

**GW - \_\_\_\_\_ 001 \_\_\_\_\_**

# **FINANCIAL ASSURANCE**

**2010 - Present**

## Chavez, Carl J, EMNRD

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**From:** Peterson, Theresa R <Theresa.R.Peterson@andeavor.com>  
**Sent:** Friday, March 23, 2018 8:32 AM  
**To:** Kieling, John, NMENV  
**Cc:** Chavez, Carl J, EMNRD; Pruner, Dave; O'Brien, Jessica L; Hains, Allen S; Robinson, Kelly; Donovan, Rob; Vail, Vanessa A; Piznar, Treena J  
**Subject:** 2018 RCRA Financial Assurance Submittal - Western Refining (Gallup and Bloomfield)  
**Attachments:** RCRA 2018 New Mexico FA Submittal\_without 10K.PDF

Please see attached for an electronic copy of the 2018 RCRA Financial Assurance Submittal for Western Refining (Gallup and Bloomfield). A hard copy is being mailed by certified mail, return receipt requested.

Sincerely,

**Teri Peterson** | Lead Environmental Waste Specialist

**Andeavor**

o: 801 606 2208 | m: 408 420 8588

[Theresa.r.peterson@andeavor.com](mailto:Theresa.r.peterson@andeavor.com)



Andeavor  
19100 Ridgewood Parkway  
San Antonio, TX 78259

210 626 6000  
andeavor.com



**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**  
**Tracking No. 7012 1640 0001 5273 3088**

March 23, 2018

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

**Re: 2018 Financial Assurance**  
**Gallup Refinery, EPA ID #NMD000333211, HWB-WRG-MISC**  
**Bloomfield Terminal, EPA ID #NMD089416416, HWB-WRB-MISC**

Dear Mr. Kieling:

Enclosed please find Western Refining Southwest, Inc.'s annual update to the financial assurance documentation for Western's Gallup Refinery and Bloomfield Terminal using the financial test and corporate guarantee specified under 40 CFR 264 Subpart H. The 2017 cost estimates for both facilities were submitted to your office prior to the January 31 deadline, as required by Order HWB 07-34 (CO) for Bloomfield Terminal and Permit NMD000333211 for Gallup Refinery.

Western Refining Southwest, Inc. was acquired by Andeavor on August 1, 2017. As such, we have included new Corporate Guarantee letters providing a guarantee from Andeavor to Western Refining Southwest, Inc. for closure or post-closure care and liability coverage.

This submittal contains the following items:

1. A letter demonstrating compliance with the financial test signed by Andeavor's Chief Financial Officer, Steven M. Sterin, as required by 40 CFR 264.143(f)(3)(i), 264.145(f)(3)(i) and 264.147(f)(3)(i).
2. The "Corporate Guarantee for Closure or Post-closure Care" as specified under 40 CFR 264.143(f)(10) and 145(f)(11).
3. The "Guarantee for Liability Coverage" as specified under 40 CFR 264.147(g)(1).
4. The independent CPA's special report required by 40 CFR 264.143(f)(3)(iii), 264.145(f)(3)(iii), and 264.147(f)(3)(iii).
5. A copy of the annual report by the independent Certified Public Accountant (CPA) as required by 40 CFR 264.143(f)(3)(ii), 264.145(f)(3)(ii), and 264.147(f)(3)(ii).

March 23, 2018

Please contact me at (801) 606-2208, or by email ([theresa.r.peterson@andeavor.com](mailto:theresa.r.peterson@andeavor.com)), if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Theresa Peterson', with a long horizontal flourish extending to the right.

Theresa Peterson  
Lead Environmental Waste Specialist  
Andeavor

Electronic cc:      Carl Chavez, NM OCD  
                         Dave Pruner, Gallup Refinery  
                         Jessica O'Brien, Gallup Refinery  
                         Allen Haines, Bloomfield Terminal  
                         Kelly Robinson, Bloomfield Terminal  
                         Rob Donovan, Andeavor.  
                         Vanessa Vail, Andeavor  
                         Treena Piznar, Andeavor



March 22, 2018

John Kieling  
Bureau Chief  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Bldg. 1  
Santa Fe, New Mexico 87505-6303

**Re: 2018 Financial Assurance  
Gallup Refinery, EPA ID #NMD000333211, HWB-WRG-MISC  
Bloomfield Terminal, EPA ID #NMD089416416, HWB-WRB-MISC**

Dear Mr. Kieling:

I am the chief financial officer of **Andeavor, 19100 Ridgewood Parkway, San Antonio, Texas 78259**. This letter is in support of use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in subpart H of 40 CFR parts 264 and 265.

The firm identified above is the owner or operator of the following facilities for which liability coverage for both sudden and nonsudden accidental occurrences is being demonstrated through the financial test specified in subpart H of 40 CFR parts 264 and 265:

**None**

The firm identified above guarantees, through the guarantee specified in subpart H of 40 CFR parts 264 and 265, liability coverage for both sudden and nonsudden accidental occurrences at the following facilities owned or operated by the following:

<b>EPA Identification Number:</b>	<b>NMD089416416</b>
<b>Facility Name:</b>	<b>Western Refining Southwest, Inc. Bloomfield Terminal</b>
<b>Facility Address:</b>	<b>50 Road 4990 Bloomfield, New Mexico 87413</b>
<b>Mailing Address:</b>	<b>P.O. Box 159 Bloomfield, New Mexico 87413</b>

The firm identified above is the direct or higher-tier parent corporation of the owner or operator.

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure and/or post-closure cost estimate covered by the test are shown for each facility:

**None**

2. The firm identified above guarantees, through the guarantee specified in subpart H of 40 CFR parts 264 and 265, the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for closure or post-closure care so guaranteed are shown for each facility:

**EPA Identification Number:** NMD000333211  
**Facility Name:** Western Refining Southwest, Inc.  
Gallup Refinery  
**Facility Address:** I-40 Exit 39  
Jamestown, New Mexico 87347  
**Mailing Address:** 92 Giant Crossing Road  
Gallup, New Mexico 87301  
**Closure cost estimate:** \$1,410,883  
**Post-closure cost estimate:** \$139,173  
**Corrective action cost estimate:** \$2,647,764

**EPA Identification Number:** NMD089416416  
**Facility Name:** Western Refining Southwest, Inc.  
Bloomfield Terminal  
**Facility Address:** 50 Road 4990  
Bloomfield, New Mexico 87413  
**Mailing Address:** P.O. Box 159  
Bloomfield, New Mexico 87413  
**Closure cost estimate:** \$359,743  
**Corrective action cost estimate:** \$1,034,518

3. In States where EPA is not administering the financial requirements of subpart H of 40 CFR parts 264 and 265, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure or post-closure cost estimates covered by such a test are shown for each facility:

**EPA Identification Number:** WAD 009275082 (Site 1)  
**Facility Name:** Tesoro Refining & Marketing Company LLC  
Anacortes Refinery  
**Facility Address:** 10200 West March Point Road  
Anacortes, Washington 98221  
**Post-Closure Cost Estimate:** \$179,169

**EPA Identification Number:** NDD 006175467  
**Facility Name:** Tesoro Refining & Marketing Company LLC  
Mandan Refinery  
**Facility Address:** 900 Old Red Trail NE  
Mandan, North Dakota 58554  
**Closure Cost Estimate:** \$659,667

**EPA Identification Number:** NDD 006175467  
**Facility Name:** Tesoro Refining & Marketing Company LLC  
Mandan Refinery  
**Facility Address:** 900 Old Red Trail NE  
Mandan, North Dakota 58554  
**Corrective Action Cost Estimate:** \$2,317,996

<b>EPA Identification Number:</b>	<b>CAD 000072751</b>
<b>Facility Name:</b>	<b>Tesoro Refining &amp; Marketing Company LLC</b>
<b>Facility Address:</b>	<b>Martinez Refinery 150 Solano Way Martinez, CA 94553</b>
<b>Post-Closure Cost Estimate:</b>	<b>\$2,592,952</b>
<b>EPA Identification Number:</b>	<b>CAD 041520644</b>
<b>Facility Name:</b>	<b>Tesoro Refining &amp; Marketing Company LLC</b>
<b>Facility Address:</b>	<b>Los Angeles Refinery - Wilmington Operations 2101 E. Pacific Highway Wilmington, CA 90744</b>
<b>Post-Closure Cost Estimate:</b>	<b>\$2,112,625</b>
<b>EPA Identification Number:</b>	<b>CAD077227049</b>
<b>Facility Name:</b>	<b>Tesoro Refining &amp; Marketing Company LLC</b>
<b>Facility Address:</b>	<b>Los Angeles Refinery - Carson Operations 1801 Sepulveda Carson, CA 90749</b>
<b>Post-Closure &amp; Corrective Action Cost Estimate:</b>	<b>\$30,834,558</b>

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanisms specified in subpart H of 40 CFR parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:

**None**

5. This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required under part 144 and is assured through a financial test. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:

**None**

This firm is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on December 31. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended December 31, 2017.

**Part B. Closure or Post-Closure Care and Liability Coverage**

**Alternative I**

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above)  
\$44,289,048
2. Amount of annual aggregate liability coverage to be demonstrated  
\$8,000,000
3. Sum of lines 1 and 2  
\$52,289,048
- \*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6)  
\$15,158,000,000
- \*5. Tangible net worth  
\$8,536,000,000
- \*6. Net Worth  
\$13,415,000,000
- \*7. Current assets  
\$6,883,000,000
- \*8. Current liabilities  
\$5,001,000,000
9. Net working capital (line 7 minus line 8)  
\$1,882,000,000
- \*10. The sum of net income plus depreciation, depletion, and amortization  
\$2,549,000,000
- \*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) N/A
12. Is line 5 at least \$10 million? Yes
13. Is line 5 at least 6 times line 3? Yes
14. Is line 9 at least 6 times line 3? Yes
- \*15. Are at least 90% of assets located in the U.S.? Yes  
If not, complete line 16.
16. Is line 11 at least 6 times line 3? N/A
17. Is line 4 divided by line 6 less than 2.0? Yes
18. Is line 10 divided by line 4 greater than 0.1? Yes
19. Is line 7 divided by line 8 greater than 1.5? No

March 22, 2018

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 264.151(g), except as revised in accordance with instructions from EPA received in a letter dated August 23, 2012, as such regulations were constituted on the date shown immediately below.



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Steven M. Sterin  
Executive Vice President, Chief Financial Officer



Date March 22, 2018

CORPORATE GUARANTEE FOR CLOSURE OR POSTCLOSURE CARE

Guarantee made this 22<sup>nd</sup> day of March, 2018 by Andeavor, a business corporation organized under the laws of the State of Delaware, herein referred to as guarantor. This guarantee is made on behalf of Western Refining Southwest, Inc., of Gallup Refinery at I-4, Exit 39, Jamestown, New Mexico 87347 (mailing address 92 Giant Crossing Road, Gallup, New Mexico 87301) and Bloomfield Terminal, 50 Road 4990, Bloomfield, New Mexico 87413, which is our subsidiary, to the United States Environmental Protection Agency (EPA).

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 40 CFR 264.143(f), 264.145(f), 265.143(e), and 265.145(e).
2. Western Refining Southwest, Inc. owns or operates the following hazardous waste management facility(ies) covered by this guarantee:

<b>EPA Identification Number:</b>	<b>NMD000333211</b>
<b>Facility Name:</b>	<b>Western Refining Southwest, Inc. Gallup Refinery</b>
<b>Facility Address:</b>	<b>I-40 Exit 39 Jamestown, New Mexico 87347</b>
<b>Mailing Address:</b>	<b>92 Giant Crossing Road Gallup, New Mexico 87301</b>

**This guarantee is for closure, post-closure care, and corrective action**

<b>EPA Identification Number:</b>	<b>NMD089416416</b>
<b>Facility Name:</b>	<b>Western Refining Southwest, Inc. Bloomfield Terminal</b>
<b>Facility Address:</b>	<b>50 Road 4990 Bloomfield, New Mexico 87413</b>
<b>Mailing Address:</b>	<b>P.O. Box 159 Bloomfield, New Mexico 87413</b>

**This guarantee is for closure and corrective action**

3. "Closure plans" and "post-closure plans" as used below refer to the plans maintained as required by subpart G of 40 CFR parts 264 and 265 for the closure and post-closure care of facilities as identified above.

4. For value received from Western Refining Southwest, Inc., guarantor guarantees to EPA that in the event that Western Refining Southwest, Inc. fails to perform closure and post-closure care of the above facility(ies) in accordance with the closure or post-closure plans and other permit or

## CORPORATE GUARANTEE FOR CLOSURE OR POST CLOSURE CARE

interim status requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in subpart H of 40 CFR part 264 or 265, as applicable, in the name of Western Refining Southwest, Inc. in the amount of the current closure or post-closure cost estimates as specified in subpart H of 40 CFR parts 264 and 265.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to Western Refining Southwest, Inc. that he intends to provide alternate financial assurance as specified in subpart H of 40 CFR part 264 or 265, as applicable, in the name of Western Refining Southwest, Inc.. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless Western Refining Southwest, Inc. has done so.

6. The guarantor agrees to notify the EPA Regional Administrator by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in subpart H of 40 CFR part 264 or 265, as applicable, in the name of Western Refining Southwest, Inc. unless Western Refining Southwest, Inc. has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to 40 CFR part 264 or 265.

9. Guarantor agrees to remain bound under this guarantee for as long as Western Refining Southwest, Inc. must comply with the applicable financial assurance requirements of subpart H of 40 CFR parts 264 and 265 for the above-listed facilities, except as provided in paragraph 10 of this agreement.

10. Guarantor may terminate this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to Western Refining Southwest, Inc., provided that this guarantee may not be terminated unless and until Western Refining Southwest, Inc. obtains, and the EPA Regional Administrator(s) approve(s), alternate closure and/or post-closure care coverage complying with 40 CFR 264.143, 264.145, 265.143, and/or 265.145.

11. Guarantor agrees that if Western Refining Southwest, Inc. fails to provide alternate financial assurance as specified in subpart H of 40 CFR part 264 or 265, as applicable, and obtain written approval of such assurance from the EPA Regional Administrator(s) within 90 days after



CORPORATE GUARANTEE FOR CLOSURE OR POST CLOSURE CARE

a notice of cancellation by the guarantor is received by an EPA Regional Administrator from guarantor, guarantor shall provide such alternate financial assurance in the name of Western Refining Southwest, Inc.

12. Guarantor expressly waives notice of acceptance of this guarantee by the EPA or by Western Refining Southwest, Inc. Guarantor also expressly waives notice of amendments or modifications of the closure and/or post-closure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 264.151(h) as such regulations were constituted on the date first above written.

Effective date: March 22, 2018

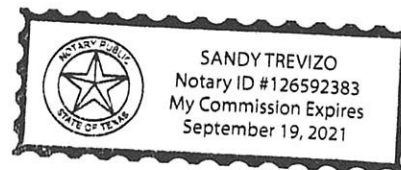
**Andeavor**



Steven M. Sterin  
Executive Vice President, Chief Financial Officer



Signature of witness or notary: \_\_\_\_\_





## Guarantee for Liability Coverage

Guarantee made this 22<sup>nd</sup> day of March, 2018, by Andeavor, a business corporation organized under the laws of Delaware, herein referred to as guarantor. This guarantee is made on behalf of Western Refining Southwest, Inc., of Bloomfield Terminal, 50 Road 4990, Bloomfield, New Mexico 87413, which is our subsidiary, to any and all third parties who have sustained or may sustain bodily injury or property damage caused by nonsudden accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

### Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 40 CFR 264.147(g) and 265.147(g).
2. Western Refining Southwest, Inc. owns or operates the following hazardous waste management facility(ies) covered by this guarantee:

EPA Identification Number:	NMD089416416
Facility Name:	Western Refining Southwest, Inc. Bloomfield Terminal
Facility Address:	50 Road 4990 Bloomfield, New Mexico 87413
Mailing Address:	P.O. Box 159 Bloomfield, New Mexico 87413

This corporate guarantee satisfies RCRA third-party liability requirements for nonsudden accidental occurrences in above-named owner or operator facilities for coverage in the amount of \$4 million for each occurrence and \$8 million annual aggregate.

3. For value received from Western Refining Southwest, Inc., a guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by nonsudden accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that Western Refining Southwest, Inc. fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by nonsudden accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.
4. Such obligation does not apply to any of the following:
  - (a) Bodily injury or property damage for which Western Refining Southwest, Inc. is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that Western Refining Southwest, Inc. would be obligated to pay in the absence of the contract or agreement.

- (b) Any obligation of Western Refining Southwest, Inc. under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.
  - (c) Bodily injury to:
    - (1) An employee of Western Refining Southwest, Inc. arising from, and in the course of, employment by Western Refining Southwest, Inc.; or
    - (2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by Western Refining Southwest, Inc.. This exclusion applies:
      - (A) Whether Western Refining Southwest, Inc. may be liable as an employer or in any other capacity; and
      - (B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).
  - (d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.
  - (e) Property damage to:
    - (1) Any property owned, rented, or occupied by Western Refining Southwest, Inc.;
    - (2) Premises that are sold, given away or abandoned by Western Refining Southwest, Inc. if the property damage arises out of any part of those premises;
    - (3) Property loaned to Western Refining Southwest, Inc.;
    - (4) Personal property in the care, custody or control of Western Refining Southwest, Inc.;
    - (5) That particular part of real property on which Western Refining Southwest, Inc. or any contractors or subcontractors working directly or indirectly on behalf of Western Refining Southwest, Inc. are performing operations, if the property damage arises out of these operations.
5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the EPA Regional Administrator(s) for the Region(s) in which the facility is located and to Western Refining Southwest, Inc. that he intends to provide alternate liability coverage as specified in 40 CFR 264.147 and 265.147, as applicable, in the name of Western Refining Southwest, Inc. Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless Western Refining Southwest, Inc. has done so.
6. The guarantor agrees to notify the EPA Regional Administrator by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in 40 CFR 264.147 or 265.147 in the name of Western Refining Southwest, Inc., unless Western Refining Southwest, Inc. has done so.
8. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by 40 CFR 264.147 and 265.147, provided that such modification shall become effective only if a Regional Administrator does not disapprove the modification within 30 days of receipt of notification of the modification.
9. Guarantor agrees to remain bound under this guarantee for so long as Western Refining Southwest, Inc. must comply with the applicable requirements of 40 CFR 264.147 and 265.147 for the above-listed facility(ies), except as provided in paragraph 10 of this agreement.
10. Guarantor may terminate this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to Western Refining Southwest, Inc., provided that this guarantee may not be terminated unless and until Western Refining Southwest, Inc. obtains, and the EPA Regional Administrator(s) approve(s), alternate liability coverage complying with 40 CFR 264.147 and/or 265.147.
11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.
12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.
13. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:
  - (a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by [sudden or nonsudden] accidental occurrence arising from operating [Principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of \$ \_\_\_\_\_.

[Signatures]

Principal

(Notary) Date

[Signatures]

Claimant(s)

(Notary) Date

- (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered primary coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in 40 CFR 264.151(h)(2) except as revised in accordance with instructions from EPA in a letter dated August 23, 2012, as regulations were constituted on the date shown immediately below.

Effective date: March 22, 2018

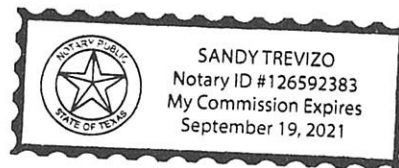
**Andeavor**



Steven M. Sterin  
Executive Vice President, Chief Financial Officer



Signature of witness or notary: \_\_\_\_\_



## **Report of Independent Accountants on Applying Agreed-Upon Procedures**

To the Management of Andeavor:

We have performed the procedures enumerated below, which were agreed to by management of Andeavor (the Company), solely to assist management with respect to the use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care, as specified in Subpart H of 40 CFR, Parts 264 and 265 (Regulations). The Company's management is responsible for determining compliance with the financial test that is presented on the basis specified by the Regulations. It is the Company's understanding that these procedures are those required by the New Mexico Environment Department. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of the parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or any other purpose.

We have performed the following procedures with respect to Part B, Closure, or Post-Closure Care and Liability Coverage included in the 2018 Chief Financial Officer's accompanying letter dated March 22, 2018, to the New Mexico Environment Department (the Letter):

### Item 4 – Total Liabilities

We compared the dollar amount per item 4 of the Letter to the corresponding amount included in the Company's 2017 audited consolidated financial statements as filed in Form 10-K, and found it to be in agreement.

