GW - 001

GENERAL CORRESPONDENCE

YEAR(S):

2006 - Present

Chavez, Carl J, EMNRD

From: Hains, Allen S <Allen.S.Hains@andeavor.com>
Sent: Thursday, March 29, 2018 3:40 PM
To: Tsinnajinnie, Leona, NMENV; Chavez, Carl J, EMNRD
Cc: Kieling, John, NMENV
Subject: Western Refining - Bloomfield Terminal April 2018 Sampling Notification NMED and OCD
Attachments: April 2018 Sampling Notification NMED and OCD.pdf

Leona and Carl,

The Semi-annual Sampling Notification for the Western Refining – Bloomfield Terminal is attached.

If there are any questions, please contact me.

Thank you,

Allen S. Hains
Project Manager
Refinery Remediation

Andeavor
212 N. Clark Street
El Paso, Texas 79905
915 534-1483
915 490-1594 (cell)
Please note the new email address: Allen.S.Hains@andeavor.com

Western Refining

WNR LISTED NYSE

March 29, 2018

Leona Tsinnajinnie
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7004 1350 0003 7983 3357 (Delivery to NMED)
Certified Mail#: 7004 1350 0003 7983 3364 (Delivery to OCD)

RE: Notification to Conduct Semi-Annual Groundwater Monitoring
Western Refining Southwest, Inc. - Bloomfield Terminal
EPA ID# NMD089416416
GW - 001

Dear Mrs. Tsinnajinnie and Mr. Chavez,

Western Refining Southwest, Inc. – Bloomfield Terminal (Western) is scheduled to conduct the Semi-Annual Groundwater Sampling Event at the Bloomfield Facility starting the week of April 16, 2018. Based on the number of sample locations included as part of the Semi-Annual Monitoring Event, we anticipate that sampling activities will be completed by April 20, 2018, weather permitting.

Locations from which samples will be collected during this sampling event include the Refinery Complex, North Boundary Barrier, San Juan River Bluff, and from the San Juan River. All semi-annual groundwater monitoring activities will be performed pursuant to the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June, 2014 approved on June 15, 2015.

If you have any questions or need additional information, please feel free to contact me at (915) 534-1483 at your convenience.

Sincerely,

WESTERN REFINING SOUTHWEST, INC.

Allen S. Hains

By: ALLEN S. HAINS
Project Manager – Refinery Remediation

Western Refining

WNR LISTED NYSE

April 19, 2017

Leona Tsinnajinnie
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7015 0640 0005 8540 2803 NMED
Certified Mail#: 7015 0640 0005 8540 2810 OCD

RE: Notification for River Terrace Low Flow Sampling Event
Western Refining Southwest, Inc. - Bloomfield Terminal
EPA ID# NMD089416416
GW - 001

Dear Mrs. Tsinnajinnie and Mr. Chavez,

Western Refining Southwest, Inc. – Bloomfield Terminal (Western) is scheduled to conduct the River Terrace Low Flow Sampling Event at the Bloomfield Facility starting the week of April 24, 2017. The Low Flow Sampling Event is conducted during low flow conditions of the San Juan River (i.e. with a flow rate of less than 500 scfm).

If you have any questions or need additional information, please feel free to contact me at (505) 632-4166 at your convenience.

Sincerely,

Kelly Robinson
Environmental Supervisor
Western Refining Southwest, Inc.

cc: Randy Schmaltz - HSER Director

Western Refining

WNR
NYSE

April, 6th 2017

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

UPS Tracking:

RE: Western Refining Southwest, Inc. – Bloomfield Terminal
Notification of Sump and Sewer Box Inspection Activities
EPA ID# NMD089416416
GW - 001

Dear Mr. Chavez,

Western Refining Southwest, Inc – Bloomfield Terminal has scheduled inspection of all water-draw sumps and underground lines to begin in April. These activities will be conducted pursuant to Section 12 and Section 13 of the facilities Discharge Permit (GW-001) Each sump will be cleaned out with a vacuum truck, visually inspected, and the sumps that cannot be visually inspected (due to heavy oil) or sumps with integrity concerns will be hydrostatically tested to insure integrity. Underground lines will be pressured up to one and a half times normal operating pressure and held at that pressure for at least 30 minutes.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel. If you have any questions please feel free to contact me at your convenience at (505) 632-4169.

Sincerely,

Matthew Krakow
Environmental Coordinator
Western Refining Southwest, Inc.

Cc: Randy Schmaltz (WNR)
Kelly Robinson (WNR)

Western Refining

WNR LISTED NYSE

RECEIVED OCD

2017 MAR 21 P 2:10

March 17, 2017

Leona Tsinnajinnie
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7016 2140 0000 3867 3499 (Delivery to NMED)
Certified Mail#: 7016 2140 0000 3867 3505 (Delivery to OCD)

RE: Notification to Conduct 2017 Semi-Annual Groundwater Monitoring
Western Refining Southwest, Inc. - Bloomfield Terminal
EPA ID# NMD089416416
GW - 001

Dear Mrs. Tsinnajinnie and Mr. Chavez,

Western Refining Southwest, Inc. – Bloomfield Terminal (Western) is scheduled to conduct the 2017 Semi-Annual Groundwater Sampling Event at the Bloomfield Facility starting the week of April 17, 2017. Based on the number of sample locations included as part of the Semi-Annual Monitoring Event, we anticipate that sampling activities will be completed by April 28, 2017, weather permitting.

Locations from which samples will be collected during this sampling event include the Refinery Complex, North Boundary Barrier, San Juan River Bluff, and from the San Juan River. All semi-annual groundwater monitoring activities will be performed pursuant to the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June 2014 approved on June 15, 2015.

If you have any questions or need additional information, please feel free to contact me at (505) 632-4166 at your convenience.

Sincerely,

Kelly Robinson

Kelly Robinson
Environmental Supervisor - Logistics
Western Refining Southwest, Inc.

Cc: Randy Schmaltz - HSER Manager

Western Refining

WNR LISTED NYSE

RECEIVED OCD

2016 JUL 15 A 10:26

July 13, 2016

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

UPS Tracking: 1Z 881 839 01 4201 5869

RE: Western Refining Southwest, Inc. – Bloomfield Terminal
Notification of Sump and Sewer Box Inspection Activities
EPA ID# NMD089416416
GW - 001

Dear Mr. Chavez,

Western Refining Southwest, Inc – Bloomfield Terminal has scheduled inspection of all water-draw sumps and underground lines to begin in July. These activities will be conducted pursuant to Section 12 and Section 13 of the facilities Discharge Permit Renewal (GW-001) Each sump will be cleaned out with a vacuum truck, visually inspected, and the sumps that cannot be visually inspected (due to heavy oil) or sumps with integrity concerns will be hydrostatically tested to insure integrity. Underground lines will be pressured up to one and a half times normal operating pressure and held at that pressure for at least 30 minutes.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel. If you have any questions please feel free to contact me at your convenience at (505) 632-4169.

Sincerely,

Matthew Krakow
Environmental Coordinator
Western Refining Southwest, Inc.

Cc: Randy Schmaltz (WNR)
Kelly Robinson (WNR)

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, May 20, 2016 11:32 AM
To: 'Robinson, Kelly'
Cc: Griswold, Jim, EMNRD; Tsinnajinnie, Leona, NMENV; Schmaltz, Randy; Hains, Allen; Krakow, Matt
Subject: RE: Bloomfield Bulk Terminal (GW-001) 2015 GW Remediation and Monitoring Annual Report Submitted April 2016 Class I (NH) Waste Disposal Inquiry

Kelly:

Good morning. The New Mexico Oil Conservation Division (OCD) is in receipt of Western's response to OCD's May 17, 2016 inquiry below based on OCD's review of the above subject report and subsequent inquiry.

OCD requests that Western include all waste disposal facility information including the UIC Class I (NH) Disposal Well Effluent disposition derived from the Bulk Terminal in the applicable appendices of the above subject type of report from now on when applicable. Western did indicate in the text of the report that effluent was taken to a "Class I Permitted Facility", but the facility was not listed in the referenced appendices of the report.

In accordance with OCD's internal UIC Program audit process, OCD is following up with Agua Moss, LLC to confirm receipt of Western's oilfield exempt waste. Agua Moss, LLC is subject to OCD Audits during OCD well inspections, and/or for any OCD requests for disposal related documentation associated with its OCD UIC Permitted Class I (NH) disposal well.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/ocd
Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]
Sent: Friday, May 20, 2016 10:27 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Tsinnajinnie, Leona, NMENV <Leona.Tsinnajinnie@state.nm.us>; Schmaltz, Randy <Randy.Schmaltz@wnr.com>; Hains, Allen <Allen.Hains@wnr.com>; Krakow, Matt <Matt.Krakow@wnr.com>
Subject: RE: Bloomfield Bulk Terminal (GW-001) 2015 GW Remediation and Monitoring Annual Report Submitted April 2016 Class I (NH) Waste Disposal Inquiry

Good Morning Sir,

Randy is out of town this week at a Conference, and therefore he has asked that I response to your document request below regarding the off-site disposal of the non-hazardous waste water generated at the Western Refining Bloomfield Terminal.

As it was stated in the 2015 Groundwater Remediation and Monitoring Report, subsequent to the plug and abandonment of the Western Refining Class I injection well, non-hazardous treated wastewater was disposed of off-site at a Class I permitted facility. This water was profiled and sent to the Agua Moss Class I well located in Aztec, New Mexico. Prior to initiating off-site disposal, Western requested approval from NMOCD to dispose of the treated wastewater at the Agua Moss Class I injection well via an e-mail submitted on October 21, 2015. The request for approval included a copy of the analytical report for a sample of the water collected in July 2015 for NMOCD's review. Western received NMOCD approval via e-mail on October 21, 2015. A copy of the e-mail correspondence with NMOCD and the Western signed C-138 associated with the profile for the material is attached for reference.

A total of 714 loads of non-hazardous treated water was shipped to Agua Moss for disposal in 2015. Each load was shipped on a non-hazardous manifest. A copy of the manifest template used for each shipment and a summary of the each load shipped off-site (including date, time, and total volume) is attached for reference.

If you have any questions or need any additional information regarding this topic, please let us know at your convenience.

Thank you so much for your time, and have a great weekend!

Kelly R. Robinson | Environmental Manager - Logistics
Western Refining | 111 County Road 4990 | Bloomfield, NM87413
(o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

From: "Chavez, Carl J, EMNRD" <CarlJ.Chavez@state.nm.us>
Date: May 17, 2016 at 12:00:28 PM CDT
To: "Schmaltz, Randy (Randy.Schmaltz@wnr.com)" <Randy.Schmaltz@wnr.com>
Cc: "Griswold, Jim, EMNRD" <Jim.Griswold@state.nm.us>, "Tsinnajinnie, Leona, NMENV" <Leona.Tsinnajinnie@state.nm.us>
Subject: Bloomfield Bulk Terminal (GW-001) 2015 GW Remediation and Monitoring Annual Report Submitted April 2016 Class I (NH) Waste Disposal Inquiry

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Randy:

Good morning. From the above subject report, it is not clear where the Class I (NH) Disposal Well fluids were taken? OCD is aware of the plugged and abandoned Class I (NH) Disposal Well (see description below) in 2015.

Please provide OCD with more details on the facility where the Class I (NH) Disposal Well Effluent was and is being disposed after September 22, 2015, any C-138 manifests or documentation of the disposal events, disposal volumes, any testing, etc. to OCD by COB this Friday, May 20, 2016.

Thank you.

****

2.4 Waste Disposal
Western Refining indefinitely suspended refining operations at the facility on November 23, 2009. The crude unloading and product loading racks, storage tanks and other supporting equipment remain in operation. Recovered water from on-site remediation activities and facility operations is treated through

the on-site WWTS. Treated water is then disposed of through the on-site Class I non-hazardous injection well or sent off-site to a Class 1 non-hazardous injection well for disposal.
All operational waste generated is properly characterized and disposed of off-site. Additional information regarding waste disposal activities is provided in Section 3.5.

3.5 Waste Disposal
Western Refining indefinitely suspended refining operations at the Bloomfield Facility on November 23, 2009. The crude unloading and product loading racks, storage tanks and other supporting equipment remain in operation. Recovered water from on-site remediation activities and facility operations is treated through the on-site WWTS. Treated water is then disposed of through a Class I non-hazardous injection well. Due to mechanical issues, the on-site Class I injection well was shut down on September 22, 2015 and was plugged and abandoned in October 2015. It is anticipated that a replacement well will be installed. During the interim period, wastewater that has been processed through the WWTS is being transported for off-site disposal at a permitted commercial Class I non-hazardous injection well.
All operational waste generated is properly characterized and disposed of off-site. A summary of such wastes for 2015 is provided in Appendix E (see attachment).

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/ocd
Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to “Publications” and “Pollution Prevention” on the OCD Website.

10/21/15 MK

Krakow, Matt

From: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Sent: Wednesday, October 21, 2015 1:17 PM
To: Krakow, Matt
Cc: Robinson, Kelly; Schmaltz, Randy; Aguamossghiggins@hotmail.com; pthompson@marrion.bz; ryandavis@marrion.bz; shacie@marrion.bz
Subject: RE: Treated Waste Water Disposal

Matt:

Looks good. Thanks.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/ocd
Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

From: Krakow, Matt [mailto:Matt.Krakow@wnr.com]
Sent: Wednesday, October 21, 2015 12:35 PM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Robinson, Kelly <Kelly.Robinson@wnr.com>; Schmaltz, Randy <Randy.Schmaltz@wnr.com>; Aguamossghiggins@hotmail.com; pthompson@marrion.bz; ryandavis@marrion.bz; shacie@marrion.bz
Subject: Treated Waste Water Disposal

Hi Carl,

Western Refining is making notification to NMOCD of plans to dispose of treated non-hazardous waste water from Bloomfield Terminal at the Agua Moss Class I injection well. Western is in the process of submitting a C-138 and analytical of the waste for acceptance at Agua Moss, LLC in Aztec ,NM. Analytical from the waste water is attached. If you have any questions please let us know.

THANKS,
MATTHEW KRAKOW
Environmental Coordinator

Western Refining Southwest Inc.
111 County Road 4990
Bloomfield, NM 87413

P: 505-632-4169

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

162115 MK

Form C-138
Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Western Refining Southwest, Inc. 50 CR 4990, Bloomfield, NM, 87413

2. Originating Site:
Western Refining Southwest, Inc. Bloomfield Terminal – NESE27, T29N, R11W, San Juan County, NM

3. Location of Material (Street Address, City, State or ULSTR):
Same as originating site

4. Source and Description of Waste:
Treated non-hazardous water from the Bloomfield Terminal.

Estimated Volume _____ bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Matthew Krakow, representative or authorized agent for Western Refining Southwest, Inc. do hereby
PRINT & SIGN NAME COMPANY NAME

certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, N/A, representative for N/A do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter: TBD

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Agua Moss Permit # UICI-005

Address of Facility: 345 Rd 350 Aztec, NM 87410

Method of Treatment and/or Disposal:

☐ Evaporation ☒ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: _____ TITLE: _____ DATE: _____

SIGNATURE: _____ TELEPHONE NO.: _____
Surface Waste Management Facility Authorized Agent

10215MK

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 06, 2015

Kelly Robinson
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4166
FAX (505) 632-3911

RE: Injection Well 7-1-15 OrderNo.: 1507094

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/2/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1507094**
Date Reported: **8/6/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** Injection Well
Project: Injection Well 7-1-15 **Collection Date:** 7/1/2015 9:00:00 AM
Lab ID: 1507094-001 **Matrix:** AQUEOUS **Received Date:** 7/2/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	480	50		mg/L	100	7/2/2015 5:18:55 PM	R27295
Sulfate	65	5.0		mg/L	10	7/2/2015 5:06:31 PM	R27295
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **JRR**	
Conductivity	2000	0.010		µmhos/cm	1	7/6/2015 11:31:17 AM	R27329
SM2320B: ALKALINITY						Analyst: **JRR**	
Bicarbonate (As CaCO3)	274.6	20.00		mg/L CaCO3	1	7/6/2015 11:31:17 AM	R27329
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/6/2015 11:31:17 AM	R27329
Total Alkalinity (as CaCO3)	274.6	20.00		mg/L CaCO3	1	7/6/2015 11:31:17 AM	R27329
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1220	40.0	*	mg/L	1	7/8/2015 5:09:00 PM	20129
SM4500-H+B: PH						Analyst: **JRR**	
pH	7.45	1.68	H	pH units	1	7/6/2015 11:31:17 AM	R27329
EPA METHOD 7470: MERCURY						Analyst: **JLF**	
Mercury	ND	0.0010		mg/L	5	7/8/2015 4:47:51 PM	20158
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **MED**	
Arsenic	ND	0.020		mg/L	1	7/9/2015 10:51:23 AM	20102
Barium	0.27	0.020		mg/L	1	7/9/2015 10:51:23 AM	20102
Cadmium	ND	0.0020		mg/L	1	7/16/2015 12:13:28 PM	20102
Calcium	120	5.0		mg/L	5	7/9/2015 1:02:36 PM	20102
Chromium	ND	0.0060		mg/L	1	7/14/2015 3:52:06 PM	20102
Lead	ND	0.0050		mg/L	1	7/9/2015 10:51:23 AM	20102
Magnesium	28	1.0		mg/L	1	7/9/2015 10:51:23 AM	20102
Potassium	7.7	1.0		mg/L	1	7/9/2015 10:51:23 AM	20102
Selenium	ND	0.050		mg/L	1	7/16/2015 12:13:28 PM	20102
Silver	ND	0.0050		mg/L	1	7/16/2015 12:13:28 PM	20102
Sodium	280	5.0		mg/L	5	7/9/2015 1:02:36 PM	20102
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Acenaphthylene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Aniline	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Anthracene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Azobenzene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Benz(a)anthracene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Benzo(a)pyrene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Benzo(b)fluoranthene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Project: Injection Well 7-1-15
Lab ID: 1507094-001 **Matrix:** AQUEOUS

Client Sample ID: Injection Well
Collection Date: 7/1/2015 9:00:00 AM
Received Date: 7/2/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Benzo(k)fluoranthene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Benzoic acid	ND	20		µg/L	1	7/10/2015 1:30:30 PM	20095
Benzyl alcohol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Butyl benzyl phthalate	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Carbazole	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
4-Chloroaniline	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2-Chloronaphthalene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2-Chlorophenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Chrysene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Di-n-butyl phthalate	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Di-n-octyl phthalate	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Dibenzofuran	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
1,2-Dichlorobenzene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
1,3-Dichlorobenzene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
1,4-Dichlorobenzene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Diethyl phthalate	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Dimethyl phthalate	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2,4-Dichlorophenol	ND	20		µg/L	1	7/10/2015 1:30:30 PM	20095
2,4-Dimethylphenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/10/2015 1:30:30 PM	20095
2,4-Dinitrophenol	ND	20		µg/L	1	7/10/2015 1:30:30 PM	20095
2,4-Dinitrotoluene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2,6-Dinitrotoluene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Fluoranthene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Fluorene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Hexachlorobenzene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Hexachlorobutadiene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Hexachloroethane	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** Injection Well
Project: Injection Well 7-1-15 **Collection Date:** 7/1/2015 9:00:00 AM
Lab ID: 1507094-001 **Matrix:** AQUEOUS **Received Date:** 7/2/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Isophorone	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
1-Methylnaphthalene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2-Methylnaphthalene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2-Methylphenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
3+4-Methylphenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
N-Nitrosodimethylamine	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Naphthalene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2-Nitroaniline	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
3-Nitroaniline	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
4-Nitroaniline	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Nitrobenzene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2-Nitrophenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
4-Nitrophenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Pentachlorophenol	ND	20		µg/L	1	7/10/2015 1:30:30 PM	20095
Phenanthrene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Phenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Pyrene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Pyridine	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/10/2015 1:30:30 PM	20095
Surr: 2-Fluorophenol	66.2	14.9-111		%REC	1	7/10/2015 1:30:30 PM	20095
Surr: Phenol-d5	64.1	11.3-108		%REC	1	7/10/2015 1:30:30 PM	20095
Surr: 2,4,6-Tribromophenol	75.7	15.7-154		%REC	1	7/10/2015 1:30:30 PM	20095
Surr: Nitrobenzene-d5	84.6	47.8-106		%REC	1	7/10/2015 1:30:30 PM	20095
Surr: 2-Fluorobiphenyl	63.7	21.3-123		%REC	1	7/10/2015 1:30:30 PM	20095
Surr: 4-Terphenyl-d14	51.4	14.3-135		%REC	1	7/10/2015 1:30:30 PM	20095
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
Benzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Toluene	1.5	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Ethylbenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Naphthalene	ND	2.0		µg/L	1	7/9/2015 8:19:52 PM	R27397

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Project: Injection Well 7-1-15
Lab ID: 1507094-001 **Matrix:** AQUEOUS

Client Sample ID: Injection Well
Collection Date: 7/1/2015 9:00:00 AM
Received Date: 7/2/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
1-Methylnaphthalene	ND	4.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
2-Methylnaphthalene	ND	4.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Acetone	72	10		µg/L	1	7/9/2015 8:19:52 PM	R27397
Bromobenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Bromodichloromethane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Bromoform	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Bromomethane	ND	3.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
2-Butanone	11	10		µg/L	1	7/9/2015 8:19:52 PM	R27397
Carbon disulfide	ND	10		µg/L	1	7/9/2015 8:19:52 PM	R27397
Carbon Tetrachloride	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Chlorobenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Chloroethane	ND	2.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Chloroform	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Chloromethane	ND	3.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
2-Chlorotoluene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
4-Chlorotoluene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
cis-1,2-DCE	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Dibromochloromethane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Dibromomethane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,1-Dichloroethane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,1-Dichloroethene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,2-Dichloropropane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,3-Dichloropropane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
2,2-Dichloropropane	ND	2.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,1-Dichloropropene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Hexachlorobutadiene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
2-Hexanone	ND	10		µg/L	1	7/9/2015 8:19:52 PM	R27397
Isopropylbenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
4-Isopropyltoluene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
4-Methyl-2-pentanone	ND	10		µg/L	1	7/9/2015 8:19:52 PM	R27397
Methylene Chloride	ND	3.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
n-Butylbenzene	ND	3.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
n-Propylbenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Project: Injection Well 7-1-15
Lab ID: 1507094-001 **Matrix:** AQUEOUS

Client Sample ID: Injection Well
Collection Date: 7/1/2015 9:00:00 AM
Received Date: 7/2/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
sec-Butylbenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Styrene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
tert-Butylbenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
trans-1,2-DCE	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Trichlorofluoromethane	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Vinyl chloride	ND	1.0		µg/L	1	7/9/2015 8:19:52 PM	R27397
Xylenes, Total	ND	1.5		µg/L	1	7/9/2015 8:19:52 PM	R27397
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%REC	1	7/9/2015 8:19:52 PM	R27397
Surr: 4-Bromofluorobenzene	90.8	70-130		%REC	1	7/9/2015 8:19:52 PM	R27397
Surr: Dibromofluoromethane	103	70-130		%REC	1	7/9/2015 8:19:52 PM	R27397
Surr: Toluene-d8	95.5	70-130		%REC	1	7/9/2015 8:19:52 PM	R27397

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	150707035
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1507094
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	150707035-001	**Sampling Date**	7/1/2015	**Date/Time Received**	7/7/2015 11:00 AM
Client Sample ID	1507094-001E / INJECTION WELL			**Sampling Time**	9:00 AM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/L	1	7/15/2015	CRW	SW846 CH7	
Flashpoint	>200	°F		7/15/2015	KFG	EPA 1010	
pH	7.36	pH Units		7/8/2015	KMC	SM 4500pH-B	
Reactive sulfide	ND	mg/L	1	7/15/2015	HSW	SW846 CH7	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

Certifications held by Anatek Labs ID: EPA ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87693; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C585
Certifications held by Anatek Labs WA: EPA:WA00159; ID:WA00159; WA:C585 MT Cert0095 FL(NELAP) E871099

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 150707035
Project Name: 1507094

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Reactive sulfide	0.816	mg/L	0.907	90.0	70-130	7/15/2015	7/15/2015
Cyanide (reactive)	0.486	mg/L	0.5	97.2	80-120	7/15/2015	7/15/2015

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
150707035-001A	Reactive sulfide	ND	0.816	mg/L	0.907	90.0	70-130	7/15/2015	7/15/2015
150707035-001	Cyanide (reactive)	ND	0.462	mg/L	0.5	92.4	80-120	7/15/2015	7/15/2015

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide (reactive)	0.454	mg/L	0.5	90.8	1.7	0-25	7/15/2015	7/15/2015

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide (reactive)	ND	mg/L	1	7/15/2015	7/15/2015
Reactive sulfide	ND	mg/L	1	7/15/2015	7/15/2015

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1507094**

06-Aug-15

Client: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R27295**	RunNo: **27295**
Prep Date:	Analysis Date: **7/2/2015**	SeqNo: **817819** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R27295**	RunNo: **27295**
Prep Date:	Analysis Date: **7/2/2015**	SeqNo: **817820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	99.0	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1507094**

06-Aug-15

Client: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Sample ID **100ng LCS**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R27397**	RunNo: **27397**
Prep Date:	Analysis Date: **7/9/2015**	SeqNo: **822125** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.9	70	130			
Toluene	17	1.0	20.00	0	87.2	70	130			
Chlorobenzene	17	1.0	20.00	0	85.5	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.4	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	84.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.4	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **rb1**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R27397**	RunNo: **27397**
Prep Date:	Analysis Date: **7/9/2015**	SeqNo: **822418** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

WO#: **1507094**

Hall Environmental Analysis Laboratory, Inc.

06-Aug-15

Client: Western Refining Southwest, Inc.
Project: Injection Well 7-1-15

Sample ID **rb1**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R27397**	RunNo: **27397**	
Prep Date:	Analysis Date: **7/9/2015**	SeqNo: **822418**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1507094**

06-Aug-15

Client: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Sample ID **rb1**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R27397**	RunNo: **27397**
Prep Date:	Analysis Date: **7/9/2015**	SeqNo: **822418** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

WO#: **1507094**

Hall Environmental Analysis Laboratory, Inc.

06-Aug-15

Client: Western Refining Southwest, Inc.
Project: Injection Well 7-1-15

Sample ID **mb-20095**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **20095**	RunNo: **27414**	
Prep Date: **7/6/2015**	Analysis Date: **7/10/2015**	SeqNo: **822558**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1507094**

06-Aug-15

Client: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Sample ID **mb-20095**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **20095**	RunNo: **27414**
Prep Date: **7/6/2015**	Analysis Date: **7/10/2015**	SeqNo: **822558** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		69.6	14.9	111			
Surr: Phenol-d5	150		200.0		74.2	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		75.2	15.7	154			
Surr: Nitrobenzene-d5	75		100.0		75.0	47.8	106			
Surr: 2-Fluorobiphenyl	76		100.0		75.9	21.3	123			
Surr: 4-Terphenyl-d14	52		100.0		52.2	14.3	135			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

WO#: **1507094**

Hall Environmental Analysis Laboratory, Inc.

06-Aug-15

Client: Western Refining Southwest, Inc.
Project: Injection Well 7-1-15

Sample ID **lcs-20095** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW** Batch ID: **20095** RunNo: **27414**
Prep Date: **7/6/2015** Analysis Date: **7/10/2015** SeqNo: **822559** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	51	10	100.0	0	51.2	47.8	99.7			
4-Chloro-3-methylphenol	110	10	200.0	0	56.2	58.1	103			S
2-Chlorophenol	73	10	200.0	0	36.7	49.5	96.8			S
1,4-Dichlorobenzene	34	10	100.0	0	33.8	40.4	89.4			S
2,4-Dinitrotoluene	42	10	100.0	0	41.8	38.6	91.3			
N-Nitrosodi-n-propylamine	51	10	100.0	0	51.1	53.9	95.6			S
4-Nitrophenol	93	10	200.0	0	46.3	26.4	108			
Pentachlorophenol	98	20	200.0	0	49.1	36.5	86.6			
Phenol	85	10	200.0	0	42.7	29.3	108			
Pyrene	56	10	100.0	0	56.2	45.7	100			
1,2,4-Trichlorobenzene	43	10	100.0	0	42.9	39.3	94.5			
Surr: 2-Fluorophenol	67		200.0		33.4	14.9	111			
Surr: Phenol-d5	86		200.0		43.0	11.3	108			
Surr: 2,4,6-Tribromophenol	120		200.0		62.3	15.7	154			
Surr: Nitrobenzene-d5	47		100.0		46.6	47.8	106			S
Surr: 2-Fluorobiphenyl	53		100.0		53.0	21.3	123			
Surr: 4-Terphenyl-d14	44		100.0		44.1	14.3	135			

Sample ID **lcsd-20095** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02** Batch ID: **20095** RunNo: **27414**
Prep Date: **7/6/2015** Analysis Date: **7/10/2015** SeqNo: **822560** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	76.1	47.8	99.7	39.1	28.2	R
4-Chloro-3-methylphenol	160	10	200.0	0	81.3	58.1	103	36.4	24.4	R
2-Chlorophenol	150	10	200.0	0	76.8	49.5	96.8	70.6	28.1	R
1,4-Dichlorobenzene	72	10	100.0	0	72.5	40.4	89.4	72.9	31.2	R
2,4-Dinitrotoluene	55	10	100.0	0	54.6	38.6	91.3	26.4	44.4	
N-Nitrosodi-n-propylamine	76	10	100.0	0	76.4	53.9	95.6	39.6	24.2	R
4-Nitrophenol	130	10	200.0	0	63.8	26.4	108	31.8	36.6	
Pentachlorophenol	130	20	200.0	0	65.8	36.5	86.6	29.1	29.5	
Phenol	160	10	200.0	0	77.8	29.3	108	58.2	30	R
Pyrene	69	10	100.0	0	69.3	45.7	100	20.8	31	
1,2,4-Trichlorobenzene	86	10	100.0	0	85.7	39.3	94.5	66.6	24	R
Surr: 2-Fluorophenol	140		200.0		70.6	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		79.2	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		82.0	15.7	154	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.5	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		77.3	21.3	123	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1507094**

06-Aug-15

Client: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Sample ID **lcsd-20095** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **20095** RunNo: **27414**

Prep Date: **7/6/2015** Analysis Date: **7/10/2015** SeqNo: **822560** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	51		100.0		51.2	14.3	135	0	0	

Sample ID **mb-20218** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBW** Batch ID: **20218** RunNo: **27531**

Prep Date: **7/13/2015** Analysis Date: **7/15/2015** SeqNo: **826536** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	90		200.0		45.0	14.9	111			
Surr: Phenol-d5	75		200.0		37.3	11.3	108			
Surr: 2,4,6-Tribromophenol	140		200.0		69.6	15.7	154			
Surr: Nitrobenzene-d5	64		100.0		64.4	47.8	106			
Surr: 2-Fluorobiphenyl	61		100.0		61.2	21.3	123			
Surr: 4-Terphenyl-d14	45		100.0		45.2	14.3	135			

Sample ID **lcs-20218** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **20218** RunNo: **27531**

Prep Date: **7/13/2015** Analysis Date: **7/15/2015** SeqNo: **826537** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	110		200.0		53.4	14.9	111			
Surr: Phenol-d5	82		200.0		41.0	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.7	15.7	154			
Surr: Nitrobenzene-d5	74		100.0		74.2	47.8	106			
Surr: 2-Fluorobiphenyl	74		100.0		73.5	21.3	123			
Surr: 4-Terphenyl-d14	44		100.0		44.2	14.3	135			

Sample ID **lcsd-20218** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **20218** RunNo: **27531**

Prep Date: **7/13/2015** Analysis Date: **7/15/2015** SeqNo: **826538** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	100		200.0		52.2	14.9	111	0	0	
Surr: Phenol-d5	84		200.0		41.8	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	150		200.0		75.7	15.7	154	0	0	
Surr: Nitrobenzene-d5	76		100.0		76.0	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		68.5	21.3	123	0	0	
Surr: 4-Terphenyl-d14	46		100.0		45.5	14.3	135	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1507094**

06-Aug-15

Client: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Sample ID **1507094-001b dup**	SampType: **DUP**	TestCode: **SM2510B: Specific Conductance**	
Client ID: **Injection Well**	Batch ID: **R27329**	RunNo: **27329**	
Prep Date:	Analysis Date: **7/6/2015**	SeqNo: **819171**	Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	2000	0.010						0.0491	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1507094**

06-Aug-15

Client: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Sample ID	**MB-20158**	SampType:	**MBLK**	TestCode:	**EPA Method 7470: Mercury**					
Client ID:	**PBW**	Batch ID:	**20158**	RunNo:	**27365**					
Prep Date:	**7/8/2015**	Analysis Date:	**7/8/2015**	SeqNo:	**820590**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-20158**	SampType:	**LCS**	TestCode:	**EPA Method 7470: Mercury**					
Client ID:	**LCSW**	Batch ID:	**20158**	RunNo:	**27365**					
Prep Date:	**7/8/2015**	Analysis Date:	**7/8/2015**	SeqNo:	**820591**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID	**1507094-001DMS**	SampType:	**MS**	TestCode:	**EPA Method 7470: Mercury**					
Client ID:	**Injection Well**	Batch ID:	**20158**	RunNo:	**27365**					
Prep Date:	**7/8/2015**	Analysis Date:	**7/8/2015**	SeqNo:	**820635**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0059	0.0010	0.005000	0	118	75	125			

Sample ID	**1507094-001DMSD**	SampType:	**MSD**	TestCode:	**EPA Method 7470: Mercury**					
Client ID:	**Injection Well**	Batch ID:	**20158**	RunNo:	**27365**					
Prep Date:	**7/8/2015**	Analysis Date:	**7/8/2015**	SeqNo:	**820638**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.0010	0.005000	0	116	75	125	1.62	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

WO#: **1507094**

Hall Environmental Analysis Laboratory, Inc.

06-Aug-15

Client: Western Refining Southwest, Inc.
Project: Injection Well 7-1-15

Sample ID **MB-20102** SampType: **MBLK** TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **PBW** Batch ID: **20102** RunNo: **27378**
Prep Date: **7/6/2015** Analysis Date: **7/9/2015** SeqNo: **821352** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.020								
Barium	ND	0.020								
Calcium	ND	1.0								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS-20102** SampType: **LCS** TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **LCSW** Batch ID: **20102** RunNo: **27378**
Prep Date: **7/6/2015** Analysis Date: **7/9/2015** SeqNo: **821353** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.52	0.020	0.5000	0	103	80	120			
Barium	0.49	0.020	0.5000	0	98.5	80	120			
Calcium	51	1.0	50.00	0	102	80	120			
Lead	0.50	0.0050	0.5000	0	100	80	120			
Magnesium	50	1.0	50.00	0	101	80	120			
Potassium	48	1.0	50.00	0	96.8	80	120			
Sodium	49	1.0	50.00	0	98.9	80	120			

Sample ID **MB-20102** SampType: **MBLK** TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **PBW** Batch ID: **20102** RunNo: **27491**
Prep Date: **7/6/2015** Analysis Date: **7/14/2015** SeqNo: **824974** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								

Sample ID **LCS-20102** SampType: **LCS** TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **LCSW** Batch ID: **20102** RunNo: **27491**
Prep Date: **7/6/2015** Analysis Date: **7/14/2015** SeqNo: **824975** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0	98.5	80	120			

Sample ID **MB-20102** SampType: **MBLK** TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **PBW** Batch ID: **20102** RunNo: **27540**
Prep Date: **7/6/2015** Analysis Date: **7/16/2015** SeqNo: **826932** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1507094**

06-Aug-15

Client: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Sample ID **MB-20102**	SampType: **MBLK**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **PBW**	Batch ID: **20102**	RunNo: **27540**
Prep Date: **7/6/2015**	Analysis Date: **7/16/2015**	SeqNo: **826932** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Selenium	ND	0.050								
Silver	ND	0.0050								

Sample ID **LCS-20102**	SampType: **LCS**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **LCSW**	Batch ID: **20102**	RunNo: **27540**
Prep Date: **7/6/2015**	Analysis Date: **7/16/2015**	SeqNo: **826933** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	101	80	120			
Selenium	0.50	0.050	0.5000	0	99.7	80	120			
Silver	0.10	0.0050	0.1000	0	105	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1507094**

06-Aug-15

Client: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Sample ID **1507094-001b dup** SampType: **DUP** TestCode: **SM4500-H+B: pH**

Client ID: **Injection Well** Batch ID: **R27329** RunNo: **27329**

Prep Date: Analysis Date: **7/6/2015** SeqNo: **819204** Units: **pH units**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.46	1.68								H

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

WO#: **1507094**

Hall Environmental Analysis Laboratory, Inc.

06-Aug-15

Client: Western Refining Southwest, Inc.
Project: Injection Well 7-1-15

Sample ID **mb-1**	SampType: **MBLK**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R27329**	RunNo: **27329**							
Prep Date:	Analysis Date: **7/6/2015**	SeqNo: **819128**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID **lcs-1**	SampType: **LCS**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R27329**	RunNo: **27329**							
Prep Date:	Analysis Date: **7/6/2015**	SeqNo: **819129**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.36	20.00	80.00	0	98.0	90	110			

Sample ID **mb-2**	SampType: **MBLK**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R27329**	RunNo: **27329**							
Prep Date:	Analysis Date: **7/6/2015**	SeqNo: **819152**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID **lcs-2**	SampType: **LCS**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R27329**	RunNo: **27329**							
Prep Date:	Analysis Date: **7/6/2015**	SeqNo: **819153**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.44	20.00	80.00	0	99.3	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1507094**

Hall Environmental Analysis Laboratory, Inc.

