

**From:** [Caitlin Fields](#)  
**To:** [Tsinnajinnie, Leona, NMENV](#); [Chavez, Carl J, EMNRD](#)  
**Cc:** [McCartney, Gregory J.](#); [Luka, Kateri A](#); [Heidi Jones](#)  
**Subject:** [EXT] 2021 Bloomfield Terminal Financial Assurance  
**Date:** Friday, January 29, 2021 2:25:30 PM  
**Attachments:** [image001.png](#)  
[202101\\_BloomfieldFA LTR-Signed.pdf](#)

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Hello,

Please find the 2021 Financial Assurance for the Marathon Petroleum Company LP, Bloomfield Terminal attached. Please let Greg McCartney know if you have any questions.

Thank you,  
Caitlin

**Caitlin Fields**  
**Associate Engineer**

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## Western Refining Southwest LLC

A subsidiary of Marathon Petroleum Corporation

212 N. Clark St.  
El Paso, TX 79905

February 1, 2021

Mr. Kevin Pierard, Chief  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505

**RE: 2021 Financial Assurance Cost Estimate  
Marathon Petroleum Company LP, Bloomfield Terminal  
(dba Western Refining Southwest LLC)  
EPA ID # NMD089416416**

Dear Mr. Pierard,

Marathon Petroleum Company LP (dba Western Refining Southwest LLC) Bloomfield Terminal is submitting the referenced Financial Assurance (FA) Cost Estimate. The FA estimate includes costs to address those activities specified in the Consent Order No. HWB 07-34 (CO) dated July 27, 2007.

If there are any questions, please do not hesitate to contact me at 419-421-2338 regarding the Bloomfield Terminal.

### Certification

*I certify under penalty of law that this document and all attachments were prepared under my direction of supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Sincerely,

Western Refining Southwest LLC, *Western Refining Southwest LLC*

Gregory McCartney  
Bloomfield Project Manager

Enclosure

cc: L. Tsinnajinnie, NMED  
C. Chavez, NMOCD  
A. Kitchen, Marathon Petroleum Company  
K. Luka, Marathon Petroleum Company  
H. Jones, Trihydro Corporation



Scott T. Crouch, PG  
Senior Geologist

January 5, 2021

Mr. Gregory J. McCartney, P. E.  
Senior Environmental Professional  
Marathon Petroleum Company, LP  
539 S. Main Street, Room M-7081  
Findlay, OH 45840

Re: Marathon Petroleum Company - Bloomfield Terminal  
Order No. HWB 07-34 (CO)  
Financial Assurance Cost Estimate Update for 2021

Dear Mr. McCartney:

This financial assurance cost estimate update for the Bloomfield Terminal includes costs to address:

1. those activities specified in Section III.P.1. of Order No. HWB 07-34 (CO) that was issued by the New Mexico Environment Department on September 27, 2007; and
2. implementation of the Final Closure Plan for Interim Status Unit No. 1 - North and South Aeration Lagoons.

The annual inflation factor used is that value available at the time the revised cost estimate is required for the Order (i.e., January 31, 2020). The inflation factor is calculated as follows:

Implicit price deflator for 2020 / implicit price deflator for 2019 (updated 12/22/2020) =  
 $113.840/112.531 = 1.01$  [source - <http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)]

The cost estimate for the Order was prepared in accordance with 40 CFR 264.101 and substantially in compliance with the requirements of 40 CFR 264.142 and 264.144. The costs reflect the requirements of the Facility-Wide Groundwater Monitoring Plan (dated June 2014) incorporating revisions approved by the New Mexico Environment Department on June 15, 2015. The new estimate for 2021 including the adjustment for inflation is \$791,363. A detailed breakout of the estimate by activity is provided in enclosed Tables 1, 1A, 1B, 1C, 1D, and 1E.

The cost estimate for implementation of the Final Closure Plan for Interim Status Unit No. 1 - North and South Aeration Lagoons was prepared in accordance with 40 CFR 265.142. Annual adjustments for inflation are made from the cost estimate provided in the Final Closure Plan dated May 2010 (revised January 2011) and approved

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Mr. Gregory J. McCartney  
January 5, 2021  
Page 2

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May 20, 2011. The last annual estimate prepared in January 2020 was \$374,277. The new estimate for 2021 is \$378,057 (\$374,277 increased by an inflation factor of 1.01). A detailed breakout of the original estimate by activity is provided in enclosed Tables 2 and 2A.