### Item 5 – Tangible Net Worth

We obtained a schedule, prepared by management, which calculates the tangible net worth as of December 31, 2017. We recomputed the Company's schedule, and agreed amounts included in the calculation with those included in the Company's audited consolidated financial statements as filed in Form 10-K, and found such amounts to be in agreement. We compared the dollar amount of tangible net worth as of December 31, 2017 from this schedule to line item 5 in the Letter and found it to be in agreement.

### Item 6 – Net Worth

We obtained a schedule, prepared by management, which calculates the net worth as of December 31, 2017. We recomputed the Company's schedule, and agreed amounts included in the calculation with those included in the Company's audited consolidated financial statements as filed in Form 10-K, and found such amounts to be in agreement. We compared the dollar amount of net worth as of December 31, 2017 from this schedule to line item 6 in the Letter and found it to be in agreement.

### Item 7 – Current Assets

We compared the dollar amount of current assets per item 7 of the Letter to the corresponding amount included in the Company's 2017 audited consolidated financial statements as filed in Form 10-K, and found it to be in agreement.

### Item 8 – Current Liabilities

We compared the dollar amount of current liabilities per item 8 of the Letter to the corresponding amount included in the Company's 2017 audited consolidated financial statements as filed in Form 10-K, and found it to be in agreement.

Andeavor

Item 9 – Net Working Capital

We obtained a schedule, prepared by management, which calculates net working capital as of December 31, 2017. We recomputed the Company's schedule, and agreed amounts included in the calculation with amounts included in the Company's audited consolidated financial statements as filed in Form 10-K, and found such amounts to be in agreement. We compared the dollar amount of net working capital as of December 31, 2017 from this schedule to line item 9 in the Letter and found it to be in agreement.

Item 10 – Sum of Net Income plus Depreciation, Depletion and Amortization

We obtained a schedule, prepared by management, which calculates the net income plus depreciation, depletion, and amortization for the year ended December 31, 2017. We recomputed the Company's schedule, and agreed amounts included in the calculation with those included in the Company's audited consolidated financial statements as filed in Form 10-K, and found such amounts to be in agreement. We compared the dollar amount of net income plus depreciation, depletion, and amortization for the year ended December 31, 2017 from this schedule to line item 10 in the Letter and found it to be in agreement.

Item 15 – Are at least 90% of assets located in the U.S.?

We obtained a schedule, prepared by management, which calculates the percentage of total assets in the U.S. as of December 31, 2017. We recomputed the Company's schedule and agreed amounts included in the Company's calculation with amounts included in the Company's accounting records and audited consolidated financial statements as filed in Form 10-K, and found such amounts to be in agreement. We noted that the percentage of the Company assets located in the U.S. exceeded 90%.

We were not engaged to and did not conduct an examination, the objective of which would be the expression of an opinion on the financial information included in the Letter. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the Company and the New Mexico Environment Department and is not intended to be, and should not be, used by anyone other than these specified parties.

*Weaver and Tidwell, L.L.P.*

WEAVER AND TIDWELL, L.L.P.

San Antonio, Texas  
March 23, 2018





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2018 JAN 29 P 3:02

January 22, 2018

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

Re: Financial Assurance Cost Estimate – January 2018  
Per Order No. HWB 07-34 (CO)  
Western Refining Southwest, Inc. – Bloomfield Terminal  
EPA ID# NMD089416416

Dear Mr. Kieling:

Western Refining Southwest, Inc. – Bloomfield Terminal (Western) submits the above-referenced Financial Assurance Cost Estimate pursuant to Section III.P.2. of the July 2007 HWB Order. The estimate was prepared for Western by DiSorbo, a third party environmental engineering company. Annual adjustments to the Financial Assurance Cost Estimate were made in compliance with the requirements of 40 CFR 264.142(b) and 264.144(b).

If you have any questions or would like to discuss the Financial Assurance Cost Estimate, please contact me at (915) 534-1483.

Sincerely,

Western Refining Southwest, Inc.

By: Allen S. Hains  
Remediation Manager

c: L. Tsinnajinnie – NMED HWB  
C. Chavez – NMOCD *email return receipt 7004 1350 0003 7983 3340*  
D. Roberts – Bloomfield Terminal

January 10, 2018

Mr. Allen S. Hains, P. E.  
Manager Remediation Projects  
Andeavor  
212 N. Clark Street  
El Paso, TX 79905

Re: Western Refining Southwest, Inc. Bloomfield; Order No. HWB 07-34 (CO)  
Financial Assurance Cost Estimate Update for 2018

Dear Mr. Hains:

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, 2018). It is derived as follows:

Implicit price deflator for 2017 / implicit price deflator for 2016 (updated 12/21/2017) =  
 $113.614 / 111.628 = 1.02\%$  [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 analytical rates and labor rates were revised in 2017, as necessary, to reflect current costs and the resulting cost estimate for 2017 was \$1,014,233. There have not been any subsequent approvals by NMED affecting the Facility-Wide Groundwater Monitoring Plan, thus the annual inflation factor of 1.02% was applied to the facility-wide groundwater monitoring costs prepared for 2017. The new estimate for 2018 is \$1,034,518. 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

**8501 North Mopac Expressway | Suite 300 | Austin, TX 78759**

phone 512.693.4193 | mobile 512.297.3743 | fax 512.279.3118 | [scrouch@disorboconsult.com](mailto:scrouch@disorboconsult.com) | [www.disorboconsult.com](http://www.disorboconsult.com)




Mr. Allen Hains  
January 10, 2018  
Page 2

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May 20, 2011. The last annual estimate prepared in January 2017 was \$352,689. The new estimate for 2018 is \$359,743 (\$352,689 increased by 1.02%). A detailed breakout of the original estimate by activity is provided in enclosed Tables 2 and 2A.

The total estimated cost for 2018 is \$1,394,261. If there are any questions, please contact me at (512) 693-4193.

Sincerely,  
**DiSorbo Consulting, LLC**



Scott T. Crouch, P.G.  
Senior Consultant

Enclosures

**8501 North Mopac Expressway | Suite 300 | Austin, TX 78759**

phone 512.693.4193 | mobile 512.297.3743 | fax 512.279.3118 | [scrouch@disorboconsult.com](mailto:scrouch@disorboconsult.com) | [www.disorboconsult.com](http://www.disorboconsult.com)

**Table 1**  
**Western Refining Southwest, Inc.**  
**Bloomfield, New Mexico Refinery**  
**NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate**  
**1/10/2018**

Waste Management Area	NMED Order Provision	Capital Costs <sup>1</sup>	Operation & Maintenance Costs <sup>2</sup>	NMED Review Fees	Total Costs	Explanation
Solid Waste Management Units (SWMU's) Investigation, Remediation, & associated reports						
Group 1						
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	
Group 2						
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	
Group 3						
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**  
**1/10/2018**

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**  
**1/10/2018**

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**  
**1/10/2018**

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.		\$373,890		\$373,890	Table 1C provides detailed cost on an annual basis (\$62,315) which is multiplied by 6 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.		\$42,000	\$12,000	\$54,000	6 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			\$52,884		\$52,884	See Table 1E for detailed estimate; assume 6 years @\$8,814/yr
RCRA Background Monitoring Wells			\$0		\$0	Quarterly sampling for the background monitoring wells terminated in 2014.
subtotal					\$1,014,233	
<b>TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER (without inflation costs)</b>					<b>\$1,014,233</b>	
<b>Inflation Factor<sup>3</sup></b>					<b>1.02%</b>	
<b>CURRENT TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER.</b>					<b>\$1,034,518</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 2018 = implicit price deflator for 2017 / implicit price deflator for 2016 (updated 12/21/2017) = 113.614/111.628 = 1.02%



**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
<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
<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
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
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 (2)	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 (1)	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
<b>Annual Terminal Complex (RCRA Investigation Wells) (5)</b>					
8260B	Annual	9	9	\$90	\$810
8015B (GRO, DRO)	Annual	9	9	\$90	\$810
8270C (4)	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
<b>Semi-Annual - Terminal Complex (Non-RCRA Wells)</b>					
8260B (target list)	Semi-Annual (3)	10	16	\$90	\$1,440
8015B (GRO, DRO)	Semi-Annual (3)	5	10	\$90	\$900
Level 4 Data Packet	Semi-Annual (3)			10%	\$234
<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
<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
Sampling Labor	Semi-Annual & Annual events		15 Days of 7 hour days	\$72/hour	\$7,560
<b>Total Annual - Facility-Wide Groundwater Sampling &amp; Analysis</b>					<b>\$62,315</b>

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 (1)	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
<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
<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
<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
<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**  
**May 14, 2012**

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
<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>(6)</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
<b>TOTAL</b>					<b>\$324,800</b>
	<b>Inflation Factor <sup>(7)</sup></b>	0.01%			\$3,248
<b>CURRENT TOTAL ESTIMATED COST TO IMPLEMENT CLOSURE PLAN</b>					<b>\$328,048</b>

**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)  
 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

CERTIFIED MAIL # 7015 1520 0001 8113 5963

January 27, 2017

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

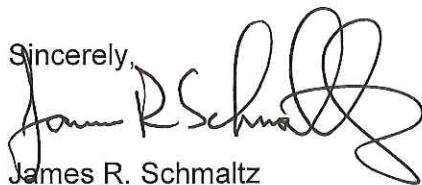
Re: Financial Assurance Cost Estimate – January 2017  
Per Order No. HWB 07-34 (CO)  
Western Refining Southwest, Inc. – Bloomfield Refinery  
EPA ID# NMD089416416

Dear Mr. Kieling:

Western Refining Southwest, Inc. – Bloomfield Refinery submits the referenced Financial Assurance Cost Estimate pursuant to Section III.P.2. of the July 2007 HWB Order. The estimate was prepared for Western by DiSorbo, a third party environmental engineering company. Annual adjustments to the Financial Assurance Cost Estimate were made in compliance with the requirements of 40 CFR 264.142(b) and 264.144(b). The adjusted cost estimate reflects the completion of nine years of interim measures and facility-wide groundwater monitoring activities.

If you have any questions or would like to discuss the Financial Assurance Cost Estimate, please contact me at (505) 632-4171.

Sincerely,



James R. Schmaltz  
HSER Director  
Western Refining Southwest, Inc.  
Bloomfield Refinery

cc: D. Cobrain – NNED HWB  
L. Tsinnajinnie – NMED HWB  
N. Dhawan – NMED HWB  
C. Chavez – NMOCD  
D. Roberts – Bloomfield Refinery  
K. Robinson – Bloomfield Refinery  
A. Hains – Western Refining El Paso

January 19, 2017

Mr. James R. Schmaltz  
Health, Safety, Environmental, and Regulatory Director  
Western Refining Southwest, Inc., Bloomfield Terminal  
111 County Road 4990  
Bloomfield, NM 87413

Re: Western Refining Southwest, Inc. Bloomfield; Order No. HWB 07-34 (CO)  
Financial Assurance Cost Estimate Update for 2017

Dear Mr. Schmaltz:

This financial assurance cost estimate update for the Bloomfield Refinery 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, 2017). It is derived as follows:

Implicit price deflator for 2016 / implicit price deflator for 2015 (updated 12/22/2016) =  
 $111.648 / 110.253 = 1.0\%$  [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. A detailed breakout of the estimate by activity is provided in enclosed Tables 1, 1A, 1B, 1C, 1D, and 1E. The analytical rates and labor rates have been revised, as necessary, to reflect current costs and thus the annual inflation factor was not applied to the facility-wide groundwater monitoring costs prepared for 2017. The estimated cost for 2016 was \$1,229,412. The new estimate for 2017 is \$1,014,233.

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

May 20, 2011. The last annual estimate prepared in January 2016 was \$349,197. The new estimate for 2017 is \$352,689 (\$349,197 increased by 1.0%). A detailed breakout of the original estimate by activity is provided in enclosed Tables 2 and 2A.

The total estimated cost for 2017 is \$1,366,922. If there are any questions, please contact me at (512) 693-4193.

Sincerely,  
**DiSorbo Consulting, LLC**



Scott T. Crouch, P.G.  
Senior Consultant

Enclosures

cc: Allen Hains – Western Refining El Paso



**Table 1**  
**Western Refining Southwest, Inc.**  
**Bloomfield, New Mexico Refinery**  
**NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate**  
**1/12/2017**

Waste Management Area	NMED Order Provision	Capital Costs <sup>1</sup>	Operation & Maintenance Costs <sup>2</sup>	NMED Review Fees	Total Costs	Explanation
Solid Waste Management Units (SWMU's) Investigation, Remediation, & associated reports						
Group 1						
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	
Group 2						
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	
Group 3						
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. 28: 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**  
**1/12/2017**

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**  
**1/12/2017**

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**  
**1/12/2017**

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.		\$373,890		\$373,890	Table 1C provides detailed cost on an annual basis (\$62,315) which is multiplied by 6 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.		\$42,000	\$12,000	\$54,000	6 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			\$52,884		\$52,884	See Table 1E for detailed estimate; assume 6 years @\$8,814/yr
RCRA Background Monitoring Wells			\$0		\$0	Quarterly sampling for the background monitoring wells terminated in 2014.
subtotal					\$1,014,233	
<b>TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER (without inflation costs)</b>					<b>\$1,014,233</b>	
Inflation Factor <sup>3</sup>					0.00%	
<b>CURRENT TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER.</b>					<b>\$1,014,233</b>	

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

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

<sup>3</sup> - No inflation factor applied as the cost estimate is updated with current laboratory and labor rates.

**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
<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
<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
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
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 (2)	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 (1)	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
<b>Annual Terminal Complex (RCRA Investigation Wells) (5)</b>					
8260B	Annual	9	9	\$90	\$810
8015B (GRO, DRO)	Annual	9	9	\$90	\$810
8270C (4)	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
<b>Semi-Annual - Terminal Complex (Non-RCRA Wells)</b>					
8260B (target list)	Semi-Annual (3)	10	16	\$90	\$1,440
8015B (GRO, DRO)	Semi-Annual (3)	5	10	\$90	\$900
Level 4 Data Packet	Semi-Annual (3)			10%	\$234
<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
<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
Sampling Labor	Semi-Annual & Annual events		15 Days of 7 hour days	\$72/hour	\$7,560
<b>Total Annual - Facility-Wide Groundwater Sampling &amp; Analysis</b>					<b>\$62,315</b>

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
<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
<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
<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
<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**

<b>Analysis</b>	<b>Frequency</b>	<b># of Sample Locations</b>	<b># of Samples <sup>1</sup></b>	<b>Cost/Sample</b>	<b>Cost per year</b>
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**  
**May 14, 2012**

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
<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
<b>TOTAL</b>					<b>\$324,800</b>
	<b>Inflation Factor <sup>(7)</sup></b>	0.01%			\$3,248
<b>CURRENT TOTAL ESTIMATED COST TO IMPLEMENT CLOSURE PLAN</b>					<b>\$328,048</b>

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)  
 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

May 21, 2012

RECEIVED OGD

John E. Kielng, Bureau Chief  
New Mexico Environmental Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Bldg. 1  
Santa Fe, New Mexico 87505-6303

2012 MAY 25 AM 10:21

**CERTIFIED MAIL #7010 3090 0001 3450 2852**

RE: 2012 Financial Assurance Cost Estimate Revision, Order No. HWB 07-34 (CO) and Interim Status Unit #, Western Refining Southwest, Inc. – Bloomfield Refinery  
EPA ID# NMD089416416

Dear Mr. Kielng:

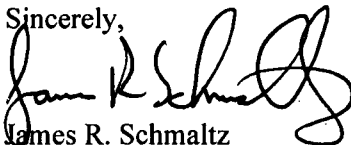
Western Refining Southwest, Inc. Bloomfield Refinery submits the above referenced cost estimate revision. The estimate was prepared for Western by RPS, a third-party environmental company. The original estimate, dated January 18, 2012, was revised to include financial assurance costs for the Interim Status Unit #1 Final Closure. The costs for the Order No. HWB 07-34 (CO) remained the same. The 2012 financial assurance costs for Bloomfield Refinery are as follows:

Order No. HWB 07-34 (CO)	928,635
Interim Status Unit #1 Final Closure	<u>328,048</u>
Total Costs	\$1,256,683

Annual adjustments to the Order No. HWB 07-34 (CO) Estimate were made pursuant to Section III.P.2. of the July 2007 HWB Order and in compliance with the requirements of 40 CFR 264.142(b) and 264.144(b). Annual adjustments to the Interim Status Unit #1 Final Closure Estimate were made in compliance with the requirements of 40 CFR 265.143(b).

If you have any questions or would like to discuss this revision, please contact me at (505) 632-4171.

Sincerely,



James R. Schmaltz

HSER Director

Western Refining Southwest, Inc.

cc: D. Cobrain – NMED HWB  
C. Chavez – NMOCD  
L. Tsinnajinnie – NMED HWB

R. Weaver – Western Refining - Bloomfield  
K. Robinson – Western Refining - Bloomfield  
A. Hains – Western Refining – El Paso



Cielo Center, 1250 South Capital of Texas Highway, Building Three, Suite 200, Austin, Texas 78746, USA  
T +1 512 347 7588 F +1 512 347 8243 W [www.rpsgroup.com](http://www.rpsgroup.com)

May 16, 2012

Mr. James R. Schmaltz  
Environmental Manager  
Western Refining Company  
P.O. Box 159  
Bloomfield, NM 87413

**Re:** Western Refining Southwest, Inc. Bloomfield Refinery;  
2012 Financial Assurance Cost Estimates

Dear Randy:

This financial assurance cost estimate for the Bloomfield Refinery includes separate 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 was required for the Order (i.e., January 31, 2012). It is derived as follows:

Implicit price deflator for 2010/implicit price deflator for 2009 (updated 12/22/2011) =  $110.992/109.729 = 1.01\%$  [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. Annual adjustments were made from the cost estimate provided in January 2011 pursuant to Section III.P.2 of the Order. The current total estimated cost is \$928,635. A detailed breakout of the estimate by activity is provided in enclosed Tables 1, 1A, 1B, and 1C.

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. An annual adjustment was made from the cost estimate provided in the Final Closure Plan dated May 2010 (revised January 2011) and approved May 20, 2011. The current total estimated cost is \$328,048. A detailed breakout of the estimate by activity is provided in enclosed Tables 2 and 2A.

Mr. James R. Schmaltz  
May 16, 2012  
Page 2

The total 2012 financial assurance costs for the Bloomfield Refinery is \$1,256,683. If there are any questions, please contact me at (512) 347-7588.

Sincerely,

**RPS**

A handwritten signature in black ink, appearing to read "Scott T. Crouch".