06-Aug-15

Client: Western Refining Southwest, Inc.
Project: Injection Well 7-1-15

Sample ID **MB-20129**	SampType: **MBLK**			TestCode: **SM2540C MOD: Total Dissolved Solids**						
Client ID: **PBW**	Batch ID: **20129**			RunNo: **27360**						
Prep Date: **7/7/2015**	Analysis Date: **7/8/2015**			SeqNo: **820297**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID **LCS-20129**	SampType: **LCS**			TestCode: **SM2540C MOD: Total Dissolved Solids**						
Client ID: **LCSW**	Batch ID: **20129**			RunNo: **27360**						
Prep Date: **7/7/2015**	Analysis Date: **7/8/2015**			SeqNo: **820298**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw Work Order Number: 1507094 RcptNo: 1

Received by/date: AT 07/02/15

Logged By: Anne Thorne 7/2/2015 7:00:00 AM

Completed By: Anne Thorne 7/2/2015

Reviewed By: CS 07/02/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 2 2 (<2 or >12 unless noted)

Adjusted? —

Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4135

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
Injection Well 7-1-15

Project #:
P.O.# 12610939

Project Manager:

Sampler: Bob
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1507094	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	~~TPH (Method 418.1)~~ → TDS	~~EDB (Method 504.1)~~ Back up	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals Ca, Mg, Na, K	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Ignitability	Reactivity, Corrosivity	Fe, pH SO_4, Alk, Cl	Sulfides	Air Bubbles (Y or N)
7-1-15	9:00	H_2O	injection well	5-VOA	HCl	-001										X						
				1-liter	amber	-001											X					
				1-500ml	—	-001												X				
				1-500ml	—	-001				X										X		
				1-125ml	H_2SO_4	-001					X											
				1-500ml	HNO_3	-001							X									
				1-500ml	NaOH	-001													X			
				1-500ml	Zn Acetate	-001															X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
7-1-15	1215	Robert Bracken	Christy Walker	7/1/15	1215
7/1/15	1810	Christy Walker		07/02/15	0700

Remarks:

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NMD089416416

Manifest Document No.: BLM -

2. Page 1 of 1

3. Generator's Name and Mailing Address
WESTERN REFINING SOUTHWEST, INC.
50 CR 4990
BLOOMFIELD, NM 87413
4. Generator's Phone (888) 658 - 8006

5. Transporter 1 Company Name | 6. US EPA ID Number | A. State Transporter's ID | B. Transporter 1 Phone

7. Transporter 2 Company Name | 8. US EPA ID Number | C. State Transporter's ID | D. Transporter 2 Phone

9. Designated Facility Name and Site Address
AGUA MOSS CLASS I WELL
#345 CR 350
FARMINGTON, NM 87401
10. US EPA ID Number | E. State Facility's ID | F. Facility's Phone (505) 334 - 6186

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS, NON-D.O.T REGULATED LIQUID (TREATED WATER) - NON-EXEMPT WATER	1	TRUCK		BBL
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name | Signature | Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

NON-HAZARDOUS WASTE

RETURN COMPLETED COPY TO WESTERN REFINING

Transportation Tracker for Treated Water Shippments

Manifest No.	Transporter	Quantity (bbls)	Date Shipped	Time Shipped
BLM - 1	D-TRIX	140	10-26-15	910AM
BLM - 2	D-Trix	130	10-26-15	9:50
BLM - 3	D-Trix	140	10-26-15	11:20
BLM - 4	D-Trix	130	10-26-15	11:45
BLM - 5	D-Trix	130	10-26-15	1:17 PM
BLM - 6	D-Trix	140	10-26-15	1:50
BLM - 7	D-Trix	130	10-26-15	2:57
BLM - 8	D-Trix	140	10-26-15	3:55
BLM - 9	D-Trix	130	10-26-15	4:21 PM
BLM - 10	D-trix	130	10-27-15	6:30 AM
BLM - 11	D-Trix	140	10-27-15	7:00 AM
BLM - 12	D-trix	130	10-27-15	8:35 AM
BLM - 13	D-Trix	140	10-27-15	9:13 AM
BLM - 14	D-trix	130	10-27-15	10:25AM
BLM - 15	D-Trix	140	10-27-15	11:00AM
BLM - 16	D-trix	130	10-27-15	12:15 PM
BLM - 17	D-Trix	140	10-27-15	12:50PM
BLM - 18	D-trix	130	10-27-15	2:00 PM
BLM - 19	D-Trix	140	10-27-15	2:50 PM
BLM - 20	D-trix	130	10-27-15	3:45 PM
BLM - 21	D-trix	130	10-28-15	6:40 AM
BLM - 22	D-Trix	140	10-28-15	7:15
BLM - 23	D-trix	130	10-28-15	8:30 AM
BLM - 24	D-Trix	140	10-28-15	9:15
BLM - 25	D-trix	130	10-28-15	10:20AM
BLM - 26	D-Trix	140	10-28-15	11:00 AM
BLM - 27	D-trix	130	10-28-15	12:05 PM
BLM - 28	D-Trix	140	10-28-15	12:55 PM
BLM - 29	D-trix	130	10-28-15	2:00 PM
BLM - 30	D-Trix	140	10-28-15	3:00 PM
BLM - 31	D-trix	130	10-28-15	3:55 PM
BLM - 32	D-Trix	140	10-28-15	
BLM - 33	D-trix	130	10-29-15	6:40 AM
BLM - 34	D-Trix	140	10-29-15	7:35 AM

Return Completed Sheet to HSER

Treated Water Shippment Tracker to Agua Moss Class I Well

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM-35	D-trix	130	10-29-15	8:35
BLM-36	D-Trix	140	10-29-15	9:40
BLM-37	D-trix	130	10-29-15	10:20
BLM-38	D-Trix	140	10-29-15	11:30
BLM-39	D-trix	130	10-29-15	12:05
BLM-40	D-Trix	140	10-29-15	1:30
BLM-41	D-trix	130	10-29-15	2:05
BLM-42	D-Trix	140	10-29-15	3:15
BLM-43	D-trix	130	10-29-15	4:10
BLM-44	D-trix	130	10-30-15	6:20
BLM-45	D-Trix	140	10-30-15	6:55
BLM-46	D-trix	130	10-30-15	8:20
BLM-47	D-Trix	140	10-30-15	8:55
BLM-48	D-trix	130	10-30-15	10:00
BLM-49	D-Trix	140	10-30-15	10:50
BLM-50	D-trix	130	10-30-15	11:35
BLM-51	D-Trix	140	10-30-15	12:45
BLM-52	D-trix	130	10-30-15	1:20
BLM-53	D-Trix	140	10-30-15	2:30
BLM-54	D-trix	130	10-30-15	3:15
BLM-55	D-trix	130	10-31-15	6:25
BLM-56	D-Trix	140	10-31-15	7:00
BLM-57	D-trix	130	10-31-15	9:25
BLM-58	D-Trix	140	10-31-15	10:50
BLM-59	D-trix	130	10-31-15	11:35
BLM-60	D-Trix	140	10-31-15	12:45
BLM-61	D-trix	130	10-31-15	1:15
BLM-62	D-Trix	140	10-31-15	2:30
BLM-63	D-trix	130	10-31-15	3:10
BLM-64	D-trix	130	~~11-2-15~~	6:50AM
BLM-65	D-Trix	140	11-2-15	7:50
BLM-66	D-trix	130	11-2-15	8:40
BLM-67	D-Trix	140	11-2-15	9:40
BLM-68	D-trix	130	11-2-15	10:20
BLM-69	D-Trix	140	11-2-15	11:25
BLM-70	D-trix	130	11-2-15	12:00

Treated Water Shippment Tracker to Agua Moss Class I Well

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM-71	D-Trix	140	11-2-15	1:20
BLM-72	D-trix	130	11-2-15	2:50
BLM-73	D-Trix	140	11-2-15	3:00
BLM-74	D-trix	130	11-2-15	5:40
BLM-75	D-Trix	120	11-3-15	6:43
BLM-76	D-Trix	140	11-3-15	7:15
BLM-77	D-Trix	120	11-3-15	8:13
BLM-78	D-Trix	140	11-3-15	8:55
BLM-79	D-Trix	120	11-3-15	9:41
BLM-80	D-Trix	140	11-3-15	10:45
BLM-81	D-Trix	120	11-3-15	11:13
BLM-82	D-Trix	140	11-3-15	12:35
BLM-83	D-Trix	120	11-3-15	1:00
BLM-84	D-trix	130	11-4-15	7:10 Am
BLM-85	D-Trix	140	11-4-15	8:05
BLM-86	D-trix	130	11-4-15	9:00
BLM-87	D-Trix	140	11-4-15	10:00
BLM-88	D-trix	130	11-4-15	10:40
BLM-89	D-Trix	140	11-4-15	11:55
BLM-90	D-trix	130	11-4-15	12:30
BLM-91	D-Trix	140	11-4-15	1:50
BLM-92	D-trix	130	11-4-15	2:20
BLM-93	D-Trix	140	11-4-15	3:40
BLM-94	D-trix	130	11-4-15	4:10
BLM-95	D-trix	130	11-5-15	6:30
BLM-96	D-trix	130	11-5-15	8:20
BLM-97	D-Trix	140	11-5-15	8:55
BLM-98	D-trix	130	11-5-15	10:10
BLM-99	D-Trix	140	11-5-15	11:35
BLM-100	D-trix	130	11-5-15	12:35
BLM-101	D-Trix	140	11-5-15	1:30
BLM-102	D-trix	130	11-5-15	2:20

Treated Water Shippment Tracker to Agua Moss Class I Well

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM-103	D-Trix	120	11-10-15	8:14
BLM-104	D-Trix	140	11-10-15	9:25
BLM-105	D-Trix	120	11-10-15	9:54
BLM-106	D-Trix	140	11-10-15	11:15
BLM-107	D-Trix	120	11-10-15	11:47
BLM-108	D-Trix	140	11-10-15	1:00
BLM-109	D-Trix	120	11-10-15	1:36
BLM-110	D-Trix	140	11-10-15	3:00
BLM-111	D-Trix	120	11-10-15	3:30
BLM-112	D-Trix	120	11-11-15	6:38
BLM-113	D-Trix	140	11-11-15	7:25
BLM-114	D-Trix	120	11-11-15	8:10
BLM-115	D-Trix	130	11-11-15	8:35
BLM-116	D-Trix	140	11-11-15	9:25
BLM-117	D-Trix	120	11-11-15	9:55
BLM-118	D-Trix	130	11-11-15	10:25
BLM-119	D-Trix	140	11-11-15	11:20
BLM-120	D-Trix	120	11-11-15	11:45
BLM-121	D-Trix	130	11-11-15	12:10
BLM-122	D-Trix	140	11-11-15	1:10
BLM-123	D-Trix	130	11-11-15	1:58
BLM-124	D-Trix	140	11-11-15	3:25
BLM-125	D-Trix	130	11-11-15	4:00
BLM-126	D-Trix	120	11-12-15	6:38
BLM-127	D-Trix	140	11-12-15	7:10
BLM-128	D-Trix	120	11-12-15	8:15
BLM-129	D-Trix	140	11-12-15	9:05
BLM-130	D-Trix	120	11-12-15	9:47
BLM-131	D-Trix	140	11-12-15	10:50
BLM-132	D-Trix	120	11-12-15	11:43
BLM-133	D-trix	130	11-12-15	12:40
BLM-134	D-Trix	140	11-12-15	1:25

Treated Water Shipment Tracker to Agua Moss Claas 1 Well

Manifest NO.	Transporter	Quantity (bbl)	Date	Time
BLM-103	D-Trix	140	11-5-15	3:35
BLM-104	D-Trix	130	11-5-15	4:15
BLM-105	D-Trix	130	11-6-15	6:20
BLM-106	D-Trix	140	11-6-15	6:55
BLM-107	D-Trix	130	11-6-15	8:25
BLM-108	D-Trix	140	11-6-15	9:05
BLM=109	D-Trix	130	11-6-15	10:10
BLM-110	D-Trix	140	11-6-15	11:00
BLM-111	D-Trix	140	11-6-15	12:50
BLM-112	D-Trix	140	11-6-15	3:45
BLM-113	D-Trix	140	11-6-15	6:45
BLM-114	D-Trix	130	11-7-15	9:00 Am
BLM-115	D-Trix	140	11-7-15	9:30
BLM-116	D-Trix	130	11-7-15	10:50
BLM-117	D-Trix	140	11-7-15	11:30
BLM-118	D Trix	140	11-7-15	1:35
BLM-119	D-Trix	130	11-7-15	2:50
BLM-120	D-Trix	140	11-7-15	3:50
BLM-121	D-Trix	120	11-9-15	6:47
BLM-122	D-Trix	140	11-9-15	7:30
BLM-123	D-Trix	120	11-9-15	8:27
BLM-124	D-Trix	140	11-9-15	9:25
BLM-125	D-Trix	120	11-9-15	9:57
BLM-126	D-Trix	140	11-9-15	11:27
BLM-127	D-Trix	120	11-9-15	11:57
BLM-128	D-Trix	120	11-9-15	1:30
BLM-129	D-Trix	120	11-9-15	3:07
BLM-130	D-Trix	120	11-9-15	4:30
BLM-131	D-Trix	120	11-10-15	6:39
BLM-132	D-Trix	140	11-10-15	7:15
BLM-133				
BLM-134				
BLM-135				
BLM-136				
BLM-137				
BLM-138				
BLM-139				
BLM-140				
BLM-141				

Treated Water Shippment Tracker to Agua Moss Class I Well

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM-135	D-Trix	140	11-12-15	3:15
BLM-136	D-Trix	140	11-13-15	6:55
BLM-137	D-TRIX	130	11-13-15	7:35
BLM-138	D-trix	140	11-13-15	8:40
BLM-139	D-Trix	140	11-13-15	9:20
BLM-140	D-TRIX	130	11-13-15	9:55
BLM-141	D-trix	120	11-13-15	10:50
BLM-142	D-Trix	140	11-13-15	11:25
BLM-143	D-TRIX	130	11-13-15	1205
BLM-144	D-trix	120	11-13-15	12:45
BLM-145	D-TRIX	130	11-13-15	1:45
BLM-146	D-Trix	140	11-13-15	2:45
BLM-147	D-trix	120	11-13-15	3:30
BLM-148	D-trix	120	11-14-15	6:45
BLM-149	D-TRIX	130	11-14-15	7:10
BLM-150	D-Trix	140	11-14-15	7:50
BLM-151	D-trix	120	11-14-15	8:30
BLM-152	D-TRIX	130	11-14-15	9:00
BLM-153	D-Trix	140	11-14-15	9:35
BLM-154	D-trix	120	11-14-15	10:20
BLM-155	D-TRIX	130	11-14-15	10:40
BLM-156	D-Trix	140	11-14-15	11:20
BLM-157	D-trix	120	11-14-15	12:00
BLM-158	D-TRIX	130	11-14-15	12:30
BLM-159	D-Trix	140	11-14-15	1:05
BLM-160	D-trix	120	11-14-15	1140
BLM-161	D-TRIX	130	11-14-15	210
BLM-162	D-Trix	140	11-14-15	2:55
BLM-163	D-trix	120	11-14-15	3:30
BLM-164	D-TRIX	130	11-14-15	4:00
BLM-165	D-Trix	120	11-16-15	6:38
BLM-166	D-Trix	130	11-16-15	7:05

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM-167	D'Trix	140	11/16/15	7:45
BLM-168	D'Trix	120	11-16-15	8:14
BLM-169	D'Trix	130	11-16-15	9:00
BLM-170	D'Trix	140	11-16-15	9:35
BLM-171	D'Trix	120	11-16-15	10:08
BLM-172	D'Trix	130	11-16-15	10:40
BLM-173	D'Trix	140	11-16-15	11:20
BLM-174	D'Trix	120	11-16-15	11:59
BLM-176	D'Trix	130	11-16-15	12:25
BLM-177	D'Trix	140	11-16-15	1:05
BLM-178	D'Trix	120	11-16-15	1:36
BLM-179	D'Trix	130	11-16-15	2:00
BLM-180	D'Trix	140	11-16-15	2:45
BLM-181	D'Trix	120	11-16-15	3:12
BLM-182	D'Trix	130	11-16-15	3:40
BLM-183	D'Trix	130	11-17-15	6:05
BLM-184	D'Trix	120	11-17-15	6:34
BLM-185	D'Trix	140	11-17-15	7:00
BLM-186	D'Trix	130	11-17-15	7:45
BLM-187	D'Trix	120	11-17-15	8:33
BLM-188	D'Trix	140	11-17-15	9:00
BLM-189	D'Trix	130	11-17-15	9:25
BLM-190	D'Trix	120	11-17-15	9:56
BLM-191	D'Trix	140	11-17-15	10:40
BLM-192	D'Trix	130	11-17-15	11:05
BLM-193	D'Trix	120	11-17-15	11:32
BLM-194	D'Trix	140	11-17-15	12:15
BLM-195	D'Trix	130	11-17-15	12:45
BLM-196	D'Trix	120	11-17-15	1:15
BLM-197	D'Trix	140	11-17-15	2:20
BLM-198	D'Trix	130	11-17-15	2:50
BLM-199	D'Trix	120	11-17-15	2:51
BLM-200	D'Trix	140	11-17-15	3:40

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM-201	D-Trix	130	11-17-15	4:10
BLM-202	D-Trix	130	11-18-15	6:10
BLM-203	D-TRIX	130	11-18-15	6:30
BLM-204	D-trix	140	11-18-15	7:10
BLM-205	D-Trix	130	11-18-15	7:40
BLM-206	D-TRIX	130	11-18-15	805
BLM-207	D-trix	140	11-18-15	8:50
BLM-208	D-Trix	130	11-18-15	9:15
BLM-209	D-TRIX	130	11-18-15	9:40
BLM-210	D-trix	140	11-18-15	10:45
BLM-211	D-Trix	130	11-18-15	11:10
BLM-212	D-TRIX	130	11-18-15	11:35
BLM-213	D-trix	140	11-18-15	12:30
BLM-214	D-Trix	130	11-18-15	1:00
BLM-215	D-TRIX	130	11-18-15	1:30
BLM-216	D-Trix	120	11-18-15	1:56
BLM-217	D-Trix	130	11-18-15	2:45
BLM-218	D-TRIX	130	11-18-15	445
BLM-219	D-Trix	130	11-19-15	6:10
BLM-220	D-trix	140	11-19-15	6:45
BLM-221	D-TRIX	130	11-19-15	7:05
BLM-222	D-Trix	130	11-19-15	7:55
BLM-223	D-trix	140	11-19-15	8:35
BLM-224	D-TRIX	130	11-18-15	850
BLM-225	D-Trix	130	11-19-15	9:20
BLM-226	D-trix	140	11-19-15	10:20
BLM-227	D-TRIX	130	11-19-15	10:40
BLM-228	D-Trix	130	11-19-15	11:10
BLM-229	D-trix	140	11-19-15	12:05
BLM-230	D-TRIX	130	11-19-15	12:30
BLM-231	D-Trix	130	11-19-15	12:50
BLM-232	D-trix	140	11-19-15	1:45
BLM-233	D-TRIX	130	11-19-15	2:10
BLM-234	D-Trix	130	11-19-15	2:40
BLM-235	D-trix	140	11-19-15	3:35
BLM-236	D-TRIX	130	11-18-15	400
BLM-237	D-trix	140	11-20-15	5:05
BLM-238	D-Trix	130	11-20-15	6:10
BLM-239	D-TRIX	130	11-20-15	6:30
BLM-240	D-Trix	130	11-20-15	7:35
BLM-241	D-trix	140	11-20-15	8:00

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM-242	D-TRIX	130	11-20-15	8:20
BLM-243	D-Trix	130	11-20-15	9:00
BLM-244	D-trix	140	11-20-15	9:30
BLM-245	D-TRIX	130	11-20-15	10:00
BLM-246	D-Trix	130	11-20-15	10:25
BLM-247	D-trix	140	11-20-15	11:00
BLM-248	D-TRIX	130	11-20-15	11:25
BLM-249	D-Trix	130	11-20-15	11:55
BLM-250	D-trix	140	11-20-15	12:35
BLM-251	D-TRIX	130	11-20-15	1:00
BLM-252	D-Trix	130	11-20-15	1:25
BLM-253	D-trix	140	11-20-15	2:05
BLM-254	D-TRIX	130	11-20-15	2:30
BLM-255	D-Trix	130	11-20-15	2:55
BLM-256	D-trix	140	11-20-15	3:35
BLM-257	D-TRIX	130	11-20-15	4:05
BLM-258	D-Trix	130	11-21-15	6:15
BLM-259	D-TRIX	130	11-21-15	6:35
BLM-260	D-trix	140	11-21-15	7:10
BLM-261	D-Trix	130	11-21-15	7:45
BLM-262	D-TRIX	130	11-21-15	10:00
BLM-263	D-trix	140	11-21-15	11:05
BLM-264	D-Trix	130	11-21-15	11:30
BLM-265	D-TRIX	130	11-21-15	11:50
BLM-266	D-trix	140	11-21-15	12:40
BLM-267	D-Trix	130	11-21-15	1:05
BLM-268	D-TRIX	130	11-21-15	1:25
BLM-269	D-trix	140	11-21-15	2:20
BLM-270	D-Trix	130	11-21-15	2:45
BLM-271	D-TRIX	130	11-21-15	3:05
BLM-272	D-trix	140	11-21-15	3:55
BLM-273	D-trix	130	11-22-15	7:30
BLM-274	D-TRIX	130	11-22-15	7:55
BLM-275	D-Trix	120	11-22-15	8:21
BLM-276	D-trix	130	11-22-15	9:00
BLM-277	D-TRIX	130	11-22-15	9:25
BLM-278	D-Trix	120	11-22-15	~~11:42~~ 11:51
BLM-279	D-trix	130	11-22-15	10:30
BLM-280	D-TRIX	130	11-22-15	10:50
BLM-281	D-Trix	120	11-22-15	11:14
BLM-282	D-trix	130	11-22-15	11:30

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM-283	D-TRIX	130	11-22-15	12:10
BLM-284	D-Trix	120	11-22-15	12:37
BLM-285	D-trix	130	11-22-15	1:20
BLM-286	D-TRIX	130	11-22-15	1:40
BLM-287	D-Trix	120	11-22-15	2:06
BLM-288	D-trix	130	11-22-15	2:50
BLM-289	D-TRIX	130	11-22-15	3:10
BLM-290	D-Trix	140	11-23-15	6:20
BLM-291	D-TRIX	130	11-23-15	6:50
BLM-292	D-Trix	130	11-23-15	7:12
BLM-293	D-Trix	140	11-23-15	8:10
BLM-294	D-Trix	130	11-23-15	8:39
BLM-295	D-TRIX	130	11-23-15	9:00
BLM-296	D-Trix	140	11-23-15	9:50
BLM-297	D-Trix	130	11-23-15	10:12
BLM-298	D-TRIX	130	11-23-15	10:30
BLM-299	D-Trix	140	11-23-15	11:25
BLM-300	D-Trix	130	11-23-15	11:49
BLM-301	D-TRIX	130	11-23-15	12:10
BLM-302	D-Trix	140	11-23-15	1:00
BLM-303	D-Trix	130	11-23-15	1:22
BLM-304	D-TRIX	130	11-23-15	1:50
BLM-305	D-Trix	140	11-23-15	2:35
BLM-306	D-Trix	130	11-23-15	3:00
BLM-307	D-TRIX	130	11-23-15	3:20
BLM-308	D-Trix	140	11-24-15	6:15
BLM-309	D-TRIX	130	11-24-15	6:45
BLM-310	DrTrix	140	11-24-15	7:55
BLM-311	D-Trix	130	11-24-15	8:28
BLM-312	D-Trix	140	11-24-15	9:25
BLM-313	D-Trix	130	11-24-15	10:06
BLM-314	D-TRIX	130	11-24-15	10:35
BLM-315	D-Trix	140	11-24-15	11:00
BLM-316	D-Trix	130	11-24-15	4:42
BLM-317	D-TRIX	130	11-24-15	12:05
BLM-318	D-Trix	140	11-24-15	12:35
BLM-319	D-Trix	130	11-24-15	1:17
BLM-320	D-TRIX	130	11-24-15	1:40
BLM-321	D-Trix	140	11-24-15	2:00
BLM-322	D-Trix	130	11-24-15	2:55
BLM-323	D-TRIX	130	11-24-15	3:15

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM-324	D-Trix	140	11-24-15	3:55
BLM-325	D-Trix	140	11-25-15	6:10
BLM-326	D-TRIX	130	11-25-15	6:35
BLM-327	D-trix	130	11-25-15	7:00
BLM-328	D-Trix	140	11-25-15	7:45
BLM-329	D-TRIX	130	11-25-15	8:05
BLM-330	D-trix	130	11-25-15	8:30
BLM-331	D-Trix	140	11-25-15	9:15
BLM-332	D-TRIX	130	11-25-15	9:40
BLM-333	D-trix	130	11-25-15	10:05
BLM-334	D-Trix	140	11-25-15	10:50
BLM-335	D-TRIX	130	11-25-15	11:15
BLM-336	D-trix	130	11-25-15	11:40
BLM-337	D-Trix	140	11-25-15	12:30
BLM-338	D-TRIX	130	11-25-15	12:45
BLM-339	D-Trix	120	11-25-15	1:05
BLM-340	D-trix	130	11-25-15	1:25
BLM-341	D-TRIX	130	11-25-15	2:15
BLM-342	D-Trix	120	11-25-15	2:37
BLM-343	D-Trix	140	11-25-15	3:00
BLM-344	D-trix	130	11-25-15	3:25
BLM-345	D-TRIX	130	11-25-15	3:45
BLM-346	D-TRIX	130	11-27-15	6:05
BLM-347	D-Trix	140	11-27-15	6:35
BLM-348	D-TRIX	130	11-27-15	7:55
BLM-349	D-Trix	140	11-27-15	8:25
BLM-350	D-TRIX	130	11-27-15	9:20
BLM-351	D-Trix	140	11-27-15	10:00
BLM-352	D-TRIX	130	11-27-15	10:50
BLM-353	D-Trix	140	11-27-15	11:35
BLM-354	D-Trix	130	11-27-15	12:00
BLM-355	D-TRIX	130	11-27-15	12:25
BLM-356	D-Trix	120	11-27-15	12:48
BLM-357	D-Trix	140	11-27-15	1:15
BLM-358	D-Trix	130	11-27-15	1:40
BLM-359	D-TRIX	130	11-27-15	2:00
BLM-360	D-Trix	120	11-27-15	2:27
BLM-361	D-Trix	140	11-27-15	2:55
BLM-362	D-TRIX	130	11-27-15	3:25
BLM-363	D-TRIX	130	11-28-15	0618
BLM-364	D-Trix	140	11-28-15	6:40

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM- 365	D'Trix	120	11-28-15	7:22
BLM- 366	D'Trix	130	11-28-15	750
BLM- 367	D'Trix	140	11-28-15	8:30
BLM- 368	D'Trix	120	11-28-15	8:56
BLM- 369	D'Trix	130	11-28-15	9:25
BLM- 370	D'Trix	140	11-28-15	10:00
BLM- 371	D'Trix	120	11-28-15	10:28
BLM- 372	D'Trix	130	11-28-15	10:55
BLM- 373	D'Trix	140	11-28-15	11:35
BLM- 374	D'Trix	120	11-28-15	12:00
BLM- 375	D'Trix	130	11-28-15	12:20
BLM- 376	D'Trix	140	11-28-15	1:05
BLM- 377	D'Trix	120	11-28-15	1:31
BLM- 378	D'Trix	130	11-28-15	1:55
BLM- 379	D'Trix	140	11-28-15	2:40
BLM- 380	D'Trix	120	11-28-15	3:08
BLM- 381	D'Trix	130	11-28-15	3:35
BLM- 382	D'Trix	120	11-29-15	6:07
BLM- 383	D'Trix	130	11-29-15	6:25
BLM- 384	D'Trix	140	11-29-15	7:20
BLM- 385	D'Trix	120	11-29-15	7:50
BLM- 386	D'Trix	130	11-29-15	810
BLM- 387	D'Trix	140	11-29-15	9:15
BLM- 388	D'Trix	120	11-29-15	9:38
BLM- 389	D'Trix	130	11-29-15	10:00
BLM- 390	D'Trix	140	11-29-15	11:00
BLM- 391	D'Trix	120	11-29-15	11:23
BLM- 392	D'Trix	130	11-29-15	11:45
BLM- 393	D'Trix	140	11-29-15	12:50
BLM- 394	D'Trix	120	11-29-15	1:13

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM- 395	D'Trix	130	11-29-15	1:35
BLM- 396	D'Trix	140	11-29-15	2:35
BLM- 397	D'Trix	130	11-29-15	3:05
BLM- 398	D'Trix	130	11-30-15	6:15
BLM- 399	D'Trix	140	11-30-15	6:45
BLM- 400	D'Trix	120	11-30-15	7:14
BLM- 401	D'Trix	130	11-30-15	8:00
BLM- 402	D'Trix	140	11-30-15	8:25
BLM- 403	D'Trix	120	11-30-15	8:53
BLM- 404	D'Trix	130	11-30-15	9:25
BLM- 405	D'Trix	140	11-30-15	10:05
BLM- 406	D'Trix	120	11-30-15	10:33
BLM- 407	D'Trix	130	11-30-15	10:55
BLM- 408	D'Trix	140	11-30-15	11:35
BLM- 409	D'Trix	120	11-30-15	11:57
BLM- 410	D'Trix	130	11-30-15	12:20
BLM- 411	D'Trix	140	11-30-15	1:00
BLM- 412	D'Trix	120	11-30-15	1:28
BLM- 413	D'Trix	130	11-30-15	1:50
BLM- 414	D'Trix	140	11-30-15	2:30
BLM- 415	D'Trix	120	11-30-15	2:58
BLM- 416	D'Trix	130	11-30-15	3:20
BLM- 417	D'Trix	140	11-30-15	4:05
BLM- 418	D'Trix	140	12-1-15	6:25
BLM- 419	D'Trix	130	12-1-15	7:05
BLM- 420	D'Trix	140	12-1-15	8:05
BLM- 421	D'Trix	130	12-1-15	9:00
BLM- 422	D'Trix	140	12-1-15	9:45
BLM- 423	D'Trix	130	12-1-15	10:23
BLM- 424	D'Trix	130	12-1-15	11:00

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM-425	D-Trix	140	12-1-15	11:30
BLM-426	D-Trix	130	12-1-15	12:15
BLM-427	D-Trix	120	12-1-15	12:31
BLM-428	D-Trix	130	12-1-15	12:55
BLM-429	D-Trix	140	12-1-15	1:20
BLM-430	D-Trix	130	12-1-15	1:50
BLM-431	D-Trix	130	12-1-15	2:20
BLM-432	D-Trix	140	12-1-15	2:55
BLM-433	D-Trix	130	12-1-15	3:30
BLM-434	D-Trix	130	12-1-15	3:55
BLM-435	D-Trix	140	12-2-15	6:40
BLM-436	D-Trix	130	12-2-15	7:00
BLM-437	D-Trix	130	12-2-15	7:30
BLM-438	D-Trix	140	12-2-15	8:15
BLM-439	D-Trix	130	12-2-15	9:00
BLM-440	D-Trix	130	12-2-15	9:30
BLM-441	D-Trix	140	12-2-15	10:00
BLM-442	D-Trix	130	12-2-15	10:25
BLM-443	D-Trix	130	12-2-15	11:00
BLM-444	D-Trix	140	12-2-15	11:35
BLM-445	D-Trix	130	12-2-15	12:00
BLM-446	D-Trix	140	12-2-15	1:10
BLM-447	D-Trix	120	12-2-15	1:25
BLM-448	D-Trix	130	12-2-15	2:00
BLM-449	D-Trix	140	12-2-15	2:40
BLM-450	D-Trix	120	12-2-15	3:20
BLM-451	D-Trix	130	12-2-15	3:45
BLM-452	D-Trix	130	12-3-15	0630
BLM-453	D-Trix	120	12-3-15	7:05
BLM-454	D-Trix	130	12-3-15	8:00
BLM-455	D-Trix	120	12-3-15	8:25
BLM-456	D-Trix	130	12-3-15	9:25
BLM-457	D-Trix	120	12-3-15	10:20
BLM-458	D-Trix	130	12-3-15	10:50
BLM-459	D-Trix	120	12-3-15	12:00
BLM-460	D-Trix	130	12-3-15	12:25
BLM-461	D-Trix	120	12-3-15	1:45
BLM-462	D-Trix	130	12-3-15	2:10
BLM-463	D-Trix	120	12-3-15	3:25
BLM-464	D-Trix	130	12-3-15	4:00

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM-465	D-Trix	130	12-4-15	0635
BLM-466	D-Trix	129	12-4-15	7:05
BLM-467	D-Trix	130	12-4-15	8:00
BLM-468	D-Trix	120	12-4-15	8:50
BLM-469	D-Trix	130	12-4-15	9:25
BLM-470	D-Trix	120	12-4-15	10:35
BLM-471	D-Trix	130	12-4-15	11:00
BLM-472	D-Trix	120	12-4-15	12:20
BLM-473	D-Trix	130	12-4-15	12:45
BLM-474	D-Trix	140	12-4-15	1:30
BLM-475	D-Trix	120	12-4-15	2:00
BLM-476	D-Trix	140	12-4-15	3:10
BLM-477	D-Trix	120	12-4-15	3:50
BLM-478	D-Trix	130	12-7-15	7:20
BLM-479	D-Trix	140	12-7-15	7:50
BLM-480	D-Trix	140	12-7-15	9:25
BLM-481	D-Trix	140	12-7-15	11:00
BLM-482	D-Trix	140	12-7-15	12:30
BLM-483	D-Trix	120	12-7-15	1:00
BLM-484	D-Trix	140	12-7-15	2:00
BLM-485	D-Trix	120	12-7-15	2:35
BLM-486	D-Trix	120	12-7-15	4:10
BLM-487	D-Trix	120	12-8-15	6:35
BLM-488	D-Trix	140	12-8-15	7:10
BLM-489	D-Trix	120	12-8-15	8:20
BLM-490	D-Trix	140	12-8-15	8:55
BLM-491	D-Trix	120	12-8-15	9:55
BLM-492	D-Trix	140	12-8-15	10:30
BLM-493	D-Trix	120	12-8-15	11:25
BLM-494	D-Trix	140	12-8-15	12:05
BLM-495	D-Trix	120	12-8-15	12:55
BLM-496	D-Trix	140	12-8-15	1:40
BLM-497	D-Trix	120	12-8-15	2:25
BLM-498	D-Trix	140	12-8-15	3:15
BLM-499	D-Trix	120	12-8-15	4:00
BLM-500	D-Trix	140	12-9-15	6:30
BLM-501	D-Trix	120	12-9-15	7:00
BLM-502	D-Trix	140	12-9-15	8:10
BLM-503	D-Trix	120	12-9-15	8:40
BLM-504	D-Trix	140	12-9-15	9:50
BLM-505	D-Trix	120	12-9-15	10:30

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM- 506	D-Trix	140	12-9-15	10:55
BLM- 507	D-Trix	120	12-9-15	11:00
BLM- 508	D-Trix	140	12-9-15	12:55
BLM- 509	D-Trix	120	12-9-15	2:04
BLM- 510	D-Trix	140	12-9-15	2:40
BLM- 511	D-Trix	120	12-9-15	3:50
BLM- 512	D-Trix	120	12-10-15	6:40
BLM- 513	D-Trix	140	12-10-15	7:10
BLM- 514	D-Trix	120	12-10-15	8:10
BLM- 515	D-Trix	140	12-10-15	8:45
BLM- 516	D-Trix	120	12-10-15	9:35
BLM- 517	D-Trix	140	12-10-15	10:20
BLM- 518	D-Trix	120	12-10-15	11:10
BLM- 519	D-Trix	120	12-10-15	12:40
BLM- 520	D-Trix	140	12-10-15	2:10
BLM- 521	D-Trix	120	12-10-15	2:40
BLM- 522	D-Trix	140	12-10-15	3:45
BLM- 523	D-Trix	120	12-10-15	4:10
BLM- 524	D-Trix	120	12-11-15	6:40
BLM- 525	D-Trix	120	12-11-15	8:10
BLM- 526	D-Trix	120	12-11-15	9:40
BLM- 527	D-Trix	120	12-11-15	11:15
BLM- 528	D-Trix	120	12-11-15	12:45
BLM- 529	D-Trix	120	12-11-15	2:15
BLM- 530	D-Trix	120	12-11-15	3:45
BLM- 531	D-Trix	120	12-14-15	6:40
BLM- 532	D-Trix	130	12-14-15	7:10
BLM- 533	D-Trix	120	12-14-15	8:15
BLM- 534	D-Trix	130	12-14-15	8:50
BLM- 535	D-Trix	120	12-14-15	9:50
BLM- 536	D-Trix	130	12-14-15	10:25
BLM- 537	D-Trix	140	12-14-15	10:50
BLM- 538	D-Trix	120	12-14-15	11:15
BLM- 539	D-Trix	140	12-14-15	12:20
BLM- 540	D-Trix	120	12-14-15	12:50
BLM- 541	D-Trix	140	12-14-15	1:55
BLM- 542	D-Trix	120	12-14-15	2:25
BLM- 543	D-Trix	140	12-14-15	3:35
BLM- 544	D-Trix	120	12-14-15	4:00
BLM- 545	D-Trix	140	12-15-15	6:40
BLM- 546	D-Trix	130	12-15-15	7:05

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM- 547	D-Trix	140	12-15-15	8:10
BLM- 548	D-Trix	130	12-15-15	8:40
BLM- 549	D-Trix	140	12-15-15	9:45
BLM- 550	D-Trix	130	12-15-15	10:15
BLM- 551	D-Trix	140	12-15-15	11:25
BLM- 552	D-Trix	130	12-15-15	11:50
BLM- 553	D-Trix	140	12-15-15	1:15
BLM- 554	D-Trix	130	12-15-15	1:40
BLM- 555	D-Trix	140	12-15-15	2:50
BLM- 556	D-Trix	130	12-15-15	3:20
BLM- 557	D-Trix	130	12-16-15	635
BLM- 558	D-Trix	140	12-16-15	7:05
BLM- 559	D-Trix	130	12-16-15	8:00
BLM- 560	D-Trix	140	12-16-15	8:50
BLM- 561	D-Trix	130	12-16-15	9:55
BLM- 562	D-Trix	140	12-16-15	11:10
BLM- 563	D-Trix	130	12-16-15	11:30
BLM- 564	D-Trix	140	12-16-15	12:40
BLM- 565	D-Trix	130	12-16-15	105
BLM- 566	D-Trix	140	12-16-15	2:10
BLM- 567	D-Trix	130	12-16-15	235
BLM- 568	D-Trix	140	12-16-15	3:45
BLM- 569	D-Trix	130	12-16-15	4:10
BLM- 570	D-Trix	130	12-17-15	6:35
BLM- 571	D-Trix	140	12-17-15	7:05
BLM- 572	D-Trix	130	12-17-15	8:31
BLM- 573	D-Trix	140	12-17-15	9:05
BLM- 574	D-Trix	130	12-17-15	10:02
BLM- 575	D-Trix	140	12-17-15	10:50
BLM- 576	D-Trix	130	12-17-15	11:30
BLM- 577	D-Trix	140	12-17-15	12:20
BLM- 578	D-Trix	130	12-17-15	12:56
BLM- 579	D-Trix	130	12-17-15	2:25
BLM- 580	D-Trix	140	12-17-15	2:55
BLM- 581	D-Trix	130	12-17-15	3:51
BLM- 582	D-Trix	130	12-18-15	6:50
BLM- 583	D-Trix	140	12-18-15	7:50
BLM- 584	D-Trix	130	12-18-15	8:25
BLM- 585	D-Trix	140	12-18-15	9:35
BLM- 586	D-Trix	130	12-18-15	10:20
BLM- 587	D-Trix	140	12-18-15	11:25

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM- 588	D-Trix	130	12-18-15	11:47
BLM- 589	D-Trix	140	12-18-15	1:10
BLM- 590	D-Trix	140	12-18-15	2:45
BLM- 591	D-Trix	130	12-21-15	6:49
BLM- 592	D-Trix	130	12-21-15	7:20
BLM- 593	D-Trix	130	12-21-15	8:16
BLM- 594	D-Trix	130	12-21-15	8:50
BLM- 595	D-Trix	130	12-21-15	9:45
BLM- 596	D-Trix	130	12-21-15	10:15
BLM- 597	D-Trix	130	12-21-15	11:04
BLM- 598	D-Trix	130	12-21-15	11:40
BLM- 599	D-Trix	130	12-21-15	12:36
BLM- 600	D-Trix	130	12-21-15	1:00
BLM- 601	D-Trix	130	12-21-15	1157
BLM- 602	D-Trix	130	12-21-15	2:35
BLM- 603	D-Trix	130	12-21-15	3:25
BLM- 604	D-Trix	140	12-22-15	6:50
BLM- 605	D-Trix	130	12-22-15	7:15
BLM- 606	D-Trix	130	12-22-15	8:45
BLM- 607	D-Trix	130	12-22-15	10:20
BLM- 608	D-Trix	130	12-22-15	11:55
BLM- 609	D-Trix	120	12-22-15	1235
BLM- 610	D-Trix	130	12-22-15	1:25
BLM- 611	D-Trix	120	12-22-15	2:10
BLM- ~~612~~ 612	D-Trix	130	12-22-15	3:00
BLM- 613	D-Trix	120	12-22-15	3:45
BLM- 614	D-Trix	130	12-23-15	6:45
BLM- 615	D-Trix	130	12-23-15	7:15
BLM- 616	D-Trix	130	12-23-15	8:15
BLM- 617	D-Trix	130	12-23-15	8:55
BLM- 618	D-Trix	130	12-23-15	9:40
BLM- 619	D-Trix	130	12-23-15	10:30
BLM- 620	D-Trix	130	12-23-15	11:10
BLM- 621	D-Trix	130	12-23-15	11:50
BLM- 622	D-Trix	130	12-23-15	12:40
BLM- 623	D-Trix	130	12-23-15	1:25
BLM- 624	D-Trix	130	12-23-15	2:10
BLM- 625	D-Trix	130	12-23-15	2:33
BLM- 626	D-Trix	130	12-23-15	3:10
BLM- 627	D-Trix	130	12-23-15	3:40
BLM- 628	D-Trix	130	12-24-15	645

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM- 629	D-Trix	130	12-24-15	7:10
BLM- 630	D-Trix	130	12-24-15	9:00
BLM- 631	D-Trix	130	12-24-15	9:25
BLM- 632	D-Trix	130	12-24-15	10:20
BLM- 633	D-Trix	130	12-24-15	11:20
BLM- 634	D-Trix	130	12-24-15	12:15
BLM- 635	D-Trix	130	12-24-15	12:45
BLM- 636	D-Trix	130	12-24-15	155
BLM- 637	D-Trix	130	12-24-15	2:15
BLM- 638	D-Trix	130	12-24-15	3:30
BLM- 639	D-Trix	130	12-24-15	3:55
BLM- 640	D-Trix	130	12-28-15	7:00
BLM- 641	D-Trix	130	12-28-15	8:50
BLM- 642	D-Trix	130	12-28-15	10:30
BLM- 643	D-Trix	140	12-28-15	10:55
BLM- 644	D-Trix	130	12-28-15	12:00
BLM- 645	D-Trix	140	12-28-15	12:35
BLM- 646	D-Trix	130	12-28-15	1:25
BLM- 647	D-Trix	140	12-28-15	2:15
BLM- 648	D-Trix	130	12-28-15	2:55
BLM- 649	D-Trix	140	12-28-15	3:45
BLM- 650	D-Trix	130	12-29-15	6:40
BLM- 651	D-Trix	140	12-29-15	7:15
BLM- 652	D-Trix	130	12-29-15	8:15
BLM- 653	D-Trix	140	12-29-15	9:00
BLM- 654	D-Trix	130	12-29-15	9:40
BLM- 655	D-Trix	140	12-29-15	10:40
BLM- 656	D-Trix	130	12-29-15	11:10
BLM- 657	D-Trix	140	12-29-15	12:20
BLM- 658	D-Trix	130	12-29-15	12:50
BLM- 659	D-Trix	140	12-29-15	1:50
BLM- 660	D-Trix	130	12-29-15	2:20
BLM- 661	D-Trix	140	12-29-15	3:25
BLM- 662	D-Trix	130	12-29-15	3:45
BLM- 663	D-Trix	140	12-30-15	7:45
BLM- 664	D-Trix	130	12-30-15	8:15
BLM- 665	D-Trix	140	12-30-15	9:20
BLM- 666	D-Trix	130	12-30-15	9:45
BLM- 667	D-Trix	140	12-30-15	10:55
BLM- 668	D-Trix	130	12-30-15	11:15
BLM- 669	D-Trix	140	12-30-15	12:30

Bloomfield Terminal Non-Hazardous Waste Manifest Tracker

Manifest No.	Transport	Quantity	Date	Time
BLM-670	D-Trix	130	12-30-15	12:50
BLM-671	D-Trix	140	12-30-15	2:00
BLM-672	D-Trix	130	12-30-15	2:30
BLM-673	D-Trix	140	12-30-15	3:40
BLM-674	D-Trix	130	12-30-15	4:10
BLM-675	D-Trix	130	12-31-15	7:02
BLM-676	D-Trix	140	12-31-15	7:45
BLM-677	D-Trix	130	12-31-15	8:32
BLM-678	D-Trix	140	12-31-15	9:40
BLM-679	D-Trix	130	12-31-15	10:06
BLM-680	D-Trix	140	12-31-15	10:55
BLM-681	D-Trix	130	12-31-15	11:52
BLM-682	D-Trix	140	12-31-15	12:05
BLM-683	D-Trix	130	12-31-15	1:30
BLM-684	D-Trix	140	12-31-15	3:02
BLM-685	D-Trix	130	12-31-15	3:30
BLM-686	D-Trix	130	1-1-16	6:47
BLM-687	D-Trix	140	1-1-16	8:00
BLM-688	D-Trix	130	1-1-16	9:11
BLM-689	D-Trix	140	1-1-16	9:50
BLM-690	D-Trix	130	1-1-16	10:33
BLM-691	D-Trix	140	1-1-16	11:35
BLM-692	D-Trix	130	1-1-16	12:02
BLM-693	D-Trix	140	1-1-16	1:15
BLM-694	D-Trix	130	1-1-16	1:41
BLM-695	D-Trix	140	1-1-16	3:00
BLM-696	D-Trix	130	1-1-16	3:26
BLM-697	D-Trix	130	1-4-16	7:20am
BLM-698	D-Trix	140	1-4-16	8:10
BLM-699	D-Trix	130	1-4-16	8:55
BLM-700	D-Trix	140	1-4-16	9:45
BLM-701	D-Trix	130	1-4-16	10:25
BLM-702	D-Trix	140	1-4-16	11:25
BLM-703	D-Trix	130	1-4-16	12:00pm
BLM-704	D-Trix	140	1-4-16	1:00
BLM-705	D-Trix	130	1-4-16	1:40
BLM-706	D-Trix	140	1-4-16	2:50
BLM-707	D-Trix	130	1-4-16	3:15
BLM-708	D-Trix	130	1-5-16	6:50
BLM-709	D-Trix	140	1-5-16	7:20
BLM-710	D-Trix	130	1-5-16	8:30

Chavez, Carl J, EMNRD

From: Griswold, Jim, EMNRD
Sent: Monday, February 22, 2016 2:25 PM
To: Schmaltz, Randy; Allen Hains
Cc: Chavez, Carl J, EMNRD; Tsinnajinnie, Leona, NMENV; Perrin, Charlie, EMNRD
Subject: Former Bloomfield Refinery
Attachments: GW-1 Bloomfield determination letter of 2-22-16.pdf

See attached. Please retain a copy for your records as hardcopy will only be provided to Mr. Schmaltz via snail mail. Thank you. I spoke with Allen earlier today and Western's separate application for the replacement Class I well is eminent.