The total estimated cost for 2021 is \$1,169,420. If there are any questions, please contact me at (512) 693-4193.

Sincerely,  
DiSorbo Consulting, LLC



Scott T. Crouch, P.G.  
Senior Consultant

Enclosures

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**Table 1**  
**Western Refining Southwest, Inc.**  
**Bloomfield, New Mexico Refinery**  
**NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate**  
**1/4/2021**

Waste Management Area	NMED Order Provision	Capital Costs <sup>1</sup>	Operation & Maintenance Costs <sup>2</sup>	NMED Review Fees	Total Costs	Explanation
<b>Solid Waste Management Units (SWMU's) Investigation, Remediation, &amp; associated reports</b>						
<b>Group 1</b>						
Interim Status Unit No. 1: North & South Aeration Lagoons - Closure Plan Implementation	IV.B.5	\$0	\$0		\$0	Project completed
Remedy Completion Report	VI.D.6			\$0	\$0	
				subtotal	\$0	
<b>Group 2</b>						
SWMU No. 2: Drum Storage Area - North Bone Yard	IV.B.6	\$0	\$0		\$0	
SWMU No. 8: Inactive Landfill	IV.B.6	\$0	\$0		\$0	
SWMU No. 9: Landfill Pond	IV.B.6	\$0	\$0		\$0	
SWMU No. 11: Spray Irrigation Area	IV.B.6	\$0	\$0		\$0	
SWMU No. 18: Warehouse Yard	IV.B.6	\$0	\$0		\$0	
Corrective Measures Implementation Plan	VI.D.2			\$0	\$0	
Progress Report	VI.D.5			\$0	\$0	
Remedy Completion Report	VI.D.6			\$0	\$0	
				subtotal	\$0	
<b>Group 3</b>						
SWMU No. 4: Transportation Terminal Sump	IV.B.6	\$0	\$0		\$0	
SWMU No. 5: Heat Exchanger Bundle Cleaning Area & AOC No. 25: Auxiliary Warehouse and 90-day Storage Area	IV.B.6	\$0	\$0		\$0	
AOC No. 22: Product Loading Rack & Crude Receiving Loading Racks	IV.B.6	\$0	\$0		\$0	
AOC No. 23: Southeast Holding Ponds	IV.B.6	\$0	\$0		\$0	
AOC No. 24: Tank Areas 41 and 43	IV.B.6	\$0	\$0		\$0	
AOC No. 26: Tank Area 44 and 45	IV.B.6	\$0	\$0		\$0	
Corrective Measures Implementation Plan	VI.D.2			\$0	\$0	
Progress Report	VI.D.5			\$0	\$0	
Remedy Completion Report	VI.D.6			\$0	\$0	
				subtotal	\$0	

Table 1  
Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/4/2021

Waste Management Area	NMED Order Provision	Capital Costs <sup>1</sup>	Operation & Maintenance Costs <sup>2</sup>	NMED Review Fees	Total Costs	Explanation
<b>Group 4</b>						
SWMU No. 7 Raw Water Ponds	IV.B.6	\$0	\$0		\$0	
SWMU No. 10: Fire Training Area	IV.B.6	\$0	\$0		\$0	
SWMU No. 16: Active Landfill	IV.B.6	\$0	\$0		\$0	
Corrective Measures Implementation Plan	VI.D.2			\$0	\$0	
Progress Report	VI.D.5			\$0	\$0	
Remedy Completion Report	VI.D.6			\$0	\$0	
					subtotal	\$0
<b>Group 5</b>						
SWMU No. 15: Tank Farm Area	IV.B.6	\$0	\$0		\$0	
Corrective Measures Implementation Plan	VI.D.2			\$0	\$0	
Progress Report	VI.D.5			\$0	\$0	
Remedy Completion Report	VI.D.6			\$0	\$0	
					subtotal	\$0
<b>Group 6</b>						
AOC No. 19: Seep North of MW-45	IV.B.6	\$0	\$0		\$0	
AOC No. 20: Seep North of MW-46	IV.B.6	\$0	\$0		\$0	
AOC No. 21: Seep North of MW-47	IV.B.6	\$0	\$0		\$0	
Corrective Measures Implementation Plan	VI.D.2			\$0	\$0	
Progress Report	VI.D.5			\$0	\$0	
Remedy Completion Report	VI.D.6			\$0	\$0	
					subtotal	\$0
<b>Group 7</b>						
SWMU No. 17: River Terrace Area	IV.B.6	\$0	\$0		\$0	
Corrective Measures Implementation Plan	VI.D.2			\$0	\$0	
Progress Report	VI.D.5			\$0	\$0	
Remedy Completion Report	VI.D.6			\$0	\$0	
					subtotal	\$0