Scott T. Crouch, P.G.  
Senior Consultant

STC/sab  
Enclosures

cc: Allen Hains – Western Refining El Paso

**TABLE 1**  
**Western Refining Southwest, Inc.**  
**Bloomfield, New Mexico Refinery**  
**NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate**  
**5/16/2012**

Waste Management Area	NMED Order Provision	Capital Costs <sup>1</sup>	Operation & Maintenance Costs <sup>2</sup>	NMED Review Fees	Total Costs	Explanation
Solid Waste Management Units (SWMU's) Investigation, Remediation, & associated reports						
Group 1						
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	
Group 2						
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	
Group 3						
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**  
**5/16/2012**

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**  
**5/16/2012**

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**  
**5/16/2012**

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		\$23,210		\$23,210	1 yr. Monitoring @ \$23,210/yr - see detail Table A
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		\$85,360		\$85,360	Bi-weekly fluid level measurements (labor 4hrs/biweekly event @ \$65/hr = \$6,760/yr & equipment \$1,000/yr x 11 years)
Facility Wide Ground Water Monitoring (including North Barrier Wall & Tank Farm) analytical costs	IV.A.		\$633,072		\$633,072	Table B provides detailed cost on a annual basis (\$57,552) which is multiplied by 11 years pursuant to the Order.
Facility-Wide Annual Monitoring Report (including North Barrier Wall)	IV.A.2.		\$77,000	\$22,000	\$99,000	11 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			\$65,208		\$65,208	See Table C for detailed estimate; assume 11 years @ \$5,928/yr
subtotal					<b>\$919,350</b>	
<b>TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER (without inflation costs)</b>					<b>\$919,350</b>	
<b>Inflation Factor<sup>3</sup></b>					<b>1.01%</b>	
<b>CURRENT TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER.</b>					<b>\$928,635</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- 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)

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

<b>Analysis</b>	<b>Frequency</b>	<b># of Sample Locations</b>	<b>Total # of Samples <sup>(1)</sup></b>	<b>Cost/Sample</b>	<b>Cost per Year</b>
<b>RIVER TERRACE - AQUEOUS</b>					
8021B	Quarterly	9	40	\$45	\$1,800
8021B	Semi-annual	5	10	\$45	\$450
8015B (GRO, DRO)	Quarterly	9	40	\$75	\$3,000
8015B (GRO, DRO)	Semi-annual	5	10	\$75	\$750
Total Cr & Ba (6010B)	Annual	14	15	\$50	\$750
Total Pb (6010B)	Semi-annual	5	10	\$30	\$300
Total Pb (6010B)	Quarterly	9	40	\$30	\$1,200
Total Hg (7470)	Quarterly	1	4	\$30	\$120
<b>RIVER TERRACE - Vapor</b>					
8021B	Quarterly	9	44	\$45	\$1,980
8021B	Semi-annual	5	10	\$45	\$450
8015B (GRO)	Quarterly	9	44	\$35	\$1,540
8015B (GRO)	Semi-annual	5	10	\$35	\$350
Tedlar Bags	Quarterly	16	32	\$10	\$320
Level 4 Data Packet	Quarterly	1	4	\$400	\$1,600
River Terrace Labor	Quarterly	3 days of 7 hour days	\$65/hour	\$65/hour	\$5,460
<b>GAC Breakthrough Sampling</b>					
8021B	Monthly	1	12	\$45	\$540
8015B (GRO, DRO)	Monthly	1	12	\$75	\$900
8021B	Quarterly	2	8	\$45	\$360
8015B (GRO, DRO)	Quarterly	2	8	\$70	\$560
Annual analytical costs					\$22,430
River Terrace labor during annual sampling event -- 12 hours X \$65/hr					\$780
Total Annual River Terrace Sampling Costs					\$23,210

River terrace sampling conducted pursuant to August 2010 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 1B**  
**Facility-Wide Groundwater Monitoring Cost Estimate**

Analysis	Frequency	# of Sample Locations	# of Samples (2)	Cost/Sample	Cost per Year
<b>Annual Refinery Complex (Non-RCRA Wells)</b>					
8260B	Annual	32	35	\$115	\$4,025
8015B (GRO, DRO)	Annual	32	35	\$75	\$2,625
8270C	Annual <sup>(1)</sup>	3	2	\$280	\$560
CO2/Alkalinity (310.1)	Annual	32	35	\$15	\$525
Cation Anion Balance + Diss Metals	Annual	32	35	\$229	\$8,015
RCRA 8 Metals	Annual	32	35	\$100	\$3,500
Filters			32	\$12	\$384
Level 4 Data Packet	Annual		1	\$3,500	\$3,500
<b>Annual Refinery Complex (RCRA Investigation Wells)</b>					
8260B	Annual	17	19	\$115	\$2,185
8015B (GRO, DRO)	Annual	17	19	\$75	\$1,425
8270C	Annual	17	19	\$280	\$5,320
CO2/Alkalinity (310.1)	Annual	17	19	\$15	\$285
Cation Anion Balance + Diss Metals	Annual	17	19	\$229	\$4,351
RCRA 8 Metals	Annual	17	19	\$100	\$1,900
Filters			17	\$12	\$204
Level 4 Data Packet	Annual		1	\$3,500	\$3,500
<b>Semi-Annual - Refinery Complex (Non-RCRA Wells)</b>					
8260B	Semi-Annual <sup>(3)</sup>	11	12	\$45	\$540
8015B (GRO, DRO)	Semi-Annual <sup>(3)</sup>	5	5	\$75	\$375
Level 4 Data Packet	Semi-Annual <sup>(3)</sup>		1	\$200	\$200
<b>Semi-Annual - North Barrier Wall OW/CW</b>					
8260B	Semi-Annual	16	35	\$45	\$1,575
8015B (GRO, DRO)	Semi-Annual	16	35	\$75	\$2,625
Level 4 Data Packet	Semi-Annual		1	\$200	\$200
<b>Semi-Annual River Bluff (Outfall 2 &amp; 3, &amp; Seeps 1, 6, 7, 8, &amp; 9)</b>					
8260B	Semi-Annual	7	15	\$45	\$675
CO2/Alkalinity (310.1)	Semi-Annual	7	15	\$15	\$225
Cation Anion Balance + Diss Metals	Semi-Annual	7	15	\$229	\$3,435
RCRA 8 Metals	Semi-Annual	2	5	\$100	\$500
Filters			4	\$12	\$48
Level 4 Data Packet	Semi-Annual		2	\$150	\$300
Sampling Labor	Semi-Annual & Annual events		10 Days of 7 hour days	\$65/hour	\$4,550
<b>Total Annual - Facility-Wide Groundwater Sampling &amp; Analysis</b>					<b>\$57,552</b>

Sampling conducted pursuant to August 2010 Facility-Wide Groundwater Monitoring Plan

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



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

<b>Analysis</b>	<b>Frequency</b>	<b># of Sample Locations</b>	<b># of Samples</b>	<b>Cost/Sample</b>	<b>Cost per year</b>
8260B	Semi-Annual	4	8	\$45	\$360
8015B (GRO, DRO)	Semi-Annual	4	8	\$75	\$600
CO2/Alkalinity (310.1)	Semi-Annual	4	8	\$15	\$120
Cation Anion Balance + Diss Metals	Semi-Annual	4	8	\$229	\$1,832
RCRA 8 Metals	Semi-Annual	4	8	\$100	\$800
Filters			8	\$12	\$96
Level 4 Data Packet	Semi-Annual		2	\$800	\$1,600
Annual analytical costs					\$5,408
Sampling Labor	Semi-Annual		4 hours each event	\$65/hour	\$520
Total Annual San Juan River Sampling Costs					\$5,928

Sampling pursuant to August 2010 Facility-Wide Groundwater Monitoring Plan

**TABLE 2**  
**Final Closure Cost Estimate**  
**Western Refining - Bloomfield Refinery**  
**North and South Aeration Lagoons**  
**May 14, 2012**

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
<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
<b>TOTAL</b>					<b>\$324,800</b>
	<b>Inflation Factor <sup>(7)</sup></b>	0.01%			\$3,248
<b>CURRENT TOTAL ESTIMATED COST TO IMPLEMENT CLOSURE PLAN</b>					<b>\$328,048</b>

**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 transporation & 72 hours labor @ \$50/hr = \$5,340
- 4 Assume four 20-yd trucks @ \$16.50/cy, \$1,000 transporation, 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)  
 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

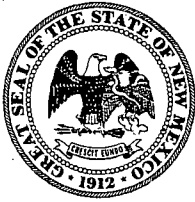
GRO - Gasoline Range Organics

DRO - Diesel Range Organics

MRO - Motor Oil Range Organics

VOCs - volatile organic compounds

SVOCs - semi-volatile organic compounds



SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



DAVE MARTIN  
Secretary

BUTCH TONGATE  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

May 8, 2012

Leslie Ann Allen  
Senior Vice President  
Health, Safety, Environment and Regulatory Affairs  
Western Refining  
123 W. Mills Avenue, Suite 200  
El Paso, TX 79901

RE: **FINANCIAL ASSURANCE FOR  
WESTERN REFINING SOUTHWEST INC., GALLUP AND  
BLOOMFIELD REFINERIES  
EPA ID# NMD000333211  
EPA ID # NMD089416416  
HWB-WRG-MISC  
HWB-WRB-MISC**

Dear Ms. Allen:

The New Mexico Environment Department (NMED) has received the Western Refining, Southwest, Inc. (Western) March 29, 2012 financial assurance submittal. No further financial assurance information is required for the Gallup or Bloomfield facilities at this time. Western has complied with the requirements to submit financial assurance information in accordance with 20.4.1.500 NMAC incorporating 40 CFR 265.142. The original copies of the Financial Test, Corporate Guarantee, Annual Report on Form 10K, and Special Report from an independent certified public accountant will be returned to Western.

The wording of the Chief Financial Officer's (CFO) letter and the corporate guarantee comply with the prescribed wording of 40 CFR 264.151(f) and 40 CFR 264.151(h), respectively. The numbers used in the CFO's letter are identical to the financial data reported in Western's audited financial statements.

Western Refining Southwest, Inc.

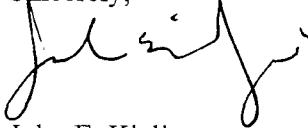
May 8, 2012

Page 2 of 2

A corporate guarantee was submitted by Western (Alternative I) to demonstrate financial responsibility for closure and post-closure costs at its Bloomfield and Gallup facilities. The U.S. Environmental Protection Agency (EPA) notes that Western is currently in junk bond status with both Moody's (B3) and Standard & Poor's (B). As a result of the status of the bonds, Western does not meet the Financial Test Criteria for closure and post-closure in accordance with 40 CFR 164.143(f)(1)(ii) and 164.145(f)(1)(ii). EPA recommends that Western continue to monitor their use of Alternative I on a quarterly basis by reviewing their financial report filed with the SEC every quarter (i.e., Form 10-Q) and re-run their quarterly financial data to ensure the company continues to pass Part 1 of Alternative I. However, NMED will accept submission of a semi-annual review to be submitted to NMED 30 days after the second Form 10-Q is filed to demonstrate that Part 1 of Alternative I continues to pass the financial test. Should Western fail to pass Part 1 of the Alternative I at any time during the year, Western will be required to put in place an alternate financial assurance mechanism.

If you have any questions, please contact Leona Tsinnajinnie of my staff at 505-476-6057.

Sincerely,



John E. Kieling

Chief

Hazardous Waste Bureau

JEK:lt

cc: D. Cobrain, NMED HWB  
L. Tsinnajinnie, NMED HWB  
K. Van Horn, NMED HWB  
L. King, EPA Region 6 (6PD-N)  
C. Chavez, OCD  
A. Hains, Western

File: WRB and WRG 2012 Reading  
HWB-WRB-MISC, HWB-WRG-MISC



## Chavez, Carl J, EMNRD

---

**From:** Martinez, Cynthia, NMENV  
**Sent:** Tuesday, May 08, 2012 2:04 PM  
**To:** Cobrain, Dave, NMENV; Tsinnajinnie, Leona, NMENV; VanHorn, Kristen, NMENV; Kieling, John, NMENV  
**Cc:** king.laurie@epa.gov; Chavez, Carl J, EMNRD; Allen.Hains@wnr.com  
**Subject:** Letter to Ms. Leslie Ann Allen  
**Attachments:** Western FA submittal 050812.pdf

Please see attachment

*Cynthia Martinez  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Bldg.1  
Santa Fe, New Mexico 87505  
Phone: 505-476-6000  
Fax: 505-476-6030*

CERTIFIED MAIL # 7009 0820 0000 0482 9283

January 18, 2012

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

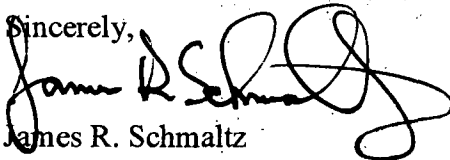
Re: Financial Assurance Cost Estimate – January 2012  
Per Order No. HWB 07-34 (CO)  
Western Refining Southwest, Inc. – Bloomfield Refinery  
EPA ID# NMD089416416

Dear Mr. Kielng:

Western Refining Southwest, Inc. - Bloomfield Refinery submits the referenced Financial Assurance Cost Estimate pursuant to Section III.P.2. of the July 2007 HWB Order. The estimate was prepared for Western by RPS, a third party environmental engineering company. Annual adjustments to the Financial Assurance Cost Estimate were made in compliance with the requirements of 40 CFR 264.142(b) and 264.144(b). The adjusted cost estimate reflects the completion of four years of interim measures and facility-wide groundwater monitoring activities.

If you have any questions or would like to discuss the Financial Assurance Cost Estimate, please contact me at (505) 632-4171.

Sincerely,



James R. Schmaltz  
HSER Director  
Western Refining Southwest, Inc.  
Bloomfield Refinery

cc: D. Cobrain – NMED HWB  
C. Chavez – NMOCD (w/attachment)  
L. Tsinnajinnie – NMED HWB  
V. McDaniel – Bloomfield Refinery  
K. Robinson – Bloomfield Refinery  
A. Hains – Western Refining El Paso

RECEIVED OGD  
2012 JAN 20 A 10:58



Cielo Center, 1250 South Capital of Texas Highway, Building Three, Suite 200, Austin, Texas 78746, USA  
T +1 512 347 7588 F +1 512 347 8243 W [www.rpsgroup.com](http://www.rpsgroup.com)

January 11, 2012

Mr. James R. Schmaltz  
Environmental Manager  
Western Refining Company  
P.O. Box 159  
Bloomfield, NM 87413

**Re:** Western Refining Southwest, Inc. Bloomfield; Order No. HWB 07-34 (CO)  
Financial Assurance Cost Estimate

Dear Randy:

This Estimated Cost of the Work includes costs to address those activities specified in Section III.P.1. of the referenced Order. The cost estimate was prepared in accordance with 40 CFR 264.101 and substantially in compliance with the requirements of 40 CFR 264.142 and 264.144. Annual adjustments were made from the cost estimate provided in January 2011 pursuant to Section III.P.2 of the Order. The current total estimated cost is \$928,635. A detailed breakout of the estimate by activity is provided in the enclosed tables.

If there are any questions, please contact me at (512) 347-7588.

Sincerely,

**RPS**

A handwritten signature in black ink, appearing to read 'Scott T. Crouch'.

Scott T. Crouch, P.G.  
Senior Consultant

STC/cks

Enclosures

cc: Allen Hains – Western Refining El Paso

Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/11/2012

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	

Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/11/2012

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	



Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/11/2012

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	

**Western Refining Southwest, Inc.**  
**Bloomfield, New Mexico Refinery**  
**NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate**  
**1/11/2012**

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 Groundwater Monitoring</b>						
River Terrace Area Analytical	V.B.1		\$23,210		\$23,210	1 yr. Monitoring @ \$23,210/yr - see detail Table A
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		\$85,360		\$85,360	Bi-weekly fluid level measurements (labor 4hrs/biweekly event @ \$65/hr = \$6,760/yr & equipment \$1,000/yr x 11 years)
Facility Wide Ground Water Monitoring (including North Barrier Wall & Tank Farm) analytical costs	IV.A.		\$633,072		\$633,072	Table B provides detailed cost on a annual basis (\$57,552) which is multiplied by 11 years pursuant to the Order.
Facility-Wide Annual Monitoring Report (including North Barrier Wall)	IV.A.2.		\$77,000	\$22,000	\$99,000	11 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			\$65,208		\$65,208	See Table C for detailed estimate; assume 11 years @ \$5,928/yr
					subtotal	
<b>TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER (without inflation costs)</b>					<b>\$919,350</b>	
<b>Inflation Factor<sup>3</sup></b>					<b>1.01%</b>	
<b>CURRENT TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER.</b>					<b>\$928,635</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- 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)

**TABLE A  
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	Quarterly	9	40	\$45	\$1,800
8021B	Semi-annual	5	10	\$45	\$450
8015B (GRO, DRO)	Quarterly	9	40	\$75	\$3,000
8015B (GRO, DRO)	Semi-annual	5	10	\$75	\$750
Total Cr & Ba (6010B)	Annual	14	15	\$50	\$750
Total Pb (6010B)	Semi-annual	5	10	\$30	\$300
Total Pb (6010B)	Quarterly	9	40	\$30	\$1,200
Total Hg (7470)	Quarterly	1	4	\$30	\$120
<b>RIVER TERRACE - Vapor</b>					
8021B	Quarterly	9	44	\$45	\$1,980
8021B	Semi-annual	5	10	\$45	\$450
8015B (GRO)	Quarterly	9	44	\$35	\$1,540
8015B (GRO)	Semi-annual	5	10	\$35	\$350
Tedlar Bags	Quarterly	16	32	\$10	\$320
Level 4 Data Packet	Quarterly	1	4	\$400	\$1,600
River Terrace Labor	Quarterly	3 days of 7 hour days	\$65/hour	\$65/hour	\$5,460
<b>GAC Breakthrough Sampling</b>					
8021B	Monthly	1	12	\$45	\$540
8015B (GRO, DRO)	Monthly	1	12	\$75	\$900
8021B	Quarterly	2	8	\$45	\$360
8015B (GRO, DRO)	Quarterly	2	8	\$70	\$560
Annual analytical costs					\$22,430
River Terrace labor during annual sampling event -- 12 hours X \$65/hr					\$780
Total Annual River Terrace Sampling Costs					\$23,210

River terrace sampling conducted pursuant to August 2010 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 B**  
**Facility-Wide Groundwater Monitoring Cost Estimate**

Analysis	Frequency	# of Sample Locations	# of Samples (2)	Cost/Sample	Cost per Year
<b>Annual Refinery Complex (Non-RCRA Wells)</b>					
8260B	Annual	32	35	\$115	\$4,025
8015B (GRO, DRO)	Annual	32	35	\$75	\$2,625
8270C	Annual (1)	3	2	\$280	\$560
CO2/Alkalinity (310.1)	Annual	32	35	\$15	\$525
Cation Anion Balance + Diss Metals	Annual	32	35	\$229	\$8,015
RCRA 8 Metals	Annual	32	35	\$100	\$3,500
Filters			32	\$12	\$384
Level 4 Data Packet	Annual		1	\$3,500	\$3,500
<b>Annual Refinery Complex (RCRA Investigation Wells)</b>					
8260B	Annual	17	19	\$115	\$2,185
8015B (GRO, DRO)	Annual	17	19	\$75	\$1,425
8270C	Annual	17	19	\$280	\$5,320
CO2/Alkalinity (310.1)	Annual	17	19	\$15	\$285
Cation Anion Balance + Diss Metals	Annual	17	19	\$229	\$4,351
RCRA 8 Metals	Annual	17	19	\$100	\$1,900
Filters			17	\$12	\$204
Level 4 Data Packet	Annual		1	\$3,500	\$3,500
<b>Semi-Annual - Refinery Complex (Non-RCRA Wells)</b>					
8260B	Semi-Annual (3)	11	12	\$45	\$540
8015B (GRO, DRO)	Semi-Annual (3)	5	5	\$75	\$375
Level 4 Data Packet	Semi-Annual (3)		1	\$200	\$200
<b>Semi-Annual - North Barrier Wall OW/CW</b>					
8260B	Semi-Annual	16	35	\$45	\$1,575
8015B (GRO, DRO)	Semi-Annual	16	35	\$75	\$2,625
Level 4 Data Packet	Semi-Annual		1	\$200	\$200
<b>Semi-Annual River Bluff (Outfall 2 &amp; 3, &amp; Seeps 1, 6, 7, 8, &amp; 9)</b>					
8260B	Semi-Annual	7	15	\$45	\$675
CO2/Alkalinity (310.1)	Semi-Annual	7	15	\$15	\$225
Cation Anion Balance + Diss Metals	Semi-Annual	7	15	\$229	\$3,435
RCRA 8 Metals	Semi-Annual	2	5	\$100	\$500
Filters			4	\$12	\$48
Level 4 Data Packet	Semi-Annual		2	\$150	\$300
Sampling Labor	Semi-Annual & Annual events		10 Days of 7 hour days	\$65/hour	\$4,550
<b>Total Annual - Facility-Wide Groundwater Sampling &amp; Analysis</b>					<b>\$57,552</b>

Sampling conducted pursuant to August 2010 Facility-Wide Groundwater Monitoring Plan

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

**TABLE C****San Juan River Sampling Cost Estimate**

<b>Analysis</b>	<b>Frequency</b>	<b># of Sample Locations</b>	<b># of Samples</b>	<b>Cost/Sample</b>	<b>Cost per year</b>
8260B	Semi-Annual	4	8	\$45	\$360
8015B (GRO, DRO)	Semi-Annual	4	8	\$75	\$600
CO2/Alkalinity (310.1)	Semi-Annual	4	8	\$15	\$120
Cation Anion Balance + Diss Metals	Semi-Annual	4	8	\$229	\$1,832
RCRA 8 Metals	Semi-Annual	4	8	\$100	\$800
Filters			8	\$12	\$96
Level 4 Data Packet	Semi-Annual		2	\$800	\$1,600
Annual analytical costs					\$5,408
Sampling Labor	Semi-Annual		4 hours each event	\$65/hour	\$520
Total Annual San Juan River Sampling Costs					\$5,928

Sampling pursuant to August 2010 Facility-Wide Groundwater Monitoring Plan





SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

2905 Rodeo Park Drive East, Building 1

Santa Fe, New Mexico 87505-6303

Phone (505) 476-6000 Fax (505) 476-6030

[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



DAVE MARTIN  
Secretary

BUTCH TONGATE  
Acting Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

August 19, 2010

Leslie Ann Allen  
Senior Vice President  
Health, Safety, Environment and Regulatory Affairs  
Western Refining  
123 W. Mills Avenue, Suite 200  
El Paso, TX 79901

**RE: FINANCIAL ASSURANCE  
INTERIM STATUS UNIT #1 NORTH AND SOUTH AERATION LAGOONS  
WESTERN REFINING SOUTHWEST, INC., BLOOMFIELD REFINERY  
EPA ID # NMD089416416  
HWB-WRB-MISC**

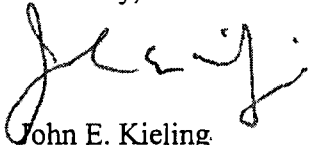
Dear Ms. Allen:

The New Mexico Environment Department (NMED) has reviewed the Western Refining, Southwest, Inc. (Western) July 14, 2011 financial assurance submittal. No further financial assurance information is required for the Bloomfield Refinery at this time. Western has complied with the requirements to submit financial assurance information for the *Final Closure Plan - North and South Aeration Lagoons* dated May 20, 2011. Western must adjust the cost estimate for inflation and revise or replace the financial assurance mechanism, as necessary, on the anniversary date of establishment of the financial instrument in accordance with 20.4.1.500 NMAC incorporating 40 CFR 265.142.