Jim Griswold
Environmental Bureau Chief
EMNRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505.476.3465
email: jim.griswold@state.nm.us

Carl, could you please see that this letter makes its way into the administrative record. Thanks.

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Tony Delfin
Deputy Cabinet Secretary

David Catanach
Director, Oil Conservation Division

February 22, 2016

Mr. Randy Schmaltz
Western Refining Southwest, Inc.
P.O. Box 159
Bloomfield, New Mexico 87413

RE: **Former Bloomfield Refinery**

Randy,

Oil Conservation Division (OCD) technical and legal staff met last week regarding Western's former refining facility in Bloomfield. Discharge permit GW-1 for the Bloomfield refinery was originally issued to Plateau, Inc. in June of 1978 pursuant to regulations of the Water Quality Control Commission (WQCC) and renewed in 1984, 1989, 1992, and 1994. A transfer of the permit to San Juan Refining Company was approved by OCD in January of 1996. The permit was again renewed in 2000 and 2005. Western acquired the refinery in May of 2007. Refining activities were reportedly idled during November of 2009 and the facility has since functioned primarily as a bulk storage terminal. A meeting between OCD and Western was held during January of 2010 to determine a path forward and OCD decided to allow operations to continue under a WQCC discharge permit until Western could determine its future plans for the facility. OCD renewed Discharge Permit GW-1 on May 24, 2010 with an expiration date of June 7, 2014. In May of 2011, those with discharge permits issued by OCD were asked to respond before July 15th of that year to a questionnaire regarding each facility. Western submitted their response to the OCD with respect to the Bloomfield operation on February 24, 2014.

There remain evaporation and aeration ponds at the facility. A non-hazardous disposal well was recently plugged with plans for a replacement. There exist numerous large sumps without secondary containment along with buried piping. Effluent was discharged which impacted protectable groundwater and abatement is in progress. There are also ongoing Resource Conservation and Recovery Act corrective actions under oversight by the NM Environment Department (NMED).

As such, OCD has determined the discharge permit must be renewed. OCD requests Western submit a renewal application without reference to former documents within 120 days of the date

of this letter. As a part of the application, Western should submit a plan with cost estimates for closure and if the renewal is approved, provide adequate financial assurance. OCD wishes to avoid duplication and will consider plans and financial assurance which may exist per NMED requirements.

If you have any questions please contact Carl Chavez of my staff at (505) 476-3490 or by email at *CarlJ.Chavez@state.nm.us*. Thank you.

Respectfully,

Jim Griswold
Environmental Bureau Chief

cc (pdf via email): Allen Hains, Western
Leona Tsinnajinnie, NMED
OCD District III

Western Refining
LOGISTICS

WNR LISTED NYSE

OCD
2015 SEP -3 P 3:23

August 31, 2015

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

Certified Mail: 7012 3050 0002 4180 3057

RE: Western Refining Southwest, Inc. – Bloomfield Terminal
Notification of Sump and Sewer Box Inspection Activities
EPA ID# NMD089416416
GW - 001 & UICL-9

Dear Mr. Chavez,

Western Refining Southwest, Inc – Bloomfield Terminal has tentatively scheduled inspection of all water-draw sumps and underground lines to begin September 7, 2015. These activities will be conducted pursuant to Section 12 and Section 13 of the facilities Discharge Permit Renewal (GW-001) Each sump will be cleaned out with a vacuum truck, visually inspected, and the sumps that cannot be visually inspected (due to heavy oil) or sumps with integrity concerns will be hydrostatically tested to insure integrity. Underground lines will be pressured up to one and a half times normal operating pressure and held at that pressure for at least 30 minutes.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel. If you have any questions, please feel free to contact me at your convenience at (505) 632-4169.

Sincerely,

Matthew Krakow
Environmental Coordinator
Western Refining Southwest, Inc.

Cc: Randy Schmaltz (WNR)
Kelly Robinson (WNR)

Western Refining
LOGISTICS

WNR LISTED NYSE

March 31, 2015

Leona Tsinnajinnie
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7012 3050 0002 4180 3224 (delivery to NMED)
Certified Mail#: 7012 3050 0002 4180 3231 (delivery to OCD)

RE: Notification for River Terrace Low Flow Sampling Event
Western Refining Southwest, Inc. - Bloomfield Terminal
EPA ID# NMD089416416
GW - 001

Dear Mrs. Tsinnajinnie and Mr. Chavez,

Western Refining Southwest, Inc. – Bloomfield Terminal (Western) is scheduled to conduct the River Terrace Low Flow Sampling Event at the Bloomfield Facility starting the week of April 20, 2015. The Low Flow Sampling Event is conducted during low flow conditions of the San Juan River (i.e. with a flow rate of approximately 500 scfm or below).

If you have any questions or need additional information, please feel free to contact me at (505) 632-4166 at your convenience.

Sincerely,

Kelly Robinson
Environmental Supervisor
Western Refining Southwest, Inc.

Cc: Randy Schmaltz - HSER Director

Western Refining
LOGISTICS

WNR
LISTED
NYSE

March 31, 2015

Leona Tsinnajinnie
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7012 3050 0002 4180 3200 (delivery to NMED)
Certified Mail#: 7012 3050 0002 4180 3217 (delivery to OCD)

RE: Notification to Conduct Semi-Annual Groundwater Monitoring
Western Refining Southwest, Inc. - Bloomfield Terminal
EPA ID# NMD089416416
GW - 001

Dear Mrs. Tsinnajinnie and Mr. Chavez,

Western Refining Southwest, Inc. – Bloomfield Terminal (Western) is scheduled to conduct the Semi-Annual Groundwater Sampling Event at the Bloomfield Facility starting the week of April 20, 2015. Based on the number of sample locations included as part of the Annual Monitoring Event, we anticipate that sampling activities will be completed by May1, 2014, weather permitting.

Locations from which samples will be collected during this sampling event include the Refinery Complex, North Boundary Barrier, San Juan River Bluff, and from the San Juan River. All semi-annual groundwater monitoring activities will be performed pursuant to the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June 2013 approved on April 25, 2014.

If you have any questions or need additional information, please feel free to contact me at (505) 632-4166 at your convenience.

Sincerely,

Kelly Robinson
Environmental Supervisor
Western Refining Southwest, Inc.

Cc: Randy Schmaltz - HSER Director

Western Refining
LOGISTICS

WNR
NYSE

August 4, 2014

Neelam Dhawan
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

FedEx Tracking #: 7707 6452 8458 (NMED)
Certified Mail#: 7011 3500 0000 2169 0670 (OCD)

RE: Notification to Conduct 2014 Annual Groundwater Monitoring
Western Refining Southwest, Inc. – Former Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Mrs. Dhawan and Mr. Chavez,

Western Refining Southwest, Inc. (Western) is scheduled to conduct the Annual Sampling Event at the Bloomfield Terminal starting the week of August 18th, 2012. Locations from which samples will be collected during this sampling event include the Refinery Complex, North Boundary Barrier, San Juan River Bluff, and from the San Juan River. All annual groundwater monitoring activities will be performed pursuant to the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June 2013.

Prior to collecting groundwater samples, depth-to-groundwater and separate phase hydrocarbon (SPH) thickness measurements will be collected. Pumps equipped in each active recovery well will be turned off and groundwater levels will be allowed time to stabilize prior to collecting the depth-to-groundwater and SPH thickness measurements.

If you have any questions or would like to schedule a time to observe the groundwater sampling activities, please feel free to contact me at (505) 632-4166.

Sincerely,

Kelly Robinson
Environmental Manager
Western Refining Logistics

cc: Randy Schmaltz - HSER Director - Bloomfield Refinery

Western Refining

WNR
NYSE

March 18, 2014

Leona Tsinnajinnie
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7011 3500 0000 7663 8160 (delivery to NMED)
Certified Mail#: 7011 3500 0000 7663 8177 (delivery to OCD)

RECEIVED OCD
2014 MAR 19 A 2:0

RE: Notification for River Terrace Low Flow Sampling Event
Western Refining Southwest, Inc. - Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Mrs. Tsinnajinnie and Mr. Chavez,

Western Refining Southwest, Inc. – Bloomfield Terminal (Western) is scheduled to conduct the River Terrace Low Flow Sampling Event at the Bloomfield Facility starting the week of April 7, 2013. The Low Flow Sampling Event is conducted during low flow conditions of the San Juan River (i.e. with a flow rate of approximately 500 scfm or below).

If you have any questions or need additional information, please feel free to contact me at (505) 632-4166 at your convenience.

Sincerely,

Kelly Robinson
Environmental Supervisor
Western Refining Southwest, Inc. - Bloomfield Refinery

Cc: Randy Schmaltz - HSER Director - Bloomfield Refinery

Western Refining

WNR LISTED NYSE

March 18, 2014

Leona Tsinnajinnie
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7011 3500 0000 7663 8146 (delivery to NMED)
Certified Mail#: 7011 3500 0000 7663 8153 (delivery to OCD)

RECEIVED OCD
2014 MAR 19 A 2:07

RE: Notification to Conduct Semi-Annual Groundwater Monitoring
Western Refining Southwest, Inc. - Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Mrs. Tsinnajinnie and Mr. Chavez,

Western Refining Southwest, Inc. – Bloomfield Terminal (Western) is scheduled to conduct the Semi-Annual Groundwater Sampling Event at the Bloomfield Facility starting the week of April 1, 2013. Based on the number of sample locations included as part of the Annual Monitoring Event, we anticipate that sampling activities will be completed by April 11th, 2013, weather permitting.

Locations from which samples will be collected during this sampling event include the Refinery Complex, North Boundary Barrier, San Juan River Bluff, and from the San Juan River. All semi-annual groundwater monitoring activities will be performed pursuant to the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June 2013.

If you have any questions or need additional information, please feel free to contact me at (505) 632-4166 at your convenience.

Sincerely,

Kelly Robinson
Environmental Supervisor
Western Refining Southwest, Inc. - Bloomfield Refinery

Cc: Randy Schmaltz - HSER Director - Bloomfield Refinery

Western Refining
LOGISTICS

WNR
NYSE

July 12, 2013

Neelam Dhawan
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7011 3500 0000 2169 0595 (NMED)
Certified Mail#: 7011 2500 0000 2169 0601 (OCD)

RE: Notification to Conduct 2013 Annual Groundwater Monitoring
Western Refining Southwest, Inc. - Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Mrs. Dhawan and Mr. Chavez,

Western Refining Southwest, Inc. (Western) is scheduled to conduct the Annual Sampling Event at the Bloomfield Terminal starting the week of August 5th, 2012. Locations from which samples will be collected during this sampling event include the Refinery Complex, North Boundary Barrier, San Juan River Bluff, and from the San Juan River. All annual groundwater monitoring activities will be performed pursuant to the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June 2012.

Prior to collecting groundwater samples, depth-to-groundwater and separate phase hydrocarbon (SPH) thickness measurements will be collected. Pumps equipped in each active recovery well will be turned off and groundwater levels will be allowed time to stabilize prior to collecting the depth-to-groundwater and SPH thickness measurements.

If you have any questions or would like to schedule a time to observe the groundwater sampling activities, please feel free to contact me at (505) 632-4166.

Sincerely,

Kelly Robinson
Environmental Supervisor
Western Refining Southwest, Inc.

cc: Randy Schmaltz - HSER Director - Bloomfield Refinery

RECEIVED OCD
2013 JUL 15 P 2:

Western Refining
LOGISTICS

WNR LISTED NYSE

RECEIVED OCD

2012 JUL 25

Leona Tsinnajinnie
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7009 2250 0002 3833 5308 (NMED)
Certified Mail#: 7009 2250 0002 3833 5292 (OCD)

July 24, 2012

RE: Notification to Conduct Annual Groundwater Monitoring
Western Refining Southwest, Inc. - Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Mrs. Tsinnajinnie and Mr. Chavez,

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) is scheduled to conduct the Annual Sampling Event at the Bloomfield Refinery starting the week of August 6th, 2012. Based on the number of sample locations included as part of the Annual Monitoring Event, we anticipate that sampling activities will be completed during the week of August 20, 2012.

Locations from which samples will be collected during this sampling event include the Refinery Complex, North Boundary Barrier, San Juan River Bluff, and from the San Juan River. All annual groundwater monitoring activities will be performed pursuant to the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June 2012.

Prior to collecting groundwater samples, depth-to-groundwater and separate phase hydrocarbon (SPH) thickness measurements will be collected. Pumps equipped in each active recovery well will be turned off and groundwater levels will be allowed time to stabilize prior to collecting the depth-to-groundwater and SPH thickness measurements.

If any representatives from NMED and/or OCD would like to participate, please contact me at your convenience so that safety orientation training can be scheduled for incoming personnel. If you have any questions or need additional information, please feel free to contact me at (505) 632-4166.

Sincerely,

Kelly Robinson
Environmental Supervisor
Western Refining Southwest, Inc. - Bloomfield Refinery

Cc: Randy Schmaltz - HSER Director - Bloomfield Refinery

Western Refining

LOGISTICS

WNR LISTED NYSE

March 8, 2012

RECEIVED OCD

2012 MAR 12 A 7:18

Leona Tsinnajinnie
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Carl Chavez
NM Energy, Minerals & Natural Resources
Oil Conservation Division, Env Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Certified Mail#: 7009 0820 0000 0482 9085 (Delivered to NMED)
Certified Mail#: 7009 0820 0000 0482 9115 (Delivered to OCD)

RE: Notification to Conduct Semi-Annual Groundwater Sampling Event, and
Notification to Conduct River Terrace Low Flow Sampling Event
Western Refining Southwest, Inc. - Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Ms. Tsinnajinnie and Mr. Chavez,

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) is scheduled to conduct the Semi-Annual Facility-Wide Groundwater Sampling Event and Low Flow River Terrace Sampling Event at the Bloomfield Refinery starting the week of April 2nd, 2012. Based on the number of sample locations, Western anticipates that it will take approximately two weeks to complete the required sampling.

Locations from which samples will be collected during the two sampling events include the Refinery Complex, North Boundary Barrier, San Juan River Bluff, and from the San Juan River Terrace. All monitoring activities will be performed pursuant to the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June 2011, and as outlined in the approved modified River Terrace monitoring plan included in a letter from the New Mexico Environment Department – Hazardous Waste Bureau dated March 15, 2011.

If you have any questions or need additional information, please feel free to contact me at (505) 632-4166.

Sincerely,

Kelly Robinson

Kelly Robinson
Environmental Supervisor
Western Refining Southwest, Inc. - Bloomfield Refinery

cc: Randy Schmaltz – Environmental Manager – Bloomfield Refinery

Western Refining

WNR LISTED NYSE

RECEIVED OCD
2011 MAY 27 P 2:53

May 26, 2011

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

Certified Mail: # 709 0820 0000 0482 9054

RE: Western Refining Southwest, Inc. – Bloomfield Refinery
Notification of Sump and Sewer Box Inspection Activities
EPA ID# NMD089416416
GW - 001 & UICL-9

Dear Mr. Chavez,

Western Refining Southwest, Inc – Bloomfield Refinery has scheduled inspection of all water-draw sumps located in the Tank Farm and sewer boxes to begin June 1, 2011. Each sump and sewer box will be cleaned out with a vacuum truck, visually inspected, and hydrostatically tested to insure integrity.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel. If you have any questions, please feel free to contact me at your convenience at (505) 632-4166.

Sincerely,

Kelly Robinson

Kelly Robinson
Environmental Supervisor
Western Refining Southwest, Inc. - Bloomfield Refinery

Cc: Randy Schmaltz (WNR)

UPS MAIL #: 1Z 881 839 01 5027 1997

November 29, 2010

Carl Chavez
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Western Refining Southwest, Inc. (Western) Bloomfield Refinery
Discharge Permit (GW-001) Approval Conditions, Supplemental Plans
Comment e-mail dated November 10, 2010

Dear Mr. Chavez:

This letter is in response to an e-mail Western Refining Southwest, Inc. - Bloomfield Refinery's (Western) received from New Mexico Oil Conservation Division (OCD) dated November 10, 2010 regarding the OCD Supplemental Plans and proposed alternatives to Condition 9, Above Ground Tanks Impermeable Secondary Containment Requirement. Attached to this response letter includes the revised Closure Plan for the North and South Aeration Lagoon.

Throughout discussions in finalizing the OCD Discharge Permit for the Bloomfield Refinery, Western has strongly felt that OCD's initial requirement to retrofit all above ground tanks with secondary floor leak detection systems and line all existing bermed areas prior to the expiration of this permit is unreasonable and also not feasible for this facility. Therefore, as allowed by the Discharge Permit, Western proposed an alternative plan to OCD in a letter dated September 28, 2010. This alternative plan was developed based on known conditions OCD has recently approved for the other refineries located in New Mexico.

Western strongly believes that Bloomfield Refinery proposed alternatives for leak detection and secondary containment as clarified in detail in the November 3, 2010 letter (Bullet No. 2, 3 and 4 of Condition 9) complement the already existing programs and engineering controls in-place (as summarized below), and therefore sufficiently meet the intended Permit condition.

Leak Detection Protection

Over the past decade, Western (formally known as Giant Industries, Inc.) has made a strong commitment to regulatory compliance and environmental protection. Extensive financial investment, increased support of Refinery management and the Refinery's strong commitment to environmental compliance has resulted in the implementation and continued operation of programs and engineering controls that over the years has proven to be effective in remediating and minimizing future environmental impacts. Such effective programs and controls in-place include the following:

50 County Road 4990, Bloomfield, New Mexico 87413 • 505 632-4101 • www.wnr.com

- Installation of a 2,700-foot long underground bentonite slurry wall along the north refinery property boundary which serves as a hydraulic barrier to total fluid migration beyond the refinery property.
- On-going operation of a total fluids collection system, consisting of 15 fluid collection wells and an underground French drain system, which allows for total fluids recovery for treatment.
- Implementation and on-going enhancement of a Facility Wide Groundwater Monitoring Program, consisting of over 100 monitoring wells located throughout the Refinery property.
- Implementation of agency approved RCRA Investigation Work Plans, which include field activities for the purpose of identifying groundwater and soil impacts through soil sampling, well installation, and groundwater collection.

Based on a statement made by OCD in the November 10, 2010 e-mail, it is implied that OCD would accept monitoring wells down gradient of storage tanks for leak detection compliance. Western feels that the existing and continued expansion of the on-site monitoring well network and Facility-Wide Groundwater Monitoring Plan provides enhanced coverage and an effective monitoring mechanism to identify any active tank leak. The already in-place and operational total fluids collection system provides secondary assurance that any impacted groundwater is ultimately captured by the total fluids collection system for treatment. Therefore, with the monitoring program and fluids collection systems already in-place, groundwater impacted by facility operations is captured and returned for treatment.

In addition to these environmental programs, current operational Best Management Practices (BMPs) and proactive maintenance activities enhance the effectiveness of minimizing environmental impacts. The API 653 Inspection Program has been followed industry-wide for almost two decade for the purpose of promoting safe storage and material handling of petroleum products in a manner that protects employees, the public, and the environment. The frequency of internal and external tank inspection required by this standard, which the Bloomfield Refinery also maintains compliance with, is set to ensure that indications of corrosion or metal loss in a tank's construction can be detected and appropriate actions taken prior to development of a leak or tank failure. Western complies with all inspection and repair requirements with this standard. An up-dated schedule of API tank inspections is included in the Groundwater, Remediation, and Monitoring Annual Report, which is provided to OCD in April of each year.

Secondary Containment

With regards to OCD's requirement of enhancing the Tank Farm containment areas with the installation of a 6-inch clay layer and permeability of $1x10^{-6}$ cm/sec or less, Western believes that there exists several compliance, safety, and operational reasons as to why altering the construction of the Tank Farm containment areas as indicated by OCD in the November 10, 2010 e-mail should not be considered a reasonable solution. Western feels that OCD's requirement to compact and layer the existing dike areas would result in significant storm water and pollution prevention compliance issues such as: 1) deter the effective monitoring of leak detection around tank perimeters due to the increased standing water within the entire containment areas; 2) hinder safe access to the tank area and associated piping areas by operations and maintenance; and 3) potentially cause mechanical safety issues with pumps and electrical equipment located within the tank areas that are normally not exposed to standing water.

Currently Western has operators on-site 24 hours per day, 7 days per week who conduct daily inspections of all the tank farm containment areas to ensure there does not exist erosion or wash-out conditions that would compromise the ability to contain fluid in the event of a major tank spill, or impede access to the areas for operation and maintenance activities. In addition, Western Environmental Department conducts annual formal inspections of containment areas for spill prevention and storm water compliance. Containment area berms are reinforced and compacted as necessary to ensure a sufficient containment surface. Surface grade around the tanks are regularly compacted because the areas are heavily traveled during operation and maintenance activities. This compaction effort, in addition to the slope of the containment areas, allows for fluid to collect in a central location allowing for effective fluids removal in the event of a large spill.

Bloomfield Refinery has maintained a constant commitment to protecting human health and the environment over the past decade. Refinery management maintains a strong commitment to compliance and has worked hard to build a good relationship with regulatory agencies. This relationship has been instrumental in continuing progress of improvements at the Refinery. Bloomfield Refinery has invested time, energy, and money into improving environmental conditions of the property, maintaining safe work environments, and implementing programs that minimize impact to both human health and the environment.

In conclusion, Western strongly believes that Bloomfield Refinery proposed alternatives for leak detection and secondary containment as clarified in detail in the November 3, 2010 letter (Bullet No. 2, 3 and 4 of Condition 9) complement the already existing programs and engineering controls in-place (as summarized above), and therefore sufficiently meet the intended Permit condition.

Should you have questions or would like to discuss these comments further, 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

AERATION LAGOONS ACTION PLAN

Western Refining Southwest, Inc. – Bloomfield Refinery

Purpose and Scope

This Action Plan describes procedures and actions that are implemented during normal operations as well as response actions that will be implemented in the event of a discovered leak to the environment from one of the Aeration Lagoons.

Background

The refinery is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is more specifically located approximately 1/2 mile east of US HWY 550/SR 44 on County Road 4990 (a.k.a. Sullivan Road).

The refinery is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace rises approximately 100 feet above the river level and 20 feet above the irrigation ditch. An underground slurry wall (North Barrier Boundary Wall) with Tank #37 groundwater collection system is situated north of the Hammond Irrigation Ditch (see attached site plan). This collection system serves as a total fluids collection system for the western portion of the refinery which includes the area surrounding the aeration lagoons.

The essential function of the North and South Aeration Lagoons is aggressive biological treatment (ABT) of used process water. The water is generated at various refinery units, storage tanks, utility systems, and maintenance activities. This water is collected in a segregated sewer system located throughout the refinery units and tankage areas. Used process water flows to the API Separator where solids, sludge, and floating scum are removed. API Separator effluent is then pumped through the Benzene Strippers and then flows onward through a series of three lined aeration lagoons. Water is then either evaporated at the evaporation ponds or injected underground at the Class I injection well.

In 1974, the aeration lagoons were constructed with bentonite-treated bottoms for fresh water holding. After the initiation of the Clean Water Act (40CFR Part 419), the ponds were converted to manage API Separator water as a secondary biological treatment of the water. In 1982/83 the first clean out of these biological treatment oily water ponds occurred and a liner and leachate system was installed that consisted of a 33% bentonite composite liner equipped with a French drain system, with a 100-ml high density polyethylene (HDPE) liner on top. Around 1990, the lagoons were upgraded and retrofitted with two additional liners and a leak detection/leachate collection system over and above the cleaned 1982/83 system. In 2007, a benzene stripper/tank system was constructed and put into service to treat all water prior to entering the first aeration lagoon. After the installation of the benzene strippers and throughout the fourth quarter of 2008 and the first quarter of 2009, the lagoons were cleaned out and each lagoon's primary liner was inspected and repaired at that time.

The Aeration Lagoons from top to bottom, include a 100-mil HDPE top liner, a geonet for collecting leaks to a sump equipped with a 6-inch observation pipe, a 60-ml HDPE

secondary liner, a composite geotextile/geonet with a 4-inch observation pipe, a cement amended sand that was compacted into a 1.5% slope, a 100-ml HDPE liner, a French drain system which directs any collected fluids to a central sump, and a 6-inch layer of soil with 33% bentonite mixed into it.

The South Lagoon (#1 AL) averages 4.4 feet in depth and has a surface area of about 6,652 square feet. The total volume is approximately 216,000 gallons. At a flow rate of 80 gpm, the holding time in the pond is 1.9 days. This lagoon is equipped with two, 5 horsepower aspirating aerators sized to prevent F037/F038 waste generation.

The Northwest Lagoon (#2 AL) averages 5.5 feet in depth with a surface area of 10,000 square feet. This lagoon is equipped with two 2-horsepower aerators and water retention time (at 80 gpm) is 3.6 days. The Northeast Lagoon (#3 AL) averages 5.7 feet in depth, with a surface area of 8,440 square feet and a volume of approximately 360,000 gallons. This lagoon is equipped with two 2-horsepower aerators and wastewater retention time (at 80 gpm) of 3.1 days.

Leak Detection System

Each of the three Aeration Lagoons is constructed with four impermeable liners that are equipped with a three-tier leak detection system that allows for fluids monitoring between each of the lagoon liners and can provide confirmation of a leak before a discharge to groundwater. Each lagoon has a 6-inch detection tube placed between the primary and secondary liner as well as a 4-inch detection tube placed between the second and third liner. Below the third liner of each pond is a French drain system that empties to a single culvert located just east of the South Aeration Lagoon. Below the French drain is a layer of composite soil consisting of 33% bentonite (see attached as-built drawing).

Monitoring and Discovery

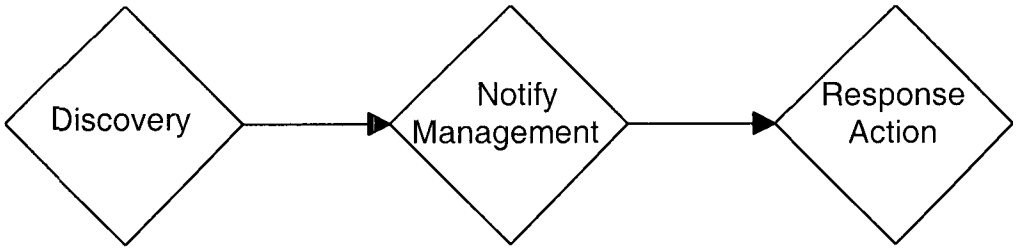
The leak detection tube system is measured with an inter-face probe on a bi-weekly basis. Visual inspection of the east leak detection culvert, which houses the outlet of the French drain located beneath the bottom liner, also occurs bi-weekly. Visual inspection of the freeboard and operation of the aeration lagoons occurs daily. The refinery is staffed 24 hours per day, 365 days per year. A Shift Supervisor, or designated representative, is always on duty at the refinery.

Baseline detection levels were established after the 2009 aeration lagoon cleanout and liner repair. Depth-to-fluid levels of less than 9 feet in either the 6-inch and 4-inch detection tubes of the #1 AL indicate a potential leak in the liner. The baseline level for the #2 AL was established as 18.5 feet in the 6-inch tube and dry in the 4-inch tube. Both detection tubes are dry in the #3 AL. If fluid is detected at a level less than 9 feet below the top of any leak detection tube, the Shift Supervisor and/or Environmental Manager is notified. To ensure the potential leak does not extend below the third protective liner, fluids may be removed from the 6-inch and/or 4-inch leak detection tube using a vacuum truck and/or diaphragm pump.

The discovery of fluids from the secondary containment liner (i.e. french drain system via the leak detection culvert) and supporting data of depth-to-fluid levels in the detection tubes will result in notification to the Environmental Manager to determine appropriate response action and implement notification to OCD.

If a leak or discharge from any one of the Aeration Lagoons is discovered, the employee shall immediately perform the following actions.

1. Note the nature and location of the discharge/leak.
2. Notify the on-duty Shift Supervisor and/or the Environmental Manager
3. Response action will then be determined.



The on-duty Shift Supervisor is the central point of contact in the discovery of a discharge/leak.

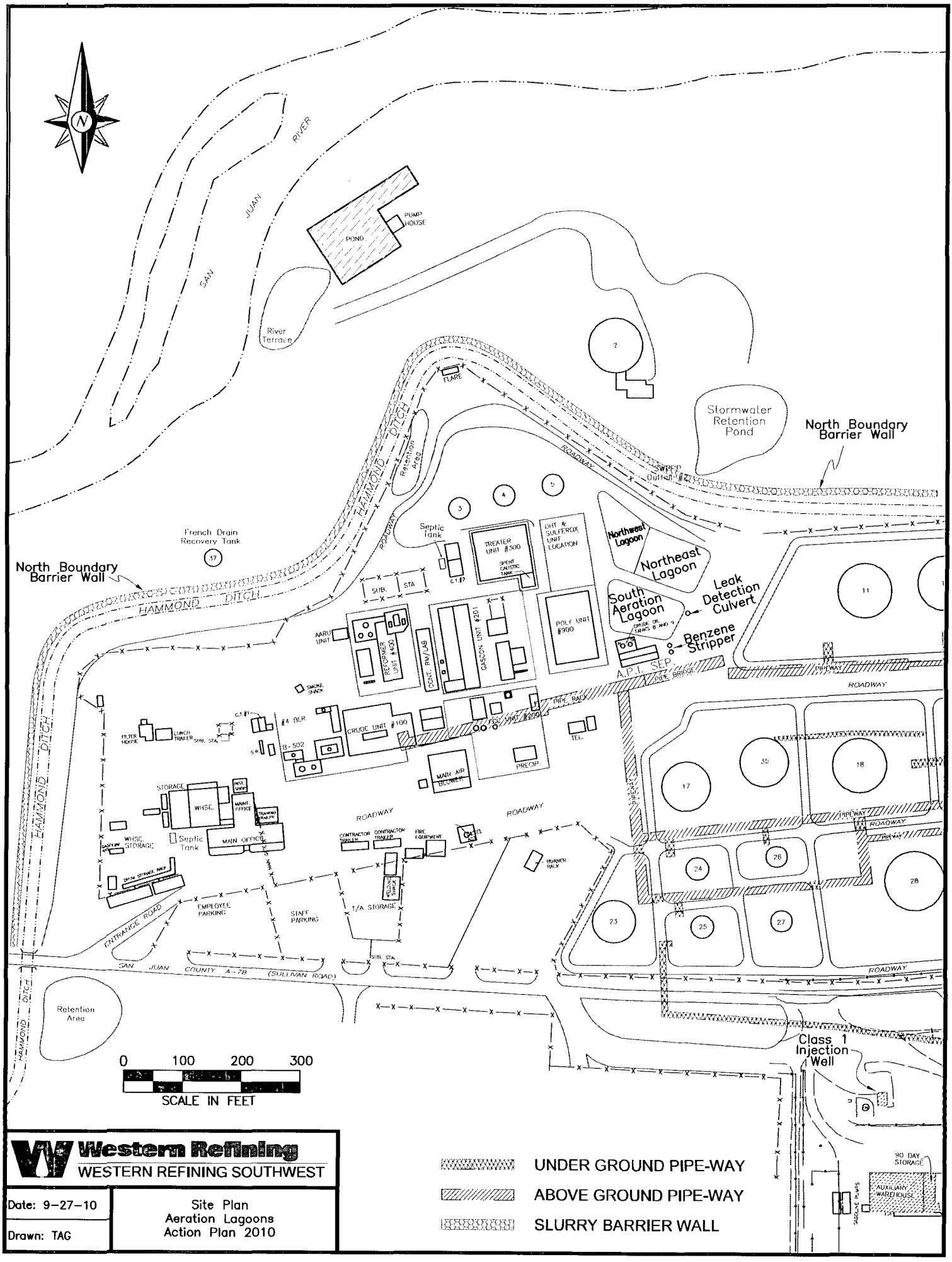
Response Action

In the event that there is an indication of a release to the environment from the Aeration Lagoons via a surface overflow or measurable fluid detection below the third liner of either pond via the leak detection culvert, OCD will be notified and this Action Plan will be implemented via the appropriate response action(s).

In the event of an aeration lagoon surface overflow... guidelines from Annex 10 (Spill Prevention Control and Countermeasures Plan) of the Integrated Contingency Plan for the Refinery will be followed. A copy of this Plan is maintained on-site and is attached. This Plan includes actions to be performed to minimize and contain surface impacts. Used process water from the API will be diverted to Tank 5 for temporary storage, thereby ceasing further discharge to the aeration lagoons. The fluid level in the over-filled pond will be lowered using a pump and/or vacuum truck. The pond will not be placed back into service until the fluid level is lowered below the minimum 3-foot freeboard level. Once the aeration ponds can be returned to normal operating service, fluid diverted to Tank 5 will be pumped back to the API for treatment.

In the event fluid is detected below the secondary containment liner (i.e. via the french drain system and leak detection culvert)....the affected aeration lagoon will be bypassed and the water process will discharge sequentially into the other two aeration lagoons. A sample of the fluids collected within the culvert will be collected for laboratory analysis to help determine if the fluid as a result of a leak from the above pond. All fluids from the leaking aeration lagoon will be pumped out so the liner can be inspected and repaired. The lagoon will not be returned to service until the repairs are completed.

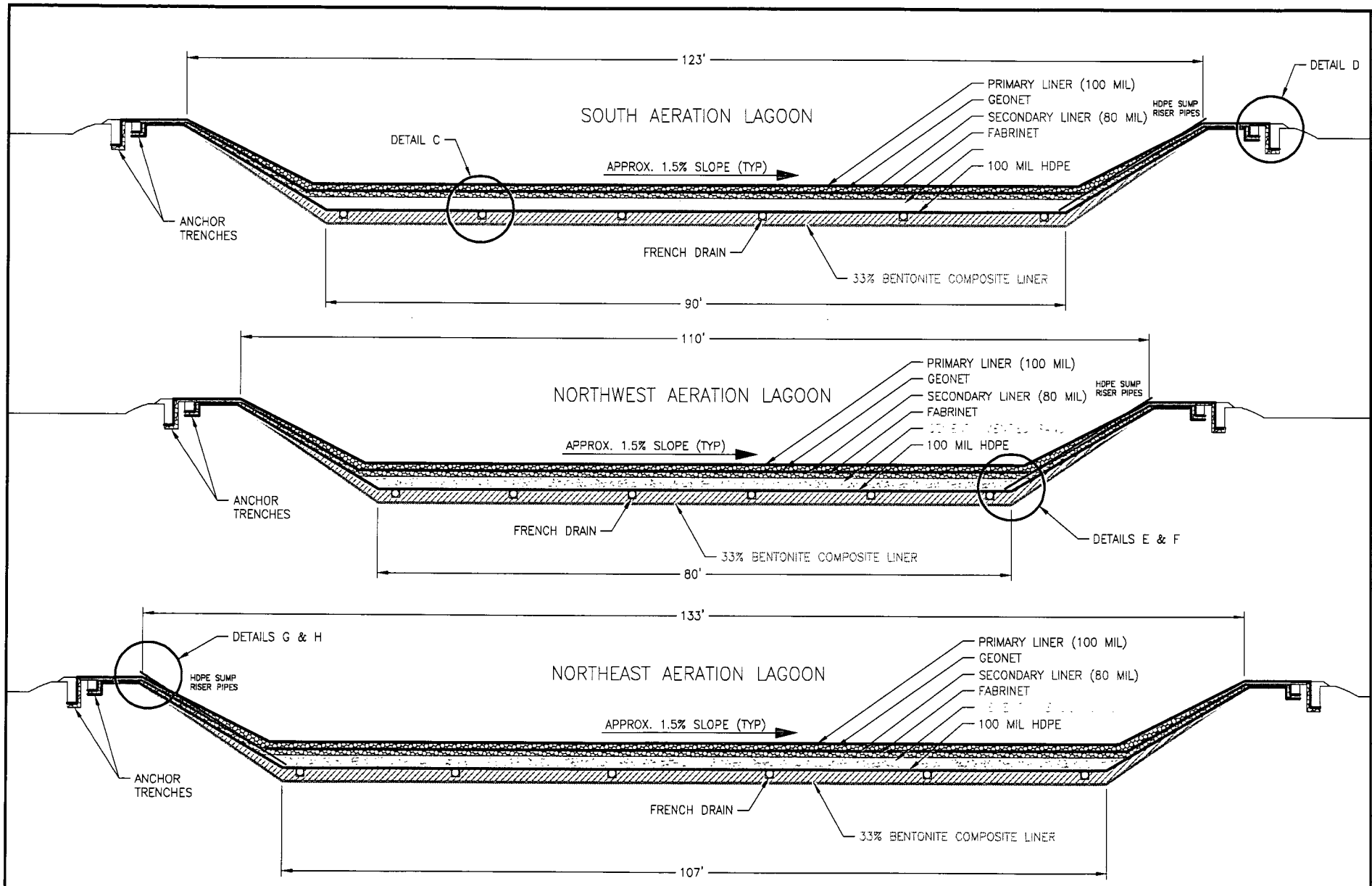
Any fluid release from the aeration lagoon ponds via a leak from the bottom pond liner is ultimately captured by the North Boundary Barrier Collection System. All fluid below the Refinery process units, which includes the area surrounding the Aeration Lagoons, is hydraulically contained on-site via the 2,700 foot long North Boundary Barrier Wall. Hydraulic relief along the barrier wall is controlled via a French drain system located below the Hammond Ditch which discharges into the Tank #37 groundwater collection system. All fluids from Tank #37 are pumped to the API Separator for treatment.



Western Refining

WESTERN REFINING SOUTHWEST

Date: 9-27-10	Site Plan Aeration Lagoons Action Plan 2010
Drawn: TAG	



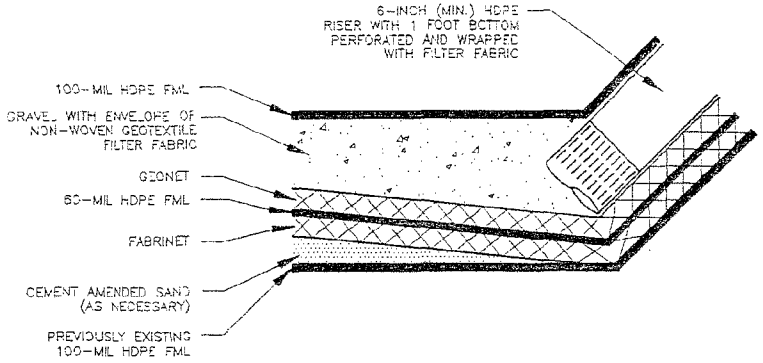
ERM-Rocky Mountain, Inc.
5950 South Willow Drive
Suite 200
Greenwood Village, Colorado 80111-8144
ERM (303)-741-8050

BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

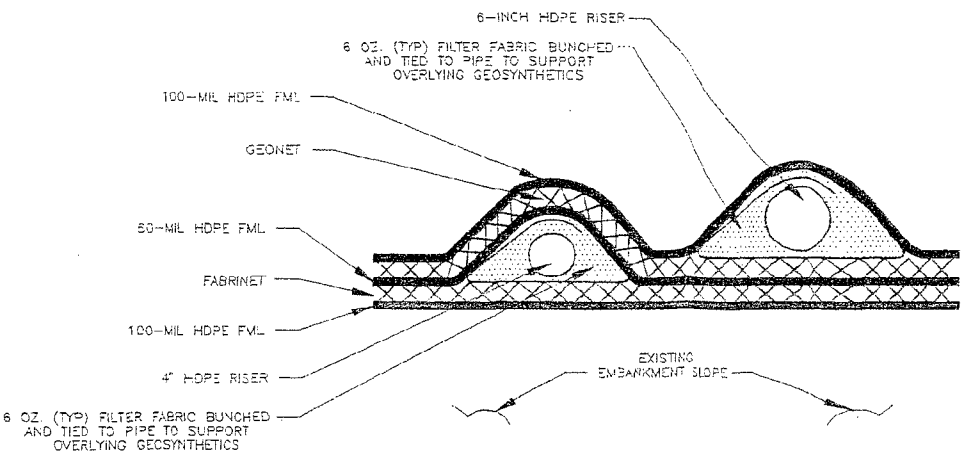
CROSS-SECTIONAL VIEW
RECORD DRAWING FOR COMPLETED SURFACE IMPOUNDMENT RETROFIT

DESIGNED	BLOOMFIELD
DRAWN	SRL
CHECKED	
DATE	09/23/94
JOB NO.	931044.0
FILENAME	FIG-2

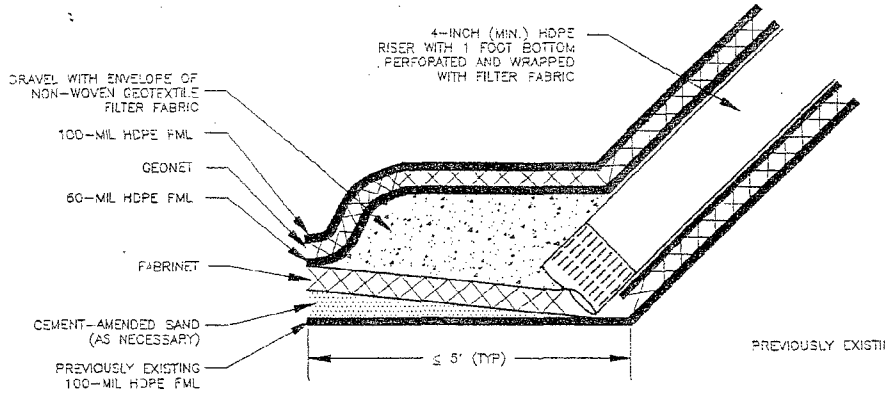
FIGURE 2



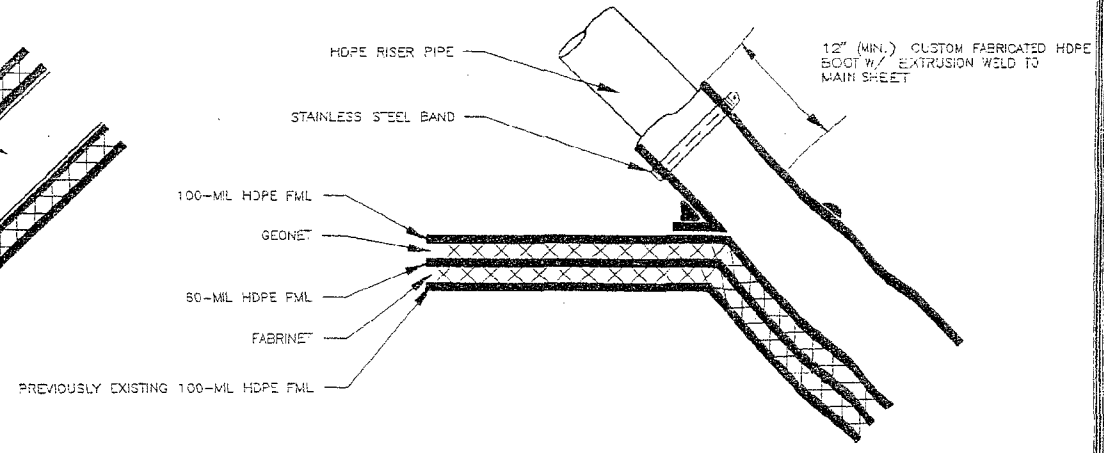
PRIMARY LEAK DETECTION SUMP DETAIL
DETAIL E (TYP)
(N.T.S.)