Table 1  
 Western Refining Southwest, Inc.  
 Bloomfield, New Mexico Refinery  
 NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
 1/4/2021

Waste Management Area	NMED Order Provision	Capital Costs <sup>1</sup>	Operation & Maintenance Costs <sup>2</sup>	NMED Review Fees	Total Costs	Explanation
<b>Group 8</b>						
SWMU No. 3: Underground Piping Currently in Use	IV.B.6	\$0	\$0		\$0	
SWMU No. 6: Abandoned Underground Piping	IV.B.6	\$0	\$0		\$0	
Corrective Measures Implementation Plan	VI.D.2			\$0	\$0	
Progress Report	VI.D.5			\$0	\$0	
Remedy Completion Report	VI.D.6			\$0	\$0	
				subtotal	\$0	
<b>Group 9</b>						
SWMU No. 13: Process Area	IV.B.6	\$0	\$0		\$0	
SWMU No. 14: Tanks 3, 4, and 5	IV.B.6	\$0	\$0		\$0	
SWMU No. 12: API Separator	IV.B.6	\$0	\$0		\$0	
Corrective Measures Implementation Plan	VI.D.2				\$0	
Progress Report	VI.D.5				\$0	
Remedy Completion Report	VI.D.6				\$0	
				subtotal	\$0	
<b>Other Areas</b>						
To be determined?	III.Q.1	\$0	\$0		\$0	Section III.G.2 of the NMED Order specifies that either NMED or Western may identify additional areas for corrective action. At this time, no additional areas have been identified.
Corrective Measures Implementation Plan	VI.D.2				\$0	
Progress Report	VI.D.5				\$0	
Remedy Completion Report	VI.D.6				\$0	
				subtotal	\$0	



**Table 1**  
**Western Refining Southwest, Inc.**  
**Bloomfield, New Mexico Refinery**  
**NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate**  
**1/4/2021**

Waste Management Area	NMED Order Provision	Capital Costs <sup>1</sup>	Operation & Maintenance Costs <sup>2</sup>	NMED Review Fees	Total Costs	Explanation
<b>Interim Measures &amp; Facility Wide Ground Water Monitoring</b>						
River Terrace Area Analytical	V.B.1		\$12,335		\$12,335	1 yr. Monitoring @ \$12,335/yr - see detail Table 1A
River Terrace Area Analytical	V.B.1		\$31,680		\$31,680	2 yr. Confirmation Monitoring @ \$15,840/yr - see detail Table 1B
River Terrace Annual Report	V.B.1		\$3,500	\$2,000	\$5,500	1 yr. reporting @ \$3,500/annual report & NMED fees of \$2,000/annual rpt
River Terrace Operation & Maintenance	III.P.1 & V.B.		\$8,000		\$8,000	GAC filters & maintenance \$8,000/yr x 1 yr
North Barrier Wall collection operations	III.P.1		\$0		\$0	Bi-weekly fluid level measurements terminated in 2012 per NMED approval
Facility Wide Ground Water Monitoring (including North Barrier Wall & Tank Farm) analytical costs	IV.A.		\$186,945		\$186,945	Table 1C provides detailed cost on an annual basis (\$62,315) which is multiplied by 3 years pursuant to the Order.
Facility Wide Ground Water Monitoring (including North Barrier Wall & Tank Farm) analytical costs	IV.A.		\$475,944		\$475,944	Table 1D provides detailed closure (quarterly sampling) cost on an annual basis (\$237,972) that is multiplied by 2 years.
Facility-Wide Annual Monitoring Report (including North Barrier Wall)	IV.A.2.		\$21,000	\$8,000	\$29,000	3 yrs. Monitoring @ \$7,000/annual report & NMED fees of \$2,000/annual rpt
1# East Outfall	V.C.		\$0		\$0	Sampling is no longer conducted at this location as the discharge goes directly to the API Separator.
San Juan River samples			\$26,442		\$26,442	See Table 1E for detailed estimate; assume 3 years @ \$8,814/yr
RCRA Background Monitoring Wells			\$0		\$0	Quarterly sampling for the background monitoring wells terminated in 2014.
					subtotal	\$775,846
<b>TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER (without inflation costs)</b>						\$775,846
<b>Inflation Factor<sup>3</sup></b>						1.01
<b>CURRENT TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER.</b>						<b>\$791,363</b>

