



October 12, 2009

VIA EMAIL AND CERTIFIED MAIL No. 7008 2810 0000 4726 2014

Chief
Hazardous Waste Bureau
New Mexico Environmental Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Joel Dougherty (6EN-HE)
Hazardous Waste Enforcement Branch
U.S. EPA Region 6, Suite 1200
1445 Ross Ave.
Dallas, TX 75202-2733

RE: **FINAL CLOSURE COST ESTIMATE, WESTERN REFINING COMPANY,
SOUTHWEST INC., GALLUP REFINERY; EPA ID #NMD000333211**

Dear Chief,

Enclosed please find the Western Refining Gallup's ("Gallup") final closure cost estimate for Lagoons AL-1 and AL-2 pursuant to Section IV (Compliance Order) item 100.H of the Consent Agreement and Final Order ("CAFO") between Western, NMED and U.S. EPA Region 6.

I certify that the information contained in or accompanying this submission is true, accurate and complete. As to those identified portions of this submission for which I cannot personally verify the truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting upon my direct instructions, made the verification, that this information is true, accurate, and complete.

Thank you for your review and approval of this cost estimate. Please feel free to contact Ed Riege at 505-722-0217 with any questions.

Sincerely,

Mark B. Turri
Refinery Manager

cc: Hope Monzeglio NMED HWB
Carl Chavez OCD
Ann Allen Western Refining
Ed Riege Western Refining



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October 12, 2009

Ed Riege
Environmental Manager
Gallup Refinery - Western Refining Company
Rout 3, Box 7
Gallup, NM 87301

Re: Lagoons AL-1 and AL-2 Final Closure Cost Estimate
Gallup Refinery - Western Refining Company, Gallup, New Mexico
NMD000333211

Dear Mr. Riege:

Attached to this letter is a final closure cost estimate for Lagoons AL-1 and AL-2 at the Gallup Refinery. The estimate was prepared by RPS at the request of the Gallup Refinery and as required by provision IV.H of Complaint and Consent Agreement and Final Order Document RCRA-06-2009-0936. This provision requires a final closure cost estimate be prepared to establish the amount of financial assurance Western Refining must secure for closure of the lagoons. The estimate has been prepared assuming the closure would be done by a third party responsible for project administration, performing a pre-construction investigation of the soils surrounding the lagoons, and preparing a final closure report.

The cost estimate consists of three tables. Table 1A is the cost estimate for closure of the lagoons under Option 1, which assumes a portion of the sludge in the lagoon is excavated and temporarily placed in the adjacent temporarily out-of-service evaporation pond. The sludge placed in the evaporation pond and the remaining in-situ sludge are then bioremediated, which reduces the sludge volume by approximately 30%. Table 1B is the cost estimate for closure of the lagoons under Option 2, which assumes the sludge is stabilized in place, which increases the sludge volume by approximately 10%. Both Option 1 and 2 assume the top foot of the lagoons' clay liner has to be removed due to contamination. Both options also assume that the sludge and contaminated soils are disposed as special waste at Waste Management's San Juan landfill. Table 3 is the cost estimate for the pre-construction site investigation and clean soil confirmation sampling and testing (line item 1 in Tables 1A and 1B).

In addition to the scope of work described above, the cost estimates include removal of the existing benzene strippers adjacent to the lagoons. The total cost for Options 1 and 2 are \$779,000 and \$941,000, respectively. To assure adequate financial resources to close the lagoons under either option, financial assurance would have to be established for the higher amount.

Ed Riegel
October 12, 2009
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We appreciate the opportunity to prepare the cost estimates for final closure of the lagoons.
Please contact Scott Crouch or me at 512-347-7588 if we can be of further assistance.

Sincerely,

RPS



James Isensee, P.E.

JWI/gjg

Attachment

cc: Allen Hains – Western Refining
Rajev Gaurav – Western Refining
Scott Crouch - RPS

Final Closure Cost Estimate
Option 1 - Bioremediation and Disposal
Lagoons AL-1 & AL-2 Closure
October 12, 2009

Item	Description	Quantity	Units	Unit Cost	Cost
Professional Services					
1	Investigation & clean soil confirmation sampling	1	LS	\$87,000	\$87,000
2	Final closure report	1	LS	\$20,000	\$20,000
3	Project administration (engineering, bidding, construction administration, etc.)	1	LS	\$71,000	\$71,000
Demolition					
4	Dismantling and disposal of benzene strippers	1	LS	\$5,000	\$5,000
Construction					
5	Mobilization	1	LS	\$25,000	\$25,000
6	Administrative costs (office facilities & staff, H&S plan, SWPPP, insurance, eqpmt decon, QA/QC, etc.)	1	LS	\$28,000	\$28,000
7	Dewater lagoons (3 ft water over 0.8 ac). Dispose at API Separator (200' distance)	800,000	Gal	\$0.011	\$9,000
8	Excavate and transfer portion of sludge from AP-1 to EP-1 for Bioremediation	3,600	CY	\$4	\$13,000
9	Bioremediate sludges in-situ and within EP-1	5,600	CY	\$25	\$140,000
10	Dispose bioremediated sludge offsite as Special Waste ¹	3,900	CY	\$50	\$195,000
11	Excavate top 1 ft of clay liner (AL-1 and AL-2)	850	CY	\$7	\$6,000
12	Dispose of excavated clay as Special Waste ²	850	CY	\$55	\$47,000
13	Sludge characterization sampling - one per 100 CY	48	EA	\$610	\$29,000
14	Backfill lagoons	6,000	CY	\$15	\$90,000
15	Demobilization	1	LS	\$14,000	\$14,000
TOTAL					\$779,000