RISER PIPE CONFIGURATION
DETAIL G (TYP)
(N.T.S.)



SECONDARY LEAK DETECTION SUMP DETAIL
DETAIL F (TYP)
(N.T.S.)



RISER PIPE LINER BOOT
DETAIL H (TYP)
(N.T.S.)

ERM
ERM-Rocky Mountain, Inc.
8950 South Willow Drive
Suite 200
Greenwood Village, Colorado 80111-6144
(303) 741-3000

REV	REVISION DESCRIPTION	DATE

BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

SYSTEM DETAILS
RECORD DRAWING FOR COMPLETED SURFACE IMPOUNDMENT RETROFIT

DESIGNED	BLOOMFIELD
DRAWN	SRL
CHECKED	
DATE	05/23/94
JOB NO.	93D844.0
FILENAME	FIG-4

FIGURE
4

ATTACHMENT

Annex 10 – Spill Prevention Control and Countermeasure Plan (SPCC)

Facility Information

Name of Facility:	Bloomfield Refinery
Type of Facility:	Onshore Facility – Petroleum Refinery (SIC 2911)
Location:	50 County Road 4490, Bloomfield, NM 87413 (1 mile south of the City of Bloomfield, NM) (Latitude 36° 41' 50", Longitude 107° 58' 20")
Owner:	Western Refining, Inc. 123 W. Mills Ave., Suite 200 El Paso, Texas 79901
Operator:	Western Refining Southwest, Inc. #50 Road 4990 Bloomfield, New Mexico 87413
Contact Person:	Randy Schmaltz, Environmental Manager
Telephone:	(505) 632-4171

Reportable Spill Events

None. See Spill History section.

Management Approval

This SPCC Plan has been approved and implemented as herein described.

Signed:

Name/Title: Victor McDaniel, Facility Manager

Facility Description

The Bloomfield Refinery receives and processes up to 18,000 barrels per day of crude oil and produces propane, butane, gasoline, kerosene, fuel oil, and residual fuel.

The refinery is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is further located approximately 1/2 mile east of State Route 44 on County Road 4490 (a.k.a. Sullivan Road).

The refinery is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace rises approximately 100 feet above the river level and 20 feet above the irrigation ditch. The northern refinery fenceline adjoins the irrigation ditch and the distance from the refinery to the river's edge varies from approximately 300 to 1,000 feet.

The main part of the refinery is located on a 45 acre site north of County Road 4490 and includes the following general areas:

- Office Area (buildings, warehouse, storage yard, & parking lots)
- Process Area
- Wastewater Treatment Unit (WWTU)
- Tank Farm
- Firefighting Training Area

A loading and unloading facility is located on a 15 acre site south of County Road 4490 and includes the following general areas:

- Vehicle Maintenance Facility & Tank Truck Parking Lot
- Crude Oil Unloading Station & Storage Tank Area
- Product Loading Station & Storage Tank Area
- High Pressure Storage Bullets Area

Topography in the vicinity of the refinery is characterized by a local high point at the eastern boundary of the site. On the north side of County Road 4490, the predominant slope is gradually downward to the north and west toward the Hammond Irrigation Ditch. Opposite the ditch, the slope is more steeply downward until intersection with the San Juan River. On the south side of County Road 4490, the predominant slope is gradually downward to the west and north toward the side ditch on County Road 4490.

See Figure No. 1 – Facility Site Plan, for the general plant layout.

Crude oil, intermediate feedstocks, and refined products are stored in various fixed tanks located on-site. Most of these tanks are located within a central Tank Farm in the main part of the refinery. A few tanks are located near the refinery Process Area and others are located at the loading and unloading facility south of County Road 4490. All storage is aboveground. There are no underground storage tanks at the refinery.

In addition to petroleum feedstocks and products, various lubricants, additives, and treatment chemicals are used on-site to support the operation of the refinery. These materials are typically received in pails, drums, and totes of various sizes. These containers are generally kept in the main warehouse and storage yard at the west end of the refinery until distributed for use.

Spill History

There have been no reportable spills, releases, or discharges at the refinery as related to Clean Water Act or CERCLA reporting requirements.

Minor spills have occurred as described on Table No. 1 and were reported to the New Mexico Oil Conservation Division.

Potential Spill Scenarios

Spills may arise as a result of equipment failure or operator error as described below. In the event that a spill should occur and escape secondary containment, the following volumes, rates, and flow paths are predicted for each major source and location within the refinery.

1. Spills may arise from overflow, leakage, or rupture of atmospheric storage tanks containing petroleum feedstocks and products. Spill prediction information for these tanks is described in Table No. 2.

2. Spills may arise from overflow, leakage, or rupture of pressurized storage tanks containing petroleum feedstocks and products. Spill prediction information for these tanks is described in Table No. 3.

3. Spills may arise from leakage or rupture of portable drums and totes located in the warehouse storage yard at the west end of the refinery. The contents, size of container, and number of containers varies over time depending on the operations and maintenance needs of the refinery. A typical inventory may include thirty 55 gallon drums and ten 350 gallon totes. A worst case spill would likely involve a release of up to 350 gallons and would predominantly flow north.

4. Spills may arise from leakage or rupture of vessels, pumps, pipelines, and related equipment located within the Process Area. The diversity of equipment size and operating conditions creates highly variable release scenarios. For the purposes of this plan, a worst case spill is assumed to involve a pump seal

leak of 10 gpm sustained for up to 8 hours (potential release of 115 barrels). Spills originating within the Process Area are not confined to a predominant flow path because this site is essentially flat. Concentric dispersal is assumed.

5. Spills may arise from transfer pumps and piping that interconnect various parts of the refinery. The diversity of equipment size and transfer rates creates highly variable release scenarios. For the purposes of this plan, a worst case spill is assumed to involve a transfer piping leak of 50 gpm sustained for up to 8 hours (potential release of 570 barrels). Spills originating within piperacks on the north side of County Road 4490 will generally flow north and northwest toward the Hammond Irrigation Ditch. Spills originating within piperacks on the south side of County Road 4490 will generally flow north and northwest toward the county road side ditch.

6. Spills may arise from overflow, leakage, or rupture of loading and unloading facilities; such as filling apparatus, hose connections, and tank trucks. For the purposes of this plan, a worst case spill is assumed to involve a leaking tank truck parked at the unloading facility (potential release of 150 barrels). Spills originating in this area will generally flow north and northwest toward the county road side ditch.

7. Spills may arise from overflow or leakage of the Aeration Lagoons or the Evaporation Ponds containing refinery waste water. For the purposes of this plan, a worst case spill is assumed to be the maximum amount of flow into the wastewater system which currently would be 80 gpm. Spills originating in these areas will generally flow north

Spill Prevention

Spill prevention is the first line of defense against spills. Spills are prevented by the following methods.

1. Process equipment, vessels, tanks, and piping are engineered to safely and reliably contain applicable process fluids under normal operating conditions. Bloomfield Refinery utilizes appropriate industry standards and practices in the design, construction, and maintenance of all equipment.

2. Under abnormal operating conditions, process vessels, equipment, and piping are protected against overpressure and rupture by safety relief valves. Most safety valves vent to the refinery flare system.

3. All petroleum storage tanks are constructed of carbon steel and protected against corrosion using appropriate surface coatings and in some cases an impressed electric current.
   All tanks are visually inspected annually for mechanical integrity. Detailed internal inspections are conducted at least once every ten years. Repairs are made as necessary.

4. Existing underground piping is constructed of carbon steel, which is protected against corrosion by wrapping and surface coatings. Some of this piping is being phased out and will eventually be replaced with aboveground piping.

5. During annual refinery turnaround maintenance, equipment, valves, and piping are inspected for mechanical integrity. Inadequate facilities are repaired or replaced.

6. Standard operating procedures are used as follows:

   a) Process surveillance rounds are conducted during each shift. Process equipment, vessels, tanks, piping, and grounds are visually inspected for signs of abnormal conditions, leakage, or spills. Spills are immediately reported to the Shift Supervisor and response action is initiated.

   b) Storage tanks are gauged daily and recorded. Tank inventory is checked against input and output quantities to detect potential leakage. All product transfers are attended by the pumper.

   c) Portable storage tanks used within the refinery are located inside secondary containment pads or dikes.

   d) All loading and unloading operations are performed in compliance with DOT regulations and are attended full-time. Warning placards are placed in front of tank trucks to alert drivers that disconnection must be ensured prior to departure.

Spill Controls

The following controls have been installed to contain spills and prevent off-site migration.

1. All petroleum storage tanks are located within full encirclement earthen containment dikes constructed of low permeability soil. All basins are sized to contain the maximum volume of the largest tank within the dike, plus an additional freeboard height of at least 6 inches. Tank dikes are not equipped with drain lines or valves. Precipitation is infrequent and stormwater trapped within diked areas typically evaporates. Spills are typically removed via vacuum trucks or portable manually-controlled pumping systems. Recovered material is transferred to a slop tank or the WWTU, as appropriate.

2. Refinery processing units are located in the Process Area. Within this area, all vessels, pumps, piping, and related equipment are located within curbed containment pads. Most containment pads drain directly to the WWTU. Some containment pads drain to sealed collection sumps which can then be pumped to either a slop tank or the WWTU, as appropriate.

3. Loading and unloading stations are located within curbed containment pads equipped with sumps and drains. All loading and unloading stations drain to the WWTU.

4. Portable containers located within the warehouse storage yard are handled as follows. Most drums are placed within a special secondary containment structure at the south end of the yard. Remaining drums and totes are stored on impermeable containment located in warehouse the yard.

5. Transfer piping and other spill sources located within the refinery but outside of containment structures are located such that surface topography will cause spills will flow to various retention basins as shown on the Facility Site Plan.

6. Spilled material which accumulates in any retention basin is removed via vacuum trucks or portable manually-controlled pumping systems, and then transferred to a either a slop tank or the WWTU, as appropriate.

Spill Response Procedures

In the event that a spill occurs, the following procedures must be followed:

1. Safety is the first priority. Alert fellow employees. Notify the Shift Supervisor. Assess and respond to imminent safety hazards first. If flammable materials are involved, eliminate area ignition sources and assign a fire watch to the site. Assure that all persons involved in the clean-up use appropriate PPE.

2. When safe to do so, the Shift Supervisor or Incident Commander will devise a plan and implement an appropriate spill response. All response actions are incident specific, but may include the following key elements:

    a) If a spill threatens to escape refinery boundaries, an emergency response under the Facility Response Plan must be initiated; otherwise,

    b) Stop the source of the spill,

    c) If not already contained, stop the spread of the spill,

    d) Recover free product and absorb residual product, and

    e) Remove impacted soil and sorbents to containers or onto a plastic lined holding pile in a safe location.

3. The Environmental Manager will investigate the cause of the spill, document the circumstances and response, and if appropriate, make recommendations to the Refinery Manager to prevent a recurrence.

Employee Training

All employees receive general refinery safety and environmental compliance training at the beginning of employment and prior to performing normal duties and assignments. In addition, specific SPCC-related training is provided to all process and maintenance employees that may become involved in SPCC related activities. This training covers the provisions of this plan and includes:

- Spill prevention, detection, and response procedures,
- Location of potential spill sources, and
- Location and proper use of spill response equipment and supplies.

In addition to initial employment training, all employees receive annual refresher training which specifically addresses the following topics:

- Review of spill prevention, detection, and response procedures,
- Review of changes in facilities or operations during the previous year, and
- Review of spill events and response actions during the previous year.

The Environmental Manager oversees the SPCC Plan and coordinates with the Safety and Operations Departments to assure that employees receive appropriate training.

Site Security

Security provisions are provided as follows:

1. The refinery is continuously staffed by operations personnel.

2. Fencing and gates are installed to restrict access to refinery operations and prevent unauthorized entry.

3. Pump controls are located within buildings or in areas restricted to authorized personnel only.

4. Loading and unloading connection points are locked in the closed position when not in use.

5. Lighting is provided in various areas of the refinery where spills may occur.

6. Vehicle traffic within the refinery is restricted and supervised.

Self Inspection Procedure

Compliance with the provisions of 40 CFR Part 112.7 and this SPCC plan shall be demonstrated annually via a self inspection audit conducted as follows:

1. The Environmental Manager, or designated representative, will conduct the self inspection audit each year.

2. At a minimum, the self-inspection audit will assess the following.

   - Verification of secondary containment for storage tanks and loading and unloading stations,

   - Competence and adequacy of secondary containment systems,

3. The inspector shall document findings in a written report. All inspection reports must be signed and dated by the inspector.

4. Recommendations, if any, must be promptly reported to the Refinery Manager for review and evaluation.

5. A copy of each report shall be appended to this SPCC plan and a second copy shall also be kept on file in the Environmental Manager's office for not less than five years.

Table No. 1
Spill History

Date	Material Spilled	Quantity	Clean-up Description
3/18/91	Jet fuel	180 bbls (7,650 gal)	Spilled material was recovered using a vacuum truck and recycled.
2/4/93	Reformate	45 bbls (1,890 gal)	Spilled material was recovered using a vacuum truck and recycled.
1/09/98	Refinery Wastewater	2 bbls (90ga)	Spilled material was recovered using a vacuum truck and recycled.
1/12/98	Refinery Wastewater	1,800 bbls (75,600 gal)	Spilled material was contained, recovered, and returned to the WWTU.
1/12/99	Refinery Wastewater	75 bbls (3150 gal)	Spilled material was contained, recovered, and returned to the WWTU
3/03/00	Reformate	500 bbls (21,000 gal)	Spilled material was contained inside a dike, recoverd using a vacuum truck, and recycled.
10/30/00	Isomerate	80 bbls (3,360 gal)	Spilled material was recovered and recycled.
1/19/01	Crude Oil	25 bbls (1,050 gal)	Spilled material was recovered and recycled. The bermed area was remediated in place
1/25/04	Gasoline	3 bbls (118 gal)	Impacted soil was removed and disposed of at an OCD approved waste facility. Clean fill dirt replaced the impacted soil in the area.
1/30/04	Refinery Wastewater	24 bbls (1000 gal)	Spilled material was recovered using a vacuum truck and recycled.
1/22/08	Low Sulfur Diesel	20 bbls (850 gal)	Spilled material was recovered using a vacuum truck and recycled. Impacted soil was removed and disposed of at an OCD approved waste facility. Clean fill dirt replaced the impacted soil in the area.

Table No. 2
Atmospheric Storage Tanks

Tank No.	Contents	Worst Case Failure	Max. Volume (barrels)	Flowrate* (barrels/min)	Flow Direction
3	Mid-grade Gasoline	Rupture	10,000	500	N
4	Mid-grade Gasoline	Rupture	10,000	500	N
5	Waste Water Surge	Rupture	10,000	500	N
8	Slop oil	Rupture	500	25	NE
9	Slop oil	Rupture	500	25	NE
10	Spent caustic	Rupture	400	20	E
11	Reformate	Rupture	55,000	2,750	NW
12	Poly/Cat mix	Rupture	55,000	2,750	NW
13	Unleaded Gasoline	Rupture	30,000	1,500	N
14	Unleaded Gasoline	Rupture	30,000	1,500	N
17	Reduced crude	Rupture	40,000	2,000	N
18	Diesel	Rupture	55,000	2,750	NW
19	Diesel	Rupture	36,000	1,300	NW
20	Naphtha	Rupture	10,000	500	N
23	Gasoline	Rupture	40,000	2,000	W
24	ULS Diesel	Rupture	10,000	500	N
25	ULS Diesel	Rupture	10,000	500	N
26	Naphtha	Rupture	4,000	200	N
27	Heavy Burner Fuel	Rupture	10,000	500	N
28	Crude oil	Rupture	80,000	4,000	N
29	Diesel/FCC Slop	Rupture	17,000	850	NW
30	Blend stock	Rupture	17,000	850	NW
31	Crude oil	Rupture	110,000	5,500	NW
32	Gasoline	Rupture	20,000	100	N
33	Recovered Groundwater	Rupture	400	20	NW
34	Injection Well Reservoir	Rupture	400	20	SW
35	Reformer feed	Rupture	55,000	2,750	N
36	Poly/Cat mix	Rupture	55,000	2,750	N
37	Recovered Groundwater	Rupture	131	7	N
38	Recovered Groundwater	Rupture	360	18	N
41	Crude oil	Rupture	2,800	140	NW
42A	Crude oil	Rupture	400	20	SW
42B	Crude oil	Rupture	400	20	SW
43	Out of Service	Rupture	700	35	NW
44	Ethanol	Rupture	2,000	100	NW
45	Ethanol	Rupture	5,000	250	NW

* Assumes maximum volume is released within 20 minutes.

Table No. 3
Pressurized Storage Tanks

Tank No.	Contents	Worst Case Failure	Max. Volume (barrels)	Flowrate* (barrels/min)	Flow Direction
B-12	Out of Service	Rupture	692	35	NW
B-13	Butane	Rupture	500	25	NW
B-14	Butane	Rupture	500	25	NW
B-15	Propane	Rupture	714	36	NW
B-16	Propane	Rupture	714	36	NW
B-17	Poly feed	Rupture	714	36	NW
B-18	Poly feed	Rupture	714	36	NW
B-19	Poly feed	Rupture	714	36	NW
B-20	Butane	Rupture	714	36	NW
B-21	Butane	Rupture	714	36	NW
B-22	LPG	Rupture	714	36	NW
B-23	LPG	Rupture	714	36	NW

* Assumes maximum volume is released within 20 minutes.

Emergency Notification Telephone List

Name	Telephone Number
Frank Sullivan, Safety Supervisor (Home Telephone)	632-2067
Emergency Response Team Members	See Call Out List
Envirotech (Emergency Response Contractor)	632-0615
National Response Center	1-800-424-8802
Bloomfield Fire Department	911
Bloomfield Police Department	911
San Juan County Sheriff's Office	911
New Mexico State Police	911
Local Ambulance Services	911
County Fire Departments	911
Local Emergency Planning Committee (LEPC)	334-1180
Don Cooper	334-4706
State Emergency Response Commission (SERC)	1-505-476-9628
State of New Mexico Oil Conservation Division	334-6178
Environmental Emergencies - State Police 24-hr Dispatch Hotline	1-505-827-9329
Federal On-Scene Coordinator (OSC)	
Don Smith	1-214-664-6489
Hammond Conservancy District	632-3043
BLM Farmington Field Office	599-8900
Navajo Reservoir Superintendent	632-3115
City of Farmington Water Department	326-1918
San Juan Regional Medical Center	325-5011
Radio Station KENN	325-3541
Radio Station KTRA	325-1716
Television Station KOBF	326-1141
Television Station KOAT	326-4883
Weather Service (Albuquerque)	1-505-243-0702

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, November 10, 2010 4:28 PM
To: McDaniel, Vic; Schmaltz, Randy
Cc: VonGonten, Glenn, EMNRD; Perrin, Charlie, EMNRD
Subject: Western Refining Southwest, Inc. (Western)- Bloomfield Refinery (GW-001) Discharge Permit (Permit) Approval Conditions, Supplemental Plans Comment Letter dated October 21, 2010

Mr. McDaniel:

The New Mexico Oil Conservation Division (OCD) has reviewed Western's reply to the above subject description in correspondence dated November 3, 2010 (letter). OCD deadlines in the discharge permit are based on the date that the OCD issued the final discharge permit. Regardless of this, it appears Western has met the 14 day response period with intent to satisfy the requirements and OCD has proceeded with the following responses based on the letter.

Condition 9:

Western's response to No. 2 below does not address the permit because pin hole leaks could go undetected for 5 years even with manual gauging of fluids in a large chemical tank. A monitor well placed immediately down gradient from a tank or tanks with monitoring could be considered? Western will only install a secondary tank bottom unless it is found to be no longer serviceable under API 653 inspection. Western must agree to install a double bottom during the API inspection regardless of the condition to satisfy the secondary containment requirement of the permit. Western indicates that there are only 6 tanks remaining without leak detection and proposes liquid gauging 2x per day with the Praxair Tank Test Method for these tanks unless the API 653 requires a double bottom repair and installation.

- **No.2**: Installing a secondary bottom to tanks with questionable bottoms during the API inspection does not address the leak detection requirement of the Permit nor do tanks where a secondary bottom is not installed during the API inspection. A double bottom should be installed at the time of the API inspection for every tank and/or Western needs to propose a method for satisfying the retrofit provision of the Permit.

Western's response to Nos. 3 and 4 below is not acceptable in the current proposal, but would be acceptable with a more immediate schedule and permeability confirmation after the addition of bentonite or clayish material into each tank containment area with a permeability reduction of 1×10^{-6} or less cm/s and is at least 6 inches of compacted clay.

- **Nos. 3 and 4**: Western's proposal to increase impermeability of the tank containment areas with the addition of bentonite or clayish material prior to compaction as part of the API 653 inspection program.

  Compacting soil in earthen secondary containments of any tank size containing chemicals does not address the leak detection requirement of the discharge permit as the soils would still be permeable at this refinery. Western must propose another alternative for ensuring leakage from tanks are contained within the berm area.

Western's response to No. 5 below appears to be acceptable for secondary containment with new tank construction under the permit.

- **No. 5**: HDPE would not be the liner choice unless it is at least 60-mil in thickness to overcome the stress cracking nature of this material. LLDPE is preferred by the OCD and may be acceptable at a minimum thickness of 40-mil.

Condition 17.C.1 Closure Plan- North and South Double-Lined Waste Water Evaporation Ponds):

Western's response appears to address OCD items identified below and required notification requirements when any liquid is detected in the leak detection system. Any new evaporation pond construction design and construction will not allow pipe to breach liners.

- Drawings FS4000701M and FS200040-L are apparently referred to as the "As Built" diagrams, but they are typical double lined pond system diagrams. This diagram depicts a typical boot extruder welded through the liner system, but the text in this section indicates that riser pipes are positioned between liners and run up slope to surface. The "As Built" diagram(s) referred to in this section is requested to confirm the actual construction of the

pond system. A riser pipe constructed through the liner system would not be disapproved by the OCD, but any fluid detected between the liner system could be caused by leakage where the pipe breaches the liner. OCD prefers that riser pipe designs not breach any liners, but run parallel with the slope to the surface between liners.

- Under "Response Action", Western should state that the OCD notification requirements under the Permit must be met at a minimum.
- Under "Response Action", the "Annex 10" SPCC Plan must be included as an attachment or within the text of the Action Plan to know what actions will be performed to minimize and contain surface impacts.
- Under "Response Action", Page 3: seems to address the 3 foot freeboard requirement of the permit.
- Under "Response Action", Page 3: leaks in ponds are not always manifested by staining on the dike, but could occur through direct leakage at the base of the pond. The Action Plan does not address monitoring of fluids between the liners to determine when there is or may be a release to the environment and release notification. The operator shall revise the plan to indicate any detection of fluid between the deepest positioned liners (above the secondary containment liner preventing a release to the environment) would constitute a notification to the OCD with repair and/or replacement of the liner system as the immediate corrective action within 7 days or a proposed period that is reasonable after having knowledge of the above.

Condition 17.C.2 (Closure Plan- North and South Aeration Lagoons):

Western's response does not appear to address OCD items identified below based on the inclusion of "reasonable indication of fluid between the liners." Western must revise the language to indicate "any detection of fluid between the secondary containment liner" to make the response acceptable.

- Sump Riser Pipes appear to breach liner layers to be positioned above the third liner downward. This could cause leakage if diagram is accurate. OCD prefers that riser pipe designs not breach any liners, but run parallel with the slope to the surface between liners, which Figure 4 seems to indicate, but does not appear to be an "As Built" diagram.. A riser pipe constructed through the liner system would not be disapproved by the OCD, but any fluid detected between the liner system could be caused by leakage where the pipe breaches the liner.
- Under "Monitoring and Discovery" Page 2 Last Paragraph: The Action Plan does not address monitoring of fluids between the liners to determine when there is or may be release to the environment and with release notification under the Permit. The operator shall revise the plan to indicate any detection of fluid between the deepest positioned liners (above the secondary containment liner preventing a release to the environment) would constitute a notification to the OCD with repair and/or replacement of the liner system as the immediate corrective action within 7 days or a proposed period that is reasonable after having knowledge of the above.
- Under "Response Action" Page 3: Same as the bullet item above. Also, the "Annex 10" SPCC Plan should be attached or included in the text of the plan to minimize and contain surface impacts.
- Under "Response Action" Page 3 Last Paragraph: Western shall include notification to the OCD under the Permit when any fluid is detected above the liner preventing a release to the environment.

Condition 17.G (Emergency River Contingency Plan):

Western has submitted a copy of the "Emergency River Contingency Plan" and is acceptable with the OCD requested and required statement for OCD records.

- Western shall attach a copy of the referenced "Emergency River Contingency Plan" in the next submittal.
- OCD's with plans developed for the Federal Government and/or other state and local agencies is that they do not completely address the Permit conditions, but operators would like to substitute them or use them to address the Permit. OCD may accept the "Emergency River Contingency Plan" with a statement by Western that it will also meet the conditions of the Permit.

Condition 24 (Closure Plan and Financial Assurance):

Western's response appears to address OCD items identified below and the deadline is **January 7, 2011**.

- This submittal is due by COB on Wednesday, November 24, 2010.

Please respond to this message on or before Tuesday November 30, 2010. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, November 05, 2010 8:41 AM
To: McDaniel, Vic; Schmaltz, Randy
Subject: November 3, 2010 Letter Received on November 4, 2010

Gentlemen:

Good morning. I'm writing to confirm received on the above subject letter in response to OCD's October 21, 2010 Letter.

The OCD will respond to the letter soon.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

CERTIFIED MAIL # 7007 0220 0004 0187 1388

November 3, 2010

Carl Chavez
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Western Refining Southwest, Inc. (Western) Bloomfield Refinery
Discharge Permit (GW-001) Approval Conditions, Supplemental Plans
Comment Letter dated October 21, 2010

Dear Mr. Chavez:

Please find enclosed Western Refining Southwest, Inc. - Bloomfield Refinery's (Western) response to comments received from New Mexico Oil Conservation Division (OCD) in a letter dated October 21, 2010.

General Response

Western would like to respond to OCD's repeated comments stated in the October 21, 2010 letter that the Supplemental Plans submitted to OCD on September 28, 2010 missed their respective deadlines.

Western received a final draft Discharge Permit from OCD in a letter dated May 24, 2010. In this letter, it states that Western has 45 days from the date of receipt to sign the Discharge Permit and return a signed copy to OCD. It also states in the May 24, 2010 letter that the "final permit should be issued in approximately 45 days."

Based on the statements made in the May 24, 2010 cover letter as re-stated above, it was Western's understanding that the Discharge Permit became effective (i.e. equivalent to the "date of issuance") the day the Permit was signed by Western, signifying acceptance of the Permit conditions. This assumption was supported further when there was no official "Final Permit" issued by OCD following receipt of Western's signed copy.

Western signed and mailed the returned copy of the Discharge Permit on July 7, 2010, which was before the 45 day deadline. With the understanding that the Permit became effective the date of signature, the Discharge Permit required the following Supplemental Plans to be completed by October 7, 2010, 3-months after the effective Permit date:

- Above Ground Tanks Secondary Containment Alternative Plan (Condition 9)
- Evaporation Ponds Action Plan (Condition 17.C.1)
- Aeration Lagoons Action Plan (Condition 17.C.2)
- Emergency River Contingency Plan (Condition 17.G.)

50 County Road 4990, Bloomfield, New Mexico 87413 • 505 632-4101 • www.wnr.com

These plans were developed and/or submitted to OCD on September 28, 2010, which complies with the 3-month Discharge Permit deadline. Therefore, Western disagrees with OCD that the submittal of the Supplemental Plans as required under the Bloomfield Refinery Discharge Permit (GW-001) missed their respective submittal deadlines.

Comment by NMOCD on Condition 9:

Submittal deadline was missed. In general, the proposed action(s) do nothing to determine whether an existing tank is leaking, i.e., pin-hole leak. Therefore, some of the proposed actions are not acceptable to the OCD and either another method to augment the requirements below must be implemented, i.e., Praxair Tank Test Method every 5 years, etc. would be required at a minimum along with the requirements below. The Praxair Tank Test Method is a method used by Navajo Refining to address the OCD Permit requirements.

- *No. 2: Installing a secondary bottom to tanks with questionable bottoms during the API inspection does not address the leak detection requirement of the Permit nor do tanks where a secondary bottom is not installed during the API inspection. A double bottom should be installed at the time of the API inspection for every tank and/or Western needs to propose a method for satisfying the retrofit provision of the permit.*
- *Nos. 3 and 4: Compacting soil in earthen secondary containments of any tank size containing chemicals does not address the leak detection requirement of the discharge permit as the soils would still be permeable at this refinery. Western must propose another alternative for ensuring leakage from tanks are contained within the berm area.*
- *No. 5: HDPE would not be the liner of choice unless it is at least 60-mil in thickness to overcome the stress cracking nature of this material. LLDPE is preferred by the OCD and may be acceptable at a minimum thickness of 40-mil.*

Response to Condition 9

Western believes that the Alternative Plan for Above Ground Tank Secondary Containment met the deadline stated in the Discharge Permit. Refer to the above "General Comment" for details.

- Western would like to clarify what was meant by "installation of secondary bottoms" on tanks found to have no longer serviceable floors. For tank floors that are no longer serviceable as identified through the API 653 Inspection Program, the tank will be retrofitted with a **secondary floor system** which will be equipped with early leak detection equipment. This type of engineered secondary floor system was installed recently in Tank 13 under OCD's approval. In general, a secondary floor system consists of an impermeable HDPE liner placed over the original tank floor to serve as an impermeable secondary floor bottom for the tank. The new tank floor is then placed on-top of a fill material that is placed above the newly installed impermeable liner. We refer OCD to the secondary floor drawings for Tank 13 previously submitted and approved by OCD in May 18th, 2010.

Of the large above ground tanks currently in-service within the Refinery Tank Farm, all but six of them are constructed with an early warning leak detection system that consists of a secondary bottom and weep holes between the tank primary and secondary bottom. Moisture or dripping of liquids from any of the weep holes located around the perimeter of the tank base would indicate a potential tank leak. Tanks identified as leaking from the weep holes will be removed from service, inspected, and repaired accordingly.

For the six tanks not equipped with a leak detection system, they will either (1) be retrofitted with a secondary floor system, which includes the installation of weep holes that would serve as an early leak detection system, or (2) the tank will be tested using the Praxair Tank Test Method. This work would be done during completion of the required API 653 Inspection cycle.

Western believes that the leak detection systems, compacted containment areas, visual inspections, and twice per day liquid level gauging will be effective in determining if a leak in a tank exists, and will allow for immediate appropriate response action.

- Western proposes to increase impermeability of the soils within the tank containment areas by augmenting the soil with bentonite or a clayish material prior to compaction as part of the API 653 Inspection program. The combination of soil mixing and compaction will allow fluids to collect within the bermed areas, as required by OCD.
- Western will take into consideration the use of LLDPE as a secondary containment liner for all newly constructed liquid storage tanks and such designs will be submitted to OCD for approval prior to construction.

Comment by OCD on Condition 17.C.1. Closure Plan – North and South Double-Lined Waste Water Evaporation Ponds:

The North and South Double-Lined Waste Water Evaporation Ponds Action Plan submittal deadline was missed.

- *Drawings FS4000701M and FS200040-L are apparently referred to as the "As Built" diagrams, but they are typical double lined pond system diagrams. This diagram depicts a typical boot extruder welded through the liner system, but the text in this section indicates that riser pipes are positioned between liners and run up slope to surface. The "As Built" diagram(s) referred to in this section is requested to confirm the actual construction of the pond system. A riser pipe constructed through the liner system would not be disapproved by the OCD, but any fluid detected between the liner system could be caused by leakage where the pipe breaches the liner. OCD prefers that riser pipe designs not breach any liners, but run parallel with the slope to the surface between liners.*
- *Under "Response Action." Western should state that the OCD notification requirements under the Permit must be met at a minimum.*
- *Under "Response Action," the "Annex 10" SPCC Plan must be included as an attachment within the text of the Action Plan to know what actions will be performed to minimize and contain surface impacts.*

- *Under "Response Action," Page 3: seems to address the 3 foot freeboard requirement of the permit.*
- *Under "Response Action," Page 3: leaks in ponds are not always manifested by staining on the dike, but could occur through direct leakage at the base of the pond. The Action Plan does not address monitoring of fluids between the liners to determine when there is or may be a release to the environment and release notification. The operator shall revise the plan to indicate any detection of fluid between the deepest positioned liners (above the secondary containment liner preventing a release to the environments) would constitute a notification to the OCD with repair and/or replacement of the liner system as the immediate corrective action within 7 days or a proposed period that is reasonable after having knowledge of the above.*

Response to OCD's Comment on Condition 17.C.1.

Western believes that submittal of the North and South Evaporation Ponds Action Plan met the deadline stated in the Discharge Permit. Refer to the above "General Comment" for details.

Western has revised the North and South Evaporation Ponds Action Plan to address OCD's comments. A copy of the revised Plan is provided in this submittal. A summary of the changes made to the revised Action Plan are as follows:

- The "As-Built" drawings provided in the Action Plan correctly depict how the current leak detection system is constructed at the Evaporation Ponds. The leak detection piping consists of 4-inch perforated piping that runs along the base of the ponds, between the primary and secondary liners. The 4-inch piping connects to a common manifold, which discharges to the 8-inch leak detection wells. OCD's construction preference for leak detection systems of below grade systems has been noted and will be considered for future constructions.
- Western has revised the Response Action section of the Plan to include implementation of OCD notification requirements at a minimum, as requested.
- The Action Plan has been amended to include a copy of the facility SPCC Plan as a reference to actions performed to minimize and contain surface impacts.
- Western has revised the Response Action section of the Plan to include notification to OCD within 7 days when fluid is detected between the deepest positioned liners (above the secondary containment liner preventing a release to the environment).

Comment by OCD on Condition 17.C.2 (Closure Plan – North and South Aeration Lagoons):

The North and South Aeration Lagoons Action Plan submittal deadline was missed.

- *Sump Riser Pipes appear to breach liner layers to be positioned above the third liner downward. This could cause leakage if diagram is accurate. OCD prefers that riser pipe designs not breach any liners, but run parallel with the slope to the surface between liners, which Figure 4 seems to indicate, but does not appear to be an "As Built" diagram. A riser pipe constructed through the liner system would*

not be disapproved by the OCD, but any fluid detected between the liner system could be caused by leakage where the pipe breaches the liner.

- *Under "Monitoring and Discovery" Page 2 Last Paragraph: The action Plan does not address monitoring of fluids between the liners to determine when there is or may be release to the environment and with release notification under the Permit. The operator shall revise the plan to indicate any detection of fluid between the deepest positioned liners (above the secondary containment liner preventing a release to the environment) would constitute a notification to the OCD with repair and/or replacement of the liner system as the immediate corrective action within 7 days or a proposed period that is reasonable after having knowledge of the above.*
- *Under "Response Action" Page 3: Same as the bullet item above. Also, the "Annex 10" SPCC Plan should be attached or included in the text of the plan to minimize and contains surface impacts.*
- *Under "Response Action" Page 3 Last Paragraph: Western shall include notification to the OCD under the Permit when any fluid is detected above the liner preventing a release to the environment.*

Response to OCDs Comment on Condition 17.C.2.

Western believes that submittal of the Aeration Lagoons Action Plan met the deadline stated in the Discharge Permit. Refer to the above "General Comment" for details.

Western has revised the Aeration Lagoons Action Plan to address OCD's comments. A copy of the revised Plan is provided in this submittal. A summary of the changes made to the revised Action Plan are as follows:

- Western would like to clarify the design of the leak detection system above the third liner. The purpose of Figure 2, although also serving as an "As-Built" drawing, is more structured to show the construction layers of the ponds. As stated on Figure 2, the leak detection piping detail is more clearly shown on Figure 4. Figure 4 clearly shows that the leak detection tubes above the third pond liner do not breach any of the liners. Western will consider OCD's reference for riser pipe designs on future pond constructions.
- The "Monitoring and Discovery" section and "Response Action" section of the Action Plan has been revised to include monitoring of fluid between the liners to determine if there is a reasonable indication that the fluid between the liners is a result of an active leak through the primary liner. This section of the Plan also includes notification to OCD within 7 days of fluid detection. The notification to OCD will be followed-up with an action plan outlining proposed corrective actions.
- The Action Plan has been amended to include a copy of the facility SPCC Plan as a reference to actions performed to minimize and contain surface impacts.

Comment on Condition 17.G.

The Emergency River Contingency Plan submittal deadline was missed.

- *Western shall attach a copy of the referenced "Emergency River Contingency Plan" in the next submittal.*
- *OCD's with plans developed for the Federal Government and/or other state and local agencies is that they do not completely address the Permit conditions, but operators would like to substitute them or use them to address the Permit. OCD may accept the "Emergency River Contingency Plan" with a statement by Western that it will also meet the conditions of the Permit.*

Response to Condition 17.G.

Western believes that the deadline for development of the Emergency River Contingency Plan met the deadline as stated in the Discharge Permit. USEPA 40 CFR 112.20 requires Western to maintain the enclosed Facility Response Plan. This Facility Response Plan meets the requirements of the Emergency River Contingency Plan, which satisfies Permit Condition 17.G.

As OCD is aware, the Bloomfield Refinery suspended its process operations in November 2009. Since that time, significant changes have been made to the personnel structure at this facility. Western is currently working to up-date the Facility Response Plan to reflect current operations while still reserving the ability to resume refining operations if opportunity arises.

Comment on Condition 24

This submittal is due by COB on Wednesday, November 24, 2010.

Response to Condition 24

Condition 24 of the current Discharge Permit effective July 7, 2010 states that the Closure Plan and Financial Assurance pursuant to 20.6.2.3107 NMAC is to be provided to OCD for approval "within 6 months of permit issuance." It is Western's understanding that the "date of issuance" of the Permit is equivalent to the date the Permit was signed, which was July 7th, 2010. Based on this information, it is Western's understanding that the Closure Plan and Financial Assurance submittal is due to OCD no later than **January 7, 2011**. Western has every intention to comply with the January 7, 2011 deadline.

Should you have questions or would like to discuss these comments further, 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

AERATON LAGOONS ACTION PLAN

Western Refining Southwest, Inc. – Bloomfield Refinery

Purpose and Scope

This Action Plan describes procedures and actions that are implemented during normal operations as well as response actions that will be implemented in the event of a discovered leak to the environment from one of the Aeration Lagoons.

Background

The refinery is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is more specifically located approximately 1/2 mile east of US HWY 550/SR 44 on County Road 4990 (a.k.a. Sullivan Road).

The refinery is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace rises approximately 100 feet above the river level and 20 feet above the irrigation ditch. An underground slurry wall (North Barrier Boundary Wall) with Tank #37 groundwater collection system is situated north of the Hammond Irrigation Ditch (see attached site plan). This collection system serves as a total fluids collection system for the western portion of the refinery which includes the area surrounding the aeration lagoons.

The essential function of the North and South Aeration Lagoons is aggressive biological treatment (ABT) of used process water. The water is generated at various refinery units, storage tanks, utility systems, and maintenance activities. This water is collected in a segregated sewer system located throughout the refinery units and tankage areas. Used process water flows to the API Separator where solids, sludge, and floating scum are removed. API Separator effluent is then pumped through the Benzene Strippers and then flows onward through a series of three lined aeration lagoons. Water is then either evaporated at the evaporation ponds or injected underground at the Class I injection well.

In 1974, the aeration lagoons were constructed with bentonite-treated bottoms for fresh water holding. After the initiation of the Clean Water Act (40CFR Part 419), the ponds were converted to manage API Separator water as a secondary biological treatment of the water. In 1982/83 the first clean out of these biological treatment oily water ponds occurred and a liner and leachate system was installed that consisted of a 33% bentonite composite liner equipped with a French drain system, with a 100-ml high density polyethylene (HDPE) liner on top. Around 1990, the lagoons were upgraded and retrofitted with two additional liners and a leak detection/leachate collection system over and above the cleaned 1982/83 system. In 2007, a benzene stripper/tank system was constructed and put into service to treat all water prior to entering the first aeration lagoon. After the installation of the benzene strippers and throughout the fourth quarter of 2008 and the first quarter of 2009, the lagoons were cleaned out and each lagoon's primary liner was inspected and repaired at that time.