1- capital costs associated with construction, installation, pilot testing, evaluation, permitting, and reporting of the effectiveness of the alternative

2 -continuing costs associated with operating, maintaining, monitoring, testing, and reporting on the use and effectiveness of the technology

3 - Inflation factor for 2021 = Implicit price deflator for 2020 / implicit price deflator for 2019 (updated 12/22/2020) = 113.840/112.531 = 1.01



**TABLE 1A  
RIVER TERRACE SAMPLING COST ESTIMATE**

Analysis	Frequency	# of Sample Locations	Total # of Samples <sup>(1)</sup>	Cost/Sample	Cost per Year
<b>RIVER TERRACE - AQUEOUS</b>					
8021B	Low Flow Annually	6	10	\$45	\$450
8021B	Bi-Annually	1	1	\$45	\$45
8015B (GRO, DRO)	Low Flow Annually	6	9	\$90	\$810
8015B (GRO, DRO)	Bi-Annually	1	1	\$90	\$90
6010B (metals)	Low Flow Annually	6	9	\$225	\$2,025
6010B (metals)	Bi-Annually	1	1	\$225	\$225
Level 4 Data Packet	each event			10%	\$365
subtotal					\$4,010
<b>RIVER TERRACE - Vapor</b>					
8021B	Low Flow	9	9	\$45	\$405
8021B	High Flow	14	14	\$45	\$630
8015B (GRO)	Low Flow	9	9	\$90	\$810
8015B (GRO)	High Flow	14	14	\$90	\$1,260
Tedlar Bags	Annually	23	23	\$10	\$230
Level 4 Data Packet	High Flow / Low Flow			10%	\$311
subtotal					\$3,646
<b>GAC Breakthrough Sampling</b>					
8260	Quarterly	3	12	\$90	\$1,080
8015B (GRO, DRO)	Quarterly	3	12	\$90	\$1,080
Level 4 Data Packet	each event			10%	\$216
subtotal					\$6,332
Annual analytical costs					\$10,031
River Terrace labor for Low Flow event -- 20 hours X \$72/hr					\$1,440
River Terrace labor GAC sampling events -- 12 hours X \$72/hr					\$864
Total Annual River Terrace Sampling Costs					\$12,335

River terrace sampling conducted pursuant to June 2014 Facility-Wide Groundwater Monitoring Plan (Section 5.4), NMED's June 15, 2015 Approval with Mods letter, and Bioventing Monitoring Plan (Revised) River Terrace Voluntary Corrective Measures dated October 28, 2005

1 - Includes additional QA/QC samples

**BLOOMFIELD TERMINAL - TABLE 1B  
RIVER TERRACE CONFIRMATION SAMPLING COST ESTIMATE**

Analysis	Frequency	# of Sample Locations	Total # of Samples <sup>(1)</sup>	Cost/Sample	Cost per Year
<b>RIVER TERRACE - AQUEOUS</b>					
8021B	Quarterly	7	40	\$45	\$1,800
8015B (GRO, DRO)	Quarterly	7	40	\$90	\$3,600
6010B (metals)	Quarterly	7	40	\$225	\$9,000
Level 4 Data Packet	each event			10%	\$1,440
subtotal					\$15,840
Annual analytical costs					\$15,840

River terrace sampling conducted pursuant to June 2014 Facility-Wide Groundwater Monitoring Plan (Section 5.4) and Bioventing Monitoring Plan (Revised) River Terrace Voluntary Corrective Measures dated October 28, 2005

