd.	98 yds non haz 11 yds haz 109	3.10/yd ³ Non haz 14.30 yd ³ haz	304 157 461
Disposal Of Contaminated Soil			includes disposal		increase disposal costs for 10% material as hazardous	haz materials may require PPE & Special handling	98 yds non haz 11 yds haz 109	6.50/yd ³ Non haz 30/yd ³ haz	637 330 967
Backfill		27 yd ³	2.00/yd ³	54	2 units vs. 1 1' depth vs. 0.5	see above	109 yd ³	4.50/yd ³ 2.00	491
Reveg.	No estimate provided				155' x 240'	area = 1/2 of stabilization unit, as shown in Fig. 4 and hq. waste rec. area	37200 ft ²	1.00/ft ²	37200
Soil Sampling	Pad perimeter 7 2 sumps 2 2 tanks 2	11	2 samples/hr \$80/hr		beneath 2 sumps 2 tanks 2 incoming discharge 2 outgoing discharge 7-1 sumps 3 6 sumps	Total 15 samples per unit x 2 units 30 samples	30 89/hr 2 samples/hr	add	
Chem Analysis		11	2040	22440			30	2040	61200
Tank Demo	Tank Removal & piping Salvage	2 9000 gal 2 15900 gal	Tank debris 1000 yd ³ x 24	2400 + 362 2400	4 9000 gal. Tanks + Inert 4 15900 gal. Tanks + Piping	Tank Demo 1000/tank 9 kgal Tank Demo 250/tank 15900gal Salvage x 2 disposal x 2	4 Tanks 4 Tanks 180 hrs 48 yds ³	1000 → 250 → 60/hr → 100/yd ³ →	4000 1000 4800 4800
Bldg Demo	Demo Volume 24y ³	Salvage 40hr → 60/hr	4800 (162)						
Unit Demo	Concrete Pad Removal 35 x 42 x 1'	54 yd ³ 1 unit	8/yd ³	436	30 hrs trackhoe w/ breaker Debris loading 109 yd ³ /163 tons Debris transport disposal in LFB 8/ton	@165/hr = 4950 @175/ton 285 1304 = 6539	109 yd ³ 2 units	→	6539
Reporting	Closure Rpt Closure Inspection	1 1	5000 3000	8000	Report will include all applicable data Figures P.E. cert deed notification	5000 is not enough to cover a complete Rpt P.E. cert deed notification	1 1	15,000 3,000	18000
Fluid Sampling									
Decon Wash water Sampling Chem Analysis	No estimate provided				3 samples tested for full suite (stabilization)	fluids must be sampled prior to disposal to meet LDIR	3	2040	6120
Cover Maintenance									
Waste Inventory disposal	18000 gal = 81 tons + 765 tons reagent to stabilize (2 units)	765 tons reagent 846 tons for disposal	60/ton Reagent 8/ton for disposal	52,668	4 units 36000 gal. = 162 tons + 1530 tons to stabilize	4 units instead of 2 units	1530 tons Reagent 1692 tons for disposal	60/ton Reagent 8/ton disposal	105336
Pad Decon	1 unit 2500 gal 35 x 42 decon water	71 tons water 106 tons Reagent 118 total	60/ton Reagent Disposal 8/ton	7315	x 2	2 units	Same	Same	14630