The Aeration Lagoons from top to bottom, include a 100-mil HDPE top liner, a geonet for collecting leaks to a sump equipped with a 6" observation pipe, a 60-ml HDPE

secondary liner, a composite geotextile/geonet with a 4" observation pipe, a cement amended sand that was compacted into a 1.5% slope, a 100-ml HDPE liner, a French drain system which directs any collected fluids to a central sump, and a 6" layer of soil with 33% bentonite mixed into it.

The South Lagoon (#1 AL) averages 4.4 feet in depth and has a surface area of about 6,652 square feet. The total volume is approximately 216,000 gallons. At a flow rate of 80 gpm, the holding time in the pond is 1.9 days. This lagoon is equipped with two, 5 horsepower aspirating aerators sized to prevent F037/F038 waste generation.

The Northwest Lagoon (#2 AL) averages 5.5 feet in depth with a surface area of 10,000 square feet. This lagoon is equipped with two 2-horsepower aerators and water retention time (at 80 gpm) is 3.6 days. The Northeast Lagoon (#3 AL) averages 5.7 feet in depth, with a surface area of 8,440 square feet and a volume of approximately 360,000 gallons. This lagoon is equipped with two 2-horsepower aerators and wastewater retention time (at 80 gpm) of 3.1 days.

Leak Detection System

Each of the three Aeration Lagoons is constructed with 4 impermeable liners that are equipped with a three-tier leak detection system that allows for fluids monitoring between each of the lagoon liners and can provide confirmation of a leak before a discharge to groundwater. Each lagoon has a 6" detection tube placed between the primary and secondary liner as well as a 4" detection tube placed between the second and third liner. Below the third liner of each pond is a French drain system that empties to a single culvert located just east of the South Aeration Lagoon. Below the French drain is a layer of composite soil consisting of 33% bentonite (see attached as-built drawing).

Monitoring and Discovery

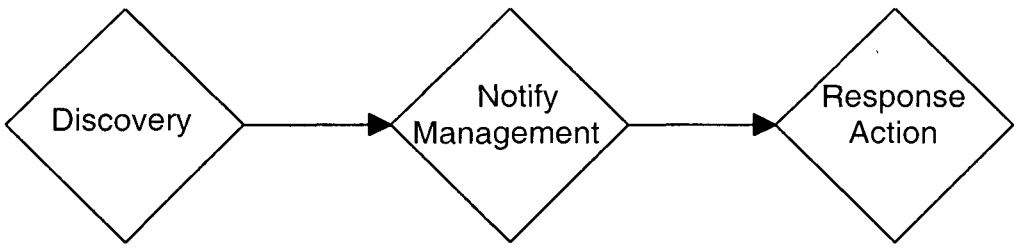
The leak detection tube system is measured with an inter-face probe on a bi-weekly basis. Visual inspection of the east leak detection culvert, which houses the outlet of the French drain located beneath the bottom liner, also occurs bi-weekly. Visual inspection of the freeboard and operation of the aeration lagoons occurs daily. The refinery is staffed 24 hours per day, 365 days per year. A Shift Supervisor, or designated representative, is always on duty at the refinery.

Baseline detection levels were established after the 2009 aeration lagoon cleanout and liner repair. Depth-to-fluid levels of less than 9 feet in either the 6" and 4" detection tubes of the #1 AL indicate a potential leak in the liner. The baseline level for the #2 AL was established as 18.5 feet in the 6" tube and dry in the 4" tube. Both detection tubes are dry in the #3 AL. If fluid is detected at a level less than 9 feet below the top of any leak detection tube, the Shift Supervisor and/or Environmental Manager is notified. To ensure the potential leak does not extend below the third protective liner, fluids may be removed from the 6-inch and/or 4-inch leak detection tube using a vacuum truck and/or diaphragm pump.

The discovery of fluids from the French drain system via the leak detection culvert and supporting data of depth-to-fluid levels in the detection tubes will result in notification to the Environmental Manager to determine appropriate response action and implement notification to OCD.

If a leak or discharge from any one of the Aeration Lagoons is discovered, the employee shall immediately perform the following actions.

1. Note the nature and location of the discharge/leak.
2. Notify the on-duty Shift Supervisor and/or the Environmental Manager
3. Response action will then be determined.



The on-duty Shift Supervisor is the central point of contact in the discovery of a discharge/leak.

Response Action

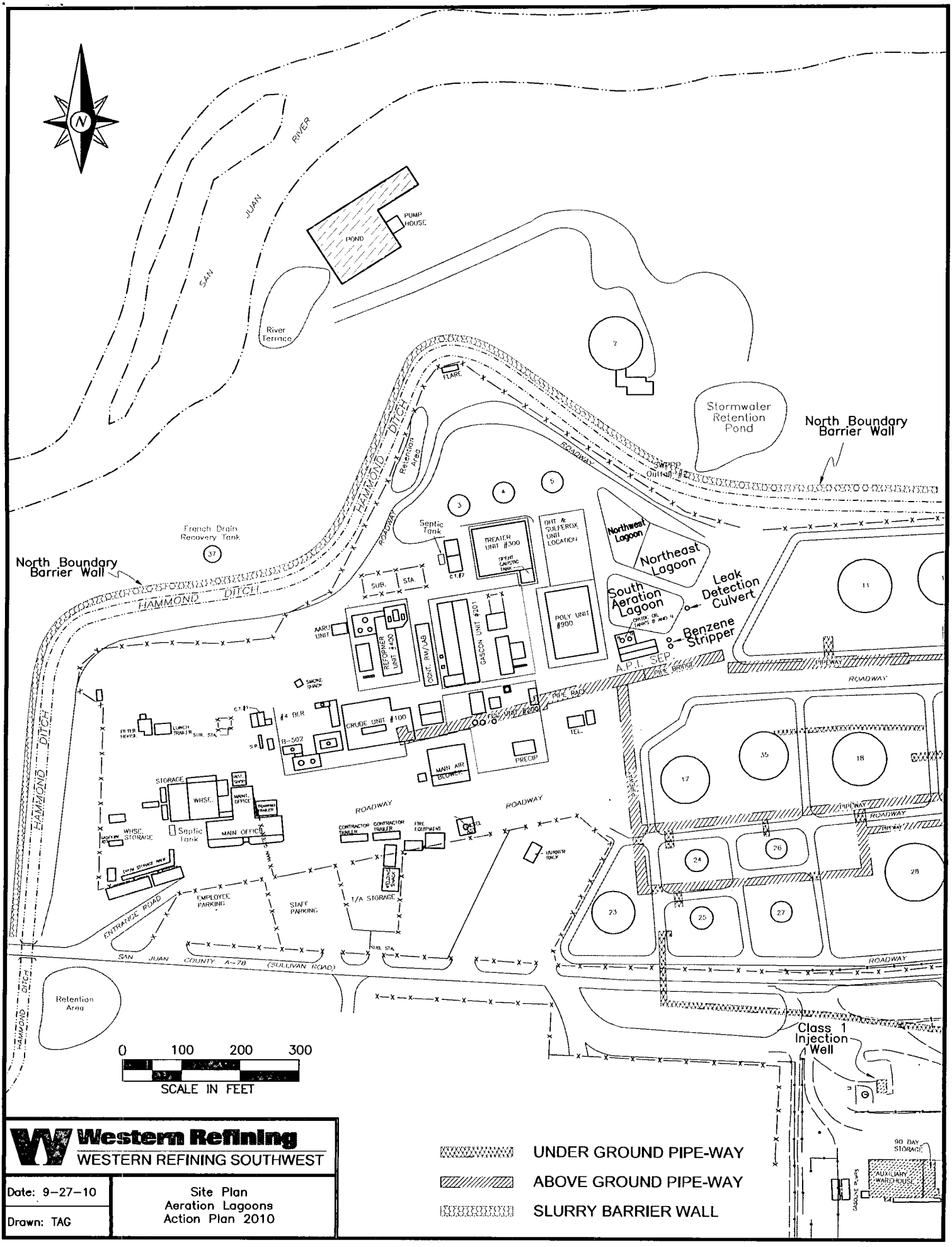
In the event that there is an indication of a release to the environment from the Aeration Lagoons via a surface overflow or measurable fluid detection below the third liner of either pond via the leak detection culvert, OCD will be notified and this Action Plan will be implemented via the appropriate response action(s).

In the event of an aeration lagoon surface overflow... guidelines from Annex 10 (Spill Prevention Control and Countermeasures Plan) of the Integrated Contingency Plan for the Refinery will be followed. A copy of this Plan is maintained on-site and is attached. This Plan includes actions to be performed to minimize and contain surface impacts. Used process water from the API will be diverted to Tank 5 for temporary storage, thereby ceasing further discharge to the aeration lagoons. The fluid level in the over-filled pond will be lowered using a pump and/or vacuum truck. The pond will not be placed back into service until the fluid level is lowered below the minimum 3-foot freeboard level. Once the aeration ponds can be returned to normal operating service, fluid diverted to Tank 5 will be pumped back to the API for treatment.

In the event fluid is detected below the third pond liner via the French Drain System and leak detection culvert....the affected aeration lagoon will be bypassed

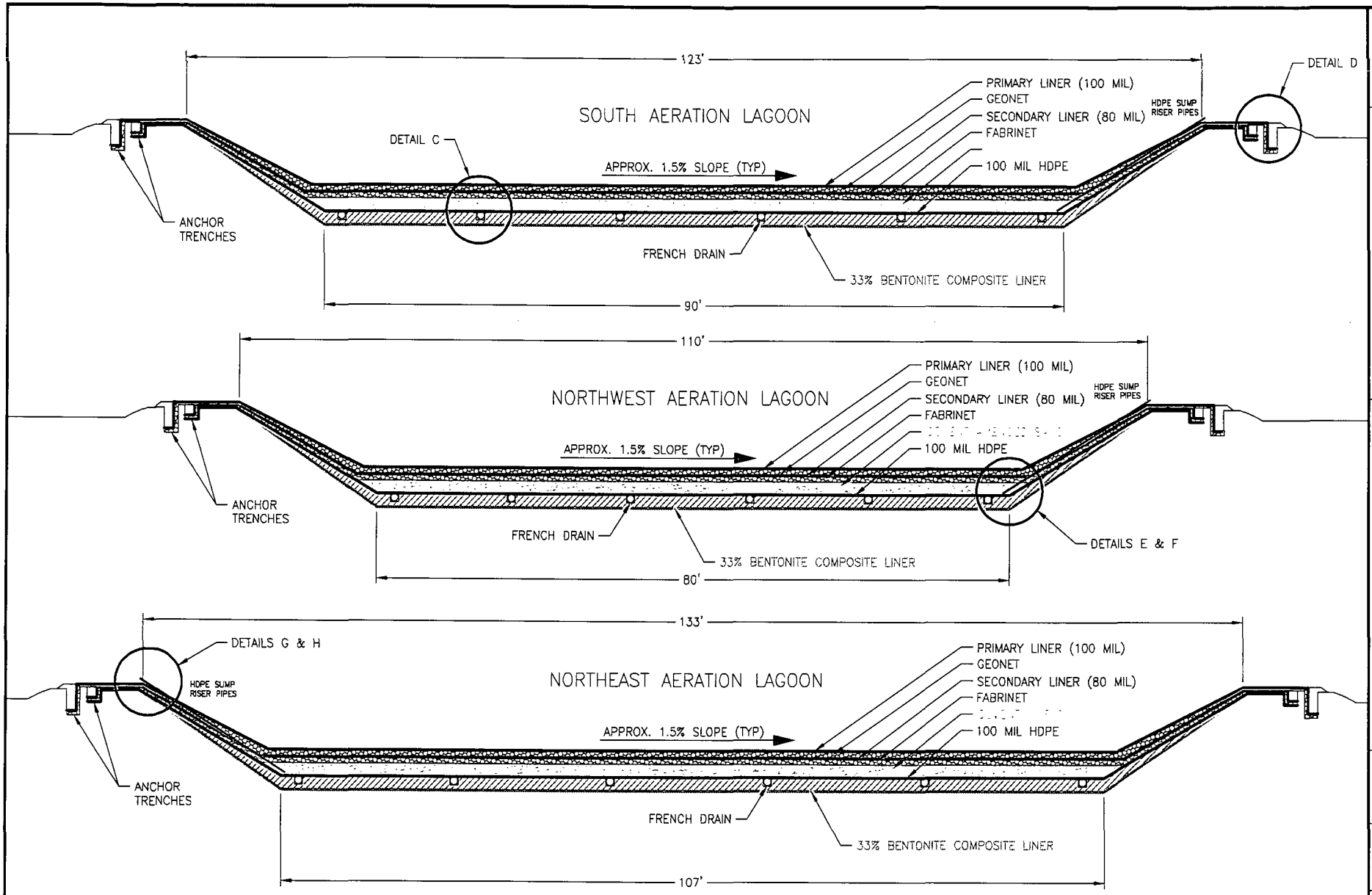
and the water process will discharge sequentially into the other two aeration lagoons. A sample of the fluids collected within the culvert will be collected for laboratory analysis to help determine if the fluid as a result of a leak from the above pond. All fluids from the leaking aeration lagoon will be pumped out so the liner can be inspected and repaired. The lagoon will not be returned to service until the repairs are completed.

Any fluid release from the aeration lagoon ponds via a leak from the bottom pond liner is ultimately captured by the North Boundary Barrier Collection System. All fluid below the Refinery process units, which includes the area surrounding the Aeration Lagoons, is hydraulically contained on-site via the 2,700 foot long North Boundary Barrier Wall. Hydraulic relief along the barrier wall is controlled via a French drain system located below the Hammond Ditch which discharges into the Tank #37 groundwater collection system. All fluids from Tank #37 are pumped to the API Separator for treatment.



Western Refining
WESTERN REFINING SOUTHWEST

Date: 9-27-10	Site Plan Aeration Lagoons Action Plan 2010
Drawn: TAG	



ERM-Rocky Mountain, Inc.
5950 South Willow Drive
Suite 200
Greenwood Village, Colorado 80111-8144
ERM (303)-741-8050

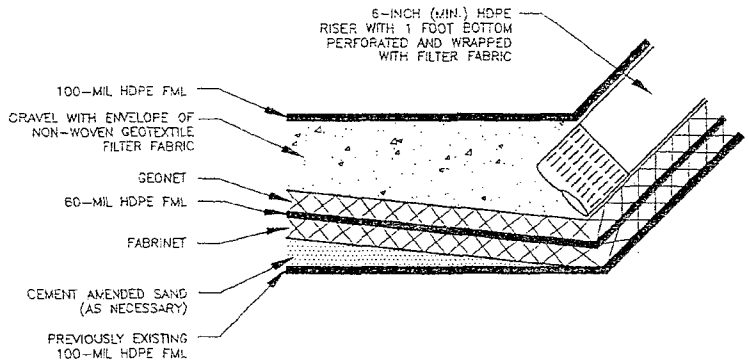
BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

CROSS-SECTIONAL VIEW

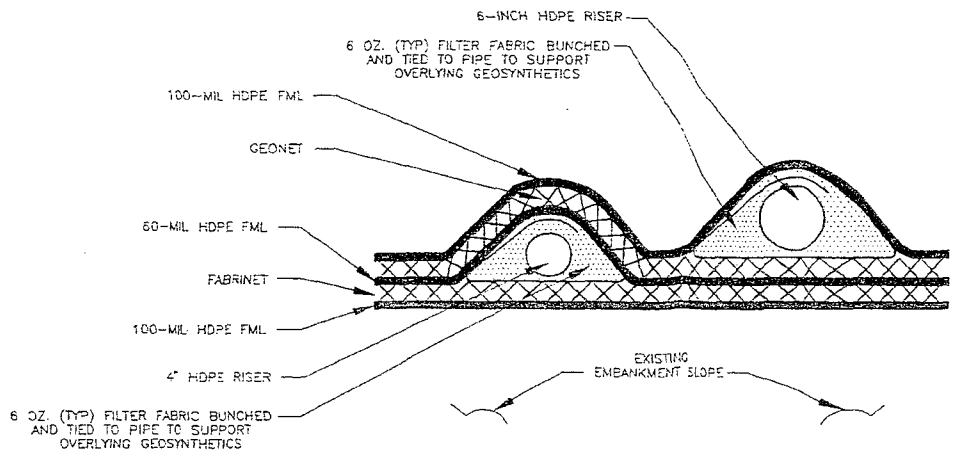
RECORD DRAWING FOR COMPLETED SURFACE IMPOUNDMENT RETROFIT

DESIGNED	BLOOMFIELD
DRAWN	SRL
CHECKED	
DATE	09/23/94
JOB NO.	931044.0
FILENAME	FIG-2

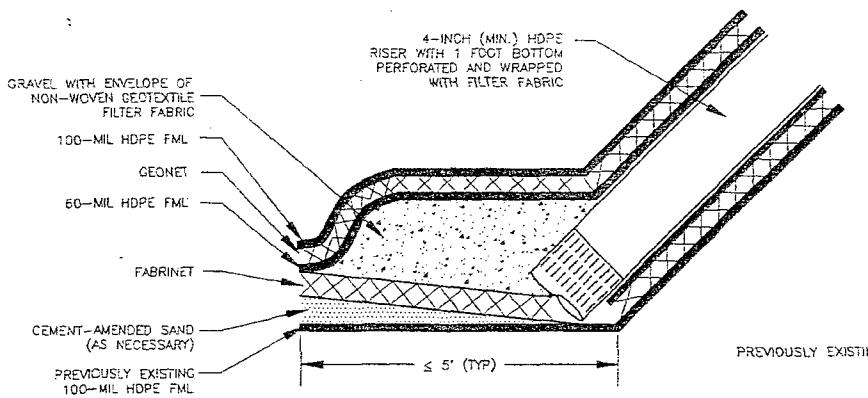
FIGURE 2



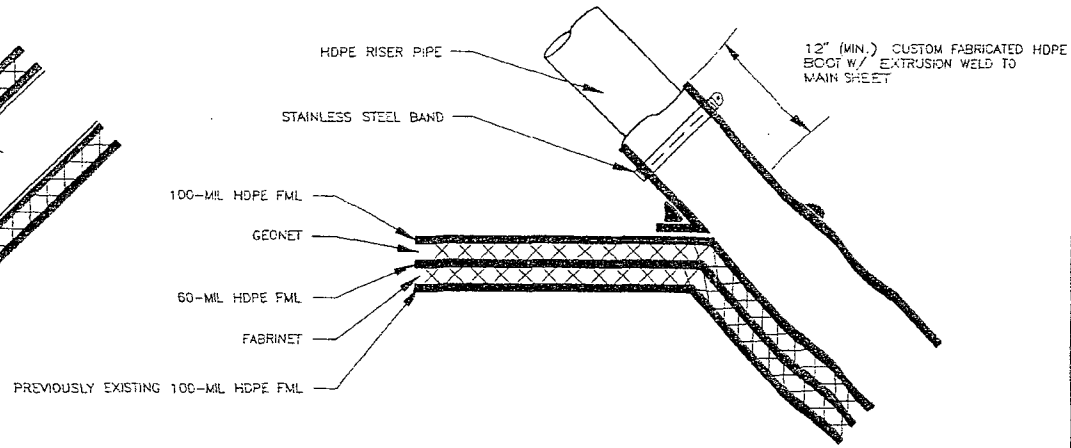
PRIMARY LEAK DETECTION SUMP DETAIL
DETAIL E (TYP)
(N.T.S.)



RISER PIPE CONFIGURATION
DETAIL G (TYP)
(N.T.S.)



SECONDARY LEAK DETECTION SUMP DETAIL
DETAIL F (TYP)
(N.T.S.)



RISER ~~PIPE~~ LINER BOOT
DETAIL H (TYP)
(N.T.S.)

REV	REVISION DESCRIPTION	DATE

ERM-Rocky Mountains, Inc.
2995 Baseline Parkway
Suite 200
Boulder, Colorado 80303-5144
(303) 541-0500
ERM

BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

SYSTEM DETAILS
RECORD DRAWING FOR COMPLETED SURFACE IMPOUNDMENT RETROFIT

DESIGNED	BLOOMFIELD REF.	
DRAWN		
CHECKED		
DATE	09/23/94	
JOB NO.	93104.0	
FILENAME	FIG-4	

FIGURE
4

ATTACHMENT
Annex 10 – Spill Prevention Control and Countermeasures Plan (SPCC)

Facility Information

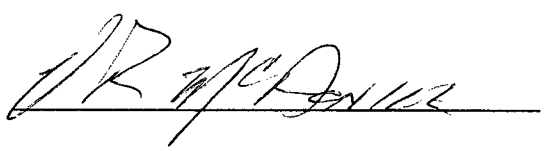
Name of Facility:	Bloomfield Refinery
Type of Facility:	Onshore Facility – Petroleum Refinery (SIC 2911)
Location:	50 County Road 4490, Bloomfield, NM 87413 (1 mile south of the City of Bloomfield, NM) (Latitude 36° 41' 50", Longitude 107° 58' 20")
Owner:	Western Refining, Inc. 123 W. Mills Ave., Suite 200 El Paso, Texas 79901
Operator:	Western Refining Southwest, Inc. #50 Road 4990 Bloomfield, New Mexico 87413
Contact Person:	Randy Schmaltz, Environmental Manager
Telephone:	(505) 632-4171

Reportable Spill Events

None. See Spill History section.

Management Approval

This SPCC Plan has been approved and implemented as herein described.

Signed: 

Name/Title: Victor McDaniel, Facility Manager

Facility Description

The Bloomfield Refinery receives and processes up to 18,000 barrels per day of crude oil and produces propane, butane, gasoline, kerosene, fuel oil, and residual fuel.

The refinery is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is further located approximately 1/2 mile east of State Route 44 on County Road 4490 (a.k.a. Sullivan Road).

The refinery is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace rises approximately 100 feet above the river level and 20 feet above the irrigation ditch. The northern refinery fenceline adjoins the irrigation ditch and the distance from the refinery to the river's edge varies from approximately 300 to 1,000 feet.

The main part of the refinery is located on a 45 acre site north of County Road 4490 and includes the following general areas:

- Office Area (buildings, warehouse, storage yard, & parking lots)
- Process Area
- Wastewater Treatment Unit (WWTU)
- Tank Farm
- Firefighting Training Area

A loading and unloading facility is located on a 15 acre site south of County Road 4490 and includes the following general areas:

- Vehicle Maintenance Facility & Tank Truck Parking Lot
- Crude Oil Unloading Station & Storage Tank Area
- Product Loading Station & Storage Tank Area
- High Pressure Storage Bullets Area

Topography in the vicinity of the refinery is characterized by a local high point at the eastern boundary of the site. On the north side of County Road 4490, the predominant slope is gradually downward to the north and west toward the Hammond Irrigation Ditch. Opposite the ditch, the slope is more steeply downward until intersection with the San Juan River. On the south side of County Road 4490, the predominant slope is gradually downward to the west and north toward the side ditch on County Road 4490.

See Figure No. 1 – Facility Site Plan, for the general plant layout.

Crude oil, intermediate feedstocks, and refined products are stored in various fixed tanks located on-site. Most of these tanks are located within a central Tank Farm in the main part of the refinery. A few tanks are located near the refinery Process Area and others are located at the loading and unloading facility south of County Road 4490. All storage is aboveground. There are no underground storage tanks at the refinery.

In addition to petroleum feedstocks and products, various lubricants, additives, and treatment chemicals are used on-site to support the operation of the refinery. These materials are typically received in pails, drums, and totes of various sizes. These containers are generally kept in the main warehouse and storage yard at the west end of the refinery until distributed for use.

Spill History

There have been no reportable spills, releases, or discharges at the refinery as related to Clean Water Act or CERCLA reporting requirements.

Minor spills have occurred as described on Table No. 1 and were reported to the New Mexico Oil Conservation Division.

Potential Spill Scenarios

Spills may arise as a result of equipment failure or operator error as described below. In the event that a spill should occur and escape secondary containment, the following volumes, rates, and flow paths are predicted for each major source and location within the refinery.

1. Spills may arise from overflow, leakage, or rupture of atmospheric storage tanks containing petroleum feedstocks and products. Spill prediction information for these tanks is described in Table No. 2.

2. Spills may arise from overflow, leakage, or rupture of pressurized storage tanks containing petroleum feedstocks and products. Spill prediction information for these tanks is described in Table No. 3.

3. Spills may arise from leakage or rupture of portable drums and totes located in the warehouse storage yard at the west end of the refinery. The contents, size of container, and number of containers varies over time depending on the operations and maintenance needs of the refinery. A typical inventory may include thirty 55 gallon drums and ten 350 gallon totes. A worst case spill would likely involve a release of up to 350 gallons and would predominantly flow north.

4. Spills may arise from leakage or rupture of vessels, pumps, pipelines, and related equipment located within the Process Area. The diversity of equipment size and operating conditions creates highly variable release scenarios. For the purposes of this plan, a worst case spill is assumed to involve a pump seal

leak of 10 gpm sustained for up to 8 hours (potential release of 115 barrels). Spills originating within the Process Area are not confined to a predominant flow path because this site is essentially flat. Concentric dispersal is assumed.

5. Spills may arise from transfer pumps and piping that interconnect various parts of the refinery. The diversity of equipment size and transfer rates creates highly variable release scenarios. For the purposes of this plan, a worst case spill is assumed to involve a transfer piping leak of 50 gpm sustained for up to 8 hours (potential release of 570 barrels). Spills originating within piperacks on the north side of County Road 4490 will generally flow north and northwest toward the Hammond Irrigation Ditch. Spills originating within piperacks on the south side of County Road 4490 will generally flow north and northwest toward the county road side ditch.

6. Spills may arise from overflow, leakage, or rupture of loading and unloading facilities; such as filling apparatus, hose connections, and tank trucks. For the purposes of this plan, a worst case spill is assumed to involve a leaking tank truck parked at the unloading facility (potential release of 150 barrels). Spills originating in this area will generally flow north and northwest toward the county road side ditch.

7. Spills may arise from overflow or leakage of the Aeration Lagoons or the Evaporation Ponds containing refinery waste water. For the purposes of this plan, a worst case spill is assumed to be the maximum amount of flow into the wastewater system which currently would be 80 gpm. Spills originating in these areas will generally flow north

Spill Prevention

Spill prevention is the first line of defense against spills. Spills are prevented by the following methods.

1. Process equipment, vessels, tanks, and piping are engineered to safely and reliably contain applicable process fluids under normal operating conditions. Bloomfield Refinery utilizes appropriate industry standards and practices in the design, construction, and maintenance of all equipment.

2. Under abnormal operating conditions, process vessels, equipment, and piping are protected against overpressure and rupture by safety relief valves. Most safety valves vent to the refinery flare system.

3. All petroleum storage tanks are constructed of carbon steel and protected against corrosion using appropriate surface coatings and in some cases an impressed electric current.
   All tanks are visually inspected annually for mechanical integrity. Detailed internal inspections are conducted at least once every ten years. Repairs are made as necessary.

4. Existing underground piping is constructed of carbon steel, which is protected against corrosion by wrapping and surface coatings. Some of this piping is being phased out and will eventually be replaced with aboveground piping.

5. During annual refinery turnaround maintenance, equipment, valves, and piping are inspected for mechanical integrity. Inadequate facilities are repaired or replaced.

6. Standard operating procedures are used as follows:

   a) Process surveillance rounds are conducted during each shift. Process equipment, vessels, tanks, piping, and grounds are visually inspected for signs of abnormal conditions, leakage, or spills. Spills are immediately reported to the Shift Supervisor and response action is initiated.

   b) Storage tanks are gauged daily and recorded. Tank inventory is checked against input and output quantities to detect potential leakage. All product transfers are attended by the pumper.

   c) Portable storage tanks used within the refinery are located inside secondary containment pads or dikes.

   d) All loading and unloading operations are performed in compliance with DOT regulations and are attended full-time. Warning placards are placed in front of tank trucks to alert drivers that disconnection must be ensured prior to departure.

Spill Controls

The following controls have been installed to contain spills and prevent off-site migration.

1. All petroleum storage tanks are located within full encirclement earthen containment dikes constructed of low permeability soil. All basins are sized to contain the maximum volume of the largest tank within the dike, plus an additional freeboard height of at least 6 inches. Tank dikes are not equipped with drain lines or valves. Precipitation is infrequent and stormwater trapped within diked areas typically evaporates. Spills are typically removed via vacuum trucks or portable manually-controlled pumping systems. Recovered material is transferred to a slop tank or the WWTU, as appropriate.

2. Refinery processing units are located in the Process Area. Within this area, all vessels, pumps, piping, and related equipment are located within curbed containment pads. Most containment pads drain directly to the WWTU. Some containment pads drain to sealed collection sumps which can then be pumped to either a slop tank or the WWTU, as appropriate.

3. Loading and unloading stations are located within curbed containment pads equipped with sumps and drains. All loading and unloading stations drain to the WWTU.

4. Portable containers located within the warehouse storage yard are handled as follows. Most drums are placed within a special secondary containment structure at the south end of the yard. Remaining drums and totes are stored on impermeable containment located in warehouse the yard.

5. Transfer piping and other spill sources located within the refinery but outside of containment structures are located such that surface topography will cause spills will flow to various retention basins as shown on the Facility Site Plan.

6. Spilled material which accumulates in any retention basin is removed via vacuum trucks or portable manually-controlled pumping systems, and then transferred to a either a slop tank or the WWTU, as appropriate.

Spill Response Procedures

In the event that a spill occurs, the following procedures must be followed:

1. Safety is the first priority. Alert fellow employees. Notify the Shift Supervisor. Assess and respond to imminent safety hazards first. If flammable materials are involved, eliminate area ignition sources and assign a fire watch to the site. Assure that all persons involved in the clean-up use appropriate PPE.

2. When safe to do so, the Shift Supervisor or Incident Commander will devise a plan and implement an appropriate spill response. All response actions are incident specific, but may include the following key elements:

    a) If a spill threatens to escape refinery boundaries, an emergency response under the Facility Response Plan must be initiated; otherwise,

    b) Stop the source of the spill,

    c) If not already contained, stop the spread of the spill,

    d) Recover free product and absorb residual product, and

    e) Remove impacted soil and sorbents to containers or onto a plastic lined holding pile in a safe location.

3. The Environmental Manager will investigate the cause of the spill, document the circumstances and response, and if appropriate, make recommendations to the Refinery Manager to prevent a recurrence.

Employee Training

All employees receive general refinery safety and environmental compliance training at the beginning of employment and prior to performing normal duties and assignments. In addition, specific SPCC-related training is provided to all process and maintenance employees that may become involved in SPCC related activities. This training covers the provisions of this plan and includes:

- Spill prevention, detection, and response procedures,
- Location of potential spill sources, and
- Location and proper use of spill response equipment and supplies.

In addition to initial employment training, all employees receive annual refresher training which specifically addresses the following topics:

- Review of spill prevention, detection, and response procedures,
- Review of changes in facilities or operations during the previous year, and
- Review of spill events and response actions during the previous year.

The Environmental Manager oversees the SPCC Plan and coordinates with the Safety and Operations Departments to assure that employees receive appropriate training.

Site Security

Security provisions are provided as follows:

1. The refinery is continuously staffed by operations personnel.

2. Fencing and gates are installed to restrict access to refinery operations and prevent unauthorized entry.

3. Pump controls are located within buildings or in areas restricted to authorized personnel only.

4. Loading and unloading connection points are locked in the closed position when not in use.

5. Lighting is provided in various areas of the refinery where spills may occur.

6. Vehicle traffic within the refinery is restricted and supervised.

Self Inspection Procedure

Compliance with the provisions of 40 CFR Part 112.7 and this SPCC plan shall be demonstrated annually via a self inspection audit conducted as follows:

1. The Environmental Manager, or designated representative, will conduct the self inspection audit each year.

2. At a minimum, the self-inspection audit will assess the following.

   - Verification of secondary containment for storage tanks and loading and unloading stations,

   - Competence and adequacy of secondary containment systems,

3. The inspector shall document findings in a written report. All inspection reports must be signed and dated by the inspector.

4. Recommendations, if any, must be promptly reported to the Refinery Manager for review and evaluation.

5. A copy of each report shall be appended to this SPCC plan and a second copy shall also be kept on file in the Environmental Manager's office for not less than five years.

Table No. 1
Spill History

Date	Material Spilled	Quantity	Clean-up Description
3/18/91	Jet fuel	180 bbls (7,650 gal)	Spilled material was recovered using a vacuum truck and recycled.
2/4/93	Reformate	45 bbls (1,890 gal)	Spilled material was recovered using a vacuum truck and recycled.
1/09/98	Refinery Wastewater	2 bbls (90ga)	Spilled material was recovered using a vacuum truck and recycled.
1/12/98	Refinery Wastewater	1,800 bbls (75,600 gal)	Spilled material was contained, recovered, and returned to the WWTU.
1/12/99	Refinery Wastewater	75 bbls (3150 gal)	Spilled material was contained, recovered, and returned to the WWTU
3/03/00	Reformate	500 bbls (21,000 gal)	Spilled material was contained inside a dike, recoverd using a vacuum truck, and recycled.
10/30/00	Isomerate	80 bbls (3,360 gal)	Spilled material was recovered and recycled.
1/19/01	Crude Oil	25 bbls (1,050 gal)	Spilled material was recovered and recycled. The bermed area was remediated in place
1/25/04	Gasoline	3 bbls (118 gal)	Impacted soil was removed and disposed of at an OCD approved waste facility. Clean fill dirt replaced the impacted soil in the area.
1/30/04	Refinery Wastewater	24 bbls (1000 gal)	Spilled material was recovered using a vacuum truck and recycled.
1/22/08	Low Sulfur Diesel	20 bbls (850 gal)	Spilled material was recovered using a vacuum truck and recycled. Impacted soil was removed and disposed of at an OCD approved waste facility. Clean fill dirt replaced the impacted soil in the area.

Table No. 2
Atmospheric Storage Tanks

Tank No.	Contents	Worst Case Failure	Max. Volume (barrels)	Flowrate* (barrels/min)	Flow Direction
3	Mid-grade Gasoline	Rupture	10,000	500	N
4	Mid-grade Gasoline	Rupture	10,000	500	N
5	Waste Water Surge	Rupture	10,000	500	N
8	Slop oil	Rupture	500	25	NE
9	Slop oil	Rupture	500	25	NE
10	Spent caustic	Rupture	400	20	E
11	Reformate	Rupture	55,000	2,750	NW
12	Poly/Cat mix	Rupture	55,000	2,750	NW
13	Unleaded Gasoline	Rupture	30,000	1,500	N
14	Unleaded Gasoline	Rupture	30,000	1,500	N
17	Reduced crude	Rupture	40,000	2,000	N
18	Diesel	Rupture	55,000	2,750	NW
19	Diesel	Rupture	36,000	1,300	NW
20	Naphtha	Rupture	10,000	500	N
23	Gasoline	Rupture	40,000	2,000	W
24	ULS Diesel	Rupture	10,000	500	N
25	ULS Diesel	Rupture	10,000	500	N
26	Naphtha	Rupture	4,000	200	N
27	Heavy Burner Fuel	Rupture	10,000	500	N
28	Crude oil	Rupture	80,000	4,000	N
29	Diesel/FCC Slop	Rupture	17,000	850	NW
30	Blend stock	Rupture	17,000	850	NW
31	Crude oil	Rupture	110,000	5,500	NW
32	Gasoline	Rupture	20,000	100	N
33	Recovered Groundwater	Rupture	400	20	NW
34	Injection Well Reservoir	Rupture	400	20	SW
35	Reformer feed	Rupture	55,000	2,750	N
36	Poly/Cat mix	Rupture	55,000	2,750	N
37	Recovered Groundwater	Rupture	131	7	N
38	Recovered Groundwater	Rupture	360	18	N
41	Crude oil	Rupture	2,800	140	NW
42A	Crude oil	Rupture	400	20	SW
42B	Crude oil	Rupture	400	20	SW
43	Out of Service	Rupture	700	35	NW
44	Ethanol	Rupture	2,000	100	NW
45	Ethanol	Rupture	5,000	250	NW

* Assumes maximum volume is released within 20 minutes.

Table No. 3
Pressurized Storage Tanks

Tank No.	Contents	Worst Case Failure	Max. Volume (barrels)	Flowrate* (barrels/min)	Flow Direction
B-12	Out of Service	Rupture	692	35	NW
B-13	Butane	Rupture	500	25	NW
B-14	Butane	Rupture	500	25	NW
B-15	Propane	Rupture	714	36	NW
B-16	Propane	Rupture	714	36	NW
B-17	Poly feed	Rupture	714	36	NW
B-18	Poly feed	Rupture	714	36	NW
B-19	Poly feed	Rupture	714	36	NW
B-20	Butane	Rupture	714	36	NW
B-21	Butane	Rupture	714	36	NW
B-22	LPG	Rupture	714	36	NW
B-23	LPG	Rupture	714	36	NW

* Assumes maximum volume is released within 20 minutes.

Emergency Notification Telephone List

Name	Telephone Number
Frank Sullivan, Safety Supervisor (Home Telephone)	632-2067
Emergency Response Team Members	See Call Out List
Envirotech (Emergency Response Contractor)	632-0615
National Response Center	1-800-424-8802
Bloomfield Fire Department	911
Bloomfield Police Department	911
San Juan County Sheriff's Office	911
New Mexico State Police	911
Local Ambulance Services	911
County Fire Departments	911
Local Emergency Planning Committee (LEPC)	334-1180
Don Cooper	334-4706
State Emergency Response Commission (SERC)	1-505-476-9628
State of New Mexico Oil Conservation Division	334-6178
Environmental Emergencies - State Police 24-hr Dispatch Hotline	1-505-827-9329
Federal On-Scene Coordinator (OSC)	
Don Smith	1-214-664-6489
Hammond Conservancy District	632-3043
BLM Farmington Field Office	599-8900
Navajo Reservoir Superintendent	632-3115
City of Farmington Water Department	326-1918
San Juan Regional Medical Center	325-5011
Radio Station KENN	325-3541
Radio Station KTRA	325-1716
Television Station KOBF	326-1141
Television Station KOAT	326-4883
Weather Service (Albuquerque)	1-505-243-0702

EVAPORATION PONDS ACTION PLAN

Western Refining Southwest, Inc. – Bloomfield Refinery

North and South Evaporation Ponds Action Plan 2010

Purpose and Scope

This Action Plan describes procedures and actions that are implemented during normal operations as well as response actions that will be implemented in the event of a discovered leak to the environment from either the North or South Evaporation Pond.

Background

The refinery is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is more specifically located approximately 1/2 mile east of State Route 44 on County Road 4990 (a.k.a. Sullivan Road).

The refinery is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace is approximately 100 feet above the river level and 20 feet above the irrigation ditch. The North and South Evaporation Ponds are located in the southeastern most corner of the active portion of the refinery property (see attached Site Map).

The essential function of the North and South Evaporation Ponds is temporary storage and evaporation of treated used process water. The water is generated at various refinery units, storage tanks, utility systems, and maintenance activities. This used process water is rendered non-hazardous as it flows through the API Separator (solids, sludge, and floating scum are removed), the Benzene Strippers (benzene is removed), and the three lined aeration lagoons (active biological treatment) before reaching either the evaporation ponds or the Class I injection well. Typically, the water is routinely pumped directly from the refinery aeration lagoons to the Class I injection well, thereby bypassing the evaporation ponds. Water levels in the ponds are directly proportional to the operation of the refinery and scheduled maintenance of the injection well.

The ponds were constructed in 1995 as double lined (60-millimeter high density polyethylene) surface impoundments with each pond covering approximately 4.5 acres. The leak detection system in each pond consists of an arrangement of 4" perforated PVC pipe extending laterally between the first and second liners, collecting and directing fluids in this area to two separate 8" leak detection wells (see attached as-built diagrams).

Monitoring and Discovery

Using an inter-face probe, depth-to-fluid measurements are collected and recorded at each of the leak detection wells on a bi-weekly basis.

The refinery is staffed 24 hours per day, 365 days per year. A Shift Supervisor, or designated representative, is always on duty at the refinery. Visual inspection of the freeboard, dikes, and operation of the evaporation ponds occurs daily. Visual

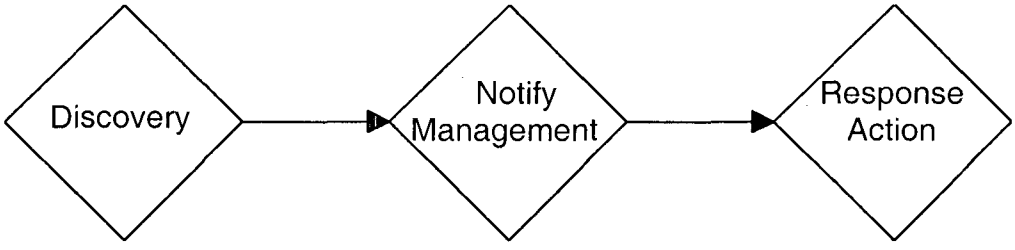
inspection of the area surrounding the evaporation ponds, including the face of each pond dike, is conducted bi-weekly.

The design and construction of the ponds allows for confirmed determination of a leak through visual inspections of the dikes and surrounding area. Water appearing on the face of the dikes could indicate that the second liner is leaking. As shown on the attached Evaporation Pond Elevation Drawing, the dike surface extends approximately 11 feet below the bottom of the South Evaporation Pond liner. It is anticipated that any leak to groundwater from the South Evaporation Pond would appear on the face of the South Pond dike surface. Similarly, the North Pond dike surface extends below the bottom of the North Pond liner and any leak to groundwater from that pond would be visually apparent along the face of the dike.

The discovery of fluids along the face of either dike will result in notification to the Shift Supervisor and/or Environmental Manager to determine an appropriate response action.

If a visual leak from any one of the Evaporation Ponds is discovered, the employee shall immediately perform the following actions.

1. Note the nature and location of the discharge/leak.
2. Notify the on-duty Shift Supervisor and/or the Environmental Manager
3. Response action will then be determined.



The on-duty Shift Supervisor is the central point of contact in the discovery of a discharge/leak.