Notes

- 1 Assumes 30% reduction in sludge volume due to bioremediation and disposal at Waste Management landfill in San Juan (TPH > 1,000 ppm, metals < 20X rule)
- 2 Assumes disposal of liner soils at same location as bioremediated sludges
- 3 Assumes one sample per 100 CY analyzed for Haz Characteristics per 40 CFR 261 (\$140), TCLP Skinner Metals (\$190), TCLP BTEX (\$130), TPH (\$90) + 10% markup

**Final Closure Cost Estimate
Option 2 - Stabilization and Disposal
Lagoons AL-1 & AL-2 Closure
October 12, 2009**

Item	Description	Quantity	Units	Unit Cost	Cost
Professional Services					
1	Investigation & clean soil confirmation sampling	1	LS	\$87,000	\$87,000
2	Final closure report	1	LS	\$20,000	\$20,000
3	Project administration (engineering, bidding, construction administration, etc.)	1	LS	\$86,000	\$86,000
Demolition					
4	Dismantling and disposal of benzene strippers	1	LS	\$5,000	\$5,000
Construction					
5	Mobilization	1	LS	\$25,000	\$25,000
6	Administrative costs (office facilities & staff, H&S plan, SWPPP, insurance, eqpmt decon, QA/QC, etc.)	1	LS	\$28,000	\$28,000
7	Dewater lagoons (3 ft water over 0.8 ac). Dispose at API Separator (200' distance)	800,000	Gal	\$0.011	\$9,000
8	Stabilize sludges in place	5,600	CY	\$25	\$140,000
9	Dispose stabilized sludges as Special Waste ¹	6,200	CY	\$55	\$341,000
10	Excavate top 1 ft of clay liner (AL-1 & AL-2)	850	CY	\$7	\$6,000
11	Dispose of excavated clay as Special Waste ²	850	CY	\$55	\$47,000
12	Sludge characterization sampling - one per 100 CY	71	EA	\$610	\$43,000
13	Backfill lagoons	6,000	CY	\$15	\$90,000
14	Demobilization	1	LS	\$14,000	\$14,000
TOTAL					\$941,000

Notes

- 1 Assumes 10% increase in sludge volume due to stabilization and disposal at Waste Management landfill in San Juan (TPH > 1,000 ppm, metals < 20X rule)
- 2 Assumes disposal of liner soils at same location as bioremediated sludges
- 3 Assumes one sample per 100 CY analyzed for Haz Characteristics per 40 CFR 261 (\$140), TCLP Skinner Metals (\$190), TCLP BTEX (\$130), TPH (\$90) + 10% markup

TABLE 2
Investigation & Confirmation Sampling Cost Estimate
Lagoon AL-1 & AL-2 Closure
October 12, 2009

Dike & Surrounding Soils Characterization Samples			
Analysis	# of Samples	Cost/Sample	Costs
8260B	101	\$90	\$9,090
8270C	101	\$220	\$22,220
8015B (GRO, DRO, MRO)	101	\$90	\$9,090
Skinner List Metals & Fe, Mn	101	\$185	\$525
Sampling Labor	five 8-hour days	\$75/hour	\$3,000
Sampling Equipment	two days	\$1500/day	\$3,000
Subtotal			\$46,925
Benzene Stripper Area Characterization Samples			
Analysis	# of Samples	Cost/Sample	Costs
8260B	11	\$90	\$990
8270C	11	\$220	\$2,420
8015B (GRO, DRO, MRO)	11	\$90	\$990
Skinner List Metals & Fe, Mn	11	\$185	\$2,035
Sampling Labor	one 8-hour day	\$75/hour	\$600
Sampling Equipment	one day	\$1500/day	\$1,500
Subtotal			\$8,535
AL-1 & AL-2 Confirmation Samples			
Analysis	# of Samples	Cost/Sample	Costs
8260B	49	\$90	\$4,410
8270C	49	\$220	\$10,780
8015B (GRO, DRO, MRO)	49	\$90	\$4,410
Skinner List Metals & Fe, Mn	49	\$185	\$9,065
Sampling Labor	four 8-hour days	\$75/hour	\$2,400
Subtotal			\$31,065
Total			\$86,525

GRO - Gasoline Range Organics
DRO - Diesel Range Organics
MRO - Motor Oil Range Organics
AL - Aeration Lagoon