1/2 all
#s if only 1 unit

1428

218

744

Tanks will be 14600 crushed
Lower filled use GMI
4800

2040

May not be x 2

95957

265544 219015
2

if only 1 unit is built

109508

FINANCIAL ASSURANCE WORKSHEET

UNIT NAME Stabilization Unit

Activity	TP Assumptions	TP Volume	TP Unit Cost	TP total cost	HWB assumptions	Reasons for changing assumptions	HWB Volume	HWB Unit Cost	HWB total Cost
Excav. Of Contaminated Soil	0.5 x 123 x 118	269 yd ³	8/yd ³	2150	1 x 123 x 118	Limitations on removing only 0.5' fluff factor, access Pds	484 mha ² → 3.10/yd ³ 54 haz. 538	1430 yd ³	1500 772 2272
Disposal Of Contaminated Soil			included disposal		increase disposal costs for 10% of material as hazardous	haz. materials may require PPE & special handling	484 mha ² → 6.50 yd ³ 54 haz. 538	30 yd ³	3146 1620 4766
Backfill		269 yd ³	2/yd ³	538	1 x 123 x 118	See above	538 yd ³	4.50 yd ³ 200 yd	2421
Reveg.	No estimate provided				305 x 240 73,200 ft ²	area = 2/3 of stabilization and liquid waste receiving unit areas as shown in Fig 4	73200 ft ²	\$17/ft ²	73200
Soil Sampling	1 sample/2000 ft ²				1 sample/2000 ft ² includes 80/hr to sample at 2 samples/hr = 8 samples	The vault is like a tank basin. Sample in places where spills are most likely	20	add	
Chem Analysis	14834 ft ²	8 samples	2040	16320	± 8 sample at the ends of each bin plus 1 sample in each load out driveway		20	2040	40800
Bldg Demo	Bldg Volume = 123 x 118 x 20	290280	0.21	60959	Demo & Salvage 160 hrs @ 125/hr = 20000 Debris loading 357 yd ³ (535 ton) @ 1.75/ton = 625 Debris disposal in LF 535 ton @ 8/ton = 4280			24905	
Unit Demo	Concrete Floor 1' x 123' x 118' Equipment	1300 yd ³ 538 yd ³	8/yd ³	14700	Concrete floor includes vault 1' x 118' x 123' + sides = 5' x 10' x 12' + 8' x 30' x 12' = 18354 ft ² + 2340 = 20694	Floor includes vault, 1' thick Floor Sub base = Floor area x 2 Gravel upon removal, Control Rm. + Silo + tank through pads	7799 ft ² x 0.6 14315 yd ³	165/hr 1.75/ton 8/ton	34155 4025 18400 1400
Reporting	Closure Inspection Closure Rpt	1 1	3600 5000	8000	Report will include all applicable data, Figures, Certs & notifications	5000 is not enough to produce a complete Rpt w/ P.E. certs & deed notifications	1 inspection 1 Rpt	3000 15000	18000
Bldg Decon	Steam clean? bldg. & recover decon. water for testing & disposal	Bldg 60 hrs 5 silos 16 hrs 5000 gal.	x60/hr = 3600 x60/hr = 960 23 tons water = 1888 213 tons Reagent = 12780/19199	3600 960 1888 12780/19199	Same	Same		TRP addition ERROR	19228
Fluid Sampling Chem Analysis	NO estimate provided				3 samples for full suite	Fluids must be sampled prior to disposal to meet LDR etc	3	2040	6120
Cover Maintenance									
Waste Inventory disposal	162 tons (108 yd ³) (Reagent/waste ratio of 1.6 instead of 9.5)	259 tons reagent 421 tons disposal	60 ton 8/ton	15540 3368 18908	138 tons (92 yd ³) bin hold 92 yd ³ ÷ 3 x 4 = 184 tons	bin hold 92 yd ³ (1/3 full + closing) = 31 yd ³ = 46 tons 46 tons x 4 bins = 184 tons	1748 tons reagent 1933 tons disposal	80/ton 8/ton	104880 15456 120336

7038

1076

1464

57980

2040

140765 Reagent to waste ratio of 1.6
 165.6 tons waste x 1.6 = 265 tons reagent @ 60/ton 15900
 + 166 tons waste + 3498
 370028 296947
 Δ total cost to 195959
 - 4080
 191879

FINANCIAL ASSURANCE WORKSHEET

UNIT NAME Roll off Storage Unit

Activity	TP Assumptions	TP Volume	TP Unit Cost	TP total cost	HWB assumptions	Reasons for changing assumptions	HWB Volume	HWB Unit Cost	HWB total Cost
Excav. Of Contaminated Soil	0.5 thickness x 414 x 330	2530 yd ³	8/yd ³	20240	1 thickness x 414 x 330	Limitations of removing only 0.5' Fluff factor	4554 m ³ → 310/yd ³ 506 haz 5060 yd ³	1430/yd ³	14117 2236 21353
Disposal Of Contaminated Soil						haz materials may require PPE & special handling	4554 m ³ haz 506 haz 5060 yd ³	6.50/yd ³ 30.00/yd ³	29601 15180 44781
Backfill		2530 yd ³	2/yd ³	5060	1 x 414 x 330	See above	5060 yd ³	4.50 yd ³ 2.00 yd ³	22770
Reveg.	No estimate provided				414 x 330 roll off area footprint =	136620 ft ²	136620 ft ²	100/ft ²	136620
Soil Sampling	beneath area footprint 69 beneath sumps 2	71 Samples	8/hr + analytical cost		Same	Same	71	80/hr + analytical cost	
Chem Analysis				144840			71	2040	144840
Bldg Demo	None				None				
Unit Demo	Linear system 2' x 414' x 330'	10120 yd ³	8/yd	80960	Linear system ③ x 414' x 330' excavation land disposal	drawings indicate thicker liner in some areas + berms & sumps & ramps	10120 15180 19734 tons	13156 excavated Land 17 \$/ton dispose 8/ton	34535 157872 192407
Reporting	Closure Inspection Closure Report	1 1	3000 5000	8000	Report will include all applicable data figures certification notification	5000 is not enough for a Complete Report R.E. cert dead notification PM, etc.	1 1	3000 inspection T5.000/Report	78,000
Unit Decon	40 hours labor 5000 gal decon water generated	40 hrs labor 23 tons waste 213 tons liquid 235 tons disposal	60/hr 60/ton 8/ton	2400 12780 1880 17060	None	No concrete surfaces and No equipment to decon.	NA	NA	0
Chem Analysis	No estimate provided				NA				
Cover Maintenance						7135' sand waste.	7135 11416 18551		
Waste Inventory disposal	132 x 40 yd ³ containers density 90 lbs/ft ³ 1.2 tons/yd ³ 6415 tons waste 10264 tons reagent	reagent 10264 waste 6415 dispose 16679	reagent 60/ton dispose 8/ton	615840 133432 749295	132 x 40 yd ³ containers density 111 lbs/ft ³ (5 tons/yd ³) → 600 lb/ft ³ (recalculate at	7920 tons waste waste reagent ratio 1.6/1 12672 reagent 11416 →	reagent 12672 waste 7920 dispose 20592	reagent 60/ton dispose 8/ton	760320 164736 925056