Response Action

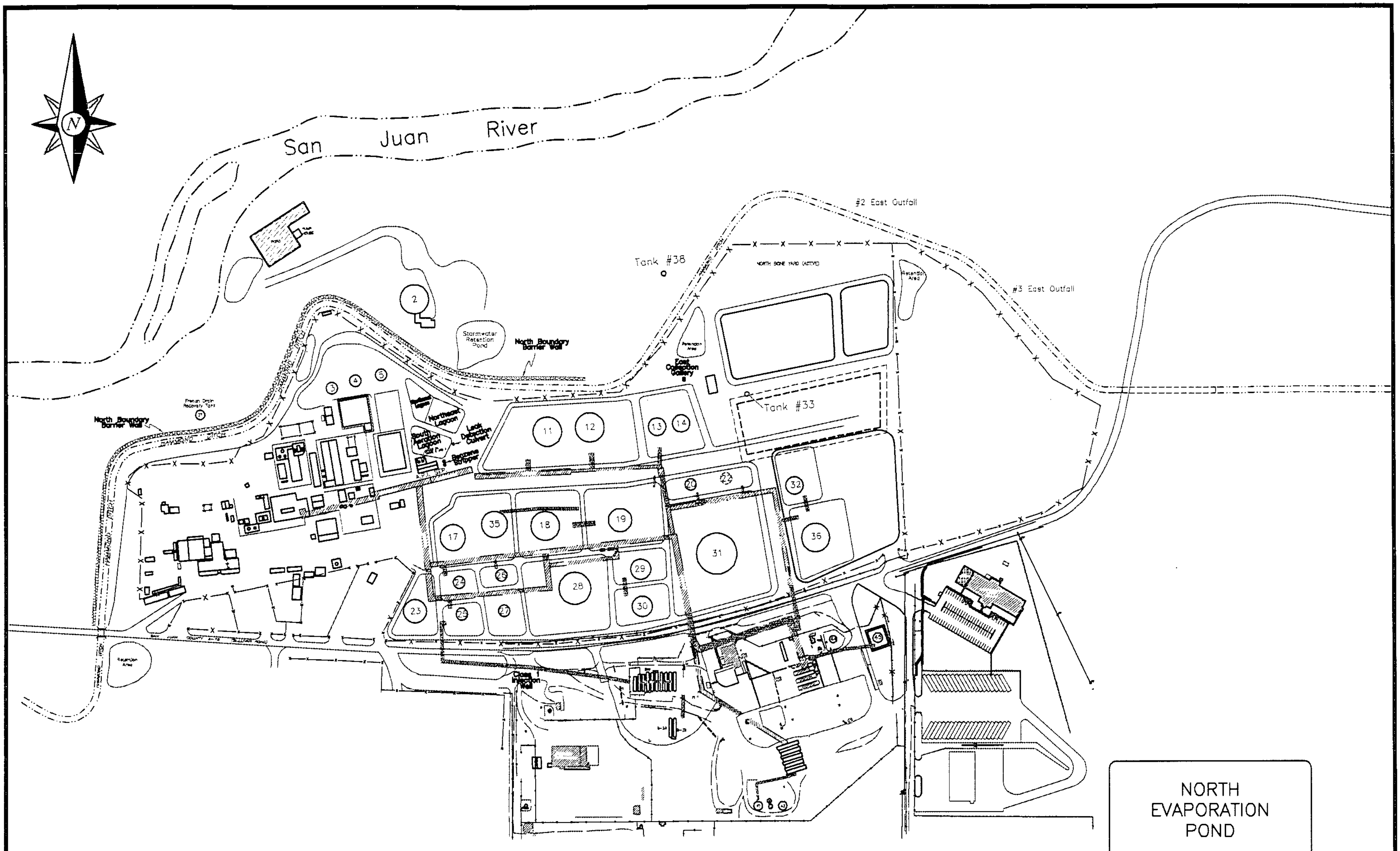
In the event that there is an indication of a release to the environment from the Evaporation Ponds via a surface overflow or the discovery of fluids along the face of either dike, OCD will be notified as required, and this Action Plan will be implemented via the appropriate response action(s).

In the event of an evaporation pond surface overflow... guidelines from Annex 10 (Spill Prevention Control and Countermeasures Plan) of the Integrated Contingency Plan for the Refinery will be followed. A copy of this Plan is maintained on-site and is

provided as an attachment for reference. This Plan includes actions to be performed to minimize and contain surface impacts.

Water will be diverted from the affected pond and the fluid level in the over-filled pond will be lowered using a pump and/or vacuum truck. The pond will not be placed back into service until the fluid level is lowered below the minimum 3-foot freeboard level.

In the event fluid appears on the face of the dike and is confirmed to be used process water ....the affected evaporation pond will be bypassed and the water process stream will be diverted. OCD will be notified within 7 days of discovery. All fluids from the leaking evaporation pond will be pumped out so the liner can be inspected and repaired. The pond will not be returned to service until repairs are completed.



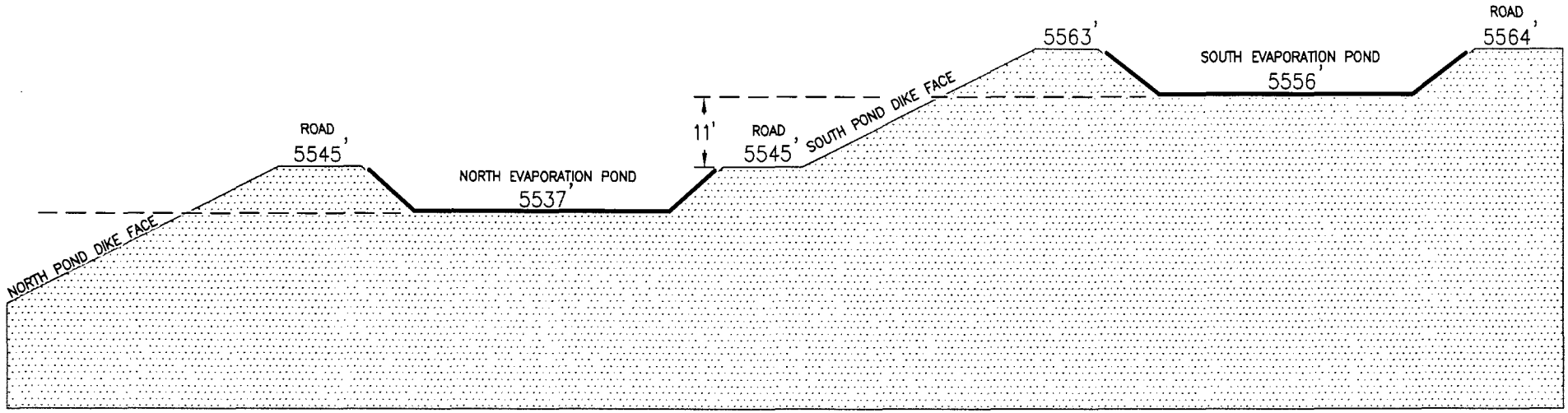
0 200 400 800

SCALE IN FEET

Western Refining

WESTERN REFINING SOUTHWEST

Date: 9–29–10	Site Plan Evaporation Pond Location
Scale: As Shown	
Drawn: TAG	

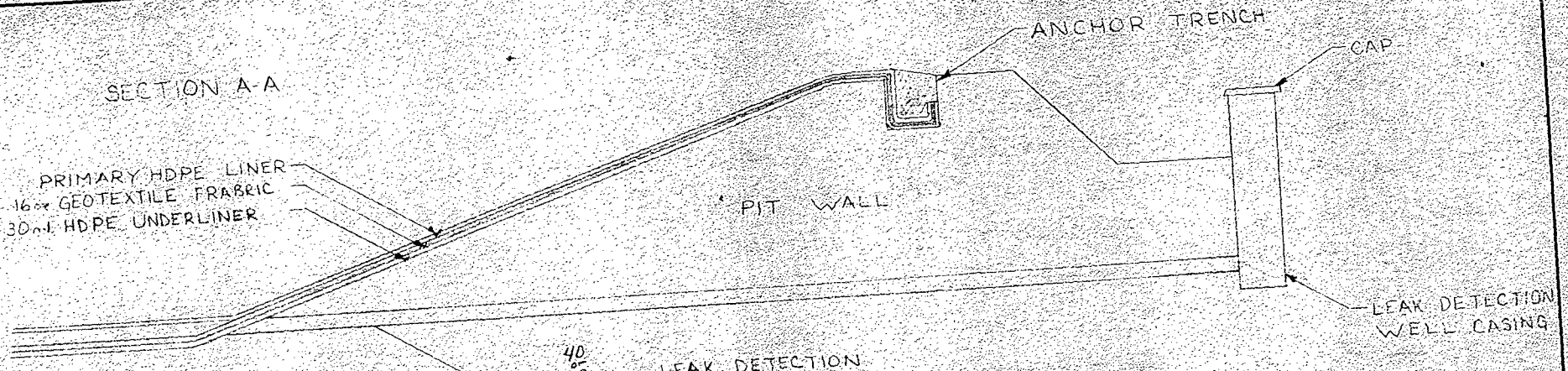


NOTE:
ELEVATIONS GIVEN ARE IN FEET ABOVE SEA LEVEL ROUNDED TO THE NEAREST FOOT.

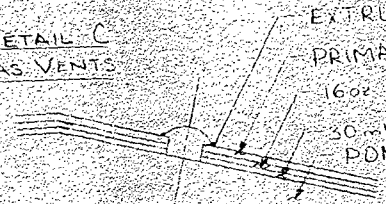
Western Refining
WESTERN REFINING SOUTHWEST

Date: 9-29-10	Evaporation Pond Elevation Diagram
Scale: NTS	
Drawn: TAG	

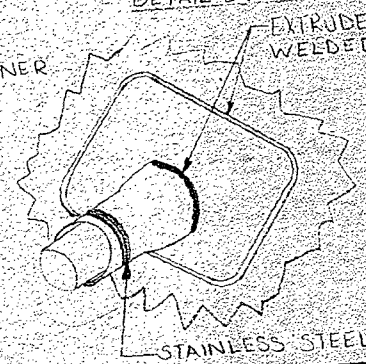
SECTION A-A

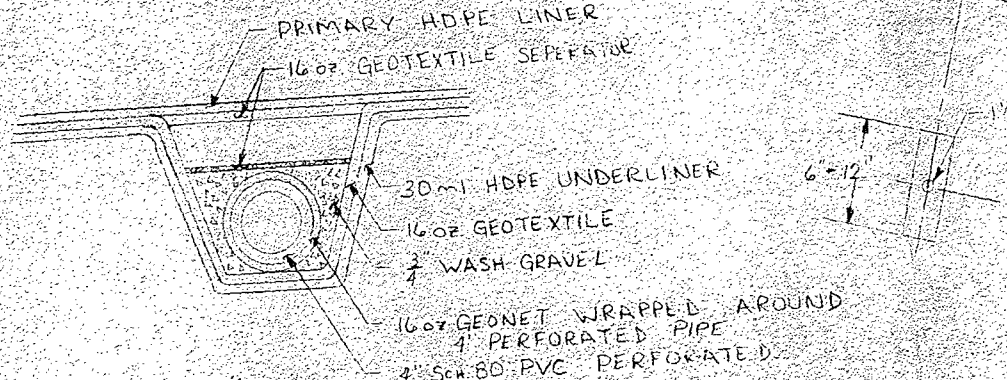


DETAIL C
GAS VENTS



DETAIL D TYPICAL BOOT





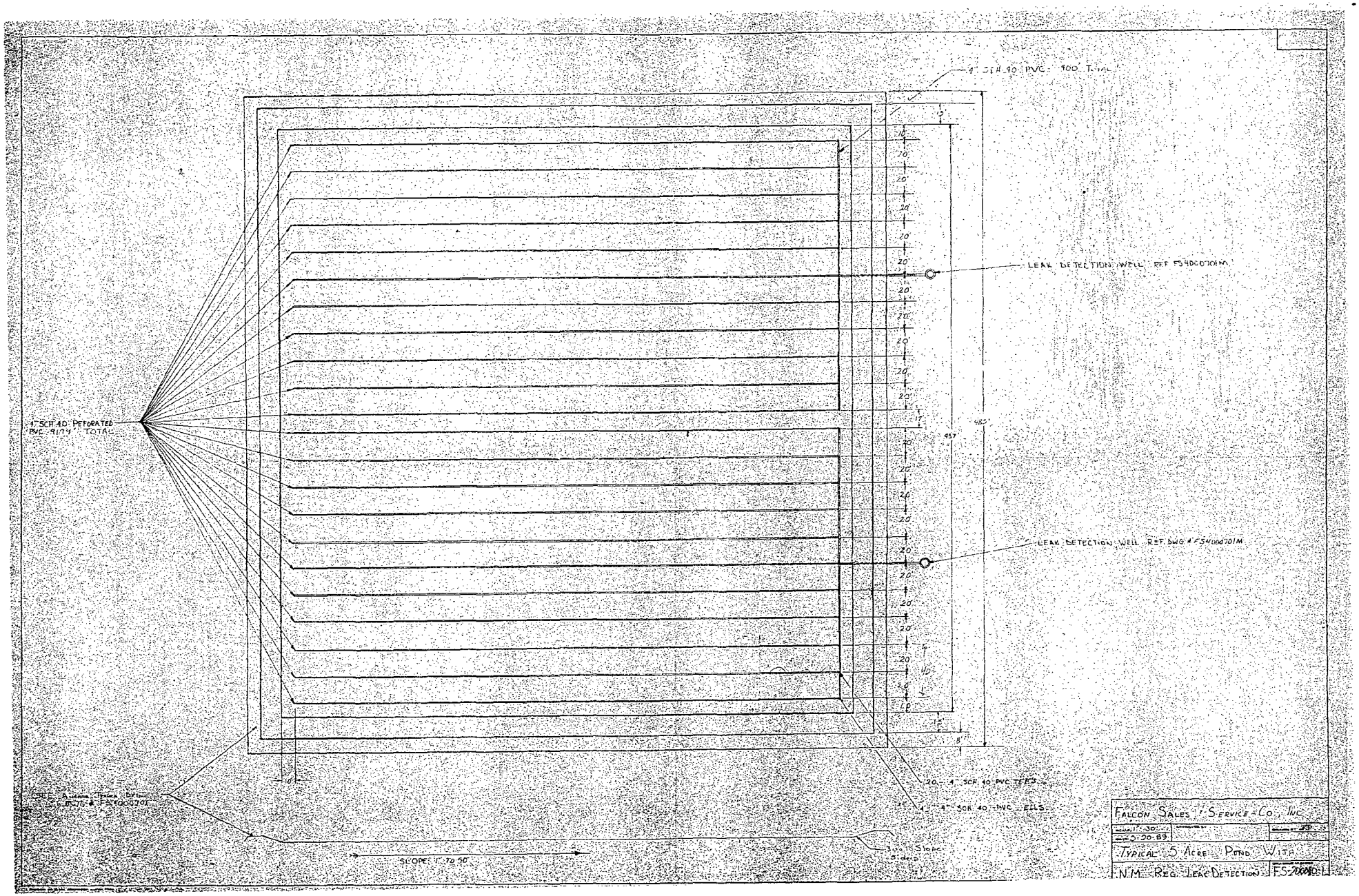
SECTION B-B
END VIEW OF LEAK DETECTION SYSTEM

FALCON SALES & SERVICE CO. INC.

SCALE: NONE	APPROVED BY:	DRAWN BY: KP
DATE: JAN 19 1994		

TYPICAL DOUBLE LINED HIGH DENSITY POLYETHYLENE LINER

DRAWING NUMBER: FS4000701M


4" SCH 40 PVC 400' TOTAL
LEAK DETECTION WELL REF FS40C0701M
LEAK DETECTION WELL REF SWD # FS4000701M
1" SCH 40 PERFORATED PVC 9174' TOTAL
457'
485'
20 - 4" SCH 40 PVC TEES
4 - 4" SCH 40 PVC ELLS
SLOPE 1" TO 50'
3:1 Slope
FALCON SALES & SERVICE CO., INC.
TYPICAL 5 ACRE POND WITH
N.M. REG. LEAC DETECTION FS-20000

ATTACHMENT
Annex 10 – Spill Prevention Control and Countermeasures Plan (SPCC)

Facility Information

Name of Facility:	Bloomfield Refinery
Type of Facility:	Onshore Facility – Petroleum Refinery (SIC 2911)
Location:	50 County Road 4490, Bloomfield, NM 87413 (1 mile south of the City of Bloomfield, NM) (Latitude 36° 41' 50", Longitude 107° 58' 20")
Owner:	Western Refining, Inc. 123 W. Mills Ave., Suite 200 El Paso, Texas 79901
Operator:	Western Refining Southwest, Inc. #50 Road 4990 Bloomfield, New Mexico 87413
Contact Person:	Randy Schmaltz, Environmental Manager
Telephone:	(505) 632-4171

Reportable Spill Events

None. See Spill History section.

Management Approval

This SPCC Plan has been approved and implemented as herein described.

Signed:

Name/Title: Victor McDaniel, Facility Manager

Facility Description

The Bloomfield Refinery receives and processes up to 18,000 barrels per day of crude oil and produces propane, butane, gasoline, kerosene, fuel oil, and residual fuel.

The refinery is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is further located approximately 1/2 mile east of State Route 44 on County Road 4490 (a.k.a. Sullivan Road).

The refinery is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace rises approximately 100 feet above the river level and 20 feet above the irrigation ditch. The northern refinery fenceline adjoins the irrigation ditch and the distance from the refinery to the river's edge varies from approximately 300 to 1,000 feet.

The main part of the refinery is located on a 45 acre site north of County Road 4490 and includes the following general areas:

- Office Area (buildings, warehouse, storage yard, & parking lots)
- Process Area
- Wastewater Treatment Unit (WWTU)
- Tank Farm
- Firefighting Training Area

A loading and unloading facility is located on a 15 acre site south of County Road 4490 and includes the following general areas:

- Vehicle Maintenance Facility & Tank Truck Parking Lot
- Crude Oil Unloading Station & Storage Tank Area
- Product Loading Station & Storage Tank Area
- High Pressure Storage Bullets Area

Topography in the vicinity of the refinery is characterized by a local high point at the eastern boundary of the site. On the north side of County Road 4490, the predominant slope is gradually downward to the north and west toward the Hammond Irrigation Ditch. Opposite the ditch, the slope is more steeply downward until intersection with the San Juan River. On the south side of County Road 4490, the predominant slope is gradually downward to the west and north toward the side ditch on County Road 4490.

See Figure No. 1 – Facility Site Plan, for the general plant layout.

Crude oil, intermediate feedstocks, and refined products are stored in various fixed tanks located on-site. Most of these tanks are located within a central Tank Farm in the main part of the refinery. A few tanks are located near the refinery Process Area and others are located at the loading and unloading facility south of County Road 4490. All storage is aboveground. There are no underground storage tanks at the refinery.

In addition to petroleum feedstocks and products, various lubricants, additives, and treatment chemicals are used on-site to support the operation of the refinery. These materials are typically received in pails, drums, and totes of various sizes. These containers are generally kept in the main warehouse and storage yard at the west end of the refinery until distributed for use.

Spill History

There have been no reportable spills, releases, or discharges at the refinery as related to Clean Water Act or CERCLA reporting requirements.

Minor spills have occurred as described on Table No. 1 and were reported to the New Mexico Oil Conservation Division.

Potential Spill Scenarios

Spills may arise as a result of equipment failure or operator error as described below. In the event that a spill should occur and escape secondary containment, the following volumes, rates, and flow paths are predicted for each major source and location within the refinery.

1. Spills may arise from overflow, leakage, or rupture of atmospheric storage tanks containing petroleum feedstocks and products. Spill prediction information for these tanks is described in Table No. 2.

2. Spills may arise from overflow, leakage, or rupture of pressurized storage tanks containing petroleum feedstocks and products. Spill prediction information for these tanks is described in Table No. 3.

3. Spills may arise from leakage or rupture of portable drums and totes located in the warehouse storage yard at the west end of the refinery. The contents, size of container, and number of containers varies over time depending on the operations and maintenance needs of the refinery. A typical inventory may include thirty 55 gallon drums and ten 350 gallon totes. A worst case spill would likely involve a release of up to 350 gallons and would predominantly flow north.

4. Spills may arise from leakage or rupture of vessels, pumps, pipelines, and related equipment located within the Process Area. The diversity of equipment size and operating conditions creates highly variable release scenarios. For the purposes of this plan, a worst case spill is assumed to involve a pump seal

leak of 10 gpm sustained for up to 8 hours (potential release of 115 barrels). Spills originating within the Process Area are not confined to a predominant flow path because this site is essentially flat. Concentric dispersal is assumed.

5. Spills may arise from transfer pumps and piping that interconnect various parts of the refinery. The diversity of equipment size and transfer rates creates highly variable release scenarios. For the purposes of this plan, a worst case spill is assumed to involve a transfer piping leak of 50 gpm sustained for up to 8 hours (potential release of 570 barrels). Spills originating within piperacks on the north side of County Road 4490 will generally flow north and northwest toward the Hammond Irrigation Ditch. Spills originating within piperacks on the south side of County Road 4490 will generally flow north and northwest toward the county road side ditch.

6. Spills may arise from overflow, leakage, or rupture of loading and unloading facilities; such as filling apparatus, hose connections, and tank trucks. For the purposes of this plan, a worst case spill is assumed to involve a leaking tank truck parked at the unloading facility (potential release of 150 barrels). Spills originating in this area will generally flow north and northwest toward the county road side ditch.

7. Spills may arise from overflow or leakage of the Aeration Lagoons or the Evaporation Ponds containing refinery waste water. For the purposes of this plan, a worst case spill is assumed to be the maximum amount of flow into the wastewater system which currently would be 80 gpm. Spills originating in these areas will generally flow north

Spill Prevention

Spill prevention is the first line of defense against spills. Spills are prevented by the following methods.

1. Process equipment, vessels, tanks, and piping are engineered to safely and reliably contain applicable process fluids under normal operating conditions. Bloomfield Refinery utilizes appropriate industry standards and practices in the design, construction, and maintenance of all equipment.

2. Under abnormal operating conditions, process vessels, equipment, and piping are protected against overpressure and rupture by safety relief valves. Most safety valves vent to the refinery flare system.

3. All petroleum storage tanks are constructed of carbon steel and protected against corrosion using appropriate surface coatings and in some cases an impressed electric current.
   All tanks are visually inspected annually for mechanical integrity. Detailed internal inspections are conducted at least once every ten years. Repairs are made as necessary.

4. Existing underground piping is constructed of carbon steel, which is protected against corrosion by wrapping and surface coatings. Some of this piping is being phased out and will eventually be replaced with aboveground piping.

5. During annual refinery turnaround maintenance, equipment, valves, and piping are inspected for mechanical integrity. Inadequate facilities are repaired or replaced.

6. Standard operating procedures are used as follows:

   a) Process surveillance rounds are conducted during each shift. Process equipment, vessels, tanks, piping, and grounds are visually inspected for signs of abnormal conditions, leakage, or spills. Spills are immediately reported to the Shift Supervisor and response action is initiated.

   b) Storage tanks are gauged daily and recorded. Tank inventory is checked against input and output quantities to detect potential leakage. All product transfers are attended by the pumper.

   c) Portable storage tanks used within the refinery are located inside secondary containment pads or dikes.

   d) All loading and unloading operations are performed in compliance with DOT regulations and are attended full-time. Warning placards are placed in front of tank trucks to alert drivers that disconnection must be ensured prior to departure.

Spill Controls

The following controls have been installed to contain spills and prevent off-site migration.

1. All petroleum storage tanks are located within full encirclement earthen containment dikes constructed of low permeability soil. All basins are sized to contain the maximum volume of the largest tank within the dike, plus an additional freeboard height of at least 6 inches. Tank dikes are not equipped with drain lines or valves. Precipitation is infrequent and stormwater trapped within diked areas typically evaporates. Spills are typically removed via vacuum trucks or portable manually-controlled pumping systems. Recovered material is transferred to a slop tank or the WWTU, as appropriate.

2. Refinery processing units are located in the Process Area. Within this area, all vessels, pumps, piping, and related equipment are located within curbed containment pads. Most containment pads drain directly to the WWTU. Some containment pads drain to sealed collection sumps which can then be pumped to either a slop tank or the WWTU, as appropriate.

3. Loading and unloading stations are located within curbed containment pads equipped with sumps and drains. All loading and unloading stations drain to the WWTU.

4. Portable containers located within the warehouse storage yard are handled as follows. Most drums are placed within a special secondary containment structure at the south end of the yard. Remaining drums and totes are stored on impermeable containment located in warehouse the yard.

5. Transfer piping and other spill sources located within the refinery but outside of containment structures are located such that surface topography will cause spills will flow to various retention basins as shown on the Facility Site Plan.

6. Spilled material which accumulates in any retention basin is removed via vacuum trucks or portable manually-controlled pumping systems, and then transferred to a either a slop tank or the WWTU, as appropriate.

Spill Response Procedures

In the event that a spill occurs, the following procedures must be followed:

1. Safety is the first priority. Alert fellow employees. Notify the Shift Supervisor. Assess and respond to imminent safety hazards first. If flammable materials are involved, eliminate area ignition sources and assign a fire watch to the site. Assure that all persons involved in the clean-up use appropriate PPE.

2. When safe to do so, the Shift Supervisor or Incident Commander will devise a plan and implement an appropriate spill response. All response actions are incident specific, but may include the following key elements:

   a) If a spill threatens to escape refinery boundaries, an emergency response under the Facility Response Plan must be initiated; otherwise,

   b) Stop the source of the spill,

   c) If not already contained, stop the spread of the spill,

   d) Recover free product and absorb residual product, and

   e) Remove impacted soil and sorbents to containers or onto a plastic lined holding pile in a safe location.

3. The Environmental Manager will investigate the cause of the spill, document the circumstances and response, and if appropriate, make recommendations to the Refinery Manager to prevent a recurrence.

Employee Training

All employees receive general refinery safety and environmental compliance training at the beginning of employment and prior to performing normal duties and assignments. In addition, specific SPCC-related training is provided to all process and maintenance employees that may become involved in SPCC related activities. This training covers the provisions of this plan and includes:

- Spill prevention, detection, and response procedures,
- Location of potential spill sources, and
- Location and proper use of spill response equipment and supplies.

In addition to initial employment training, all employees receive annual refresher training which specifically addresses the following topics:

- Review of spill prevention, detection, and response procedures,
- Review of changes in facilities or operations during the previous year, and
- Review of spill events and response actions during the previous year.

The Environmental Manager oversees the SPCC Plan and coordinates with the Safety and Operations Departments to assure that employees receive appropriate training.

Site Security

Security provisions are provided as follows:

1. The refinery is continuously staffed by operations personnel.
2. Fencing and gates are installed to restrict access to refinery operations and prevent unauthorized entry.
3. Pump controls are located within buildings or in areas restricted to authorized personnel only.
4. Loading and unloading connection points are locked in the closed position when not in use.
5. Lighting is provided in various areas of the refinery where spills may occur.
6. Vehicle traffic within the refinery is restricted and supervised.

Self Inspection Procedure

Compliance with the provisions of 40 CFR Part 112.7 and this SPCC plan shall be demonstrated annually via a self inspection audit conducted as follows:

1. The Environmental Manager, or designated representative, will conduct the self inspection audit each year.

2. At a minimum, the self-inspection audit will assess the following.

   - Verification of secondary containment for storage tanks and loading and unloading stations,

   - Competence and adequacy of secondary containment systems,

3. The inspector shall document findings in a written report. All inspection reports must be signed and dated by the inspector.

4. Recommendations, if any, must be promptly reported to the Refinery Manager for review and evaluation.

5. A copy of each report shall be appended to this SPCC plan and a second copy shall also be kept on file in the Environmental Manager's office for not less than five years.

Table No. 1
Spill History

Date	Material Spilled	Quantity	Clean-up Description
3/18/91	Jet fuel	180 bbls (7,650 gal)	Spilled material was recovered using a vacuum truck and recycled.
2/4/93	Reformate	45 bbls (1,890 gal)	Spilled material was recovered using a vacuum truck and recycled.
1/09/98	Refinery Wastewater	2 bbls (90ga)	Spilled material was recovered using a vacuum truck and recycled.
1/12/98	Refinery Wastewater	1,800 bbls (75,600 gal)	Spilled material was contained, recovered, and returned to the WWTU.
1/12/99	Refinery Wastewater	75 bbls (3150 gal)	Spilled material was contained, recovered, and returned to the WWTU
3/03/00	Reformate	500 bbls (21,000 gal)	Spilled material was contained inside a dike, recoverd using a vacuum truck, and recycled.
10/30/00	Isomerate	80 bbls (3,360 gal)	Spilled material was recovered and recycled.
1/19/01	Crude Oil	25 bbls (1,050 gal)	Spilled material was recovered and recycled. The bermed area was remediated in place
1/25/04	Gasoline	3 bbls (118 gal)	Impacted soil was removed and disposed of at an OCD approved waste facility. Clean fill dirt replaced the impacted soil in the area.
1/30/04	Refinery Wastewater	24 bbls (1000 gal)	Spilled material was recovered using a vacuum truck and recycled.
1/22/08	Low Sulfur Diesel	20 bbls (850 gal)	Spilled material was recovered using a vacuum truck and recycled. Impacted soil was removed and disposed of at an OCD approved waste facility. Clean fill dirt replaced the impacted soil in the area.

Table No. 2
Atmospheric Storage Tanks

Tank No.	Contents	Worst Case Failure	Max. Volume (barrels)	Flowrate* (barrels/min)	Flow Direction
3	Mid-grade Gasoline	Rupture	10,000	500	N
4	Mid-grade Gasoline	Rupture	10,000	500	N
5	Waste Water Surge	Rupture	10,000	500	N
8	Slop oil	Rupture	500	25	NE
9	Slop oil	Rupture	500	25	NE
10	Spent caustic	Rupture	400	20	E
11	Reformate	Rupture	55,000	2,750	NW
12	Poly/Cat mix	Rupture	55,000	2,750	NW
13	Unleaded Gasoline	Rupture	30,000	1,500	N
14	Unleaded Gasoline	Rupture	30,000	1,500	N
17	Reduced crude	Rupture	40,000	2,000	N
18	Diesel	Rupture	55,000	2,750	NW
19	Diesel	Rupture	36,000	1,300	NW
20	Naphtha	Rupture	10,000	500	N
23	Gasoline	Rupture	40,000	2,000	W
24	ULS Diesel	Rupture	10,000	500	N
25	ULS Diesel	Rupture	10,000	500	N
26	Naphtha	Rupture	4,000	200	N
27	Heavy Burner Fuel	Rupture	10,000	500	N
28	Crude oil	Rupture	80,000	4,000	N
29	Diesel/FCC Slop	Rupture	17,000	850	NW
30	Blend stock	Rupture	17,000	850	NW
31	Crude oil	Rupture	110,000	5,500	NW
32	Gasoline	Rupture	20,000	100	N
33	Recovered Groundwater	Rupture	400	20	NW
34	Injection Well Reservoir	Rupture	400	20	SW
35	Reformer feed	Rupture	55,000	2,750	N
36	Poly/Cat mix	Rupture	55,000	2,750	N
37	Recovered Groundwater	Rupture	131	7	N
38	Recovered Groundwater	Rupture	360	18	N
41	Crude oil	Rupture	2,800	140	NW
42A	Crude oil	Rupture	400	20	SW
42B	Crude oil	Rupture	400	20	SW
43	Out of Service	Rupture	700	35	NW
44	Ethanol	Rupture	2,000	100	NW
45	Ethanol	Rupture	5,000	250	NW

* Assumes maximum volume is released within 20 minutes.

Table No. 3
Pressurized Storage Tanks

Tank No.	Contents	Worst Case Failure	Max. Volume (barrels)	Flowrate* (barrels/min)	Flow Direction
B-12	Out of Service	Rupture	692	35	NW
B-13	Butane	Rupture	500	25	NW
B-14	Butane	Rupture	500	25	NW
B-15	Propane	Rupture	714	36	NW
B-16	Propane	Rupture	714	36	NW
B-17	Poly feed	Rupture	714	36	NW
B-18	Poly feed	Rupture	714	36	NW
B-19	Poly feed	Rupture	714	36	NW
B-20	Butane	Rupture	714	36	NW
B-21	Butane	Rupture	714	36	NW
B-22	LPG	Rupture	714	36	NW
B-23	LPG	Rupture	714	36	NW

* Assumes maximum volume is released within 20 minutes.

Emergency Notification Telephone List

Name	Telephone Number
Frank Sullivan, Safety Supervisor (Home Telephone)	632-2067
Emergency Response Team Members	See Call Out List
Envirotech (Emergency Response Contractor)	632-0615
National Response Center	1-800-424-8802
Bloomfield Fire Department	911
Bloomfield Police Department	911
San Juan County Sheriff's Office	911
New Mexico State Police	911
Local Ambulance Services	911
County Fire Departments	911
Local Emergency Planning Committee (LEPC)	334-1180
Don Cooper	334-4706
State Emergency Response Commission (SERC)	1-505-476-9628
State of New Mexico Oil Conservation Division	334-6178
Environmental Emergencies - State Police 24-hr Dispatch Hotline	1-505-827-9329
Federal On-Scene Coordinator (OSC)	
Don Smith	1-214-664-6489
Hammond Conservancy District	632-3043
BLM Farmington Field Office	599-8900
Navajo Reservoir Superintendent	632-3115
City of Farmington Water Department	326-1918
San Juan Regional Medical Center	325-5011
Radio Station KENN	325-3541
Radio Station KTRA	325-1716
Television Station KOBF	326-1141
Television Station KOAT	326-4883
Weather Service (Albuquerque)	1-505-243-0702

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, October 21, 2010 8:32 AM
To: McDaniel, Vic
Cc: Schmaltz, Randy; VonGonten, Glenn, EMNRD; Perrin, Charlie, EMNRD
Subject: OCD Response to Westnern's "DP Approval Conditions, Supplemental Plans"
Attachments: DP Submittal Conditions 10-21-10.pdf

Mr. McDaniel:

The attached correspondence will go out in the mail to you today.

The OCD requires that Western reply to today's letter by COB, Friday, November 5, 2010.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jim Noel
Cabinet Secretary

Karen W. Garcia
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

October 21, 2010

Mr. Victor McDaniel
Site Manager
Western Refining Southwest, Inc.- Bloomfield Refinery
50 County Road 4990
Bloomfield, New Mexico 87413

Mr. McDaniel:

Re: Western Refining Southwest, Inc. (Western)- Bloomfield Refinery (GW-001) Discharge Permit (Permit) Approval Conditions, Supplemental Plans dated September 28, 2010

The New Mexico Oil Conservation Division (OCD) has reviewed the above correspondence and notices that Western has missed some of the deadlines specified in the Permit by greater than 30 days. In addition, some of the responses in the current responses to the conditions do not satisfy the minimum intent of the Permit. However, OCD has reviewed the submittal and if the operator can adequately address the OCD's reply to each condition within 14 days of receipt of this letter, the OCD may accept a revised submittal?

The OCD review comments, recommendations and requested information on the Permit conditions are:

Condition 9:

The submittal deadline was missed. In general, the proposed action(s) do nothing to determine whether an existing tank is leaking, i.e., pin-hole leak. Therefore, some of the proposed actions are not acceptable to the OCD and either another method to augment the requirements below must be implemented, i.e., Praxair Tank Test Method every 5 years, etc. would be required at a minimum along with the requirements below. The Praxair Tank Test Method is a method used by Navajo Refining to address the OCD Permit requirements.

- **No.2**: Installing a secondary bottom to tanks with questionable bottoms during the API inspection does not address the leak detection requirement of the Permit nor do tanks where a secondary bottom is not installed during the API inspection. A double

bottom should be installed at the time of the API inspection for every tank and/or Western needs to propose a method for satisfying the retrofit provision of the Permit.

- **Nos. 3 and 4**: Compacting soil in earthen secondary containments of any tank size containing chemicals does not address the leak detection requirement of the discharge permit as the soils would still be permeable at this refinery. Western must propose another alternative for ensuring leakage from tanks are contained within the berm area.

- **No. 5**: HDPE would not be the liner choice unless it is at least 60-mil in thickness to overcome the stress cracking nature of this material. LLDPE is preferred by the OCD and may be acceptable at a minimum thickness of 40-mil.

Condition 17.C.1 Closure Plan- North and South Double-Lined Waste Water Evaporation Ponds):

The North and South Double-Lined Waste Water Evaporation Ponds Action Plan submittal deadline was missed.

- Drawings FS4000701M and FS200040-L are apparently referred to as the "As Built" diagrams, but they are typical double lined pond system diagrams. This diagram depicts a typical boot extruder welded through the liner system, but the text in this section indicates that riser pipes are positioned between liners and run up slope to surface. The "As Built" diagram(s) referred to in this section is requested to confirm the actual construction of the pond system. A riser pipe constructed through the liner system would not be disapproved by the OCD, but any fluid detected between the liner system could be caused by leakage where the pipe breaches the liner. OCD prefers that riser pipe designs not breach any liners, but run parallel with the slope to the surface between liners.
- Under "Response Action", Western should state that the OCD notification requirements under the Permit must be met at a minimum.
- Under "Response Action", the "Annex 10" SPCC Plan must be included as an attachment or within the text of the Action Plan to know what actions will be performed to minimize and contain surface impacts.
- Under "Response Action", Page 3: seems to address the 3 foot freeboard requirement of the permit.
- Under "Response Action", Page 3: leaks in ponds are not always manifested by staining on the dike, but could occur through direct leakage at the base of the pond. The Action Plan does not address monitoring of fluids between the liners to determine when there is or may be a release to the environment and release notification. The operator shall revise the plan to indicate any detection of fluid between the deepest positioned liners (above the secondary containment liner preventing a release to the environment) would constitute a notification to the OCD with repair and/or replacement of the liner system as the immediate corrective action within 7 days or a proposed period that is reasonable after having knowledge of the above.

Condition 17.C.2 (Closure Plan- North and South Aeration Lagoons):

The North and South Aeration Lagoons Action Plan submittal deadline was missed.

- Sump Riser Pipes appear to breach liner layers to be positioned above the third liner downward. This could cause leakage if diagram is accurate. OCD prefers that riser pipe designs not breach any liners, but run parallel with the slope to the surface between liners, which Figure 4 seems to indicate, but does not appear to be an "As Built" diagram.. A riser pipe constructed through the liner system would not be disapproved by the OCD, but any fluid detected between the liner system could be caused by leakage where the pipe breaches the liner.
- Under "Monitoring and Discovery" Page 2 Last Paragraph: The Action Plan does not address monitoring of fluids between the liners to determine when there is or may be release to the environment and with release notification under the Permit. The operator shall revise the plan to indicate any detection of fluid between the deepest positioned liners (above the secondary containment liner preventing a release to the environment) would constitute a notification to the OCD with repair and/or replacement of the liner system as the immediate corrective action within 7 days or a proposed period that is reasonable after having knowledge of the above.
- Under "Response Action" Page 3: Same as the bullet item above. Also, the "Annex 10" SPCC Plan should be attached or included in the text of the plan to minimize and contain surface impacts.
- Under "Response Action" Page 3 Last Paragraph: Western shall include notification to the OCD under the Permit when any fluid is detected above the liner preventing a release to the environment.

Condition 17.G (Emergency River Contingency Plan):

The Emergency River Contingency Plan submittal deadline was missed.

- Western shall attach a copy of the referenced "Emergency River Contingency Plan" in the next submittal.
- OCD's with plans developed for the Federal Government and/or other state and local agencies is that they do not completely address the Permit conditions, but operators would like to substitute them or use them to address the Permit. OCD may accept the "Emergency River Contingency Plan" with a statement by Western that it will also meet the conditions of the Permit.

Condition 24 (Closure Plan and Financial Assurance):

- This submittal is due by COB on Wednesday, Novemember 24, 2010.

Please contact me if you have questions. Thank you.

Sincerely,

Carl J. Chávez
Environmental Engineer

CC: Glenn von Gonten
OCD Aztec Office

File: OCD Online File "General Correspondence"

RECEIVED OCD

2010 OCT -4 P 1:21

CERTIFIED MAIL # 7007 0220 0004 0187 1340

September 28, 2010

Carl Chavez
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Discharge Permit (GW-001)
Western Refining Southwest, Inc.-Bloomfield Refinery
Discharge Permit Approval Conditions, Supplemental Plans

Dear Mr. Chavez:

Please find enclosed Western Refining Southwest, Inc. - Bloomfield Refinery's (Western) Supplemental plans as required to address the Discharge Permit Approval Conditions.

Condition 9

Above Ground Tanks: *The owner/operator shall ensure that all above ground tanks have impermeable secondary containment (e.g., liners and berms) with leak detection systems. The owner/operator shall retrofit all existing secondary containment(s) before this discharge plan permit expires. The owner/operator may propose an alternate plan or schedule to accomplish the above to the OCD within 3 months of permit (see last paragraph in this section below).*

Response to Condition 9

Alternate Plan: Western proposes the following plan for accomplishing impermeable secondary containment on existing above ground liquid storage tanks:

1. All large liquid storage tanks (> 10,000 gallons) will be gauged, and recorded twice per day, once per shift. The tank gauging will alert Western immediately to any possible liquid storage tank failures.
2. Western will install secondary bottoms with leak detection on tanks found through the API 653 Inspection program, that have floors that are no longer serviceable. The current Tank – Inspection and Repair Schedule spreadsheet that is used to comply with the OCD Stipulated Final Order is included as (Attachment A).
3. Western will compact soil in the earthen secondary containments at the time of tank inspections.
4. Western will compact soil in the earthen secondary containment of the smaller sized liquid storage tanks less than 10,000 gallons.

50 County Road 4990, Bloomfield, New Mexico 87413 • 505 632-4101 • www.wnr.com

5. All new liquid storage tanks will be constructed with an impermeable pad (40-mil/or greater HDPE or LLDPE) or liner system within a bermed secondary containment area approved by the OCD.

Condition 17.C.1.

North and South Double-Lined Waste water Evaporation Ponds*: The operator shall also maintain an Action Plan with a system design diagram with leak detection system(s) that will confirm leakage or system failure, and list corrective actions for remedying any discharge(s) from the ponds in order to protect public health and the environment. A copy of the Action Plan shall be submitted to the OCD within 3 months of permit issuance. OCD shall be notified within 24 hours any time the plan is implemented.*

Response to Condition 17.C.1.