Western Refining Southwest, Inc.  
August 19, 2011  
Page 2 of 2

If you have any questions, please contact Leona Tsinnajinnie of my staff at 505-476-6057.

Sincerely,

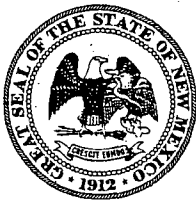
A handwritten signature in black ink, appearing to read "John E. Kieling". The signature is fluid and cursive, with the first name "John" being the most prominent part.

John E. Kieling  
Acting Chief  
Hazardous Waste Bureau

JEK:lt

cc: D. Cobrain, NMED HWB  
L. Tsinnajinnie, NMED HWB  
L. King, EPA Region 6 (6PD-N)  
C. Chavez, OCD  
A. Hains, Western

File: WRB 2011 Reading and HWB-WRB-MISC



SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

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DAVE MARTIN  
Secretary

RAJ SOLOMON, P.E.  
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 7, 2011

Leslie Ann Allen  
Senior Vice President  
Health, Safety, Environment and Regulatory Affairs  
Western Refining  
123 W. Mills Avenue, Suite 200  
El Paso, TX 79901

RE: **FINANCIAL ASSURANCE**  
**GALLUP REFINERY EPA ID# NMD000333211**  
**BLOOMFIELD REFINERY EPA ID # NMD089416416**  
**WESTERN REFINING SOUTHWEST, INC.**  
**HWB-WRG-MISC AND HWB-WRB-MISC**

Dear Ms. Allen:

The New Mexico Environment Department (NMED) has reviewed the Western Refining, Southwest, Inc. (Western) May 24, 2011 financial assurance submittal. No further financial assurance information is required for the Gallup or Bloomfield Refineries. NMED is enclosing the signed Amendments to Trust Agreements for the Gallup and Bloomfield Refineries. As indicated in the May 24, 2011 letter, upon completion by the bank, the amendments with original signatures will be submitted to our office.

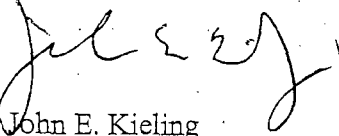
Western Refining Southwest, Inc.

June 7, 2011

Page 2 of 2

If you have any questions, please contact David Cobrain of my staff at 505-476-6055.

Sincerely,



John E. Kielling

Acting Chief

Hazardous Waste Bureau

JEK:hp

cc: D. Cobrain, NMED HWB  
H. Petrie, NMED HWB  
K. VanHorn, NMED HWB  
L. Tsinnajinnie, NMED HWB  
L. King EPA Region 6 (6PD-N)  
C. Chavez, OCD  
A. Hains, Western  
WRB & WRG 2011 Reading File  
HWB-WRG-MISC, HWB-WRB-MISC

### **Amendment to Trust Agreement**

WHEREAS, San Juan Refining Company, as Owner, and Western Refining Southwest, Inc., formerly known as Giant Industries Arizona, Inc., as Operator (collectively, "Grantor") and U.S. Bank National Association ("Trustee"), enter into this Amendment to Trust Agreement ("Amendment") to amend the Trust Agreement executed between them dated May 24, 2010 (the "Trust Agreement"); and

WHEREAS, Grantor established the trust that is the subject of the Trust Agreement and a corresponding bond to provide financial assurance to the United States Environmental Protection Agency ("EPA"); and

WHEREAS, the EPA, via the New Mexico Environmental Department ("NMED"), has consented to the reduction of the bond as follows:

*From :*

Closure Estimate - \$2,184,216

Post-Closure Estimate - 0

Closure / Post-Closure Total - \$2,184,216

*To:*

Closure Estimate - \$1,045,191

Post-Closure Estimate - 0

Closure / Post-Closure Total - \$1,045,191

as is evidenced by the attached letter dated May 16, 2011, from NMED to Grantor, which is attached hereto as Attachment I and is incorporated herein for all purposes;

WHEREAS, as a result of the reduction of the bond, it is necessary to amend the Trust Agreement to reduce the total Closure/Post-Closure amount to correspond to the new, reduced bond amount; and

WHEREAS, the Trust Agreement provides that the Trust Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator.

NOW THEREFORE, the Grantor, Trustee and EPA agree as follows:

1. Schedule A to the Trust Agreement is deleted and replaced with a new Schedule A, reflecting the reduced amount of the bond and the new Total Closure/Post-Closure Estimate amount, which is attached hereto as Attachment II and is incorporated herein for all purposes.

2. This Amendment is effective May 24, 2011 (the "Amendment Effective Date").
3. Other than as expressly set forth in this Amendment, the Trust Agreement remains unchanged and in full force and effect.

AGREED to as of the Amendment Effective Date.

SAN JUAN REFINING COMPANY, as Owner

By: Leslie Ann Allen

Printed Name: Leslie Ann Allen

Title: Senior Vice President - Environmental and Regulatory Affairs

WESTERN REFINING SOUTHWEST, INC.,  
f/k/a Giant Industries Arizona, Inc., as Operator

By: Leslie Ann Allen

Printed Name: Leslie Ann Allen

Title: Senior Vice President - Environmental and Regulatory Affairs

U.S. BANK NATIONAL ASSOCIATION

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

U.S. ENVIRONMENTAL PROTECTION AGENCY

By: James H. Davis

Printed Name: James H. Davis

Title: Regional Administrator



## **ATTACHMENT 1**

Letter from NMED dated May 16, 2011



SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
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[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



DAVE MARTIN  
Secretary

RAJ SOLOMON, P.E.  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

May 16, 2011

Leslie Ann Allen  
Senior Vice President  
Health, Safety, Environment and Regulatory Affairs  
Western Refining  
123 W. Mills Avenue, Suite 200  
El Paso, TX 79901

**RE: BLOOMFIELD REFINERY FINANCIAL ASSURANCE  
COST ESTIMATE UPDATE  
BLOOMFIELD REFINERY EPA ID # NMD089416416  
WESTERN REFINING SOUTHWEST, INC.  
HWB- WRB-MISC**

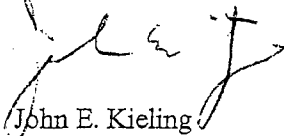
Dear Ms. Allen:

The New Mexico Environment Department (NMED) sent a letter to Western Refining Southwest Inc., dated April 15, 2011 regarding financial assurance at the Bloomfield and Gallup Refineries. The April 15 letter approved a cost reduction of the Gallup Refinery's performance bond but did not approve a cost reduction for the Bloomfield Refinery's performance bond. Since the issuance of the April 15, 2011 letter, NMED and Western have discussed modifying the cost estimates for Bloomfield based on information provided as public comment on the draft Final Closure Plan for the North and South Aeration Lagoons. NMED approves the cost reduction of the Bloomfield Refinery's performance bond to the amount of \$1,045,191. The financial assurance for closure and post-closure care of the North and South Aeration Lagoons will be addressed under a separate financial assurance submittal associated with the Final Closure Plan North and South Aeration Lagoons.

Western Refining Southwest, Inc.  
May 16, 2011  
Page 2 of 2

The updated financial assurance documents are due to NMED on or before May 24, 2011. If you have any questions, please contact Hope Petrie of my staff at 505-476-6045.

Sincerely,

A handwritten signature in black ink, appearing to read 'John E. Kielling', with a stylized flourish at the end.

John E. Kielling  
Acting Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
H. Monzeglio, NMED HWB  
K. VanHorn, NMED HWB  
L. King EPA Region 6 (6PD-N)  
C. Chavez, OCD  
A. Hains, Western  
WRB 2011 Reading File  
HWB-WRB-MISC

## Attachment II

### Revised Schedule A – Effective May 24, 2011

EPA ID #: NMD089416416

Owner/Operator: San Juan Refining Company, as owner, and Western Refining Southwest, Inc.  
formerly known as Giant Industries Arizona, Inc., as operator

Facility Name: Bloomfield Refinery

Physical Address: 50 Road 4990  
Bloomfield, New Mexico 87413

Mailing Address: P.O. Box 159  
Bloomfield, New Mexico 87413

Closure Cost Estimate	\$1,045,091
Post-Closure Cost Estimate	<u>\$ 0</u>
Total Closure/Post-Closure Cost Estimate	\$1,045,091

### **Amendment to Trust Agreement**

WHEREAS, Western Refining Southwest, Inc., formerly known as Giant Industries Arizona, Inc. and formerly doing business as Giant Refining Company Ciniza Refinery ("Grantor") and U.S. Bank National Association ("Trustee"), enter into this Amendment to Trust Agreement ("Amendment") to amend the Trust Agreement executed between them dated May 24, 2010 (the "Trust Agreement"); and

WHEREAS, Grantor established the trust that is the subject of the Trust Agreement and a corresponding bond to provide financial assurance to the United States Environmental Protection Agency ("EPA"); and

WHEREAS, the EPA, via the New Mexico Environmental Department ("NMED"), has consented to the reduction of the bond as follows:

*From :*

Closure Estimate - \$2,518,786

Post-Closure Estimate - \$356,000

Total Closure/Pos-Closure - \$2,874,786

*To:*

Closure Estimate - \$1,269,067

Post-Closure Estimate - \$125,185

Total Closure/Post-Closure - \$1,394,252

as is evidenced by the attached letter dated April 15, 2011, from NMED to Grantor, which is attached hereto as Attachment I and is incorporated herein for all purposes;

WHEREAS, as a result of the reduction of the bond, it is necessary to amend the Trust Agreement to reduce the total Closure/Post-Closure amount to correspond to the new, reduced bond amount; and

WHEREAS, the Trust Agreement provides that the Trust Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator.

NOW THEREFORE, the Grantor, Trustee and EPA agree as follows:

1. Schedule A to the Trust Agreement is deleted and replaced with a new Schedule A, reflecting the reduced amount of the bond and the new Total Closure/Post-Closure Estimate amount, which is attached hereto as Attachment II and is incorporated herein for all purposes.

2. This Amendment is effective May 24, 2011 (the "Amendment Effective Date").

3. Other than as expressly set forth in this Amendment, the Trust Agreement remains unchanged and in full force and effect.

AGREED to as of the Amendment Effective Date.

WESTERN REFINING SOUTHWEST, INC.,

f/k/a Giant Industries Arizona, Inc. and f/d/b/a Giant Refining Company Ciniza Refinery

By: Leslie Ann Allen

Printed Name: Leslie Ann Allen

Title: Senior Vice President - Environmental and Regulatory Affairs

U.S. BANK NATIONAL ASSOCIATION

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

U.S. ENVIRONMENTAL PROTECTION AGENCY

By: James H. Davis

Printed Name: James H. Davis

Title: Regional Administrator



ATTACHMENT I  
Letter from NMED dated April 15, 2011



SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
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DAVE MARTIN  
Secretary

RAJ SOLOMON, P.E.  
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 15, 2011

Leslie Ann Allen  
Senior Vice President  
Health, Safety, Environment and Regulatory Affairs  
Western Refining  
123 W. Mills Avenue, Suite 200  
El Paso, TX 79901

RE: NMED RESPONSE TO THE MARCH 31, 2011  
FINANCIAL ASSURANCE SUBMITTAL FOR  
GALLUP REFINERY EPA ID# NMD000333211 AND  
BLOOMFIELD REFINERY EPA ID # NMD089416416  
WESTERN REFINING SOUTHWEST, INC.  
HWB-WRG-MISC AND HWB-WRB-MISC

Dear Ms. Allen:

The New Mexico Environment Department (NMED) has reviewed Western Refining, Southwest, Inc. (Western) March 31, 2011 financial assurance submittal. Western indicates the performance bonds currently held by NMED are subject to renewal May 24, 2011. Western requests a reduction of both performance bonds to the amounts identified in the 2011 cost estimate submittals (Bloomfield cost estimate-January 28, 2011 and Gallup cost estimate-March 30, 2011). NMED hereby approves the cost reduction of the Gallup performance bond from \$2,874,786 to \$1,394,252. NMED does not approve the reduction of the Bloomfield performance bond to \$1,045,191. The cost estimate of the January 28, 2011 submittal does not account for the cost estimate for closure and post-closure care of the North and South Aeration Lagoons. As previously stated by NMED, Western must either add an additional \$1,100,000 to the closure and post closure cost estimate for the Aeration Lagoons or demonstrate that the additional financial assurance necessary for closure is different from the estimate provided by NMED (a detailed cost estimate must be included). The performance bond for Bloomfield may

Western Refining Southwest, Inc.

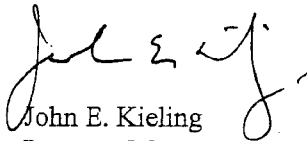
April 15, 2011

Page 2 of 2

be reduced to \$2,145,191 (January 28, 2011 cost estimate \$1,045,191 plus the \$1,100,000 NMED's April 5, 2011 response to Westerns March 15, 2010 Financial Assurance submittal). At this time there were no noted deficiencies with the Hazardous Waste Facility Certificate of Liability Insurance.

The updated financial assurance documents are due to NMED on or before May 24, 2011. If you have any questions, please contact Hope Petrie of my staff at 505-476-6045.

Sincerely,



John E. Kieling  
Program Manager  
Permits Management Program  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
H. Monzeglio, NMED HWB  
K. VanHorn, NMED HWB  
L. King EPA Region 6 (6PD-N)  
C. Chavez, OCD  
A. Hains, Western  
WRB & WRG 2011 Reading File  
HWB-WRG-MISC, HWB-WRB-MISC

ATTACHMENT II

**Revised Schedule A – Effective May 24, 2011**

EPA ID #: NMD000333211

Owner/Operator: Western Refining Southwest, Inc., formerly known as Giant Industries  
Arizona, Inc. and formerly doing business as Giant Refining Company  
Ciniza Refinery

Facility Name: Gallup Refinery

Physical Address: Interstate 40, Exit 39  
Jamestown, New Mexico 87347

Mailing Address: Route 3 Box 7  
Gallup, New Mexico 87301

Closure Estimate	\$1,269,067
Post-Closure Estimate	<u>\$125,185</u>
Total Closure /Post-Closure Cost Estimate	\$1,394,252

RECEIVED OCD

2011 FEB -1 P 12:49

CERTIFIED MAIL # 7010 1870 0000 0709 4563

January 28, 2011

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

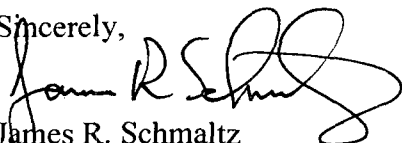
Re: Financial Assurance Cost Estimate – January 2011  
Per Order No. HWB 07-34 (CO)  
Western Refining Southwest, Inc. – Bloomfield Refinery  
EPA ID# NMD089416416

Dear Mr. Bearzi:

Western Refining Southwest, Inc. - Bloomfield Refinery submits the referenced Financial Assurance Cost Estimate pursuant to Section III.P.2. of the July 2007 HWB Order. The estimate was prepared for Western by RPS, a third party environmental engineering company. Annual adjustments to the Financial Assurance Cost Estimate were made in compliance with the requirements of 40 CRF 264.142(b) and 264.144(b). The adjusted cost estimate reflects the completion of three years of interim measures and facility-wide groundwater monitoring activities.

If you have any questions or would like to discuss the Financial Assurance Cost Estimate, please contact me at (505) 632-4171.

Sincerely,



James R. Schmaltz  
Environmental Manager  
Western Refining Southwest, Inc.  
Bloomfield Refinery

cc: Hope Monzeglio – NMED HWB  
Carl Chavez – NMOCD (w/attachment)  
Dave Cobrain – NMED HWB  
Laurie King – EPA Region 6 (w/attachment)  
Vic McDaniel – Bloomfield Refinery  
Randy Schmaltz – Bloomfield Refinery  
Allen Hains – Western Refining El Paso



404 Camp Craft Rd., Austin, Texas 78746, USA  
T +1 512 347 7588 F +1 512 347 8243 W www.rpsgroup.com

January 25, 2010

Mr. James R. Schmaltz  
Environmental Manager  
Western Refining Company  
P.O. Box 159  
Bloomfield, NM 87413

**Re:** Western Refining Southwest, Inc. Bloomfield; Order No. HWB 07-34 (CO)  
Financial Assurance Cost Estimate

Dear Randy:

This Estimated Cost of the Work includes costs to address those activities specified in Section III.P.1. of the referenced Order. The cost estimate was prepared in accordance with 40 CFR 264.101 and substantially in compliance with the requirements of 40 CFR 264.142 and 264.144. Annual adjustments were made from the cost estimate provided in January 2010 pursuant to Section III.P.2 of the Order. The current total estimated cost is \$1,045,191. A detailed breakout of the estimate by activity is provided in the enclosed tables.

If there are any questions, please contact me at (512) 347-7588.

Sincerely,

RPS

A handwritten signature in black ink, appearing to read "Scott T. Crouch".

Scott T. Crouch, P.G.