1 - Includes additional QA/QC samples

**TABLE 1C**  
**Facility-Wide Groundwater Monitoring Cost Estimate**

Analysis	Frequency	# of Sample Locations	# of Samples <sup>(2)</sup>	Cost/Sample	Cost per Year
<b>Annual Terminal Complex (Non-RCRA Wells)</b>					
8260B	Annual	31	46	\$90	\$4,140
8015B (GRO, DRO)	Annual	31	42	\$90	\$3,780
8270C	Annual <sup>(1)</sup>	3	5	\$220	\$1,100
CO2/Alkalinity (310.1)	Annual	31	42	\$25	\$1,050
Cation Anion Balance + General Chem	Annual	31	42	\$170	\$7,140
6010 & 7470 (metals)	Annual	31	42	\$225	\$9,450
Filters			42	\$15	\$630
Level 4 Data Packet	Annual			10%	\$2,666
subtotal					\$29,956
<b>Annual Terminal Complex (RCRA Investigation Wells)<sup>(5)</sup></b>					
8260B	Annual	9	9	\$90	\$810
8015B (GRO, DRO)	Annual	9	9	\$90	\$810
8270C <sup>(4)</sup>	Annual	8	8	\$220	\$1,760
CO2/Alkalinity (310.1)	Annual	9	9	\$25	\$225
Cation Anion Balance + General Chem	Annual	9	9	\$170	\$1,530
6010 & 7470 (metals)	Annual	9	9	\$225	\$2,025
Filters			9	\$15	\$135
Level 4 Data Packet	Annual			10%	\$716
subtotal					\$8,011
<b>Semi-Annual - Terminal Complex (Non-RCRA Wells)</b>					
8260B (target list)	Semi-Annual <sup>(3)</sup>	10	16	\$90	\$1,440
8015B (GRO, DRO)	Semi-Annual <sup>(3)</sup>	5	10	\$90	\$900
Level 4 Data Packet	Semi-Annual <sup>(3)</sup>			10%	\$234
subtotal					\$2,574
<b>Semi-Annual - North Barrier Wall OW/CW</b>					
8260B (target list)	Semi-Annual	16	39	\$90	\$3,510
8015B (GRO, DRO)	Semi-Annual	16	36	\$90	\$3,240
Level 4 Data Packet	Semi-Annual			10%	\$675
subtotal					\$7,425
<b>Semi-Annual River Bluff (Outfall 2 &amp; 3, &amp; Seeps 1, 6, 7, 8, &amp; 9)</b>					
8260B (target list)	Semi-Annual	7	18	\$90	\$1,620
CO2/Alkalinity (310.1)	Semi-Annual	7	16	\$25	\$400
Cation Anion Balance + General Chem	Semi-Annual	7	16	\$170	\$2,720
6010 & 7470 (metals)	Semi-Annual	2	6	\$225	\$1,350
Filters			6	\$15	\$90
Level 4 Data Packet	Semi-Annual			10%	\$609
subtotal					\$6,789
Sampling Labor	Semi-Annual & Annual events		15 Days of 7 hour days	\$72/hour	\$7,560
Total Annual - Facility-Wide Groundwater Sampling & Analysis					\$62,315

Sampling conducted pursuant to June 2014 Facility-Wide Groundwater Monitoring Plan and NMED's June 15, 2015 Approval with Mods letter

1 - The SVOC analyses are performed every two years and the "# of samples" is adjusted accordingly

2 - # of Samples includes additional QA/QC samples

3 - This reference to semi-annual only includes a single event, as these locations are also included in the annual category