North and South Evaporation Pond Action Plan: The Action Plan is included as (Attachment B).

Condition 17.C.2.

North and South Aeration Lagoons: *The operator shall also maintain an Action Plan with a system design diagram with leak detection system(s) that will confirm leakage or system failure, and list corrective actions for remedying any discharge(s) from the ponds in order to protect public health and the environment. A copy of the Action Plan shall be submitted to the OCD within 3 months of permit issuance. OCD shall be notified within 24 hours any time the plan is implemented.*

Response to Condition 17.C.2.

North and South Aeration Lagoons Action Plan: The Action Plan is included as (Attachment C).

Condition 17.G.

Emergency River Contingency Plan: *An emergency river contingency plan with corrective action steps shall be developed submitted to OCD within 3 months of permit issuance with annual environmental response training of appropriate refinery emergency personnel with coordination with the Local Emergency Planning Committee (LEPC) in the event of a release of pollutants from the bluff (residual oil seeps) and to "Waters of the State." Personnel shall be trained in corrective actions annually to respond quickly and safely to any release to "Waters of the State" from the facility and for the protection of nearby public health, safety and the environment. The Operator shall have adequate emergency personnel, response equipment (i.e., sufficient number and size of booms with at least one set of replacements based on chemicals of concern), anchor points along the river, watercraft, etc. to contain and remediate any discharges to the river.*

Response to Condition 17.G.

Emergency River Contingency Plan: The Emergency River Contingency Plan has been developed and is maintained at the refinery main office and is available at anytime for agency inspection.

Condition 24

***Closure Plan and Financial Assurance**: Pursuant to 20.6.2.3107 NMAC an owner/operator shall notify the OCD when any operations of the facility are to be discontinued for a period in excess of six months. Prior to closure, or as a condition of this permit, or request from the OCD, the operator shall submit an approved closure plan, or modify an existing plan, and/or provide adequate financial assurance. Provide an itemized closure plan with cost estimates outlining the complete closure or decommissioning of the facility with 30 year remediation and post monitoring period to the OCD for approval within 6 months of permit issuance.*

Response to Condition 24

Closure Plan and Financial Assurance: The Closure Plan will be addressed within 6 months of permit issuance.

Should you have questions or would like to discuss these comments further, please contact Randy Schmaltz at (505) 632-4171.

Sincerely,

Victor McDaniel
Site Manager
Bloomfield Refinery

cc: Randy Schmaltz – Western Refining-Bloomfield Refinery

ATTACHMENT A

BLOOMFIELD REFINERY — TANKS - Inspection & Repair Schedule (*schedule set according to API 650 & 653)

Tank #	Service	Normal Capacity (bbls)	Last Test/ Inspection	Test/ Inspection Method	Next Test/ Inspection Scheduled	Date OCD-SFO Requirements Satisfied	Test/ Inspection Date	Repairs/Maint Needed	Repairs/Maint Completion Date
2	FILTERED WATER	64,347	2000	Internal	2010	2010	3/30/2000	Cleaned Out Sediment	3/28/2000
3	MID-GRADE	9,365	2003	Internal	2013	2013	10/1/2003	Seal Replacement	10/8/2003
4	MID-GRADE	9,365	2003	Internal	2013	2013	9/17/2003	Seal Replacement	9/24/2003
5	WASTE WATER SURGE	9096	2007	Internal	2017	2007	5/28/2008	None	N/A
8	CRUDE SLOP	460	2007	Internal	2017	2007	6/7/2007	None	N/A
9	CRUDE SLOP	460	2007	External (Conrete Liner)	2017	2007	11/10/07	None	N/A
10	SPENT CAUSTIC	360	2007	Internal	2017	2007	8/24/2007	Repaired Hatch & Floor	8/22/2007
11	LOW REFORMATE	50,358	2002	Internal	2012	2012	9/11/2002	Seal Replacement	9/18/2002
12	CAT / POLY GAS	50,358	1999	Internal	2010	2010	10/28/1999	Seal Replacement	11/12/1999
13	UNLEAD SALES	27,646	2008	Internal	2018	2008	2/20/2008	Seal Repair	2/28/2008
14	UNLEAD SALES	27,615	2005	Internal	2015	2005	9/21/2005	None	N/A
17	CAT FEED	38403	2007	Internal	2017	2007	7/8/2007	Floor Repair	7/29/2007
18	#1 DIESEL SALES	50358	1999	Internal	2010	2010	8/1/1999	Seal Replacement & Floor Repair	8/1/1999
19	#2 DIESEL SALES	34991	2000	Internal	2010	2010	06/22/00	Roof Replacement	6/20/2000
20	NAPHTHA	10000	2007	Internal	2017	2007	10/29/07	New Construction	N/A
23	BASE GASOLINE	38,402	2002	Internal	2012	2012	08/12/02	Seal Repair	8/11/2002
24	ULS DIESEL	10107	2006	Internal	2016	2006	03/01/06	New Construction	N/A
25	ULS DIESEL	10107	2006	Internal	2016	2006	02/06/06	New Construction	N/A
26	SWEET NAPHTHA	3,264	2008	Praxair	2018	2008	05/29/08	None	N/A
27	HEAVY BURNER FUEL	9,854	2006	Internal	2016	2006	08/31/06	Floor Repair	8/21/2006
28	CRUDE	77,854	2009	Internal	2019	2009	11/09/09	None	N/A
29	#2 DIESEL/FCC SLOP	16,676	2005	Internal	2015	2005	04/25/05	Repair Auto Gauge & Install Sample Port	4/23/2005
30	PREMIUM UNLEAD BLEND	16,676	2004	Internal	2014	2004	12/20/04	Repair Seal & Pontoon	12/19/2004
31	CRUDE	98,676	2003	Internal	2013	2013	01/09/03	Repair Roof Drain	1/8/2003
32	PREMIUM UNLEAD SALES	17,913	1999	Internal/UTS*	2019	2009	04/01/09	None	N/A
33	RECOVERY WELL WATER	360	2008	Internal	2018	2008	04/09/08	None	N/A
34	INJECTION WELL RESERVIOR	360	2002	Internal	2012	2012	11/20/02	Repair Pinhole	1/20/2002
35	REFORMER FEED	43904	2005	Internal	2015	2005	08/29/05	Repair Seal & Recoat Roof	8/28/2008
36	CAT / POLY GAS	43904	2005	Internal	2015	2005	08/24/05	None	N/A
37	FRENCH DRAIN	121	2009	Internal/UTS*	2019	2009	06/11/09	None	N/A
38	EAST OUTFALL	302	2003	Internal	2013	2013	04/09/08	None	N/A
41	CRUDE STORAGE	2798	2008	Praxair	2018	2008	05/29/08	None	N/A
42A	TERMINALS SLOP	400	2007	API 650	2017	2007	06/01/07	New Construction	N/A
42B	TERMINALS SLOP	400	2007	API 650	2017	2007	06/01/07	New Construction	N/A
43	TERMINALS SLOP	560	O/S	O/S	O/S	O/S	O/S	Out of Service	O/S
44	VRU NAPHTHA	1,751	2008	Praxair	2018	2008	05/29/08	None	N/A
45	ETHANOL	4821	2008	Internal	2018	2008	02/20/08	None	N/A

* UTS = Utransonic Thickness Survey

ATTACHMENT B

Purpose and Scope

This action plan describes procedures and actions that are implemented during normal operations as well as response actions that will be implemented in the event of a discovered leak to the environment from either the North or South Evaporation Pond.

Background

The refinery is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is more specifically located approximately 1/2 mile east of State Route 44 on County Road 4990 (a.k.a. Sullivan Road).

The refinery is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace is approximately 100 feet above the river level and 20 feet above the irrigation ditch. The North and South Evaporation Ponds are located in the southeastern most corner of the active portion of the refinery property (see attached site map).

The essential function of the North and South Evaporation Ponds is temporary storage and evaporation of treated used process water. The water is generated at various refinery units, storage tanks, utility systems, and maintenance activities. This used process water is rendered non-hazardous as it flows through the API Separator (solids, sludge, and floating scum are removed), the Benzene Strippers (benzene is removed), and the three lined aeration lagoons (active biological treatment) before reaching either the evaporation ponds or the Class I injection well. Typically, the water is routinely pumped directly from the refinery aeration lagoons to the Class I injection well, thereby bypassing the evaporation ponds. Water levels in the ponds are directly proportional to the operation of the refinery and scheduled maintenance of the injection well.

The ponds were constructed in 1995 as double lined (60-millimeter high density polyethylene) surface impoundments with each pond covering approximately 4.5 acres. The leak detection system in each pond consists of an arrangement of 4" perforated PVC pipe placed between the first and second liners collecting and directing leaks to two separate 8" leak detection wells (see attached as-built diagrams).

Monitoring and Discovery

Using an inter-face probe, depth-to-fluid measurements are collected and recorded at each of the leak detection wells on a bi-weekly basis.

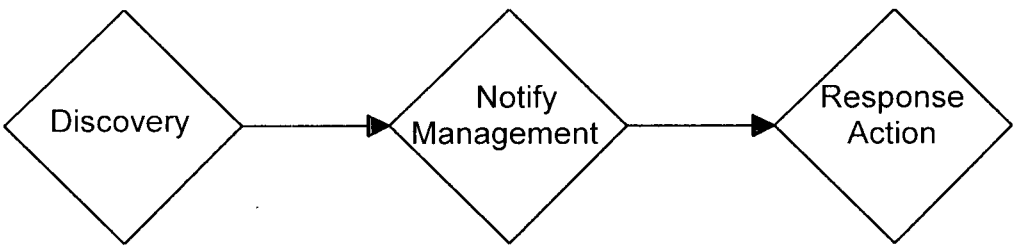
The refinery is staffed 24 hours per day, 365 days per year. A Shift Supervisor, or designated representative, is always on duty at the refinery. Visual inspection of the freeboard, dikes, and operation of the evaporation ponds occurs daily. Visual inspection of the area surrounding the evaporation ponds, including the face of each pond dike, is conducted bi-weekly.

The design and construction of the ponds allows for confirmed determination of a leak through visual inspections of the dikes and surrounding area. Water appearing on the face of the dikes could indicate that the second liner is leaking. As shown on the attached Evaporation Pond Elevation Drawing, the dike surface extends approximately 11 feet below the bottom of the South Evaporation Pond liner. It is anticipated that any leak to groundwater from the South Evaporation Pond would appear on the face of the South Pond dike surface. Similarly, the North Pond dike surface extends below the bottom of the North Pond liner and any leak to groundwater from that pond would be visually apparent along the face of the dike.

The discovery of fluids along the face of either dike will result in notification to the Shift Supervisor and/or Environmental Manager to determine an appropriate response action.

If a visual leak from any one of the Evaporation Ponds is discovered, the employee shall immediately perform the following actions.

1. Note the nature and location of the discharge/leak.
2. Notify the on-duty Shift Supervisor and/or the Environmental Manager
3. Response action will then be determined.



The on-duty Shift Supervisor is the central point of contact in the discovery of a discharge/leak.

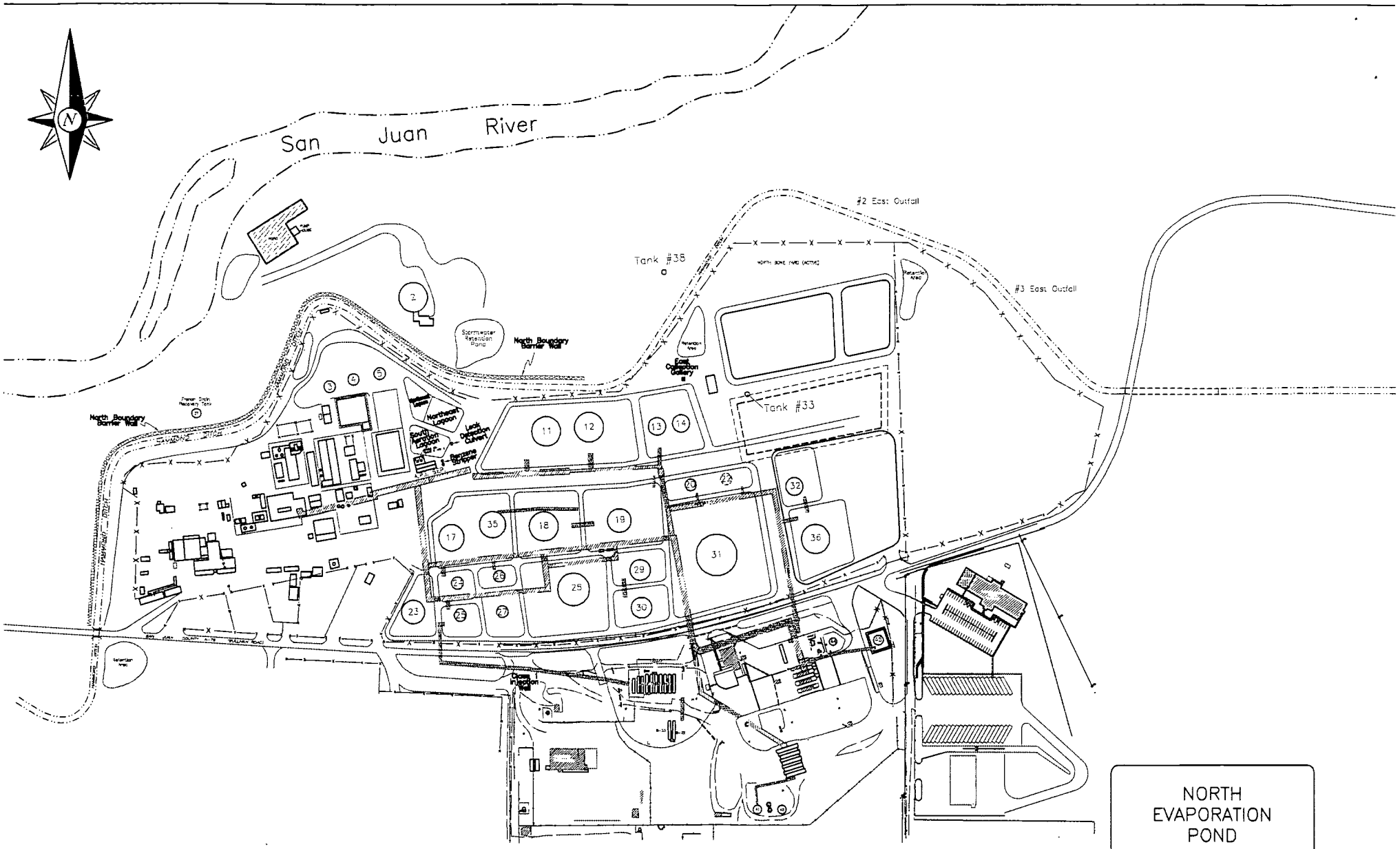
Response Action

In the event that there is an indication of a release to the environment from the Evaporation Ponds via a surface overflow or the discovery of fluids along the face of either dike, OCD will be notified and this Action Plan will be implemented via the appropriate response action(s).

In the event of an evaporation pond surface overflow... guidelines from Annex 10 (Spill Prevention Control and Countermeasures Plan) of the Integrated Contingency Plan for the Refinery will be followed. A copy of this Plan is maintained on-site and includes actions to be performed to minimize and contain surface impacts.

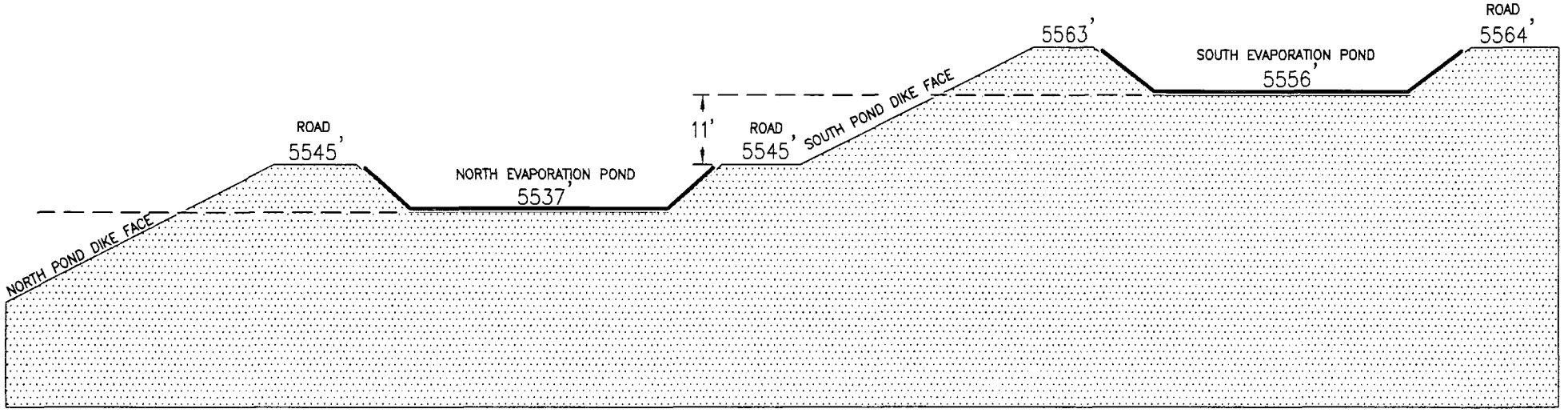
Water will be diverted from the affected pond and the fluid level in the over-filled pond will be lowered using a pump and/or vacuum truck. The pond will not be placed back into service until the fluid level is lowered below the minimum 3-foot freeboard level.

In the event fluid appears on the face of the dike and is confirmed to be used process water ....the affected evaporation pond will be bypassed and the water process stream will be diverted. All fluids from the leaking evaporation pond will be pumped out so the liner can be inspected and repaired. The pond will not be returned to service until repairs are completed.



Western Refining
WESTERN REFINING SOUTHWEST

Date: 9-29-10	Site Plan Evaporation Pond Location
Scale: As Shown	
Drawn: TAG	

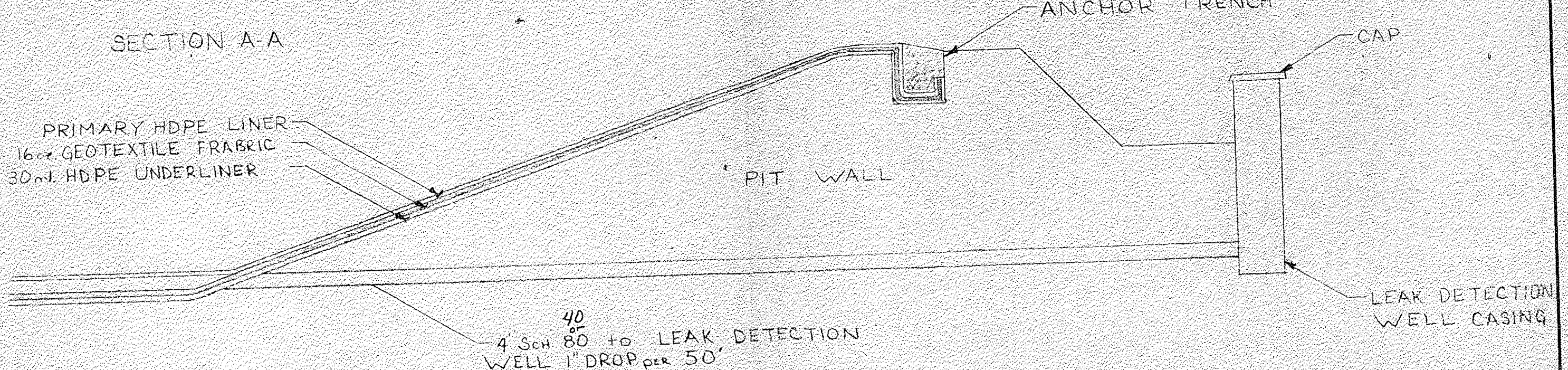


NOTE:
ELEVATIONS GIVEN ARE IN FEET ABOVE SEA LEVEL ROUNDED TO THE NEAREST FOOT.

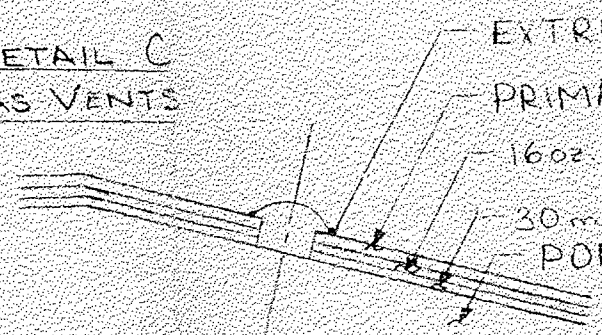
Western Refining
WESTERN REFINING SOUTHWEST

Date: 9-29-10	Evaporation Pond Elevation Diagram
Scale: NTS	
Drawn: TAG	

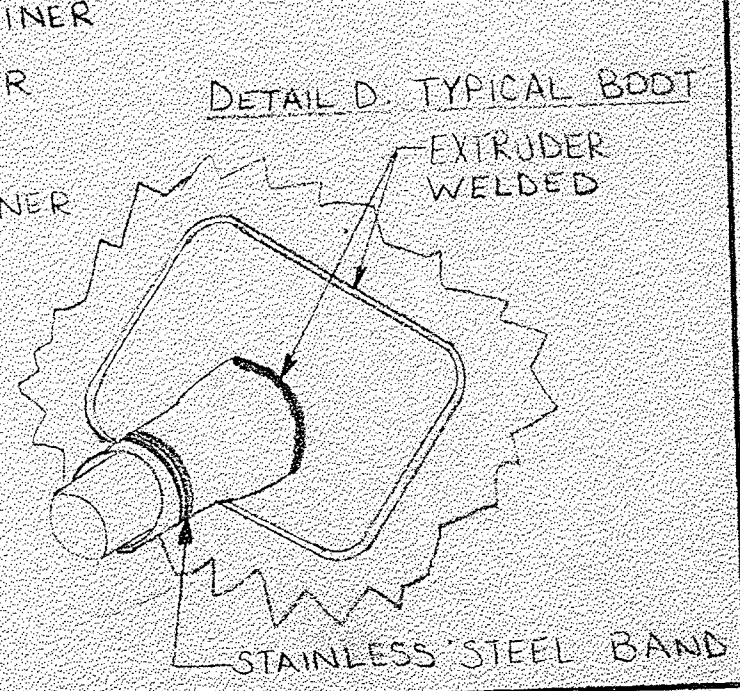
SECTION A-A

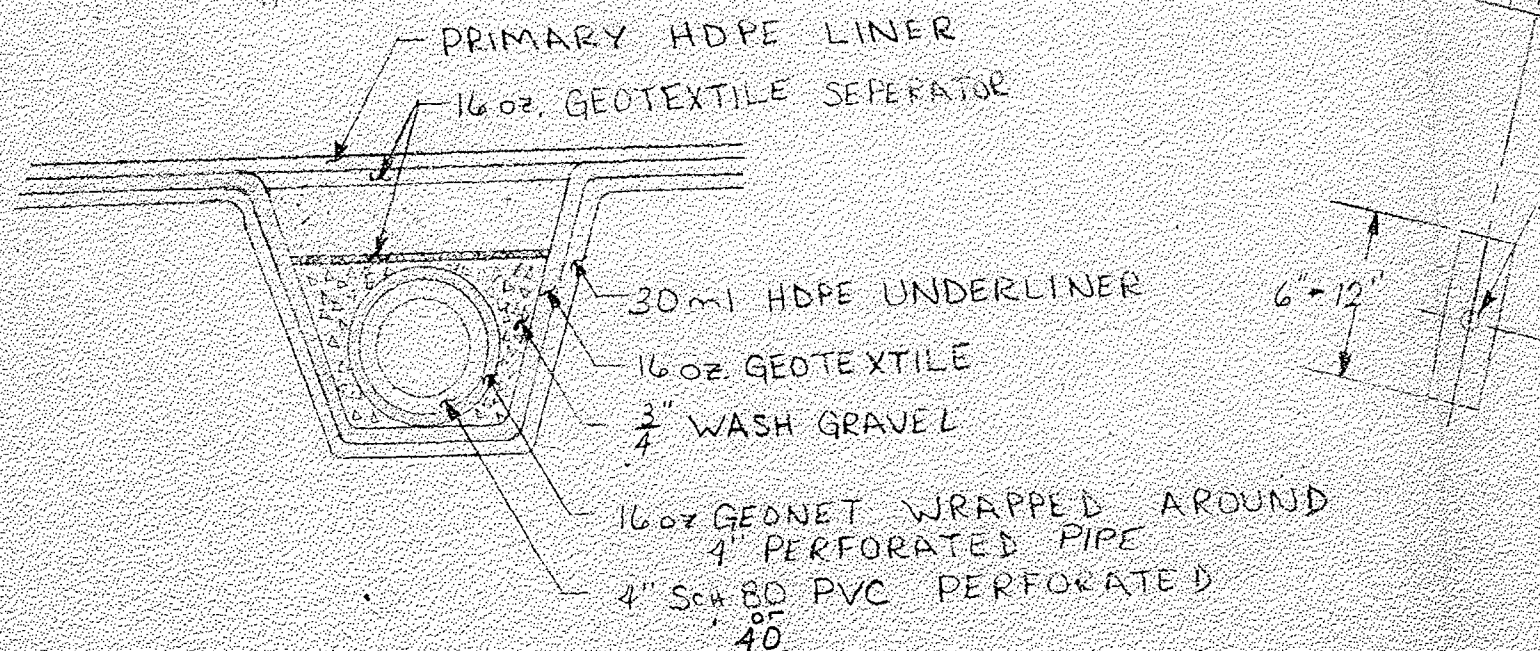


DETAIL C
GAS VENTS



DETAIL D. TYPICAL BOOT





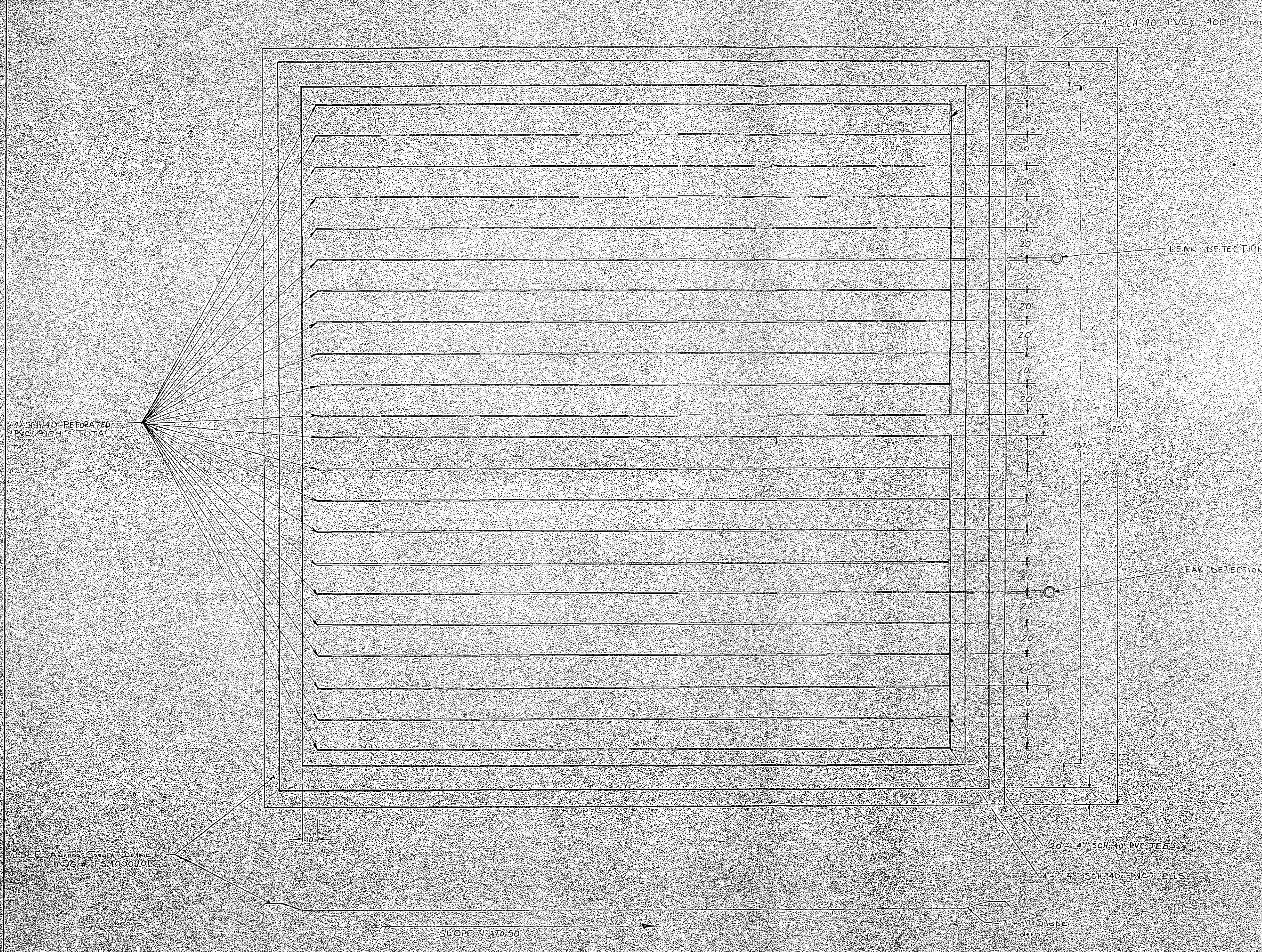
SECTION B-B
END VIEW OF LEAK DETECTION SYSTEM

FALCON SALES & SERVICE CO., INC.

SCALE: NONE	APPROVED BY	DRAWN BY KB
DATE: JAN 19, 1987		

TYPICAL DOUBLELINED HIGH DENSITY POLYETHYLENE LINER

DRAWING NUMBER FS4000701M



FALCON SALES & SERVICE CO., INC.

SCALE 1" = 30'	APPROVED BY	DRAWN BY: JKP
DATE 5-20-89		

TYPICAL 5 ACRE POND WITH

N.M. REG. LEAK DETECTION — DRAWING NUMBER FS2000D-L

ATTACHMENT C

Purpose and Scope

This Action Plan describes procedures and actions that are implemented during normal operations as well as response actions that will be implemented in the event of a discovered leak to the environment from one of the Aeration Lagoons.

Background

The refinery is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is more specifically located approximately 1/2 mile east of US HWY 550/SR 44 on County Road 4990 (a.k.a. Sullivan Road).

The refinery is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace rises approximately 100 feet above the river level and 20 feet above the irrigation ditch. An underground slurry wall (North Barrier Boundary Wall) with Tank #37 groundwater collection system is situated north of the Hammond Irrigation Ditch (see attached site plan). This collection system serves as a total fluids collection system for the western portion of the refinery which includes the area surrounding the aeration lagoons.

The essential function of the North and South Aeration Lagoons is aggressive biological treatment (ABT) of used process water. The water is generated at various refinery units, storage tanks, utility systems, and maintenance activities. This water is collected in a segregated sewer system located throughout the refinery units and tankage areas. Used process water flows to the API Separator where solids, sludge, and floating scum are removed. API Separator effluent is then pumped through the Benzene Strippers and then flows onward through a series of three lined aeration lagoons. Water is then either evaporated at the evaporation ponds or injected underground at the Class I injection well.

In 1974, the aeration lagoons were constructed with bentonite-treated bottoms for fresh water holding. After the initiation of the Clean Water Act (40CFR Part 419), the ponds were converted to manage API Separator water as a secondary biological treatment of the water. In 1982/83 the first clean out of these biological treatment oily water ponds occurred and a liner and leachate system was installed that consisted of a 33% bentonite composite liner equipped with a French drain system, with a 100-ml high density polyethylene (HDPE) liner on top. Around 1990, the lagoons were upgraded and retrofitted with two additional liners and a leak detection/leachate collection system over and above the cleaned 1982/83 system. In 2007, a benzene stripper/tank system was constructed and put into service to treat all water prior to entering the first aeration lagoon. After the installation of the benzene strippers and throughout the fourth quarter of 2008 and the first quarter of 2009, the lagoons were cleaned out and each lagoon's primary liner was inspected and repaired at that time.

The Aeration Lagoons from top to bottom, include a 100-mil HDPE top liner, a geonet for collecting leaks to a sump equipped with a 6" observation pipe, a 60-ml HDPE

secondary liner, a composite geotextile/geonet with a 4" observation pipe, a cement amended sand that was compacted into a 1.5% slope, a 100-ml HDPE liner, a French drain system which directs any collected fluids to a central sump, and a 6" layer of soil with 33% bentonite mixed into it.

The South Lagoon (#1 AL) averages 4.4 feet in depth and has a surface area of about 6,652 square feet. The total volume is approximately 216,000 gallons. At a flow rate of 80 gpm, the holding time in the pond is 1.9 days. This lagoon is equipped with two, 5 horsepower aspirating aerators sized to prevent F037/F038 waste generation.

The Northwest Lagoon (#2 AL) averages 5.5 feet in depth with a surface area of 10,000 square feet. This lagoon is equipped with two 2-horsepower aerators and water retention time (at 80 gpm) is 3.6 days. The Northeast Lagoon (#3 AL) averages 5.7 feet in depth, with a surface area of 8,440 square feet and a volume of approximately 360,000 gallons. This lagoon is equipped with two 2-horsepower aerators and wastewater retention time (at 80 gpm) of 3.1 days.

Leak Detection System

Each of the three Aeration Lagoons is constructed with 4 impermeable liners that are equipped with a three-tier leak detection system that allows for fluids monitoring between each of the lagoon liners and can provide confirmation of a leak before a discharge to groundwater. Each lagoon has a 6" detection tube placed between the primary and secondary liner as well as a 4" detection tube placed between the second and third liner. Below the third liner of each pond is a French drain system that empties to a single culvert located just east of the South Aeration Lagoon. Below the French drain is a layer of composite soil consisting of 33% bentonite (see attached as-built drawing).

Monitoring and Discovery

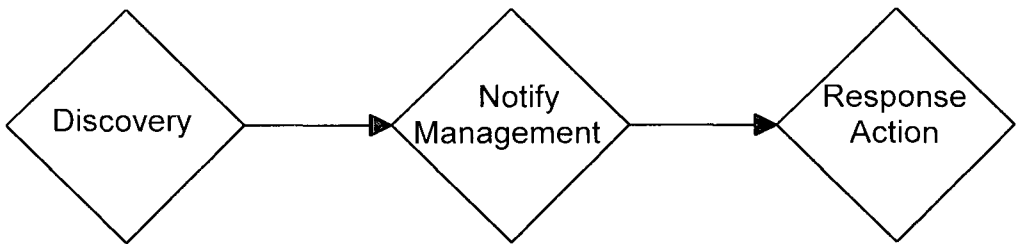
The leak detection tube system is measured with an inter-face probe on a bi-weekly basis. Visual inspection of the east leak detection culvert, which houses the outlet of the French drain located beneath the bottom liner, also occurs bi-weekly. Visual inspection of the freeboard and operation of the aeration lagoons occurs daily. The refinery is staffed 24 hours per day, 365 days per year. A Shift Supervisor, or designated representative, is always on duty at the refinery.

Baseline detection levels were established after the 2009 aeration lagoon cleanout and liner repair. Depth-to-fluid levels of less than 9 feet in either the 6" and 4" detection tubes of the #1 AL indicate a potential leak in the liner. The baseline level for the #2 AL was established as 18.5 feet in the 6" tube and dry in the 4" tube. Both detection tubes are dry in the #3 AL. If fluid is detected at a level less than 9 feet below the top of any leak detection tube, the Shift Supervisor and/or Environmental Manager is notified. To ensure the potential leak does not extend below the third protective liner, fluids may be removed from the 6-inch and/or 4-inch leak detection tube using a vacuum truck and/or diaphragm pump.

The discovery of fluids from the French drain system via the leak detection culvert and supporting data of depth-to-fluid levels in the detection tubes will result in notification to the Environmental Manager to determine appropriate response action.

If a leak or discharge from any one of the Aeration Lagoons is discovered, the employee shall immediately perform the following actions.

1. Note the nature and location of the discharge/leak.
2. Notify the on-duty Shift Supervisor and/or the Environmental Manager
3. Response action will then be determined.



The on-duty Shift Supervisor is the central point of contact in the discovery of a discharge/leak.

Response Action

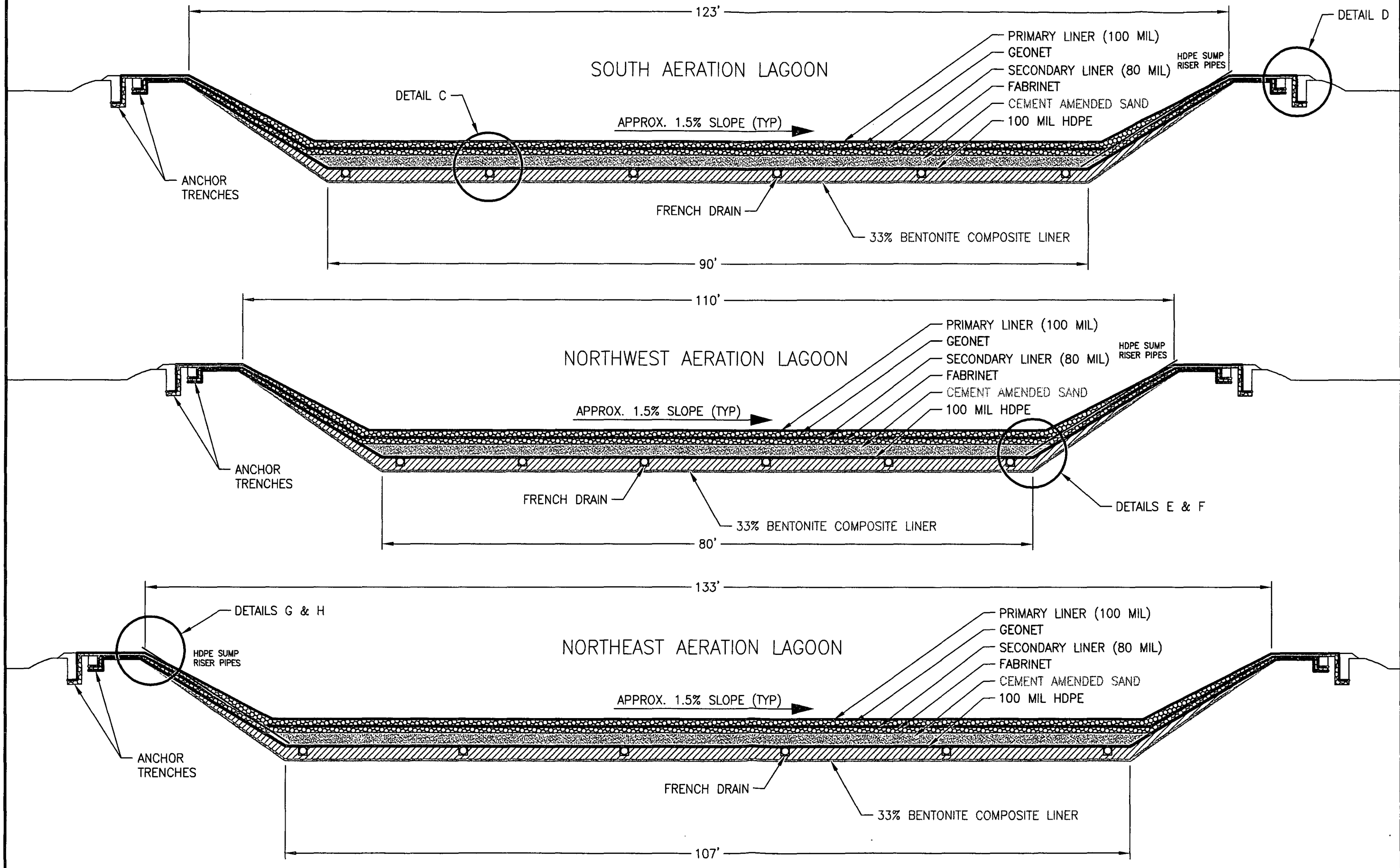
In the event that there is an indication of a release to the environment from the Aeration Lagoons via a surface overflow or measurable fluid detection below the third liner of either pond via the leak detection culvert, OCD will be notified and this Action Plan will be implemented via the appropriate response action(s).

In the event of an aeration lagoon surface overflow... guidelines from Annex 10 (Spill Prevention Control and Countermeasures Plan) of the Integrated Contingency Plan for the Refinery will be followed. A copy of this Plan is maintained on-site and includes actions to be performed to minimize and contain surface impacts. Used process water from the API will be diverted to Tank 5 for temporary storage, thereby ceasing further discharge to the aeration lagoons. The fluid level in the over-filled pond will be lowered using a pump and/or vacuum truck. The pond will not be placed back into service until the fluid level is lowered below the minimum 3-foot freeboard level. Once the aeration ponds can be returned to normal operating service, fluid diverted to Tank 5 will be pumped back to the API for treatment.

In the event fluid is detected below the third pond liner via the French Drain System and leak detection culvert....the affected aeration lagoon will be bypassed and the water process will discharge sequentially into the other two aeration lagoons. All fluids from the leaking aeration lagoon will be pumped out so the liner

can be inspected and repaired. The lagoon will not be returned to service until the repairs are completed.

Any fluid release from the aeration lagoon ponds via a leak from the bottom pond liner is ultimately captured by the North Boundary Barrier Collection System. All fluid below the Refinery process units, which includes the area surrounding the Aeration Lagoons, is hydraulically contained on-site via the 2,700 foot long North Boundary Barrier Wall. Hydraulic relief along the barrier wall is controlled via a French drain system located below the Hammond Ditch which discharges into the Tank #37 groundwater collection system. All fluids from Tank #37 are pumped to the API Separator for treatment.