STC/sab  
enclosures

cc: Allen Hains – Western Refining El Paso



Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/25/2011

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	

Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/25/2011

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	

Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/25/2011

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	

Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/25/2011

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		\$44,860		\$44,860	2 yrs. Monitoring @ \$23,210/yr - see detail Table A
River Terrace Annual Report	V.B.1		\$7,000	\$4,000	\$11,000	2 yrs. reporting @ \$3,500/annual report & NMED fees of \$2,000/annual rpt
River Terrace Operation & Maintenance	III.P.1 & V.B.		\$16,000		\$16,000	GAC filters & maintenance \$8,000/yr x 2 yrs
North Barrier Wall collection operations	III.P.1		\$93,120		\$93,120	Bi-weekly fluid level measurements (labor 4hrs/biweekly event @ \$65/hr = \$6,760/yr & equipment \$1,000/yr x 12 years)
Facility Wide Ground Water Monitoring (including North Barrier Wall & Tank Farm) analytical costs	IV.A.		\$690,624		\$690,624	Table B provides detailed cost on a annual basis (\$57,552) which is multiplied by 12 years pursuant to the Order.
Facility-Wide Annual Monitoring Report (including North Barrier Wall)	IV.A.2.		\$84,000	\$24,000	\$108,000	12 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			\$71,136		\$71,136	See Table C for detailed estimate; assume 12 years @ \$5,928/yr
					subtotal	
					\$1,034,740	
<b>TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER (without inflation costs)</b>						
Inflation Factor <sup>3</sup>					1.01%	
<b>CURRENT TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER.</b>						<b>\$1,045,191</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- Implicit price deflator for 2009/implicit price deflator for 2008 (updated 12/22/2010) = 109.615/108.619 = 1.01% <http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)

**TABLE A  
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	Quarterly	9	40	\$45	\$1,800
8021B	Semi-annual	5	10	\$45	\$450
8015B (GRO, DRO)	Quarterly	9	40	\$75	\$3,000
8015B (GRO, DRO)	Semi-annual	5	10	\$75	\$750
Total Cr & Ba (6010B)	Annual	14	15	\$50	\$750
Total Pb (6010B)	Semi-annual	5	10	\$30	\$300
Total Pb (6010B)	Quarterly	9	40	\$30	\$1,200
Total Hg (7470)	Quarterly	1	4	\$30	\$120
<b>RIVER TERRACE - Vapor</b>					
8021B	Quarterly	9	44	\$45	\$1,980
8021B	Semi-annual	5	10	\$45	\$450
8015B (GRO)	Quarterly	9	44	\$35	\$1,540
8015B (GRO)	Semi-annual	5	10	\$35	\$350
Tedlar Bags	Quarterly	16	32	\$10	\$320
Level 4 Data Packet	Quarterly	1	4	\$400	\$1,600
River Terrace Labor	Quarterly	3 days of 7 hour days	\$65/hour	\$65/hour	\$5,460
<b>GAC Breakthrough Sampling</b>					
8021B	Monthly	1	12	\$45	\$540
8015B (GRO, DRO)	Monthly	1	12	\$75	\$900
8021B	Quarterly	2	8	\$45	\$360
8015B (GRO, DRO)	Quarterly	2	8	\$70	\$560
Annual analytical costs					\$22,430
River Terrace labor during annual sampling event -- 12 hours X \$65/hr					\$780
Total Annual River Terrace Sampling Costs					\$23,210

River terrace sampling conducted pursuant to August 2010 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 B**  
**Facility-Wide Groundwater Monitoring Cost Estimate**

Analysis	Frequency	# of Sample Locations	# of Samples <sup>(2)</sup>	Cost/Sample	Cost per Year
<b>Annual Refinery Complex (Non-RCRA Wells)</b>					
8260B	Annual	32	35	\$115	\$4,025
8015B (GRO, DRO)	Annual	32	35	\$75	\$2,625
8270C	Annual <sup>(1)</sup>	3	2	\$280	\$560
CO2/Alkalinity (310.1)	Annual	32	35	\$15	\$525
Cation Anion Balance + Diss Metals	Annual	32	35	\$229	\$8,015
RCRA 8 Metals	Annual	32	35	\$100	\$3,500
Filters			32	\$12	\$384
Level 4 Data Packet	Annual		1	\$3,500	\$3,500
<b>Annual Refinery Complex (RCRA Investigation Wells)</b>					
8260B	Annual	17	19	\$115	\$2,185
8015B (GRO, DRO)	Annual	17	19	\$75	\$1,425
8270C	Annual	17	19	\$280	\$5,320
CO2/Alkalinity (310.1)	Annual	17	19	\$15	\$285
Cation Anion Balance + Diss Metals	Annual	17	19	\$229	\$4,351
RCRA 8 Metals	Annual	17	19	\$100	\$1,900
Filters			17	\$12	\$204
Level 4 Data Packet	Annual		1	\$3,500	\$3,500
<b>Semi-Annual - Refinery Complex (Non-RCRA Wells)</b>					
8260B	Semi-Annual <sup>(3)</sup>	11	12	\$45	\$540
8015B (GRO, DRO)	Semi-Annual <sup>(3)</sup>	5	5	\$75	\$375
Level 4 Data Packet	Semi-Annual <sup>(3)</sup>		1	\$200	\$200
<b>Semi-Annual - North Barrier Wall OW/CW</b>					
8260B	Semi-Annual	16	35	\$45	\$1,575
8015B (GRO, DRO)	Semi-Annual	16	35	\$75	\$2,625
Level 4 Data Packet	Semi-Annual		1	\$200	\$200
<b>Semi-Annual River Bluff (Outfall 2 &amp; 3, &amp; Seeps 1, 6, 7, 8, &amp; 9)</b>					
8260B	Semi-Annual	7	15	\$45	\$675
CO2/Alkalinity (310.1)	Semi-Annual	7	15	\$15	\$225
Cation Anion Balance + Diss Metals	Semi-Annual	7	15	\$229	\$3,435
RCRA 8 Metals	Semi-Annual	2	5	\$100	\$500
Filters			4	\$12	\$48
Level 4 Data Packet	Semi-Annual		2	\$150	\$300
Sampling Labor	Semi-Annual & Annual events		10 Days of 7 hour days	\$65/hour	\$4,550
<b>Total Annual - Facility-Wide Groundwater Sampling &amp; Analysis</b>					<b>\$57,552</b>

Sampling conducted pursuant to August 2010 Facility-Wide Groundwater Monitoring Plan

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

**TABLE C****San Juan River Sampling Cost Estimate**

<b>Analysis</b>	<b>Frequency</b>	<b># of Sample Locations</b>	<b># of Samples</b>	<b>Cost/Sample</b>	<b>Cost per year</b>
8260B	Semi-Annual	4	8	\$45	\$360
8015B (GRO, DRO)	Semi-Annual	4	8	\$75	\$600
CO2/Alkalinity (310.1)	Semi-Annual	4	8	\$15	\$120
Cation Anion Balance + Diss Metals	Semi-Annual	4	8	\$229	\$1,832
RCRA 8 Metals	Semi-Annual	4	8	\$100	\$800
Filters			8	\$12	\$96
Level 4 Data Packet	Semi-Annual		2	\$800	\$1,600
Annual analytical costs					\$5,408
Sampling Labor	Semi-Annual		4 hours each event	\$65/hour	\$520
Total Annual San Juan River Sampling Costs					\$5,928

Sampling pursuant to August 2010 Facility-Wide Groundwater Monitoring Plan



Carl Chavez  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Dr  
Santa Fe, NM 87505

January 6, 2011

**Fed Ex Tracking #: 1Z 881 839 01 5188 9140**

**Re: Western Refining Southwest, Inc. (Western) – Bloomfield Refinery  
Discharge Permit (GW-001) Condition 24 – Facility Closure Plan**

Dear Mr. Chavez,

Please find enclosed Bloomfield Refinery's Facility Closure Plan pursuant to Condition 24 of the above referenced Bloomfield Refinery Discharge Permit. This submittal complies with the January 7, 2011 deadline as stated in an e-mail from New Mexico Oil Conservation Division (NMOCD) dated November 10, 2010.

Should you have any questions or would like to discuss any aspect of the submittal, please contact Randy Schmaltz at (505) 632-4171.

Sincerely,



Victor McDaniel  
Site Manager  
Bloomfield Refinery

Cc: Randy Schmaltz – Western Refining Southwest, Inc. – Bloomfield Refinery  
Allen Hains – Western Refining – El Paso

RECEIVED OCD  
2011 JAN -7 A 11:23

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## **Facility Closure Plan Bloomfield Refinery**

### **Discharge Permit GW-001**

**Western Refining Southwest, Inc.  
Bloomfield Refinery  
Bloomfield, New Mexico**

**December 2010**

A handwritten signature in black ink, appearing to read "James R. Schmaltz", written over a horizontal line.

James R. Schmaltz  
Environmental Manager

A handwritten signature in black ink, appearing to read "Scott T. Crouch", written over a horizontal line.

Scott T. Crouch, P.G.  
Senior Consultant  
RPS

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## Section 1 Introduction

The Bloomfield Refinery is located immediately south of Bloomfield, New Mexico in San Juan County. The physical location address is #50 Road 4990, Bloomfield, New Mexico 87413. The Bloomfield Refinery is located on approximately 263 acres. The site is located on a bluff approximately 100 feet above the south side of the San Juan River, a perennial river that flows to the west (Figure 1).

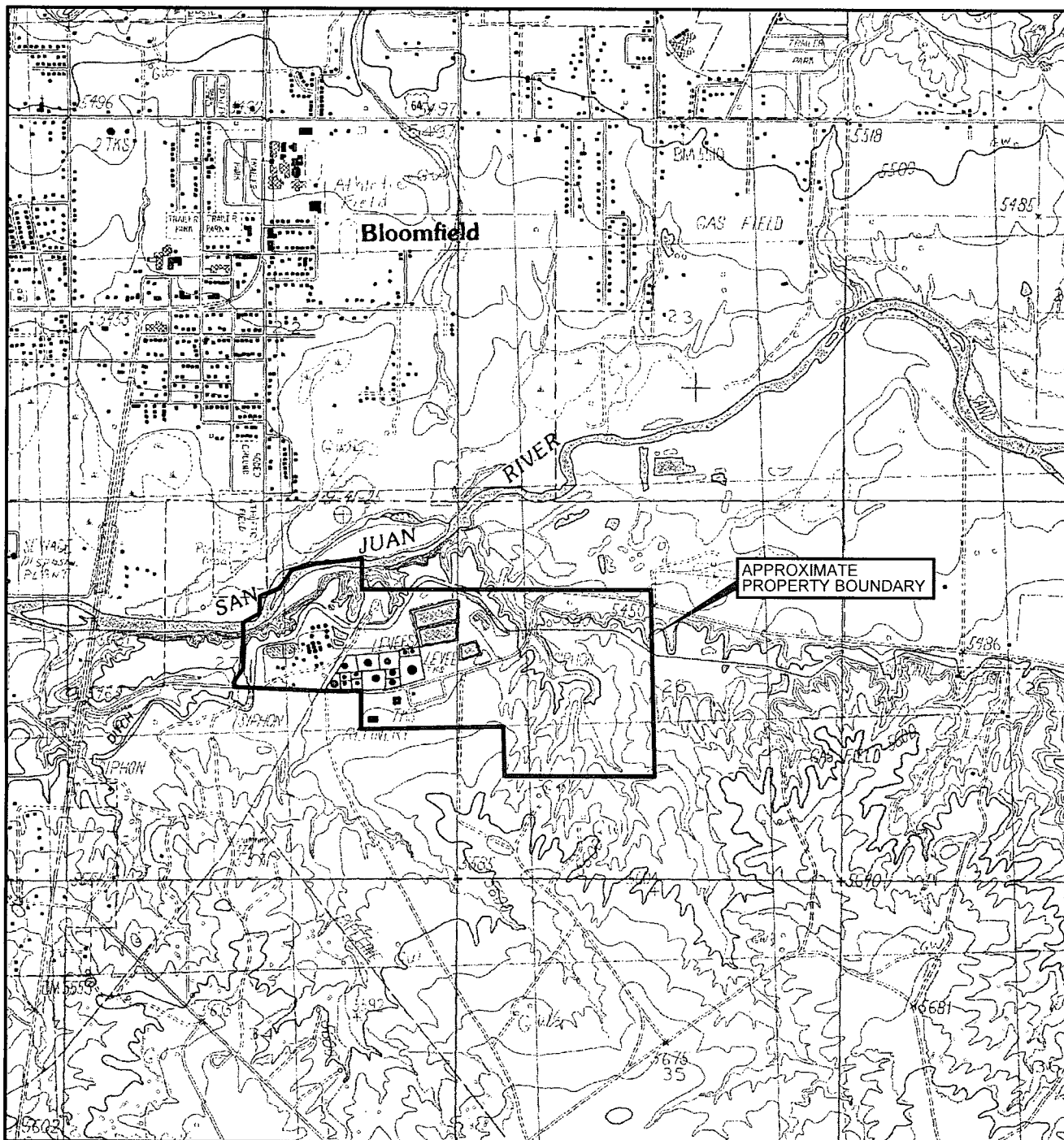
Bordering the facility is a combination of federal and private properties. Public property managed by the Bureau of Land Management lies to the south. The majority of undeveloped land in the vicinity of the facility is used extensively for oil and gas production and, in some instances, grazing. The town of Bloomfield is located to the north of the refinery, across the San Juan River. U.S. Highway 550 is located approximately one-half mile west of the facility. The topography of the site is generally flat with low-lying areas to the east of the process area.

The Bloomfield Refinery is a crude oil refinery currently owned by Western Refining Southwest, Inc. ("Western"), which is a wholly owned subsidiary of Western Refining Company, and it is operated by Western Refining Southwest, Inc. – Bloomfield Refinery. The Bloomfield Refinery generally processed crude oil from the Four Corners area transported to the facility by pipeline or tanker truck and crude from West Texas transported by pipeline.

The Bloomfield Refinery has an approximate refining capacity of 18,000 barrels per day; however, the refinery suspended petroleum refining operations in November 2009 and is currently operating as a petroleum terminal. Various process units operated at the facility, included crude distillation, reforming, fluidized catalytic cracking, sulfur recovery, merox treater, catalytic polymerization and diesel hydrotreating. Products produced at the refinery included gasoline, diesel fuels, jet fuels, kerosene, propane, butane, naphtha, residual fuel, fuel oils, and LPG.

This Facility Closure Plan addresses the final closure of the Bloomfield Refinery upon termination of activities subject to regulation by the New Mexico Oil Conservation Division (i.e., transfer and storage of petroleum fluids at the facility and disposal of waste liquids and solids). The existing Oil Conservation Division (OCD) Discharge Permit (GW-001) currently provides protection to groundwater, surface water, and the environment through regulation of the transfer

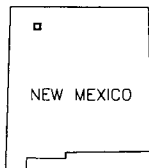
and storage of fluids at the facility, and disposal of waste liquids and solids. This Facility Closure Plan has been prepared pursuant to New Mexico Administrative Code (NMAC) Title 20, Chapter 6, Part 2, Section 3107.A.11. Implementation of this Plan will prevent exceedance of the standards of Section 20.6.2.3103 NMAC or the presence of toxic pollutants in groundwater after cessation of operations at the Bloomfield Refinery.



Map Source: USGS 7.5 Min. Quad Sheet BLOOMFIELD, NM., 1985.



0 2000  
SCALE IN FEET



QUADRANGLE LOCATION



WESTERN REFINING SOUTHWEST

PROJ. NO.: Western Refining DATE: 6/19/08 FILE: WestRef-A25

FIGURE 1  
SITE LOCATION MAP  
BLOOMFIELD REFINERY





## **Section 2**


### **Description of Potential Discharge Sources**

The following processing units, systems, equipment, or activities are potential sources of waste generated at the refinery. Each of these potential sources is associated with one or more of the Solid Waste Management Units (SWMUs) or Areas of Concern (AOCs), which are required to be addressed under an Order issued by the New Mexico Environment Department (NMED) on July 17, 2007. The existing NMED Order is discussed further in Section 3.1. Figure 2 shows the facility with the location of the SWMUs and AOCs.

#### **2.1 Wastewater Effluent Sources**

Sources of wastewater effluent are described below. These discharges are collected in the refinery process sewer system, which is part of SWMU No. 27 (Wastewater Collection System), and flow to the API Separator (SWMU No. 12).

##### **2.1.1 Boiler Feedwater Treatment System**




Raw water is treated in this system in order to remove impurities before being supplied as feedwater to the refinery boiler. Wastewater from water softening units and boiler blowdown containing dissolved solids is routinely discharged to the refinery process sewer system (SWMU No. 27).

##### **2.1.2 Boilers**

Four boilers were in service at the refinery; two fired boilers, one waste heat boiler, and one steam generator. Current operations only include one fired boiler. Wastewater containing dissolved solids is routinely discharged to the process sewer (SWMU No. 27) from these boilers. The boilers are located within SWMU No. 13 (Process Area), which is also subject to investigation and remediation under the existing NMED Order.

##### **2.1.3 Cooling Towers**



Two cooling towers were in service at the refinery. Wastewater containing dissolved solids and biocide residue was routinely discharged to the process sewer (SWMU No. 27) from this equipment. The cooling towers are located within SWMU No. 13 (Process Area), which is also subject to investigation and remediation under the existing NMED Order.

#### **2.1.4 Crude Unit**

Two desalters at the crude distillation unit were used to remove impurities and water from crude oil. Wastewater containing dissolved solids and trace hydrocarbons was routinely discharged to the process sewer (SWMU No. 27) from this equipment. The crude unit is located within SWMU No. 13 (Process Area), which is also subject to investigation and remediation under the existing NMED Order.

#### **2.1.5 Ammonia Absorption Refrigeration Unit (ARU)**

The ARU recovered LPG from hydrogen. Wastewater from the cooling process was routinely discharged to the process sewer (SWMU No. 27). The wastewater contained dissolved solids. The ARU is located within SWMU No. 13 (Process Area), which is subject to investigation and remediation under the existing NMED Order.

#### **2.1.6 Sulfur Recovery Unit (SRU)**

The SRU recovered solid elemental sulfur compounds from refinery fuel gas. Wastewater from a rinsing operation and filter press was routinely discharged to the process sewer (SWMU No. 27). The wastewater contained dissolved solids and trace sulfur compounds. The SRU is located within SWMU No. 13 (Process Area), which is also subject to investigation and remediation under the existing NMED Order.

#### **2.1.7 Polymerization Unit**

A water wash system was used to remove impurities from an intermediate gasoline feedstock. Wastewater containing trace hydrocarbons was intermittently discharged to the process sewer (SWMU No. 27). The polymerization unit is located within SWMU No. 13 (Process Area), which is subject to investigation and remediation under the existing NMED Order.

#### **2.1.8 Sour Water Treater**

One accumulator drum at this unit collected water from overhead vessels throughout the process units. Wastewater containing trace hydrocarbons was routinely discharged to the process sewer (SWMU No. 27) from this accumulator drum. The sour water treatment unit is located within SWMU No. 13 (Process Area), which is subject to investigation and remediation under the existing NMED Order.



### **2.1.9 Heater Treater at Terminals**

“Wet” crude oil is unloaded into this system. Steam is used to treat the load and separate water from the oil. Wastewater containing trace hydrocarbons and dissolved solids is routinely discharged to the process sewer (SWMU No. 27). The heater treater at the terminal is located at AOC No. 24 (Tank Areas 41 and 43), which is already subject to investigation and remediation under the existing NMED Order.

### **2.1.10 Storage Tanks**

Aboveground storage tanks are used within the refinery to store various products and intermediate feedstocks. Wastewater containing dissolved solids and trace hydrocarbons are occasionally drained from these tanks as bottom water or decanted water and then discharged to the process sewer (SWMU No. 27). The areas where the storage tanks are located are subject to investigation and remediation under the existing NMED Order, as they are located at SWMU No. 14 (Tanks 3, 4, and 5), SWMU No. 15 (Tank Farm Area), AOC No. 24 (Tank Areas 41 and 43), and AOC No. 26 (Tank Areas 44 and 45).

### **2.1.11 Recovered Groundwater**

Hydrocarbon impacted groundwater is recovered using recover wells and the Hammond Ditch French Drain Recovery System. The recovered groundwater is transferred via SWMU No. 3 (Underground Piping Currently in Use) to the API Separator for treatment. The API Separator (SWMU No. 12) and the associated Aeration Lagoons (Interim Status Unit No. 1) are subject to investigation and remediation, as necessary, under the existing NMED Order.

### **2.1.12 Diesel/Kerosene Salt Dryers**

Three salt wash vessels were used to remove impurities from diesel and kerosene product streams. Occasionally, the salt was replaced and, at that time, the vessels were drained. Wastewater containing dissolved solids and trace hydrocarbons was discharged to the process sewer (SWMU No. 27). The salt wash vessels are located within SWMU No. 13 (Process Area), which is subject to investigation and remediation under the existing NMED Order.

## **2.2 Sources of Solid Waste**


Potential sources of solid waste are described below. Most of these wastes are generated intermittently and then removed, collected, containerized, and stored until shipped off-site for recycling or disposal.



### **2.2.1 Fluid Catalytic Cracking Unit (FCCU) Catalyst**

A metallic (alumina) catalyst was used within the FCCU to convert hydrocarbon molecules. The material is a dry, metallic solid and is non-hazardous. This catalyst was periodically replaced and the spent catalyst and fines were historically deposited in the on-site landfill and covered with soil. Since petroleum refining operations were suspended in November 2009, the spent catalyst has been removed from the reactors and sent off-site. The FCCU is located within SWMU No. 13 and the "on-site landfill" is designated as SWMU No. 16 (Active Landfill). Both of these areas are subject to investigation and remediation, as necessary, under the existing NMED Order.

### **2.2.2 Naphtha Hydrotreating Unit (NHT) and Sulfur Guard Catalyst**




There are two reactors that contained metallic catalyst in this unit. One reactor was used to convert hydrocarbon molecules and the other used to adsorb sulfur molecules. The catalysts were periodically replaced and the spent catalyst was recycled by an off-site metal recovery service. This material is a dry, metallic solid and is shipped as a K-171 hazardous waste and as a self-heating solid. Since petroleum refining operations were suspended in November 2009, the spent catalyst has been removed from the reactors and sent off-site for recycling. The NHT is located within SWMU No. 13 (Process Area), which is subject to investigation and remediation under the existing NMED Order.