66134

10120

2733

105248

will change estimate dose in BERM & accept excavate & land 8/ton

684960
148908
833368

1025455

1505827 1180443

FINANCIAL ASSURANCE WORKSHEET

UNIT NAME Truck Wash Unit

Activity	TP Assumptions	TP Volume	TP Unit Cost	TP total cost	HWB assumptions	Reasons for changing assumptions	HWB Volume	HWB Unit Cost	HWB total Cost
Excav. Of Contaminated Soil	No				0.5 x 103 x 33 + 0.5 x 57 x 27		63 29 92 yd ³	3.10/yd ³	285
Disposal Of Contaminated Soil	Estimate				↓		92 yd ³	6.50/yd ³	598
Backfill	Provided				↓	See above	92 yd ³	4.50 yd ³ 2.00/yd ³	414
Reveg.					103 x 33 x 57 x 27		4938 ft ²	100/ft ²	4938
Soil Sampling					Sample beneath likely release locations	Samples beneath bays Sumps, sump drains, tank, concrete pad, load racks etc	10	80/hr sample collection	↓
Chem Analysis							10	↓ 2040	↓ 20400
Bldg Demo					92 x 20 x 2 2 sided bldg	Track hoe 20 hrs 136 yd ³ debris (177 tons) Load dispose	20 hrs 177 tons 177 tons	125/hr 175 8/ton	2500 310 1416 4226
Unit Demo					92 x 33 + 27 x 57 reinforced 12" concrete 4575 ft ² x 2	track hoe w/ breaker 163/hr 508 tons 1.75/ton Load 519 tons dispose	46 hrs 508 tons 508 tons	165/hr 1.75/ton 8/ton	7590 889 4064 12343
Reporting					Inspection closure Reporting	Includes data, figures QA/QC certifications	1 1	3000 5000	8000
Fluid Sampling					2 samples from	Tank and decon water	2	2040	4080
Truck Wash & Decon Fluid Chem Analysis					9000 gallons (tank full) off site (disposed of contaminated water) (non haz)		9000 gal.	0.25/gal.	2250
Cover Maintenance									
Unit Decon					20 hrs to steam clean the bldg and bays		20/ hrs	60/hr	1200
Tank Removal & Piping Salvage					2 9000 gal tanks Salvage	81000/tank Salvage 40 hrs	2 tanks 40 hrs dispose all steel	1.000/tank 60/hr 8/ton	2000 2400 120 4520

184

99

4226

12543

2040

NO estimate

63454 58385
→ -2040
56395

F INANCIAL ASSURANCE WORKSHEET

UNIT NAME Land fill

Activity	TP Assumptions	TP Volume	TP Unit Cost	TP total cost	HWB assumptions	Reasons for changing assumptions	HWB Volume	HWB Unit Cost	HWB total Cost
Excav. Of Contaminated Soil									
Disposal Of Contaminated Soil									
Backfill	fill to gnd surface includes phase 1B area	2,060,000 yd ³	200/yd ³	4,120,000	Same except some compaction is necessary to prevent cap damage thru settling	NMED price is \$2 ⁰⁰ less than survey price of 550 yd ³	2,060,000 yd ³	3.50 yd ³ 200/yd	7,210,000
Reveg.									
Soil Sampling	1 sample/100 ft of haul Rd and stormwater retention basin 1 per 40000 ft ²	↓	↓		1 sample/100 ft of haul Rd plus the stormwater retention basin 1/40000 ft ² provided	↓	↓	↓	↓
Chem Analysis	↓	51	2040	104040	that the stormwater retention basin is lined with phone conversation w/ Pat Conner on Aug - 2000	Same	51	2040	104040
Bldg Demo									
Unit Demo									
Reporting	Closure & Post-Closure Inspection Closure & Post-Closure Report	2 → 3000 2 → 5000	3000 5000	6000 10000	Report will include all applicable data, figures certifications notifications	5000 is not enough to produce a complete rpt w/ PE cert's deed notifications & L.C. PC Rpts are annual	Inspection 2 Apr 31 Annual for 30 yrs.	3000 15,000 (1"2) 5000 (29)	6000 30000 145000 181000
Fluid Sampling									
Chem Analysis									
Cover Maintenance								2.27/ft ²	
Cap Construction (Land fill cover)	Veg. cover 2.5' Geocomposite 60 mil HDPE Geomembrane GCL / Subgrade 0.5' Protective Soil, 5'	1,486,534 ft ²	1.52 /ft ²	2259532 + contingency 2372508	3' Cap including Geocomposite, Geomembrane, GCL Subgrade (0.5') & Reveg.		1,486,534 ft ²	3.25 /ft ²	4,831,235
Plat Survey		30 hrs	80/hr	2400			45 hrs	80 hr	3,600

4120000

6MI = 2,246
No explanation of units provided

3,374,432