**BLOOMFIELD TERMINAL - TABLE 1D**  
**Facility-Wide Confirmation Groundwater Monitoring Cost Estimate**

Analysis	Frequency	# of Sample Locations	# of Samples <sup>(1)</sup>	Cost/Sample	Cost per Year
<b>Annual Refinery Complex (Non-RCRA Wells)</b>					
8260B	Quarterly	31	164	\$90	\$14,760
8015B (GRO, DRO)	Quarterly	31	152	\$90	\$13,680
8270C	Quarterly	31	152	\$220	\$33,440
CO2/Alkalinity (310.1)	Quarterly	31	152	\$25	\$3,800
Cation Anion Balance + General Chem	Quarterly	31	152	\$170	\$25,840
6010 & 7470 (metals)	Quarterly	31	152	\$225	\$34,200
Filters			152	\$15	\$2,280
Level 4 Data Packet	Quarterly			10%	\$12,572
subtotal					\$140,572
<b>Annual Refinery Complex (RCRA Investigation Wells)</b>					
8260B	Quarterly	19	76	\$90	\$6,840
8015B (GRO, DRO)	Quarterly	19	76	\$90	\$6,840
8270C	Quarterly	19	76	\$220	\$16,720
CO2/Alkalinity (310.1)	Quarterly	19	76	\$25	\$1,900
Cation Anion Balance + General Chem	Quarterly	19	76	\$170	\$12,920
6010 & 7470 (metals)	Quarterly	19	76	\$225	\$17,100
Filters			76	\$15	\$1,140
Level 4 Data Packet	Quarterly			10%	\$6,232
subtotal					\$69,692
<b>Semi-Annual - North Barrier Wall OW/CW</b>					
8260B	Quarterly	16	72	\$90	\$6,480
8015B (GRO, DRO)	Quarterly	16	70	\$90	\$6,300
Level 4 Data Packet	Quarterly			10%	\$1,278
subtotal					\$14,058
<b>Semi-Annual River Bluff (Outfall 2 &amp; 3, &amp; Seeps 1, 6, 7, 8, &amp; 9)</b>					
8260B	Quarterly	7	38	\$90	\$3,420
CO2/Alkalinity (310.1)	Quarterly	7	34	\$25	\$850
Cation Anion Balance + General Chem	Quarterly	7	34	\$170	\$5,780
6010 & 7470 (metals)	Quarterly	2	10	\$225	\$2,250
Filters			8	\$15	\$120
Level 4 Data Packet	Quarterly			10%	\$1,230
subtotal					\$13,650
<b>Total Annual - Facility-Wide Groundwater Sampling &amp; Analysis</b>					<b>\$237,972</b>

Sampling conducted pursuant to June 2014 Facility-Wide Groundwater Monitoring Plan

1 - # of Samples includes additional QA/QC samples

**TABLE 1E**  
**San Juan River Sampling Cost Estimate**

Analysis	Frequency	# of Sample Locations	# of Samples <sup>1</sup>	Cost/Sample	Cost per year
8260B	Semi-Annual	4	14	\$90	\$1,260
8015B (GRO, DRO)	Semi-Annual	4	12	\$90	\$1,080
CO2/Alkalinity (310.1)	Semi-Annual	4	12	\$25	\$300
Cation Anion Balance + General Chem	Semi-Annual	4	12	\$170	\$2,040
6010 & 7470 (metals)	Semi-Annual	4	12	\$225	\$2,700
Filters			8	\$15	\$120
Level 4 Data Packet	Semi-Annual			10%	\$738
Annual analytical costs					\$8,238
Sampling Labor	Semi-Annual		4 hours each event	\$72/hour	\$576
Total Annual San Juan River Sampling Costs					\$8,814

Sampling pursuant to June 2014 Facility-Wide Groundwater Monitoring Plan

1 - # of Samples includes additional QA/QC samples

**TABLE 2**  
**Final Closure Cost Estimate**  
**Western Refining - Bloomfield Refinery**  
**North and South Aeration Lagoons**