### **2.2.3 Reforming Unit Catalyst**

A metallic (platinum) catalyst was used in the reforming unit to convert hydrocarbon molecules. This catalyst was periodically replaced and the spent catalyst was recycled by an off-site metal recovery service. This material is a dry, metallic solid and is shipped with a hazardous waste code of K-171 and as a self-heating solid. Since petroleum refining operations were suspended in November 2009, the spent catalyst has been removed from the reactors and sent off-site for recycling. The Reforming Unit is located within SWMU No. 13 (Process Area), which is subject to investigation and remediation under the existing NMED Order.

### **2.2.4 Polymerization Unit**



A phosphoric acid catalyst was used to convert LPG olefins into an intermediate gasoline feedstock. This catalyst was periodically replaced and disposed of at an off-site landfill. The spent catalyst is a dry solid and is non-hazardous. Since petroleum refining operations were suspended in November 2009, the spent catalyst has been removed from the reactors and sent



off-site for recycling. The Reforming Unit is located within SWMU No. 13 (Process Area), which is subject to investigation and remediation under the existing NMED Order.


### **2.2.5 Diesel Hydrotreating Unit (DHT) Catalyst**

Metallic catalyst was used in this unit to convert hydrocarbon molecules. This catalyst is a dry, metallic solid and was shipped off as a K-171 hazardous waste. Since petroleum refining operations were suspended in November 2009, the spent catalyst has been removed from the reactors and sent off-site for recycling. The DHT unit is located within SWMU No. 13 (Process Area), which is subject to investigation and remediation under the existing NMED Order.

### **2.2.6 Sulfur Byproduct**

An elemental sulfur byproduct is regularly generated at the SRU. This solid non-hazardous residue was disposed in the on-site landfill and covered with soil. The "on-site landfill" is designated as SWMU No. 16 (Active Landfill) and is subject to investigation and remediation, as necessary, under the existing NMED Order.


### **2.2.7 Heat Exchanger Bundle Cleaning Sludge**



Heat exchanger bundles are occasionally cleaned in order to restore heat transfer performance. This cleaning was conducted on a concrete curbed pad that incorporates a wastewater accumulation sump. Sediment and sludge, which collects in the bottom of the sump, is removed from the sump, contained in 55-gallon drums, and disposed of at an off-site hazardous waste disposal facility as K-051 waste. The wastewater that accumulates in the sump is discharged into the process sewer (SWMU No. 27).

The heat exchanger bundle cleaning pad is designated as SWMU No. 5 and the sump is located within the eastern end of the auxiliary warehouse and the 90-day storage area (AOC No. 25). Both of these areas are subject to investigation and remediation, as necessary, under the existing NMED Order.

### **2.2.8 Storage Tank Bottom Sludge**



Oily sludge accumulated at the bottom of storage tanks (e.g., crude oil, FCC feed tanks). These tanks are periodically taken out of service and the sludge is removed, containerized, and shipped off-site for oil recovery, treatment, and disposal. Since petroleum refining operations were suspended in November 2009, bottom sludge has already removed from tanks that stored

unfinished product, and only tanks storing finished product and crude oil (one large crude storage and three small receiving tanks) remain in service to support on-going terminal operations.

The areas where the storage tanks are located are subject to investigation and remediation under the existing NMED Order, as they are located at SWMU No. 14 (Tanks 3, 4, and 5), SWMU No. 15 (Tank Farm Area), AOC No. 24 (Tank Areas 41 and 43), and AOC No. 26 (Tank Areas 44 and 45).

### **2.2.9 Main Column Bottoms Sludge**

Periodic cleanout of pump screens and piping in the FCCU generated main column bottom sludge. It is classified as K-170 hazardous waste and was shipped to an off-site hazardous waste disposal facility. As discussed above the FCCU is located within the process area (SWMU No. 13) and is subject to investigation of potential releases to the environment.

### **2.2.10 API Separator Sludge**

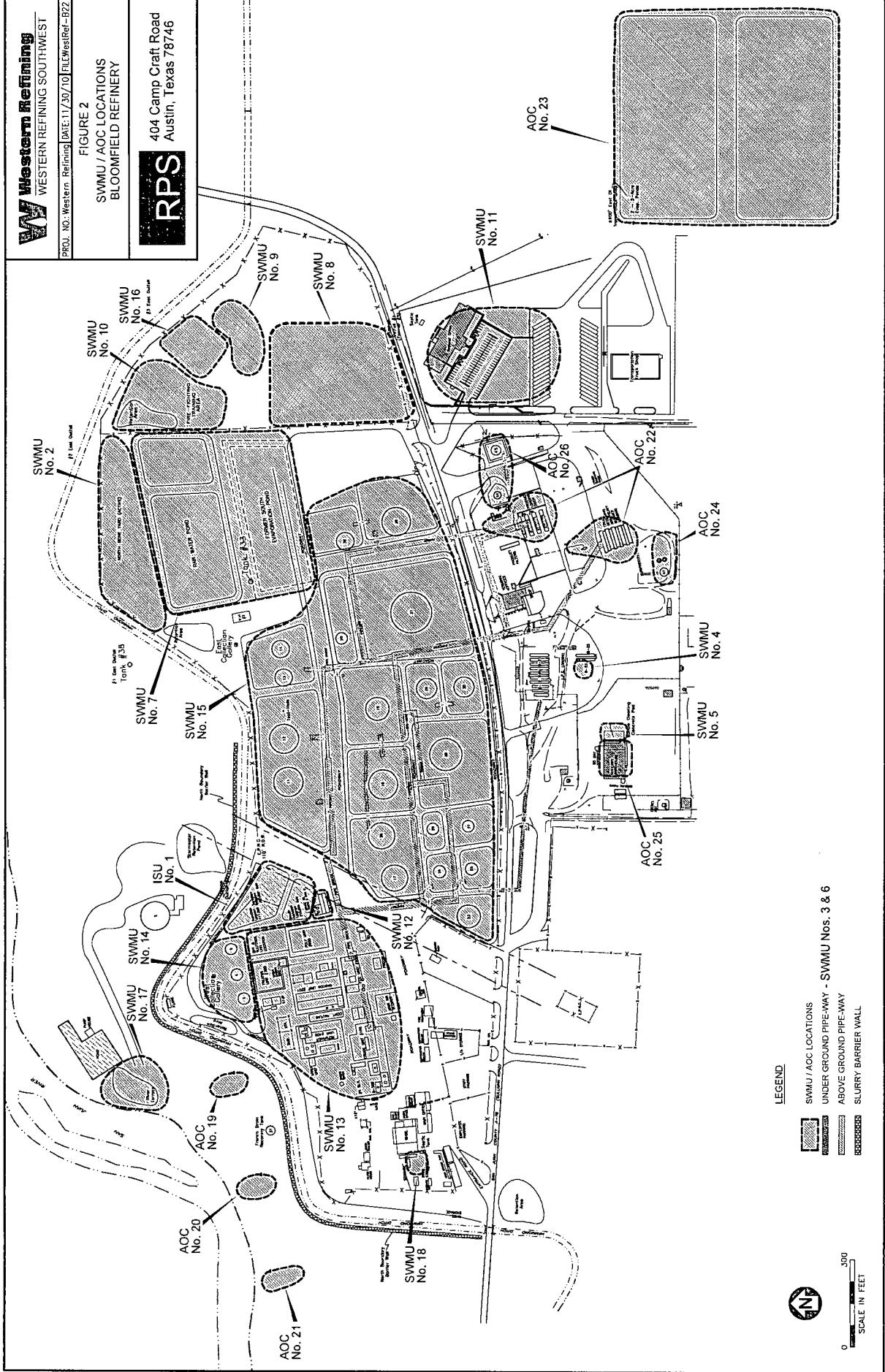
Oily sediment and sludge accumulates at the bottom of the API Separator (SWMU No. 12). The Separator is taken out of service annually and the bottom sludge removed via vacuum truck. This sludge remains in the truck and is shipped off-site for recycling. The area where the API Separator is located is required to be investigated and remediated, as necessary, under the NMED Order.

### **2.2.11 Maintenance Shop**

Most process equipment and mobile equipment is repaired and maintained at the refinery maintenance shop. Waste oils are collected and stored in a 250 gallon tote and recycled periodically. The yard area at the maintenance shop is designated as SWMU No. 18 Warehouse Yard and is required to be investigated and remediated, as necessary, under the NMED Order.

### **2.2.12 Process Filters**

Process filters throughout the refinery are periodically replaced and are disposed of as special waste at the San Juan County Landfill. TCLP analysis on the filters indicates that the waste is non-hazardous. The used filters are temporarily stored in the 90-day Storage Area (AOC No. 25), which is subject to investigation and remediation, as necessary, under the NMED Order.



## **Section 3**

### **Closure Activities**

Upon the termination of business operations at the Bloomfield Refinery Facility, which include the transfer and storage of petroleum fluids and disposal of associated waste liquids and solids, facility closure activities will be conducted. The closure activities may include addressing releases to groundwater, surface water or the environment, and removal of petroleum products, crude oil, and associated waste from on-site equipment (e.g., process units, storage tanks, and pipelines).

#### **3.1 Releases to the Environment**

It is fully anticipated that all releases to the environment from operations up to the time of final Facility closure will be addressed through an existing Order issued by the New Mexico Environment Department (NMED) on July 27, 2007. This Order requires that Western address all interim status units (i.e., North and South Aeration Lagoons), solid waste management units (SWMUs) and areas of concern (AOCs) identified in the Order or discovered after the effective date of the Order, and all other places at the Facility where contaminants may have come to be located. Required activities include: (1) investigation of the nature and extent of releases at or from the Facility; (2) identification and evaluation of alternatives for corrective measures to clean up contaminants in the environment; and (3) implementation of corrective measures selected by the NMED.

Each of the potential sources of a release, which are listed in the Facilities' Discharge Permit (GW-001) and described in Section 2, is in fact associated with at least one of the SWMUs or AOCs that are being investigated and remediated, as necessary, under the existing Order. The correlation between sources of effluent or solid waste and the various SWMUs/AOCs is discussed in Section 2. The OCD receives copies of all submittals required under the Order and has taken an active role in the implementation of the Order, as evidenced by the inclusion of additional constituents requested by the OCD for the investigation of the Active Landfill (SWMU No. 16). Upon successful completion of all activities required under the existing Order, there will be no remaining "historical" releases to the environment that will require a "closure" activity under this Facility Closure Plan. If there are any future releases that occur after termination of the Order issued on July 27, 2007, then those releases will be addressed at the

time of the release pursuant to Section 20.6.2.1203 NMAC and no additional "closure" activities will be required under this Facility Closure Plan to address releases to the environment.

### **3.2 Facility Equipment**

As OCD has jurisdiction over the transfer and storage of petroleum fluids, and disposal of associated waste liquids and solids, such materials will be removed from the Facility in support of final Facility closure. This includes removal of all petroleum fluids and waste present in the facility equipment (e.g., product storage tanks, on-site transfer pipelines, wastewater collection and treatment systems, etc.). When the refinery suspended petroleum refining operations in November 2009, all vessels, tanks and associated piping in the processing areas were chemically cleaned, thus no further action will be required for the process units. The only activities that are on-going are the crude oil gathering and product terminal operations.

Liquid products will be removed from all equipment and transferred off-site for sales or reprocessing. Most liquid waste materials will be managed through the on-site wastewater treatment system. Those liquid wastes not suitable for managing on-site will be containerized and sent off-site for disposal or possibly recycling. The solid materials that are removed from the equipment will be managed in accordance with all applicable State and federal regulations with some materials being deposited off-site as waste, while other materials may be recycled. Approval will be obtained from OCD prior to any off-site shipment of waste. Following removal of all product and waste materials, the idled equipment will be either removed from the Facility or decontaminated.

## **Section 4**

### **Closure Schedule and Cost Estimates**

The activities required to complete final closure of the Facility will be implemented within six months of Western giving notice of the termination of business operations at the facility in accordance with 20.6.2.3107 NMAC. As discussed in Section 3.1, it is anticipated that all releases to the environment will either be addressed under the NMED Order or if there are any future releases that occur after termination of the Order issued on July 27, 2007, then those releases will be addressed at the time of the release pursuant to Section 20.6.2.1203 NMAC.

#### **4.1 Closure Schedule**

The removal of all remaining products and associated waste materials will be completed in a phased approach. It is probable that operations as a petroleum product terminal could cease before operations as a crude oil gathering facility, thus a phased approach for closure is anticipated.

##### Phase I – Product Removal

All products will be removed in accordance with applicable regulations from the facility within 180 days of initiation of final closure activities. These removal activities include all vessels, tanks, and associated pipelines that contain petroleum products. Any residual materials in finished petroleum product storage tanks (e.g., unleaded gasoline or diesel) will be removed and placed into the crude oil storage tank for reprocessing.

##### Phase II – Removal of Crude Oil and Waste Materials

Upon cessation of all operations, including crude gathering operations, all remaining vessels and pipelines, excluding the crude oil storage tank, will be decontaminated with all waste residue flushed to the API Separator. Crude oil will be removed the crude oil storage tank. Wastes remaining in the API Separator and crude oil storage tank will be removed and appropriately characterized, approval obtained from OCD for off-site shipments, and materials transported off-site for disposal or recycling in accordance with applicable regulations (e.g., RCRA) within 180 days.



## 4.2 Closure Cost Estimate

The cost estimate to complete investigation and remediation activities under the NMED Order is required to be updated annually and will be provided to OCD and NMED by January 31<sup>st</sup> of each year. The cost estimates to complete Phases I and II are presented below.

### Phase I – Product Removal

The revenue generated from the sale of product will far exceed the expense to remove the material from the site and thus no costs are assigned to this phase.

### Phase II – Removal of Crude Oil and Waste Materials

The volume of waste materials at the site was significantly reduced when petroleum refining operations were suspended and the process area was decontaminated. The volume of waste that will remain at termination of all operations is limited to only the materials that will remain in the API Separator and crude oil storage tank. It is estimated that 400,000 lbs of material may remain in each of these units at final closure. The waste materials in the API Separator and crude oil storage tank are anticipated to be classified as listed hazardous waste, K-051 and K-169, respectively. The estimated disposal cost is \$0.25/lb, thus for two units with 400,000 lbs per unit at \$0.25/lb the disposal cost is estimated at \$200,000. In addition, transportation is estimated at \$80,000 for both units. The total estimated cost for Phase II is \$280,000.



BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



RON CURRY  
Secretary

SARAH COTTRELL  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

October 13, 2010

Leslie Ann Allen  
Senior Vice President  
Health, Safety, Environment and Regulatory Affairs  
Western Refining  
123 W. Mills Avenue, Suite 200  
El Paso, TX 79901

**RE: NOTICE OF DISAPPROVAL  
FINANCIAL ASSURANCE  
GALLUP REFINERY EPA ID# NMD000333211 AND THE  
BLOOMFIELD REFINERY EPA ID # NMD089416416  
WESTERN REFINING SOUTHWEST, INC.  
HWB-WRG-MISC AND HWB-WRB-MISC**

Dear Ms. Allen:

The New Mexico Environment Department (NMED) has reviewed Western Refining, Southwest, Inc. (Western) May 26, 2010 financial assurance submittal and hereby issues this Notice of Disapproval (NOD). Western must address the deficiencies identified below.

**Comment 1**

Western states in the cover letter that "[t]his letter and attachments provide financial assurance for facilities at Western Refining Southwest, Inc. (Western), Gallup and Bloomfield Refineries in the form of two surety bonds guaranteeing payment...[f]inancial assurance for the Gallup refinery and Bloomfield refinery facilities are provided under 40 CFR 264.143(f) for closure and for post closure care pursuant to 40 CFR 264.145(f)." Reference to 40 CFR 264.143(f) and 40 CFR 264.145(f) for closure and post closure care refer to the financial test and corporate guarantee mechanisms. The financial assurance mechanism for this submittal is a surety bond

guaranteeing payment into a closure trust fund in accordance with 40 CFR 264.143(b) and 264.145(b) for Gallup and 265.143(b) for Bloomfield. Western must ensure the response letter references the correct regulations.

### **Comment 2**

The Financial Guarantee Bond (FGB) wording, for both the Bloomfield and Gallup Refineries, does not comply with the wording requirements found in 40 CFR 264.151(b). The following discrepancies have been identified for each refinery:

- a. The wording in 40 CFR 264.151(b) states "Principal: [legal name and business address of the owner and operator]." Page 1 of the FGB for the Bloomfield Refinery has the Principal as "San Juan Refining Company, as the owner, and Western Refining Southwest, Inc., formerly known as Giant Industries Arizona, Inc., as operator." However, the cover letter does not mention the San Juan Refining Company and recent submittals from Bloomfield list the owner as Western Refining, Inc. and the operator as Western Refining Southwest, Inc. Further, Western provided the physical and mailing addresses of the Bloomfield Refinery. Western must clarify the business address of the owner and operator. Western must revise Bloomfield's FGB to cite the correct owner/operator, as well as include the associated business address(es) required by the regulations.
- b. The wording of 40 CFR 264.151(b) states "Principal: [legal name and business address of the owner and operator]." Page 1 of the FGB for the Gallup Refinery has the Principal as "Western Refining Southwest, Inc., formerly known as Giant Industries Arizona, Inc. and formerly doing business as Giant Refining Company Ciniza Refinery." This statement does not identify the owner or the operator. The FGB also does not reference the Gallup Refinery as provided in the cover letter and recent submittals from Gallup indicating the owner as Western Refining, Inc. and the operator as Western Refining Southwest, Inc. Further, Western provided the physical and mailing addresses for the Gallup Refinery. Western must revise Gallup's FGB to cite the correct owner/operator and include the associated business address(es) required by the regulations.
- c. The last page of the FGB for Bloomfield, under the "Principal," Western lists "San Juan Refining Company, as owner." Western must revise the FGB to cite the correct Principal; see item a above.
- d. The last page of the FGB for the Gallup Refinery, under the "Principal," Western lists "Western Refining Southwest, Inc., formerly known as Giant Industries Arizona, Inc. and formerly doing business as Giant Refining Company Ciniza Refinery." Western must revise the FGB to cite the correct Principal; see item b above.

- e. The last pages of the FGBs for the Bloomfield and Gallup Refineries are missing the signature section under Principal. The regulations for the FGB in 40 CFR 264.151(b) states “**Principal** [Signature(s), [Name(s)], [Title(s)], and [Corporate Seal].” The FGBs are missing the [Name(s)] and [Title(s)]. Western must revise the FGBs to comply with 40 CFR 264.151(b).
- f. Western is missing information on the last pages of the FGBs for the Bloomfield and Gallup Refineries under the “**Corporate Surety(ies)**.” The FGBs state **Corporate Surety**, whereas, the regulations state **Corporate Surety(ies)**. Further, Western is missing the State of incorporation, Liability Limit:\$, co-surety, if any, and the Bond premium:\$ . Western must revise the FGBs to include this information in accordance with 40 CFR 264.151(b).
- g. The FGBs for the Bloomfield and Gallup Refineries list the surety as being issued by Bond Safeguard Insurance Company with an address in Tennessee. However, the Circular 570 provides a different address (10002 Shelbyville Road, Suite 100, Louisville, KY 40223) in Kentucky. If both addresses are correct, Western must provide an explanation for this in the response letter or revise the FGB to provide the correct address.

### Comment 3

The following items refer to the actual bonds from Bond Safeguard Insurance Company for the Gallup and Bloomfield refineries (Ciniza AO 28580 and San Juan Refining Company AO 28579).

- a. The official notary seal for Maureen K. Aye states “[m]y Commission Expires 9/21/2009.” These bonds were issued on May 24, 2010, therefore, the notaries of these bonds are not valid. Western must submit the bond with a current notary seal.
- b. The bond numbers on each bond (AO 28579 and AO 28580) do not match the bond numbers on page 1 of the FGB (i.e., San Juan Refining Company Surety’s Bond number 5036638 and Ciniza Surety’s Bond number 5036639). Western must correct this discrepancy or, if the Bond numbers are correct, explain how the bond numbers were derived.

### Comment 4

The Trust Agreement wording for the Bloomfield and Gallup Refineries do not comply with the wording requirements found in 40 CFR 264.151(a)(1). The following discrepancies have been identified for each refinery

- a. In 40 CFR 264.151(a)(1) under the Trust Agreement, the last sentence of the first paragraph, the following is stated: “[insert “incorporated in the State of \_\_\_” or “a national bank”], the “Trustee.” The Trust Agreements for the Bloomfield and Gallup refineries state “a national banking association” instead of “a national bank.”

Western must revise these paragraphs to include the wording as stated in the regulations.

- b. In the Trust Agreements, the Refineries are referred to as the Ciniza and San Juan Refining Company. However, the cover letter lists the refineries as the Gallup and Bloomfield. Western must correct these discrepancies throughout the submittal and use the current name(s) of the refineries. Western must revise the Trust Agreements accordingly.
- c. The last portion of the Trust Agreement in 40 CFR 264.151(a)(1) requires the [Signature of the Grantor] and [Title]; Attest: [Title], [Seal], and [Signature of the Trustee]; and Attest: [title] and [Seal]. However, the Trust Agreements for both Refineries are missing information for the "Attest". Western must revise the Bloomfield and Gallup Trust Agreements to include all information for the Attest, clarify that US Bank, N.A. is the trustee, and ensure all information for this portion of the Trust Agreement complies with the information required in the regulations.
- d. The Trust Agreements for Bloomfield and Gallup refineries are missing the certification of acknowledgement, required under 40 CFR 264.151(a)(2), which must accompany the Trust Agreement for a trust fund. Western must revise the Trust Agreement to include the certification of acknowledgement.
- e. Western must revise the language in Exhibit A, which is addressed in **Section 14. Instruction to the Trustee** found in 40 CFR 264.151(a)(1) to state "Attached to Trust Agreement between \_\_\_\_\_[Bound Holder] And \_\_\_\_\_[Bond Issuer] Persons designated to sign orders, requests, and instructions to the trustee: [provide the names, titles, and signatures]."
- f. Schedule B of the Trust Agreements for the Bloomfield and Gallup Refineries must be revised to state "This trust is currently unfunded (i.e., standby trust). Under the terms of an established Surety Bond, all payments made there under will be deposited by the surety directly into the standby trust fund in accordance with instructions from the New Mexico Environment Department."

**Comment 5**

The Penal sum of FGB for the Gallup Refinery is \$2,874,786 and the Bond Safeguard Insurance Company's (the Surety) underwriting limitation is \$2,362,000. The underwriting limitation of the Surety cannot be a lower monetary value than the closure/post-closure costs. In addition, the combined penal sum for the Gallup and Bloomfield Refineries is \$5,059,002 and the combined value of the closure/post-closure costs is greater than the underwriting limitation of Bond Safeguard Insurance Company as well. Western must either acquire a new or additional surety bond for both facilities in which the underwriting limitation is greater than the combined value of the closure/post-closure costs or acquire a new or additional surety bond for the Gallup Refinery.

Western Refining Southwest, Inc.  
October 13, 2010  
Page 5 of 5

**Comment 6**

Western must submit updated cost estimates for closure and post-closure at the Gallup (Ciniza) Refinery for the Bloomfield (San Juan Refining) Refinery as they were derived for the financial assurance submittal (see 40 CFR 264.142(b) and (c), 264.144(b) and (c), and 265.142(b) and (c)).


**Comment 7**

The information required by 40 CFR 264.147 (Liability Requirements) was not provided in the submittal. Western must comply with 40 CFR 264.147 (Liability Requirements) and submit the appropriate documentation.

The Permittee must address all comments contained in this NOD and submit the revised financial assurance submittal to NMED on or before January 17, 2010. The revised financial assurance must be submitted with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, an electronic version of the revised financial assurance must be submitted that identifies where all changes have been made in redline strikeout format.

If you have any questions, please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

JPB:hm

cc: J. Kieling, NMED HWB  
D. Cobrain, NMED HWB  
H. Monzeglio, NMED HWB  
K. VanHorn, NMED HWB  
L. King EPA Region 6 (6PD-N)  
C. Chavez, OCD  
A. Hains, Western  
WRB & WRG 2010 Reading File  
HWB-WRG-MISC, HWB-WRB-MISC

RECEIVED  
2010 MAR 22 PM 1 23

**Via Certified Mail**  
**No. 7004 1350 0003 7984 1246**

March 15, 2010

James Bearzi, Bureau Chief  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Bldg 1  
Santa Fe, NM 87505

**Re: Response to Notice of Disapproval dated February 4, 2010**  
**Financial Assurance**  
**Gallup Refinery EPA ID #NMD000333211**  
**Bloomfield Refinery EPA ID #NMD 089416416**  
**Western Refining Southwest, Inc.**  
**HWB-GRCC-MISC and HWB-GRCB-MISC**

Dear Mr. Bearzi:

Western Refining Southwest, Inc. ("Western") appreciates the time extension granted on February 24, 2010 to respond to the February 4, 2010 Notice of Disapproval by March 15, 2010. This response is in two parts: a financial assurance path forward and a discussion of the additional \$1,100,000 to the total cost estimate for closure and post-closure activities. If it would be helpful, Western is prepared to meet with you and your staff at your convenience to discuss these matters further.

Financial Assurance

We must respectfully disagree with the assertions in your February 4, 2010 letter that Western did not meet the financial test for its 2009 RCRA financial assurance submission and will not be able to utilize the financial test for its 2010 RCRA financial assurance submission. At this time, however, Western is focusing its efforts on prospective compliance for 2010 financial assurance and will forgo any further discussions of 2009 financial assurance unless necessary.

Upon review of our 2009 financial information, we believe that Western Refining Southwest, Inc. may be able to submit a financial test and corporate guarantee for 2010. In order to complete the analysis of all the available options, Western requests additional time to determine the form that financial assurance will take for 2010. This might be accomplished by a change in "guarantor" to Western Refining Company, L.P. (a firm whose parent corporation is also the

parent corporation of Western Refining Southwest, Inc.) in accordance with 40 CFR §264.143(f)(10), §264.145(f)(11), §265.143(e)(10) and §265.145(e)(11). As set forth in these sections:

*The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator.*

Western is still reviewing this option, and is determining what additional financial analysis, such as an independent audit, may be required to use this mechanism, and the time required to complete such analysis.

In addition to the financial test and corporate guarantee, Western is also actively exploring the other financial assurance mechanisms available under the applicable regulations, in the event the financial test and corporate guarantee are not available. In the meantime, Western is proceeding with its closure and post-closure obligations for the above-referenced facilities, so any additional time necessary to evaluate financial assurance options will not have any detrimental effect on Western's cleanup activities.

#### Cost Estimate

Western does not believe that the additional \$1,100,000 to the total cost estimate for closure and post-closure activities at Bloomfield, set out in your February 4, 2010 letter is required. As discussed in your February 26, 2010 letter, Western understands that this increase is based on the cost required to remove the soils beneath the aeration lagoons. Western has reviewed all available information related to at the Bloomfield Refinery aeration lagoons, including the operational history, approved Closure Plans and recently completed closure activities. Based on this information, the aeration lagoons have been closed in accordance with the "clean closure" requirements of 40 CFR §265.228(1). This analysis is set out in more detail in Appendix A to this letter.

As noted in your letter of February 24, 2010, investigation and remediation of any impacted media beneath the impoundment liners will be conducted in conjunction with corrective action conducted under the July 27, 2007 Order No. HWB 07-34 (CO). This activity will address any historical (pre-RCRA) impacts to subsoils and ground water, as necessary. Pursuant to Section III.P.1. of the Order, the estimated cost of work shall include the costs of the remedy for a solid waste management unit or area of concern if the Department has selected a remedy for that unit or area. At this time, a remedy has not been selected for any potentially impacted soils or ground water beneath the impoundments and thus the Financial Assurance cost estimate is not required to address the soils and ground water underlying the impoundments. In order to submit the 2010 Financial Assurance, this matter concerning the cost estimate should be resolved first.



If you have questions or would like to discuss this information further, then please contact me at (915) 534-1480.

Sincerely,



Leslie Ann Allen  
Senior Vice President  
Health, Safety, Environmental and Regulatory Affairs

Enclosures

cc: Hope Monzeglio – NMED HWB  
Carl Chavez - NMOCD  
Dave Cobrain – NMED HWB  
John Kielling – NMED HWB  
J. Dougherty – EPA Region 6 **Via Certified Mail No. 7004 1350 0003 7984 1253**  
D. Edelstein – EPA Region 6 **Via Certified Mail No. 7004 1350 0003 7984 1260**  
Allen Hains – Western Refining El Paso

## Appendix A

Western has reviewed all available information related to the Bloomfield Refinery aeration lagoons, including the operational history, approved Closure Plans and recently completed closure activities. Based on this information, the aeration lagoons have been closed in accordance with the “clean closure” requirements of 40 CFR §265.228(1).

Section 265.228 requires the owner or operator at closure to:

- (1) remove or decontaminate all waste residues, contaminated containment systems components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate (i.e., “clean closure”); or
- (2) close the impoundment and provide post-closure care for a landfill (i.e., “landfill closure”).

The recent closure activities at the aeration lagoons, which were completed in accordance with the NMED approved Closure Plan and documented in the Closure Certification Report (September 2009), included the removal of waste residues and decontamination of containment system components, structures, and equipment contaminated with waste or leachate, which resulted in “clean closure” of the units.

The only remaining issue appears to be the potentially contaminated “subsoils” below the liner system. The concern is the nature of any historical impacts and if these potential impacts are the result of a RCRA regulated activity. Based on a review of the operational history of the surface impoundments prior to installation of the liner system, all free liquids and sludge materials were removed from the impoundments in 1982. In addition, contaminated soils were removed from beneath the impoundments, leaving at most, minimally impacted soils. The soils removed from beneath the impoundments were kept on-site and subsequently “delisted” by the Environmental Protection Agency (EPA) on September 3, 1996. The 1982 closure activities were conducted prior to the TCLP and Primary Sludge Listings. In its evaluation, EPA determined that the waste (i.e., contaminated soils removed from beneath the impoundment) did not meet any of the criteria under which the waste was listed as a hazardous waste (i.e., K051-API Separator Sludge). In addition, the EPA determined that factors (including additional constituents) other than those for which the waste was listed did not warrant retaining the waste as a hazardous waste. While this delisting only pertained to the soils that were removed and stock-piled on-site, it must be noted that in the Delisting Petition evaluation, EPA reviewed analyses of soil samples collected from beneath the impoundments after the 1982 closure activities. The following statements were made by EPA in their letter of December 29, 1992:

*“The other information provided in the submittal was soils sampling data from the two oily water ponds and landfill which held the petitioned waste previously. The soil samples were collected as part of earlier closure activities. We agree that data from analyses performed on these samples indicate no significant concentration of the limited number of constituents which were analyzed. Therefore, these data suggest that the petitioned waste did not leach any significant concentrations of these constituents into subsurface soils or the ground water.”*

This information indicates that at the time of initial closure activities in 1982, there was no indication of significant impacts to the soils beneath the impoundments.

The second concern deals with the question of whether any hazardous constituents were present in soils beneath the impoundments. In the April 15, 1991 Delisting Petition, it is clearly demonstrated that the impoundments had not received hazardous waste (K051-API Separator Sludge). Based on the EPA Final Exclusion published in the Federal Register on September 3, 1996, it appears that EPA's original position that the materials were a listed waste was based on the argument that the impoundments were "used to contain water outflow from an API separator (EPA Hazardous Waste No. K051)." However, outflows from API Separators do not generally result in the generation of K051 hazardous wastes in downstream units (see discussion below). There was no contention by EPA or the State that API Separator sludge had been placed in the surface impoundments. In addition, Bloomfield Refining Company clearly noted in its Delisting Petition that API Separator sludge was not present in the impoundments and that solids removed from the API Separator were separately disposed at an off-site permitted hazardous waste facility.

EPA has discussed the applicability of the "mixture rule" to petroleum refinery wastewater streams and the potential for a listed waste to accumulate in units downstream of an API Separator in various policy memorandums. Two memorandums that are directly applicable to the operation of the API Separator and the downstream impoundments have been enclosed. In the July 1991 Memo, EPA states, *"It is Agency policy that no mixing occurs in a wastewater treatment unit that manages a non-hazardous [nonlisted] liquid waste even if that liquid generates a hazardous sludge that settles to the bottom of the unit, unless that sludge is in some way dredged up and physically mixed with the liquid."* In the enclosed December 1984 memo, EPA states, *"It is imperative that your staff understand the proper framework for the application of the mixture rule. To maintain that a pond is regulated because an API Separator is an inherently inefficient unit and allows sludge to be carried through to a pond, is inaccurate. Likewise, downstream oxidation ponds are not regulated simply because they sometimes receive flow that has bypassed the API Separator. In both cases, the listed API Separator Sludge has not yet been generated. Rather, API Separator Sludge is generated when it is deposited in the bottom of an API Separator. The mixture rule is relevant only in those cases where previously deposited sludge is scoured, resuspended, and then carried out of the unit with the wastewater."*

In the December 1984 memo, EPA provides some factors to be considered when determining the potential for separator sludge scouring. Based on a review of these factors and documentation of the historical operations of the separator as provided in the April 15, 1991 Delisting Petition, there is no reason to believe that sludge was being scoured from the API Separator and transported into the surface impoundments.

After the impoundments were cleaned out in 1982, the impoundments were lined with a 33% bentonite composite liner, overlain by a French drain system and a 100-mil HDPE liner. The impoundments were then placed back into service and continued in non-hazardous operation as aeration lagoons until the early 1990s. With the addition of D018 (benzene) as a regulated waste stream as part of the TCLP regulatory change, the impoundments were once again cleaned out and a double HDPE liner and a leak detection system added over the previously existing

liners/collection systems in accordance with minimum technology requirements (MTRs) of 40 CFR §265.221(h). The impoundments were then placed back into operation as interim status hazardous waste management units.

During the recent closure activities at the impoundments, an inspection of the lower RCRA liner did not identify any penetrations or other indications of leaks from the uppermost leak detection system. Based on a full review of all available information, there is no evidence to suggest that hazardous constituents have leaked from the impoundments and impacted the underlying soils while the impoundments operated as interim status units.

FaxBack # 11626

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JULY 5, 1991

MEMORANDUM

SUBJECT: Applicability of the "Mixture" Rule To Petroleum Refinery Wastewater Systems

FROM: Sylvia K. Lowrance  
Office of Solid Waste

TO: Director, Waste Management Division

Regions I - X

Last fall, EPA added two wastes, F037 and F038, generated in the treatment of petroleum refinery wastewaters to the list of hazardous wastes under 40 C.F.R. 261.31 (55 Fed. Reg. 46354, November 2, 1990). Since then, we have received requests for clarification concerning the application of the "mixture rule" to these listings. This memorandum is intended to provide guidance on this question.

In a December meeting with the American Petroleum Institute (API) and my staff, API discussed what it viewed as a potential conflict between the language of the listing that limits the listed wastes to those generated upstream of aggressive biological treatment units and the preamble discussion of the interaction between the "mixture rule" and the listing. API explained its fear that introduction of a particle of the sludge to non-hazardous wastewater would taint the wastewater and thus convert any downstream units into hazardous waste treatment facilities.

The discussion of the mixture rule in the preamble to the final regulation does not reflect any change in the Agency's position about how the mixture rule works and the circumstances in which a non-hazardous wastewater, i.e., non-listed wastewater, that generates a listed waste would become hazardous.

In response to an expression of concern about this matter in comments filed on the rule, EPA (Response to Comments Background Document) indicated as follows:

With respect to the commenter's concern that all downstream units would be regulated as hazardous as a consequence of application of the mixture rule, the Agency feels that the following points should be made. Generation of a waste does not occur until deposition. It is

Agency policy that no mixing occurs in a wastewater treatment unit that manages a non-hazardous [nonlisted] liquid waste even if that liquid generates a hazardous sludge that settles to the bottom of the unit, unless that sludge is in some way dredged up and physically mixed with the liquid. If the Agency did not interpret the mixture rule in this manner, there would be no point in carefully limiting listings to include sludges but exclude wastewaters. The position of the Agency in expanding the listing was to ensure the regulation of similarly composed sludges, regardless of where they are generated.

This is consistent with EPA's previous discussions of the applicability of the mixture rule with respect to petroleum refinery wastewater separation sludges. (See attached December 7, 1984 Office of Solid Waste and Emergency Response Memorandum, Subject: Region VIII Policy for the Permitting of Refinery Oily Wastewater Treatment Ponds). Further, the Agency's position is fully explored in the extended discussion of the rule in the final rule concerning the delay of closure for hazardous waste management facilities. See 54 Fed. Reg. 33376, 33387 (August 14, 1989). There, the Agency rejected the position that when non-hazardous waste and a listed hazardous waste are co-mingled and co-managed in the same unit under any circumstances, the entire mixture is considered a listed waste.

The Agency has consistently interpreted the mixture rule not to apply where a non-listed waste is discharged to a unit (i.e., surface impoundment) even if that liquid generates a hazardous sludge, unless the sludge is in some way "mixed" with the liquid (e.g., scoured as a result of operations in the unit). If the Agency did not interpret the mixture rule in this manner, there would be no point in carefully limiting listings to include sludges but exclude wastewater.

The discussion goes on to recognize that there is a continuum between sludge, the sludge/liquid and the liquid. Within the sludge/liquid interface there may be some mixing but not "mixing" so as to convert the liquid from non-hazardous waste to hazardous. Only in the event of scouring or other physical mixing would the mixture rule come into play.

Were any mixing to occur, it would be confined to the liquid/sludge interface. Levels of hazardous constituents escaping from the hazardous sludge to the non-hazardous liquid are not likely to pose an appreciable risk to human health and the environment. Should the impoundment be dredged so that scouring or other physical mixing occurs, the mixture rule would come into effect. 54 Fed. Reg. 33388.

Under the policy explained above, for example, it is unlikely that any increased turbidity associated with the introduction of water from storm events would create the necessary scouring or physical mixing described above so as to convert non-hazardous wastewater to hazardous. Similarly, for example, the small amount of resuspension of primary sludge

associated with the normal operation of a properly designed wastewater treatment system would not render the wastewater hazardous.

cc: RA's Region I-X  
Richard Witt (LE-132S)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460  
DECEMBER 7, 1984

MEMORANDUM

SUBJECT: Region VIII Policy for the Permitting of Refinery Oily Wastewater Treatment Ponds

FROM: John He Skinner, Director

Office of Solid Waste (WH-562)

TO: Robert L. Duprey, Director

Region 8  
Air and Waste Management Division (8AW-WM)

We have reviewed the proposed Region VIII position discussed in your memos dated May 1 and October 12, 1984 that define permitting coverage of refinery wastewater treatment ponds. As your staff may have informed you, there have been several meetings between my staff and yours to discuss this problem. We have also met with Chevron, Phillips, Tosco and API and, separately, with Region IX to discuss the issue. We share your concern about the threat posed to ground and surface waters by some of the unlined wastewater ponds that treat or store oily wastewaters. However, we believe that the similarity of downstream unit sludges (in terms of lead and chromium levels) to those found in the API Separator are not a sufficient basis for defining the material in the downstream units as API Separator Sludge. In fact, the similarity of these sludges was a significant factor in our decision to move forward on an expanded listing to regulate these pond sludges.

Specifically, we are planning in a forthcoming listing to regulate oil/water/solids separation sludges generated in the wastewater treatment system prior to biological treatment. This listing was originally proposed in November of 1980. We expect to issue a notice identifying all of the available data in support of the listing and to provide some clarifications in response to previous comments. Current plans are to promulgate that listing by late summer.

While the listing revision should cover most sludges generated in these ponds, we realize

that does not address your short term problem. We do have some suggestions in this regard. Section 206 of the Hazardous and Solid Waste Amendments of 1984 provides that persons obtaining RCRA permits must undertake corrective action for all releases of hazardous constituents from any solid waste management unit as a condition of obtaining the RCRA permit. Thus, if a refinery pond is releasing hazardous constituents and the refinery seeks a RCRA permit for any unit at that facility, the refinery would have to undertake corrective action for the releases from the pond. (This could be done either through the permit, or pursuant to an interim status compliance order.) This principle applies even if the pond is not considered to hold a hazardous waste, since Section 206 applies to releases of hazardous constituents from solid waste management units.