Item	Description	Quantity	Units	Unit Cost	Cost
<b>Professional Services</b>					
1	Analyses for waste characterization & investigation/soil confirmation sampling (Table 2)	1	LS	\$140,000	\$140,000
2	Final closure report	1	LS	\$20,000	\$20,000
3	Project administration (engineering, bidding, construction administration, etc.)	1	LS	\$18,700	\$18,700
subtotal					\$178,700
<b>Construction</b>					
5	Mobilization	1	LS	\$6,200	\$6,200
6	Administrative costs (office facilities & staff, H&S plan, SWPPP, insurance, eqpmt decon, QA/QC, etc.)	1	LS	\$12,500	\$12,500
7	Dewater lagoons (1 ft water over 25,092 sq. ft.) Dispose water at authorized on-site discharge	188,000	Gal	\$0.011	\$2,100
8	Excavate and load sludge from aeration lagoons for disposal at local NMED permitted landfill. <sup>(1)</sup>	310	CY	\$4	\$1,200
9	Transfer sludge from aeration lagoons to local NMED permitted landfill. <sup>(2)</sup>	403	CY	\$12.5	\$5,000
10	Dispose of sludge at local landfill as Special Waste	403	CY	\$16.5	\$6,600
11	Remove and dispose of RCRA liners at local landfill <sup>(3)</sup>	1	LS	\$5,340	\$5,300
12	Remove and dispose of non-RCRA composite geotextile/geonet layer and 100 mil liner at local landfill; stockpile cemented amended sand <sup>(4) (5)</sup>	1	LS	\$7,780	\$7,800
13	Transport and dispose of cemented amended sand at local NMED permitted landfill as special waste <sup>(5)</sup>	605	CY	\$29	\$17,500
14	Excavate upper two feet of soils across all lagoons <sup>(6)</sup>	1,859	CY	\$5	\$9,300
15	Transport and dispose of excavated soils at local landfill as Special Waste	2,416	CY	\$29	\$70,100
16	Demobilization	1	LS	\$2,500	\$2,500
subtotal					\$146,100
<b>TOTAL</b>					<b>\$324,800</b>
	2012 Inflation Factor <sup>(7)</sup>	1.01			\$3,248
2012 ADJUSTED ESTIMATED COST TO IMPLEMENT CLOSURE PLAN					\$328,048
	2013 Inflation Factor <sup>(8)</sup>	1.021			\$6,889
2013 ADJUSTED ESTIMATED COST TO IMPLEMENT CLOSURE PLAN					\$334,937
	2014 Inflation Factor <sup>(9)</sup>	1.018			\$6,029
2014 ADJUSTED ESTIMATED COST TO IMPLEMENT CLOSURE PLAN					\$340,966
	2015 Inflation Factor <sup>(10)</sup>	1.014			\$4,774
2015 ADJUSTED ESTIMATED COST TO IMPLEMENT CLOSURE PLAN					\$345,740
	2016 Inflation Factor <sup>(11)</sup>	1.01			\$3,457
2016 ADJUSTED ESTIMATED COST TO IMPLEMENT CLOSURE PLAN.					\$349,197



**TABLE 2**  
**Final Closure Cost Estimate**  
**Western Refining - Bloomfield Refinery**  
**North and South Aeration Lagoons**

2017 Inflation Factor <sup>(12)</sup>	1.01			\$3,492
2017 ADJUSTED ESTIMATED COST TO IMPLEMENT CLOSURE PLAN				\$352,689
2018 Inflation Factor <sup>(13)</sup>	1.02			\$7,054
2018 ADJUSTED ESTIMATED COST TO IMPLEMENT CLOSURE PLAN				\$359,743
2019 Inflation Factor <sup>(14)</sup>	1.02			\$7,195
2019 ADJUSTED ESTIMATED COST TO IMPLEMENT CLOSURE PLAN				\$366,938

**Notes**

- 1 Assumed dried sludge in-place volume = 25,092 sq. ft. x 0.333ft = 310 cy (special waste). Estimated truck yards = 310 cy x 1.3 (fluff) = 403 cy. Estimated excavation cost = \$4/cy
  - 2 Estimated transportation cost to NMED permitted landfill in Aztec, NM = \$12.50/cy (\$125/hr @ 2hrs per trip & 20 yd. truck)
  - 3 Assume three 20-yd trucks @ \$16.50/cy; \$750 transportation & 72 hours labor @ \$50/hr = \$5,340
  - 4 Assume four 20-yd trucks @ \$16.50/cy, \$1,000 transportation, 72 hours labor @ \$50/hr, & stockpile cemented amended sand (\$4/cy x 465 cy) = \$7,780
  - 5 Estimated in-place volume of cemented amended sand = 25,092 sq. ft. x .5 ft. x 1.3 = 465 cy. Estimated truck yards = 465 cy x 1.3 (fluff) = 605 cy
  - 6 Estimated in-place volume of excavated soils beneath lagoons = 25,092 sq.ft. x 2 ft. = 1,859 cy. Estimated truck yards = 2,203 cy x 1.3 (fluff) = 2,416 cy
  - 7 Implicit price deflator for 2010/implicit price deflator for 2009 (updated 12/22/2011) = 110.992/109.729 = 1.01  
<http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)
  - 8 Implicit price deflator for 2011/implicit price deflator for 2010 (updated 12/20/2012) = 113.355/110.992 = 1.021  
<http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)
  - 9 Implicit price deflator for 2012/implicit price deflator for 2011 (updated 12/20/2013) = 105.667/103.783 = 1.018  
<http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)
  - 10 Implicit price deflator for 2013/implicit price deflator for 2012 (updated 12/23/2014) = 107.301/105.824 = 1.014  
<http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)
  - 11 Implicit price deflator for 2014/implicit price deflator for 2013 (updated 12/22/2015) = 109.067/107.589 = 1.01  
<http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)
  - 12 Implicit price deflator for 2016/implicit price deflator for 2015 (updated 12/22/2016) = 111.648/110.253 = 1.01  
<http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)
  - 13 Implicit price deflator for 2017/implicit price deflator for 2016 (updated 12/21/2017) = 113.614/111.628 = 1.02  
<http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)
  - 14 Implicit price deflator for 2018/implicit price deflator for 2017 (updated 7/26/2019) = 111.256/108.713 = 1.02  
<http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)
- LS - Lump Sum  
CY - cubic yard  
Gal - gallon

**TABLE 2A**  
**Investigation & Confirmation Sampling Cost Estimate**  
**Western Refining - Bloomfield Refinery**  
**North and South Aeration Lagoons**

Analysis	# of Samples	Cost/Sample	Costs
<b>Waste Characterization Samples <sup>1</sup></b>			
VOCs 8260B	155	\$90	\$13,950
TCLP SVOCs 8270C	155	\$220	\$34,100
Haz. Characteristics	155	\$140	\$21,700
TCLP Skinner List Metals	155	\$185	\$525
Sampling Labor	40 hours	\$75/hour	\$3,000
<b>Subtotal</b>			<b>\$73,275</b>
<b>Investigation/Confirmation Samples <sup>2</sup></b>			
VOCs 8260B	87	\$90	\$7,830
SVOCs 8270C	87	\$220	\$19,140
TPH 8015B (GRO, DRO, MRO)	87	\$90	\$7,830
Skinner List Metals	87	\$185	\$16,095
Sampling Labor	40 hours	\$75/hour	\$3,000
Subcontract drilling			\$12,000
<b>Subtotal</b>			<b>\$65,895</b>
<b>Total</b>			<b>\$139,170</b>

1 - sludge samples (25,092 sq. ft. x .33 ft. = 310 yds / 20 yds/sample) = 16 samples; cement amended sand samples (25,092 sq. ft. x .5 ft = 465 yds / 20 yds/sample) = 24 samples; excavated soil samples (25,092 sq. ft. x 2 ft. x 1.2 (fluff factor) / 27 (cu. ft./yd.) = 2,230 yds / 20 yds/sample) = 112 samples; potential leachate samples (RCRA liner, non-RCRA liner & French drain) = 3 samples; estimated total of 155 characterization samples

2 - assumes two samples (0-6" & 18-24") at each of 15 soil borings & 15 sidewall samples, one additional sample (lower interval) at each of the 15 soil borings, seven duplicate samples, and five equipment blanks

TPH - total petroleum hydrocarbons

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

MRO - Motor Oil Range Organics

VOCs - volatile organic compounds

SVOCs - semi-volatile organic compounds

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

COMMENTS

Action 18540

**COMMENTS**

Operator:			OGRID:	Action Number:	Action Type:
WESTERN REFINING SOUTHWEST, IN	6700 Jefferson NE, Suite A-1	Albuquerque,	705791	18540	DISCHARGE
NM87109					PERMIT

Created By	Comment	Comment Date
cchavez	NMED Financial Assurance 1-21-21 Manual Submission by OCD to Admin. Record	02/22/2021



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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 18540

**CONDITIONS OF APPROVAL**

Operator: WESTERN REFINING SOUTHWEST, IN NM87109	6700 Jefferson NE, Suite A-1 Albuquerque,	OGRID: 705791	Action Number: 18540	Action Type: DISCHARGE PERMIT
OCD Reviewer cchavez	Condition None			