A second option for addressing these pond sludges is to regulate the wastes as hazardous based on their exhibiting one or more of the characteristics of hazardous waste (see 40 CFR §261.21 -24). You mentioned this option in your recent letter with respect to EP Toxicity. However, your staff seems to have overlooked corrosivity (high pH has been found in some COD ponds) and reactivity (§261.23(a)(5)). It is likely that some refinery pond sludges will contain excessive levels of reactive sulfides.

The final option that could be used to deal with downstream impoundments and basins is applicability of the mixture rule. It is imperative, however, that your staff understand the proper framework for the application of the mixture rule. To maintain that a pond is regulated because an API Separator is an inherently inefficient unit and allows sludge to be carried through to a pond, is inaccurate. Likewise, downstream oxidation ponds are not regulated simply because they sometimes receive flow that has bypassed the API Separator. In both cases, the listed API Separator Sludge has not yet been generated. Rather, API Separator Sludge is generated when it is deposited in the bottom of an API Separator. The mixture rule is relevant only in those cases where previously deposited sludge is scoured, resuspended, and then carried out of the unit with the wastewater. If the Region can make a case for scouring from a separator, the mixture rule is applicable and the wastewater becomes a hazardous waste until delisted or discharged to a stream subject to regulation under the Clean Water Act.

The burden of proof in the demonstration of scouring is upon the Agency. Such an argument, although technically complex, can be made based on well established hydrodynamic principles. Realizing that there are limited resources and capability for developing such an argument by the Regions, we have (at the request of your staff) taken an active role in the development of guidance for the application of this argument. Attached to this memo is a preliminary list of factors that may be required to establish the occurrence of scouring from a given separator. These points are being provided at this time to facilitate the initiation of information gathering in the more serious cases.

We have also requested that the Office of Waste Programs Enforcement (OWPE) develop more thorough guidance. That effort is being conducted by their contractor (Metcalf & Eddy). We anticipate that your staff will be contacted by them in the near future. The contractor should be able to provide some direct assistance to your staff in some specific cases, thereby serving the dual purpose of training and resolution of specific factors of



concern. Mike Barclay (FTS: 475-8727) of OWPE is the Head-quarters lead on that project and should be contacted for any further information. Ben Smith of my staff (FTS: 475-8551) is our technical expert in this matter and the lead on our study of petroleum refineries and their wastes. Do not hesitate to contact him if additional questions arise pertaining to this or other matters.

cc: RA's Region I-X

Mike Barclay (OWPE)  
 Steve Silverman (OGC)  
 Susan Manganello (ORC, Region VIII)

### Factors To Be Evaluated In Determining The Potential For Separator Sludge Scouring

**Sludge Accumulation Practices** - Continuous sludge removal from the separator rules out the occurrence of scouring. At the other end of the spectrum are facilities that allow sludge to accumulate to considerable depth. Accumulation to a depth greater than 50% of the flow depth makes scouring probable. Intermediate ranges of accumulation will probably depend more heavily on other factors.

**Flow Variability** - Unless overloaded, units with maximum-to-minimum, flow ratios at the separator effluent of less than 2 and inlet flow ratios of less than 4 are probably not experiencing much resuspension of sludge.

**Poor Separator Design or Operation** - Factors contributing to scour conditions include: excessive, inlet or outlet zone turbulence; nominal horizontal velocities greater than 30 feet per minute; nominal overflow rates (flow/ surface area) greater than 10,000 gallons per day/square foot of basin; basins less than 30 feet in length; operation under pressure (e.g., with a backwater at the inlet of a separator with a frozen surface), settling zone turbulence (sometimes seen as bubbling with solids entrainment).

**Separator Effluent Characteristics** - Excessive weir loadings (e.g., operation with a suppressed weir, flow depth greater than a foot) facilitate carryover of resuspended particles. Visible, large (diameter greater than 1/4 inch) sludge particles in the separator effluent are strong evidence of scouring associated with microbial degradation of deposited sludge.

**Sludge Characteristics** - Particle size distribution as measured by wet sieve and hydrometer analyses is necessary information to define scour conditions. The presence of coke fines in the wastewater influent is also important because that size of particle (<.1mm) is non-cohesive and highly susceptible to resuspension.

## Chavez, Carl J, EMNRD

---

**From:** Monzeglio, Hope, NMENV  
**Sent:** Wednesday, February 24, 2010 9:14 AM  
**To:** Allen, Ann  
**Cc:** Bearzi, James, NMENV; Kieling, John, NMENV; Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Dougherty.Joel@epamail.epa.gov; Edelstein.David@epamail.epa.gov; Hains, Allen; Riege, Ed; Schmaltz, Randy; Martinez, Cynthia, NMENV  
**Subject:** Financial Assurance extension request  
**Attachments:** FA mechanism ext apprvl 2-24-10.pdf

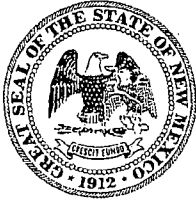
Ann

This will go out in the mail today.

Hope

Hope Monzeglio  
Environmental Specialist  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, BLDG 1  
Santa Fe NM 87505  
Phone: (505) 476-6045; Main No.: (505)-476-6000  
Fax: (505)-476-6060  
[hope.monzeglio@state.nm.us](mailto:hope.monzeglio@state.nm.us)

**Websites:**  
**New Mexico Environment Department**  
**Hazardous Waste Bureau**



BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



RON CURRY  
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 24, 2010

Ms. Ann Allen  
Senior Vice President  
Western Refining  
123 W. Mills Avenue, Suite 200  
El Paso, Texas 79901

**RE: APPROVAL  
EXTENSION REQUEST FOR THE  
RESPONSE TO NOTICE OF DISAPPROVAL FOR  
THE 2010 FINANCIAL ASSURANCE DEMONSTRATION  
WESTERN REFINING COMPANY, SOUTHWEST, INC.  
GALLUP AND BLOOMFIELD REFINERIES  
EPA ID # NMD000333211  
HWB-GRCC-MISC**

Dear Ms. Allen:

The New Mexico Environment Department (NMED) received the Western Refining Company, Southwest Inc. (WRC) *Extension Request for Response to Notice of Disapproval Financial Assurance for Western Refining Southwest, Inc. Gallup* (Response) dated February 18, 2010. The letter requests an extension to submit the response to NMED's *Notice of Disapproval Financial Assurance for the Gallup Refinery EPA ID# NMD000333211 and the Bloomfield Refinery NMD089416416* dated February 4, 2010.

Ann Allen  
Western Refining Southwest, Inc.,  
February 24, 2010  
Page 2

Western's financial statements will not be finalized until March 4, 2010; the Permittee has shown good cause in this request. NMED hereby approves of the requested extension for submittal of the Response until March 15, 2010.

As part of the request WRC requested the regulatory basis for additional financial assurance for the closure of the Bloomfield Refinery surface impoundments. The surface impoundments (aeration lagoons) are interim status units. Even though investigation and cleanup of the surface impoundments below the liners will be conducted in conjunction with corrective action conducted in the process area (SWMU 13) under the July 27, 2007 Order, WRC is still required to provide financial assurance for the completion of closure of interim status units in accordance with 20.4.1.600 NMAC incorporating 40 CFR §265.142 and 143. The closure cost estimate must include the costs for all activities required to complete final closure. NMED's estimate is a general approximation based on complete removal of contaminated soils beneath the surface impoundments, disposal of those soils as nonhazardous waste at an approved landfill and all associated costs for testing, monitoring and reporting of the removal action. WRC may choose to provide its own estimate of the costs for closure of the surface impoundments rather than use the estimate provided in NMED's February 4, 2010 letter.

If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB  
D. Cobrain NMED HWB  
H. Monzeglio, NMED HWB  
C. Chavez, OCD  
J. Dougherty, EPA Region 6  
D. Edelstein, EPA Region 6  
Alan Haines, Western Refining  
File: Reading File and GRCC 2010 File



BLOOMFIELD REFINERY

WNR  
LISTED  
NYSE

RECEIVED

2010 JAN 29 PM 1 51

CERTIFIED MAIL # 7008 1300 0001 3402 7169

January 27, 2010

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

Re: Financial Assurance Cost Estimate – January 2010  
Per Order No. HWB 07-34 (CO)  
Western Refining Southwest, Inc. – Bloomfield Refinery  
EPA ID# NMD089416416

Dear Mr. Bearzi:

Western Refining Southwest, Inc. - Bloomfield Refinery submits the referenced Financial Assurance Cost Estimate pursuant to Section III.P.2. of the July 2007 HWB Order. The estimate was prepared for Western by RPS, a third party environmental engineering company. Annual adjustments to the Financial Assurance Cost Estimate were made in compliance with the requirements of 40 CRF 264.142(b) and 264.144(b). The adjusted cost estimate reflects the completion of two years of interim measures and facility-wide groundwater monitoring activities.

If you have any questions or would like to discuss the Financial Assurance Cost Estimate, please contact me at (505) 632-4171.

Sincerely,

James R. Schmaltz  
Environmental Manager  
Western Refining Southwest, Inc.  
Bloomfield Refinery

cc: Hope Monzeglio – NMED HWB  
Carl Chavez – NMOCD (w/attachment)  
Dave Cobrain – NMED HWB  
Laurie King – EPA Region 6 (w/attachment)  
Vic McDaniel – Bloomfield Refinery  
Randy Schmaltz – Bloomfield Refinery  
Allen Hains – Western Refining El Paso



404 Camp Craft Rd., Austin, Texas 78746, USA  
T +1 512 347 7588 F +1 512 347 8243 W www.rpsgroup.com

January 27, 2010

Mr. James R. Schmaltz  
Environmental Manager  
Western Refining Company  
P.O. Box 159  
Bloomfield, NM 87413

**Re:** Western Refining Southwest, Inc. Bloomfield; Order No. HWB 07-34 (CO)  
Financial Assurance Cost Estimate

Dear Randy:

This Estimated Cost of the Work includes costs to address those activities specified in Section III.P.1. of the referenced Order. The cost estimate was prepared in accordance with 40 CFR 264.101 and substantially in compliance with the requirements of 40 CFR 264.142 and 264.144. Annual adjustments were made from the cost estimate provided in January 2009 pursuant to Section III.P.2 of the Order. The current total estimated cost is \$1,095,275. A detailed breakout of the estimate by activity is provided in the enclosed tables.

If there are any questions, please contact me at (512) 347-7588.

Sincerely,

RPS

A handwritten signature in dark ink, appearing to read 'Scott T. Crouch'.

Scott T. Crouch, P.G.

STC/sab

cc: Allen Hains – Western Refining El Paso

Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/27/2010

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 (SWMUs) 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	

Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/27/2010

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



Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/27/2010

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.A.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	

Western Refining Southwest, Inc.  
Bloomfield, New Mexico Refinery  
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate  
1/27/2010

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		\$77,400		\$77,400	3 yrs. Monitoring @ \$25,800/yr - see detail Table A
River Terrace Annual Report	V.B.1		\$10,500	\$6,000	\$16,500	3 yrs. reporting @ \$3,500/annual report & NMED fees of \$2,000/annual rpt
River Terrace Operation & Maintenance	III.P.1 & V.B.		\$24,000		\$24,000	GAC filters & maintenance \$8,000/yr x 3 yrs
North Barrier Wall collection operations	III.P.1		\$100,880		\$100,880	Bi-weekly fluid level measurements (labor 4hrs/biweekly event @ \$65/hr = \$6,760/yr & equipment \$1,000/yr x 13 years)
Facility Wide Ground Water Monitoring (including North Barrier Wall & Tank Farm) analytical costs	IV.A.		\$661,622		\$661,622	Table B provides detailed cost on a annual basis (\$50,894) which is multiplied by 13 years pursuant to the Order.
Facility-Wide Annual Monitoring Report (including North Barrier Wall)	IV.A.2.		\$91,000	\$26,000	\$117,000	13 yrs. Monitoring @ \$7,000/annual report & NMED fees of \$2,000/annual rpt
1# East Outfall	V.C.		\$9,230		\$9,230	See Table C for detailed estimate; annual cost of \$710/yr x 13 years
San Juan River samples			\$77,584		\$77,584	See Table D for detailed estimate; assume 13 years @ \$5,968/yr
<b>TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER (without inflation costs)</b>					<b>\$1,084,216</b>	
<b>Inflation Factor<sup>3</sup></b>					<b>\$1,084,216</b>	
					<b>1.02%</b>	
<b>CURRENT TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER.</b>					<b>\$1,095,275</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- Implicit price deflator for 2008/implicit price deflator for 2007 (updated 12/22/2009) = 108.483/106.214 = 1.02% <http://www.bea.gov> (Table 1.1.9 Implicit Price Deflators for GDP)

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

<b>RIVER TERRACE - AQUEOUS</b>					
<b>Analysis</b>	<b>Frequency</b>	<b># of Samples</b>	<b>Cost/Sample</b>	<b>Cost per QTR</b>	<b>Cost per Year</b>
8021B	4 X yr	16	\$45	\$720	\$2,880
8015B (GRO, DRO)	4 X yr	16	\$70	\$1,120	\$4,480
Total Pb, Cr, Ba (6010B)	1 X yr	14	\$50	\$700	\$700
Total Pb (6010B)	3 X yr	14	\$30	\$420	\$1,260
Total Hg (7470)	4 X yr	1	\$30	\$30	\$120
<b>RIVER TERRACE - Vapor</b>					
<b>Analysis</b>	<b>Frequency</b>	<b># of Samples</b>	<b>Cost/Sample</b>	<b>Cost per QTR</b>	<b>Cost per Year</b>
8021B	4 X yr	16	\$45	\$720	\$2,880
8015B (GRO)	4 X yr	16	\$35	\$560	\$2,240
Tedlar Bags	4 X yr	16	\$10	\$160	\$640
Level 4 Data Packet	4 X yr	1	\$400	\$400	\$1,600
River Terrace Labor	4 X yr	3 days of 7 hour days	\$65/hour	\$1,365	\$5,460
<b>GAC Breakthrough Sampling</b>					
8021B	12 x yr	1	\$45	\$135	\$540
8015B (GRO, DRO)	12 x yr	1	\$70	\$210	\$840
8021B	4 x yr	3	\$45	\$135	\$540
8015B (GRO, DRO)	4 x yr	3	\$70	\$210	\$840
Annual analytical costs				\$25,020	
Annual Sampling Labor -- 12 hours X \$65/hr				\$780	
Total Annual River Terrace Sampling Costs				\$25,800	

River terrace sampling conducted pursuant to May 2008 Facility-Wide Groundwater Monitoring Plan (Section 5.4) and Bioventing Monitoring Plan (Revised) River Terrace Voluntary Corrective Measures dated October 28, 2005

**TABLE B****Facility-Wide Groundwater Monitoring Cost Estimate**

<b>Annual Refinery Complex (33 Wells and East Outfall #2 &amp; #3) <sup>2</sup></b>				
<b>Analysis</b>	<b>Frequency</b>	<b># of Samples</b>	<b>Cost/Sample</b>	<b>Cost per Year</b>
8260B	Annual	35	\$115	\$4,025
8015B (GRO, DRO)	Annual	35	\$70	\$2,450
8270C	Annual	35	\$280	\$9,800
CO2/Alkalinity (310.1)	Annual	35	\$15	\$525
Cation Anion Balance + Diss Metals	Annual	35	\$229	\$8,015
RCRA 8 Metals	Annual	35	\$100	\$3,500
Ph	Annual	35	\$10	\$350
Filters		35	\$12	\$420
Level 4 Data Packet	Annual	1	\$3,500	\$3,500
<b>Semi-Annual - Refinery Complex MW/RW <sup>2</sup></b>				
<b>Analysis</b>	<b>Frequency</b>	<b># of Samples</b>	<b>Cost/Sample</b>	<b>Cost per Year</b>
8260B	Semi-Annual <sup>1</sup>	11	\$45	\$495
8015B (GRO, DRO)	Semi-Annual <sup>1</sup>	11	\$70	\$770
Level 4 Data Packet	Semi-Annual <sup>1</sup>	1	\$200	\$200
<b>Semi-Annual - North Barrier Wall OW/CW <sup>3</sup></b>				
<b>Analysis</b>	<b>Frequency</b>	<b># of Samples</b>	<b>Cost/Sample</b>	<b>Cost per Year</b>
8260B	Semi-Annual	16	\$45	\$1,440
8015B (GRO, DRO)	Semi-Annual	16	\$70	\$2,240
Level 4 Data Packet	Semi-Annual	1	\$200	\$400
<b>Semi-Annual River Bluff (Outfall 2 &amp; 3, &amp; Seeps 1, 6, 7, 8, &amp; 9) <sup>4</sup></b>				
<b>Analysis</b>	<b>Frequency</b>	<b># of Samples</b>	<b>Cost/Sample</b>	<b>Cost per Year</b>
8260B	Semi-Annual	7	\$45	\$630
8270C	Semi-Annual	5	\$280	\$2,800
8015B (GRO, DRO)	Semi-Annual	2	\$70	\$280
CO2/Alkalinity (310.1)	Semi-Annual	7	\$15	\$210
Cation Anion Balance + Diss Metals	Semi-Annual	7	\$229	\$3,206
RCRA 8 Metals	Semi-Annual	2	\$100	\$400
Ph	Semi-Annual	2	\$10	\$40
Filters		2	\$12	\$48
Level 4 Data Packet	Semi-Annual	2	\$150	\$600
Sampling Labor	Semi-Annual & Annual events	10 Days of 7 hour days	\$65/hour	\$4,550
<b>Total Annual - Facility-Wide Groundwater Sampling &amp; Analysis \$50,894</b>				

1 - The other "semiannual event" is included with the Refinery Complex annual event

2 - Sampling pursuant to May 2008 Facility-Wide Groundwater Monitoring Plan, Section 5.1

3 - Sampling pursuant to May 2008 Facility-Wide Groundwater Monitoring Plan, Section 5.2

4 - Sampling pursuant to May 2008 Facility-Wide Groundwater Monitoring Plan, Section 5.3

**TABLE C**  
**#1 East Outfall (Tank 33) Cost Estimate <sup>1</sup>**

Analysis	Frequency	# of Samples	Cost/Sample	Cost per year
8260B	4 X yr	1	\$45	\$180
Level 4 Data Packet	4 X yr	1	\$100	\$400
Annual analytical costs				\$580
Sampling Labor	2 X yr	1 hour each event	\$65/hour	\$130
Total Annual #1 East Outfall Sampling Costs				\$710

**TABLE D**  
**San Juan River Sampling Cost Estimate <sup>2</sup>**

Analysis	Frequency	# of Samples	Cost/Sample	Cost per year
8260B	2 X yr	4	\$45	\$360
8015B (GRO, DRO)	2 X yr	4	\$70	\$560
CO2/Alkalinity (310.1)	2 X yr	4	\$15	\$120
Cation Anion Balance + Diss Metals	2 X yr	4	\$229	\$1,832
RCRA 8 Metals	2 X yr	4	\$100	\$800
Ph	2 X yr	4	\$10	\$80
Filters		4	\$12	\$96
Level 4 Data Packet	2 X yr	1	\$800	\$1,600
Annual analytical costs				\$5,448
Sampling Labor	Semi-Annual	4 hours each event	\$65/hour	\$520
Total Annual San Juan River Sampling Costs				\$5,968

1 - Sampling pursuant to May 2008 Facility-Wide Groundwater Monitoring Plan, Section 5.3

2 - Sampling pursuant to May 2008 Facility-Wide Groundwater Monitoring Plan, Section 5.4

**DELETED Interim Unit 1**

**Table A**

<b>Interim Status Unit No. 1 Cost Estimate</b>	
Activity	Cost
Vigorous aeration with diesel pump	
- Operator: 168 hours @ \$30/hr	\$5,040
- Fuel for Pump: 8 gph x \$3.00/gal x 168 hrs	\$4,032
Testing of treated water	
- Benzene: 15 samples @ \$120/sample	\$1,800
Testing of residual solids	
- TCLP: 15 samples @ \$500/sample	\$7,500
Removal of residual solids	
- Labor: 2 workers @ 40 hrs/ea x \$30/hr	\$2,400
- Disposal: 40,000 lbs x \$0.20/lb + \$2,200 freight	\$10,200
Washing of impoundments	
- Mobil wash: 24 hours x \$80/hr	\$1,920
Flushing of equipment	
- Mobil wash: 8 hrs x \$80/hr	\$640
- Final testing and certification	\$2,000
<b>Total Closure Cost</b>	<b>\$35,532</b>

gph - gallons per hour