ERM-Rocky Mountain, Inc.
5950 South Willow Drive
Suite 200
Greenwood Villiage, Colorado 80111-8144
(303)-741-8050
ERM

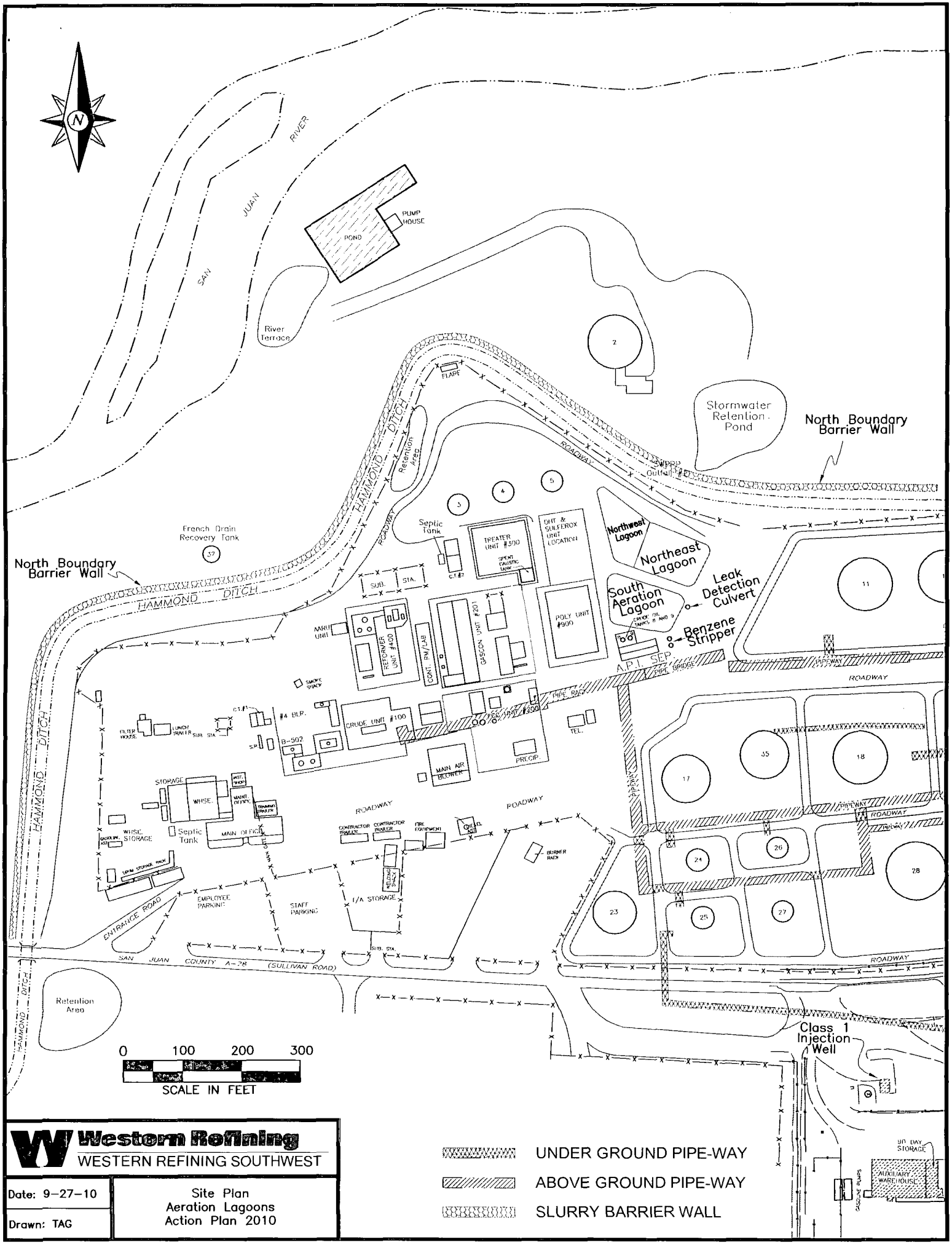
BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

CROSS-SECTIONAL VIEW

RECORD DRAWING FOR COMPLETED SURFACE IMPOUNDMENT RETROFIT

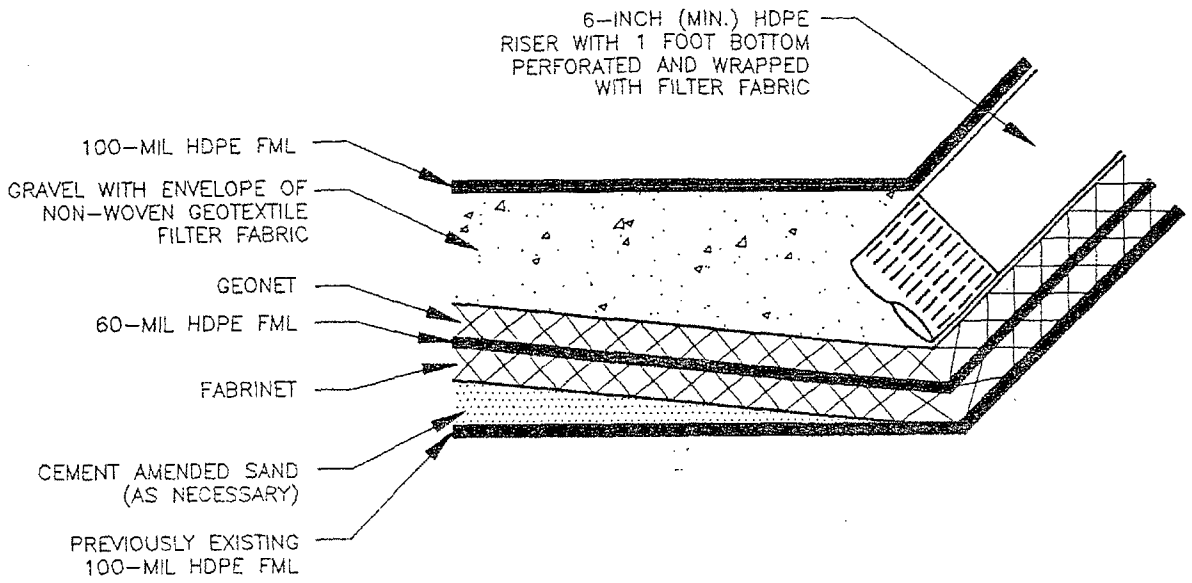
DESIGNED	BLOOMFIELD
DRAWN	SRL
CHECKED	
DATE	09/23/94
JOB NO.	931044.0
FILENAME	FIG-2

FIGURE
2

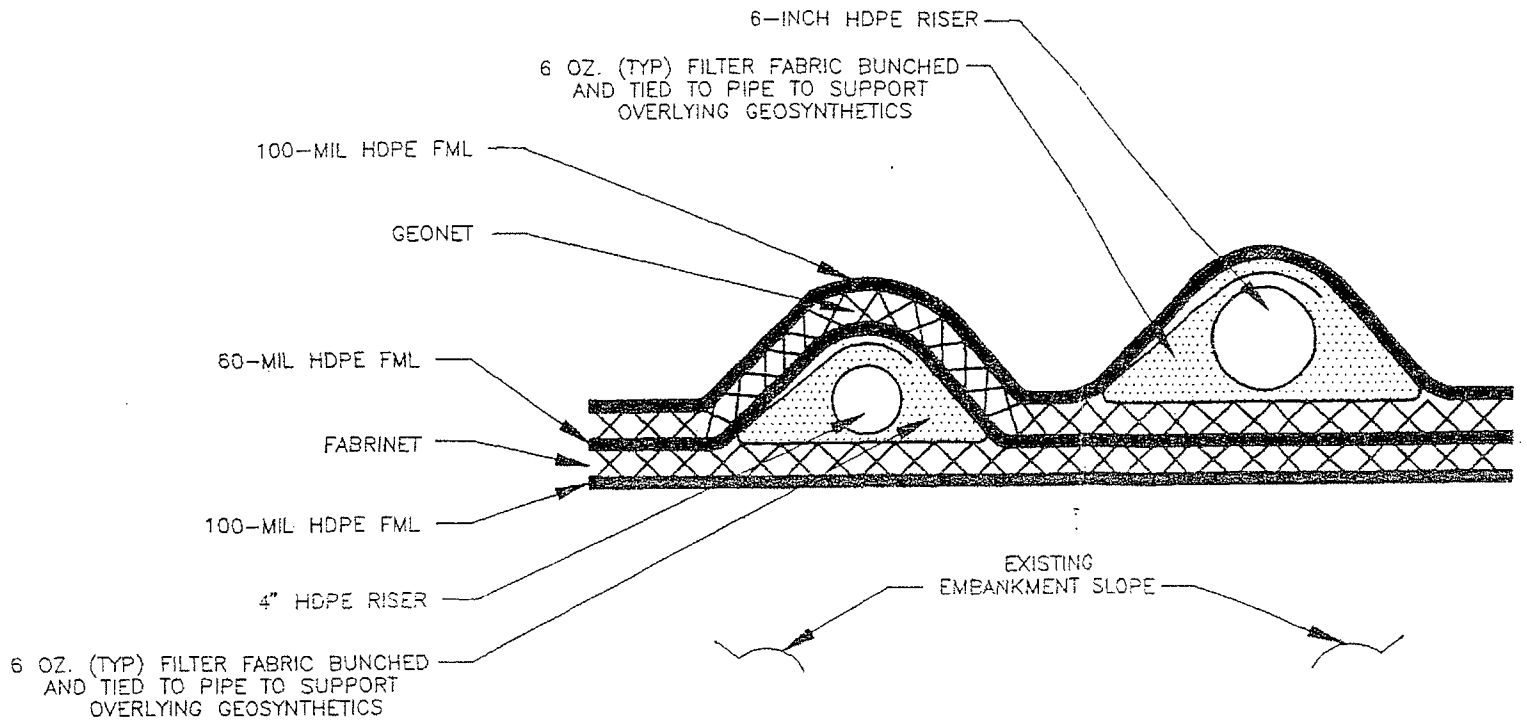


Western Refining
WESTERN REFINING SOUTHWEST

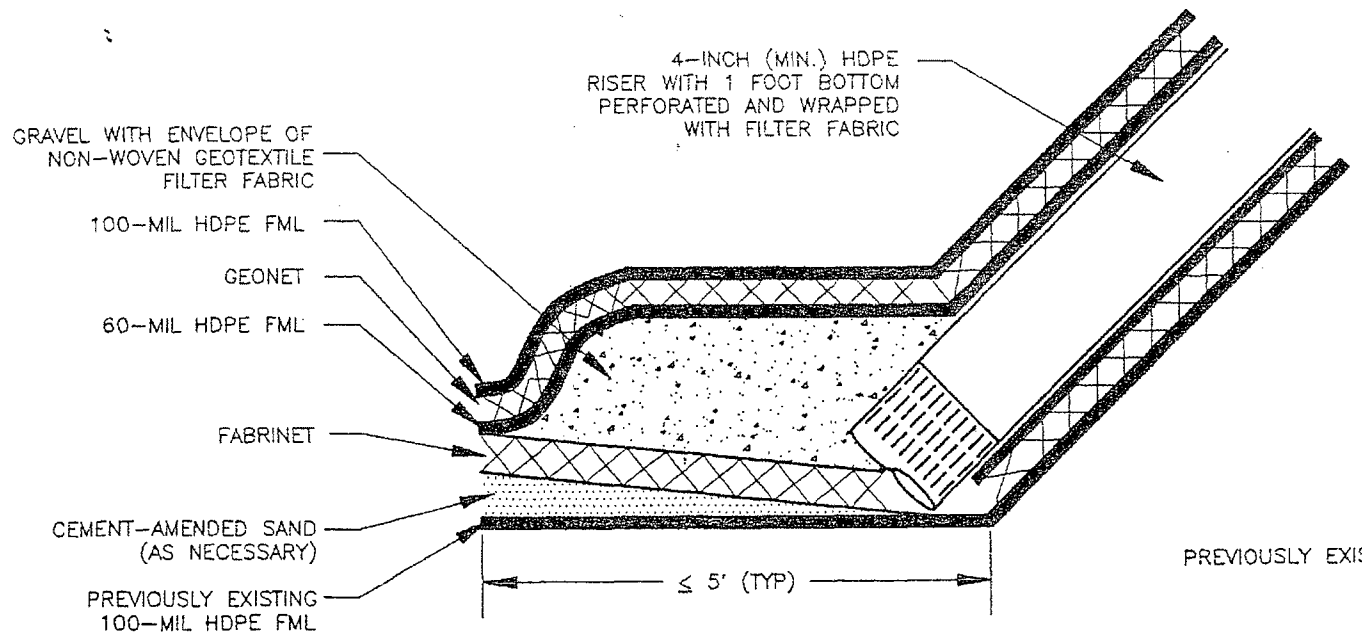
Date: 9–27–10	Site Plan Aeration Lagoons Action Plan 2010
Drawn: TAG	



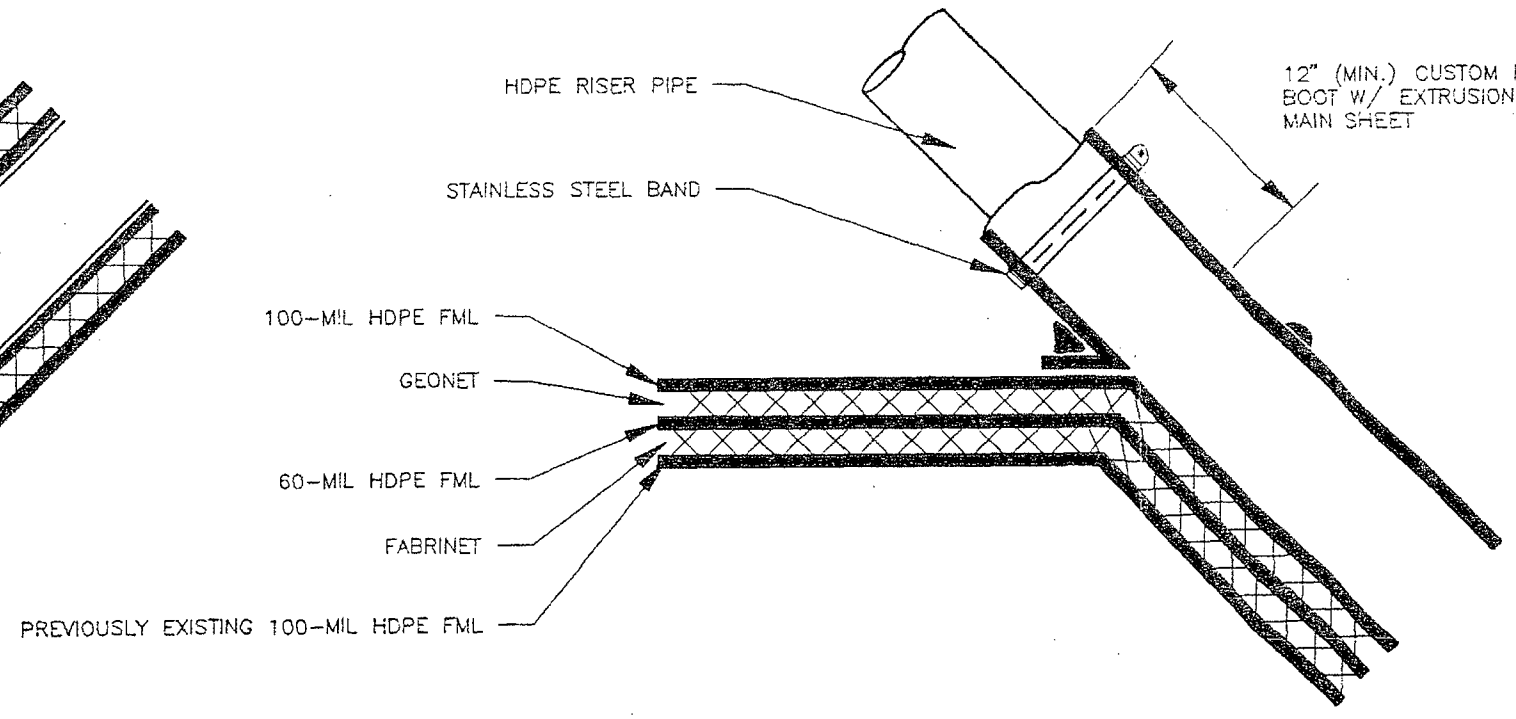
PRIMARY LEAK DETECTION SUMP DETAIL
DETAIL E (TYP)
(N.T.S.)



RISER PIPE CONFIGURATION
DETAIL G (TYP)
(N.T.S.)



SECONDARY LEAK DETECTION SUMP DETAIL
DETAIL F (TYP)
(N.T.S.)



RISER PIPE LINER BOOT
DETAIL H (TYP)
(N.T.S.)

REV	REVISION DESCRIPTION	DATE

ERM-Rocky Mountain, Inc.
8990 Smith Willow Drive
Suite 210
Greenwood Village, Colorado 80111-5144
(303) 741-2000

BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

SYSTEM DETAILS
RECORD DRAWING FOR COMPLETED
SURFACE IMPOUNDMENT RETROFIT

DESIGNED	BLOOMFIELD	
DRAWN	SRL	09/23/94
CHECKED		931044.0
DATE		FIG-4
JOB NO.		
FILENAME		

FIGURE
4

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, September 24, 2010 9:54 AM
To: Hill, Larry, EMNRD; Dade, Randy, EMNRD; Perrin, Charlie, EMNRD
Cc: VonGonten, Glenn, EMNRD
Subject: Refinery Meetings in Santa Fe October 6, 2010

Hey guys.

Just wanted to let you know OCD- SF is meeting with Navajo Refining Company (NRC) and Western Refining SW, Inc. (Western) on the above subject date in case you would like to participate by telephone conference. OCD- SF will go over the discharge permit with operators to make sure we are moving forward to address the permit. OCD- SF is under travel restriction; thus, meetings to discuss facility issues makes sense at this time.

The meetings are as follows:

1) NRC from 10 to Noon: Lovington or Lea Refinery- GW-014 (particularly interested in the environmental site investigation and GW quality information from the recently installed series of MWs) at the facility within Lovington's Well Head Protection Area.

   An agenda item for the NRC- Artesia Refinery (GW-028) is included in this meeting, but another meeting to discuss the permit in more detail will likely be scheduled at a later date. Some current issues are: free-product recovery system is down and a work plan will be submitted by 11/2010 to construct a functional system for product recovery. Issues with the effluent line east of the facility, across Pecos River and to their 3 UIC Class I (NH) disposal wells. Randy Dade will be inspecting the line, recent releases with repair, hydrostatic testing requirements, and requesting a work plan for complete replacement of the effluent line by March of 2011. The Artesia refinery was assessed a fine by NM OSHA for over $700K for the March 2010 tank explosion that resulted in loss of life of 2 workers from TX.

2) Western from 1 to 3 p.m.: Gallup Refinery- GW-028 (particularly interested in the tank construction, waste water pond construction and any permit deadlines). Facility-Wide GW Monitoring Plan will replace the GW sampling portion of the permit in the upcoming renewal of the discharge permit. The refinery is installing a new waste water treatment system for the refinery under an EPA CAFO.

A request for a meeting on Western's Bloomfield Refinery- GW-001 was made today. There is a UIC Class I (NH) Well within the facility (UICI-009) where a hearing request was received on the discharge permit renewal and the Director is currently assessing the hearing request. Bloomfield was allowed to idle or shut-in operations under a recently issued discharge permit renewal. The bulk storage and transportation units are in operation and the UIC Class I well is used for disposal of recovered product behind the remediation barrier wall and the river. The voluntary biovent remediation project at the river terrace is still in progress with ground water and surface quality monitoring.

Let me know if you want to listen in and participate or if you have any issues that OCD-SF needs to discuss during the meetings that would work too. Please contact me if you have questions or wish to discuss any issues you may have before the meeting.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Monday, May 24, 2010 11:06 AM
To: 'Schmaltz, Randy'
Subject: OCD GW-001 Discharge Permit Mailed today

Randy:

FYI, OCD is mailing out the two OCD signed copied for the above subject facility today. OCD needs Western's final signed version with the final fee (check payable to the "Water Quality Management Fund."

OCD did not receive any public comments. Let OCD know if you received any public comments for our consideration.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jon Goldstein
Cabinet Secretary

Jim Noel
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

May 24, 2010

Mr. Randy Schmaltz
Environmental Manager
Western Refining Southwest- Bloomfield Refinery
P.O. Box 159
Bloomfield, New Mexico 87413

RE: Discharge Permit Renewal (GW-001) Bloomfield Refinery
NW/4 NE/4, S/2 NW/4, and the N/2 NE/4 SE/4 of Section 27; and the S/2 NW/4, N/2 NW/4 SW/4, SE/4 NW/4 SW/4, and the NE/4 SW/4 of Section 26, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico

Dear Mr. Schmaltz:

Pursuant to Water Quality Control Commission (WQCC) Regulations 20.6.2.3104 - 20.6.2.3114 NMAC, the Oil Conservation Division (OCD) hereby approves the discharge permit for the Western Refining Southwest- Bloomfield Refinery contingent upon the conditions specified in the enclosed Attachment to the Discharge Permit. Enclosed are two copies of the conditions of approval. Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 45 days of receipt of this letter including permit fees.

Please be advised that approval of this permit does not relieve the owner/operator of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does approval of the permit relieve the owner/operator of its responsibility to comply with any other applicable governmental authority's rules and regulations.

The final permit should be issued in approximately 45 days. If you have any questions, please contact Carl Chavez of my staff at (505-476-3490) or E-mail: CarlJ.Chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Glenn von Gonten
Acting Environmental Bureau Chief

GvG/cc
Attachments-1

xc: OCD District III Office, Aztec

ATTACHMENT TO THE DISCHARGE PERMIT
WESTERN REFINING SOUTHWEST- BLOOMFIELD REFINERY (GW-001)
DISCHARGE PERMIT APPROVAL CONDITIONS

May 24, 2010

Please remit a check for $8,400.00 made payable to Water Quality Management Fund:

Water Quality Management Fund
C/o: Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, New Mexico 87505

1. **Payment of Discharge Plan Fees:** All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application shall be assessed a filing fee of $100.00, plus a renewal flat fee (*see* WQCC Regulation 20.6.2.3114 NMAC). The Oil Conservation Division ("OCD") has received the required $100.00 filing fee and Western Refining Southwest, Inc. shall pay the remaining permit fee. The final fee amount due is $8,400.00 for the refinery.

2. **Permit Expiration, Renewal Conditions and Penalties:** Pursuant to WQCC Regulations (20.6.2.3109.H.4 NMAC), this permit is valid for a period of five years. **The permit will expire on June 7, 2014** and an application for renewal shall be submitted no later than 120 days before that expiration date. Pursuant to WQCC Regulation 20.6.2.3106.F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit shall not expire until the application for renewal has been approved or disapproved. ***Expired permits are a violation of the Water Quality Act {Chapter 74, Article 6, and NMSA 1978} and civil penalties may be assessed accordingly.***

3. **Permit Terms and Conditions:** Pursuant to WQCC Regulation 20.6.2.3104 NMAC, when a permit has been issued, the owner/operator must ensure that all discharges shall be consistent with the terms and conditions of the permit. In addition, all facilities shall abide by the applicable rules and regulations administered by the OCD pursuant to the Oil and Gas Act, Sections 70-2-1 through 70-2-38 NMSA 1978.

4. **Owner/Operator Commitments:** The owner/operator shall abide by all commitments submitted in its February 23, 2009, discharge plan renewal application, including attachments and subsequent amendments and these conditions for approval. Permit applications that reference previously approved plans under the former "Giant Refining" company name on file with the division shall be incorporated into this permit and the owner/operator shall abide by all previous commitments of such plans and these conditions for approval.

5. **Modifications:** WQCC Regulations 20.6.2.3107.C and 20.6.2.3109 NMAC address possible future modifications of a permit. The owner/operator shall notify the OCD of any

facility expansion, production increase or process modification that would result in any significant modification in the discharge or potential for discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified at 20.6.2.3103 NMAC is being or will be exceeded, or if a toxic pollutant as defined in WQCC Regulation 20.6.2.7 NMAC is present in ground water at any place of withdrawal for present or reasonably foreseeable future use, or that the Water Quality Standards for Interstate and Intrastate streams as specified in 20.6.4 NMAC are being or may be violated in surface water in New Mexico.

6. Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/ operator shall store waste at the facility in compliance with this section.

A. Oilfield Exempt or Non-exempt (non-hazardous) Wastes: Oilfield wastes regulated by the OCD may be disposed of at an OCD approved facility upon proper waste determination pursuant to 40 CFR Part 261. Any waste stream that is not listed in the discharge permit application must be approved for disposal by the OCD on a case-by-case basis.

B. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 et seq. NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal.

C. Waste Storage: The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

7. Drum or Container Storage: The owner/operator must store all drums, including empty drums or containers, containing materials other than fresh water on an impermeable pad with curbing. An exception may be allowed where empty containers are approved by OCD within 3 months of permit issuance to be triple-rinsed prior to storage and demarcated with the date triple-rinsing was completed. The triple-rinse process shall require submittal of a site diagram(s) displaying triple-rinse locations with the location(s) of triple-rinse storage area(s) throughout the refinery. Schematics or flow diagrams with an explanation of the rinse process, drainage collection, effluent discharge location(s), treatment, storage or disposal of any waste, and any new drains, sumps, equipment, etc. Empty containers stored outside of designated triple rinse storage areas and/or impermeable pads or curbing without a triple rinse label w/ date of cleaning shall be in violation of this approved process. The owner/operator must store empty drums (non-rinsed) on their sides with the bungs in place and lined up on a horizontal plane on an impermeable pad with curbing. The owner/operator must store chemicals in containers, such as drums, tote tanks, sacks, or buckets on an impermeable pad with curbing. All storage areas shall be designed and constructed to allow for the separation of incompatible chemicals.

8. Process, Maintenance and Yard Areas: The owner/operator shall either pave and curb or have some type of drainage control, containment, or spill collection device incorporated into the design of all process, maintenance, and yard areas that show evidence that water contaminants from releases, leaks and spills have reached the ground surface and non-contact storm water areas.

9. Above Ground Tanks: The owner/operator shall ensure that all above ground tanks have impermeable secondary containment (e.g., liners and berms) with leak detection systems. The owner/operator shall retrofit all existing secondary containment(s) before this discharge plan permit expires. The owner/operator may propose an alternate plan or schedule to accomplish the above to the OCD for approval within 3 months of permit issuance (see last paragraph in this section below). Tanks containing asphalt/pitch are exempt from the liner and leak detection requirement, but shall comply with the berm provision (1+1/3 volume) below. Tanks where fluids have been removed shall undergo an internal tank inspection and any leaks shall be reported to the OCD within 24 hours of having knowledge of a tank leak(s). All new tanks installed at the facility shall comply with the above requirements and be approved by the OCD. Tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt from this condition.

All new and existing above ground tanks containing chemicals must be placed or retrofitted over an impermeable pad (40-mil LLDPE reinforced liner with leak detection system) or liner system within a bermed secondary containment area approved by the OCD. The bermed areas shall be constructed to contain a volume of at least one and one-third (1+1/3) greater than the total volume of the largest tank and/or all interconnected tanks within a bermed containment area. Alternative secondary containment designs must be approved by the OCD.

To comply with the alternative plan or schedule above, the owner/operator shall submit a spreadsheet or table identifying all tanks with a work schedule to address this provision (Tank ID #, type of tank, new/used, volume, chemical stored, tank age, last Integrity test date, planned retrofit date and/or construction date, etc.) to the OCD for approval. The owner operator shall prioritize existing tanks for retrofit based on the toxicity and solubility (contaminant transport potential) of chemicals (BTEX, JP4, etc.) and site-specific threats to public health, safety, fresh water, and the environment. A work schedule with a phased approach extending beyond the standard 5-Year permit period may be approved by the OCD if the table is submitted within 3 months of permit issuance. The table(s) shall be considered approved if the OCD does not respond within 30 days of receipt of the table and work schedule.

10. Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

11. Labeling: The owner/operator shall clearly label all tanks, drums, and containers to identify their contents and other emergency notification information. The owner/ operator may use a tank code numbering system, which is incorporated into facility emergency response plans. Per Section 7 above, all approved triple-rinsed containers stored outside of impermeable pad areas

shall be demarcated or labeled to indicate the date they were rinsed and stored in triple-rinse designated storage areas.

12. Below-Grade Tanks/Sumps and Lagoons/Pits/Ponds:

A. All below-grade tanks and sumps must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment with leak detection into the design. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal or by the permit expiration date. All existing below-grade tanks and sumps without secondary containment and leak detection must be tested annually. Systems that have secondary containment with leak detection shall be inspected monthly to determine if the primary containment is leaking. Spills, leaks, etc. shall be reported similar to Section 16. Small sumps or depressions in secondary containment systems used to facilitate fluid removal are exempt from these requirements if fluids are removed within 72 hours.

B. Aeration lagoons shall be designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future.

C. All pits and ponds, including modifications and retrofits, shall be designed by a registered professional engineer and approved by the OCD prior to installation. In general, all

pits or ponds shall have approved hydrologic and geologic reports, location, foundation, liners, and secondary containment with leak detection, monitoring and closure plans. All pits or ponds shall be designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future.

D. The owner/operator shall ensure that all exposed pits, including lined pits and open top tanks (8 feet in diameter or larger) shall be fenced, screened, netted, or otherwise rendered non-hazardous to wildlife, including migratory birds. Where netting is not feasible, routine witnessing and/or discovery of dead wildlife and migratory birds shall be reported to the appropriate wildlife agency with notification to the OCD in order to assess and enact measures to prevent the above from reoccurring.

E. The owner/operator shall maintain the results of tests and inspections at the facility covered by this discharge permit and make them available for OCD inspection upon request. The owner/operator shall have a record with identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. The owner/operator shall report the discovery of any system which is found to be leaking or has lost integrity to the OCD within 72 hours of having knowledge of a release. The owner/operator may propose various methods for testing such as pressure testing to 3 pounds per square inch greater than normal operating pressure and/or visual inspection of cleaned tanks and/or

sumps or other OCD-approved methods. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

13. Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. The owner/operator shall test a minimum of 20% of the underground process/wastewater pipelines each year. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may propose other methods of testing for approval by the OCD. The owner/operator shall report any leaks or loss of integrity to the OCD within 72 hours of discovery. The owner/operator shall maintain a spreadsheet of the results of all tests at the facility similar to Section 12(E) covered by this discharge permit and records shall be made available to the OCD during inspections upon request. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. The owner/operator shall maintain a spreadsheet that contains all underground process and wastewater lines. Each line shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. All new underground piping must be approved by the OCD prior to installation.

14. Class V Wells: The owner/operator shall provide copies of the approved NMED permit(s) for it facility sanitary septic system(s) at the facility within 3 months of permit issuance.

The owner/operator shall close all Class V wells (*e.g.,* septic systems, leach fields, dry wells, etc.) that inject hazardous and/or non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes. Leach fields and other wastewater disposal systems at OCD-regulated facilities that inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only, must be permitted by the New Mexico Environment Department (NMED) unless the sanitary effluent is treated by the facility waste water treatment system, then sanitary effluent would be regulated by the OCD.

15. Housekeeping: The owner/operator shall inspect all systems designed for spill collection/ prevention and leak detection at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices shall be emptied of fluids within 72 hours of discovery. The owner/operator shall maintain all records of inspection at the facility and available for OCD inspection.

16. Spill Reporting: The owner/operator shall report all unauthorized discharges, spills, leaks and releases and conduct corrective action pursuant to WQCC Regulation 20.6.2,1203.NMAC, OCD Part 29 (19.15.29 NMAC), and/or OCD Part 30 (19.15.30 NMAC). The owner/operator shall notify both the OCD Aztec District Office and the Santa Fe Office within 24 hours and file an initial OCD C-141 Form and a final C-141 with a written report within 15 working days. All fires regardless of how small or the duration shall be reported on a C-141 Form to the OCD identifying the unit or location where the fire occurred, its suspected cause, injuries, etc. and corrective action(s) taken to ensure public health and safety are properly tracked and addressed.

17. OCD Inspections: The OCD may place additional requirements on the facility and modify the permit conditions as needed based on OCD inspections, the threat to public health and the environment.

A. Treatment System Monitoring: An adequate number of flow meters shall be located at all influent lines into the treatment system and other key locations to help monitor the treatment system process and capacity at the facility. The flow meters shall be monitored weekly or as often as needed to determine the average and maximum wastewater treatment capacity based on pollutant loading under variable flow rate conditions at the facility.

B. Evaporation Ponds: Evaporation Ponds shall be inspected a minimum of three times per week and after any major storm event or malfunction of the treatment system. Weekly records shall be maintained for all flow rates from all flow meters, fluid levels, freeboard, seepage, flow channels, pipes, valves, and dike integrity.

C. Closure Plan: A closure plan shall be submitted within 6 months of permit issuance that is consistent with Section 24 below.

1. North and South Double-Lined Waste Water Evaporation Ponds shall maintain a minimum freeboard of 3 feet to prevent over-topping of wastewater. Any repairs or modifications to the pond liners and/or leak detection systems must receive prior OCD approval, except under emergency conditions. Any exceedance of the freeboard or any leaks or releases shall be reported pursuant to Section 16 (Spill Reporting). The operator shall also maintain an Action Plan with a system design diagram with leak detection system(s) that will confirm leakage or system failure, and list corrective actions for remedying any discharge(s) from the ponds in order to protect public health and the environment. A copy of the Action Plan shall be submitted to the OCD within 3 months of permit issuance. OCD shall be notified within 24 hours any time the plan is implemented.

2. North and South Aeration Lagoons shall maintain a minimum freeboard of 3 feet to prevent over-topping of oily wastewater. Any repairs or modifications to the aeration lagoon liners and/or leak detection systems must receive prior OCD approval, except under emergency conditions. Any exceedance of the freeboard or

any leaks or releases shall be reported pursuant to Section 16 (Spill Reporting). The operator shall also maintain an Action Plan with a system design diagram with leak detection system(s) that will confirm leakage or system failure, and list corrective actions for remedying any discharge(s) from the ponds in order to protect public health and the environment. A copy of the Action Plan shall be submitted to the OCD within 3 months of permit issuance. OCD shall be notified within 24 hours any time the plan is implemented.

3. **Leak detection systems** for the above shall be inspected for fluids monthly and/or more frequently as specified under an OCD approved Action Plans. Records shall be maintained to include quantity and column thickness of fluid measured, presence of phase separated hydrocarbons, date of inspection, and name of inspector. Any fluids detected in the leak detection systems must addressed through the Action Plan. Any confirmed leakage to the environment must be reported to the OCD Environmental Bureau in Santa Fe and the Aztec District Office in accordance with Sections 17(B) (1) (2) above.

D. Evaporation Pond(s) Water Quality and Quantity Monitoring: Surface water shall be observed, sampled and analyzed in accordance with Section 20 (FWGWMP) below.

E. Temporary storage ponds: Any temporary ponds that were previously approved shall be identified and the Owner/operator shall submit a closure plan for OCD approval within 6 months of permit issuance.

F. Temporary Landfarms: A closure plan for any temporary landfarm(s) or land treatment area(s) shall be submitted to the OCD within 6 months of permit issuance.

G. Emergency River Contingency Plan: An emergency river contingency plan with corrective action steps shall be developed submitted to OCD within 3 months of permit issuance with annual environmental response training of appropriate refinery emergency personnel with coordination with the Local Emergency Planning Committee (LEPC) in the event of a release of pollutants from the bluff (residual oil seeps) and to "Waters of the State." Personnel shall be trained in corrective actions annually to immediately and safely respond to any release to "Waters of the State" from the facility and for the protection of nearby public health, safety and the environment. The Operator shall have adequate emergency personnel, response equipment (i.e., sufficient number and size of booms with at least one set of replacements based on chemicals of concern), anchor points along the river, watercraft, etc. to immediately contain and remediate any discharges to the river.

18. Storm Water: The owner/operator shall implement and maintain run-on and run-off plans and controls. The owner/operator shall separate or isolate contact (refinery process) from non-contact (storm water) drainage and/or effluent lines at the facility. The owner/operator shall not discharge any water contaminant that exceeds the WQCC standards specified in 20.6.2.3101 NMAC or 20.6.4 et seq. NMAC (Water Quality Standards for Interstate and Intrastate Streams)

including any oil sheen in any storm water run-off. The owner/operator shall notify the OCD within 24 hours of discovery of any contaminated storm water releases and shall take immediate corrective action(s) to remediate and prevent any discharge or release from migrating off-property.

19. Unauthorized Discharges: The owner/operator shall not allow or cause water pollution, discharge or release of any water contaminant that exceeds the WQCC standards listed in 20.6.2.3101 NMAC and 20.6.4 et seq. NMAC unless specifically listed in the permit application and approved herein. ***Any unauthorized discharge is a violation of this permit.***

20. Surface Water/Ground Water/Vadose Zone Monitoring/Remediation/Abatement or Facility Wide Ground Water Monitoring Plan (FWGWMP):

The owner/operator shall sample, analyze and report contamination to the agencies in accordance with the approved FWGWMP. The FWGWMP shall be amended on an annual basis (by June 30th) by approval of the agencies. The FWGWMP shall satisfy all sampling and groundwater monitoring requirements at the facility. Revisions to this plan (if any) shall be submitted to agencies for approval on an annual basis as stated above.

The owner/operator shall address any contamination through the discharge permit process or pursuant to WQCC 20.6.2.4000 - 4116 NMAC (Prevention and Abatement of Water Pollution). The OCD may require the owner/operator to modify its permit for investigation, remediation, abatement, and monitoring requirements for any vadose zone or water pollution at any time. Failure to perform any required investigation, remediation, abatement and submit subsequent reports within a specified period of time shall be a violation of the permit.

21. Inspection and Reporting:

Perimeter inspections of the refinery property shall be conducted on a bimonthly basis and as needed after precipitation events. The inspections shall focus on hydrocarbon staining or any release that could result in contamination leaving the property boundary or impacting the nearby San Juan River. The owner/operator shall maintain an inspection checklist and record that shall be completed and signed by the environmental employee conducting the inspection. Completed inspection sheets shall be maintained on site and made available at the request of an OCD Representative.

A. Annual Ground Water Report: An annual ground water report shall be submitted to the agencies by April 15th of each year. The annual ground water report shall contain information for all recovery and monitoring systems, such as, but not limited to; all on and off-site recovery and monitoring wells, Hammond ditch French drain system, including all outfalls, the new barrier wall recovery and monitoring wells, the river terrace recovery, remediation and monitoring wells and any other wells required to be monitored under the FWGMP in Section 20 above. The annual ground water report may be combined with the Annual Report (see Section 22) shall address at minimum the following:

1. A description of the monitoring and remediation activities, which occurred during the year including any conclusions and recommendations.

2. Summary tables listing laboratory analytic results of all water quality sampling for each monitoring point and plots of concentration vs. time for contaminants of concern from each monitoring point. Any WQCC constituent found to exceed the groundwater standard shall be highlighted and noted in the annual report. Copies of the most recent year's laboratory analytical data sheets shall also be submitted.

3. An annual water table (piezometric) or potentiometric elevation map using the water table elevation of the ground water in all refinery monitor wells. A corrected water table elevation shall be determined for all wells containing phase-separated hydrocarbons. This map shall show well locations, pertinent site features, and the direction and magnitude of the hydraulic gradient.

4. Plots of water table elevation vs. time for each ground water monitoring point.

5. An annual phase-separated hydrocarbon or product thickness map to the nearest one-one hundredth (0.01) of a foot based on the thickness of free-product or phase separated hydrocarbons on ground water in all refinery recovery wells. This map shall include isopleths or isoconcentration contour lines for toxic contaminants of concern.

6. The estimated volume of phase-separated hydrocarbons or product recovered in the recovery wells during each quarter and the total volume recovered to date.

7. Electronic filing: The owner/operator may file this report in an acceptable electronic format; however, in addition, a hard copy must be submitted to the agencies.

B. Additional Requirements:

1. Landfills: Any landfill disposal at the facility is prohibited. Any corrective action or remediation associated with the facility landfills shall be addressed under the Resource Conservation and Recovery Act (RCRA) with the New Mexico Environment Department (NMED).

2. Owner/operator shall request approval from OCD for any contaminated waste within landfill areas to be disposed off-site. In the interim, the OCD may approve disposal on a case-by-case basis with analytical test data consistent with prior approved analytical methods.

3. Hydrogen Sulfide (H_2S) Contingency Plan: If concentrations of H_2S at the facility may exceed 100 ppm as specified in 19.15.11.12 et seq. NMAC, a H_2S Contingency Plan per 19.15.11.9 et seq. NMAC shall be submitted within 3 months of permit issuance.

4. Owner/operator shall notify the OCD Santa Fe and the local district offices at least 72 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and split samples.

5. Owner/operator shall notify the OCD within 72 hours of the discovery of phase-separated hydrocarbons or the exceedance of WQCC Standards in any down gradient monitor well where separate-phase hydrocarbons were not present or where contaminant concentrations did not exceed WQCC standards during the preceding monitoring event.

22. Annual Report: On an annual basis due by April 15th, the Operator shall submit a formal Annual Report to the agencies summarizing the past year's activities. The Annual Report may be combined with the Annual Ground Water Monitoring Report (Section 21A) and shall address at a minimum the following:

A. A summary of all major refinery activities or events.

B. Results of all sampling and monitoring events.

C. Summary of all waste and wastewater disposed of, sold, or treated on-site, including a refinery wastewater balance sheet with a mass balance of the evaporation pond rates.

D. Summary of tanks, sumps, underground wastewater lines, etc. tested.

E. Summary of all leaks, spills and releases and corrective actions taken, which shall include any fires or explosions that occurred.

F. Summary of discovery of new groundwater contamination. This should include recommendations for investigation and remediation.

G. Summary of all EPA/NMED RCRA activity.

23. Transfer of Discharge Permit (WQCC 20.6.2.3111 NMAC): Prior to any transfer of ownership, control, or possession (whether by lease, conveyance or otherwise) of a facility with a discharge permit, the transferor shall notify the transferee in writing of the existence of the discharge permit, and shall deliver or send by certified mail to the department a copy of such written notification, together with a certification or other proof that such notification has in fact been received by the transferee. Upon receipt of such notification, the transferee shall have the duty to inquire into all of the provisions and requirements contained in such discharge permit,

and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the department's file or files concerning such discharge permit. The transferee (new owner/operator) shall sign and return an original copy of these permit conditions and provide a written commitment to comply with the terms and conditions of the previously approved discharge permit.

24. Closure Plan and Financial Assurance: Pursuant to 20.6.2.3107 NMAC an owner/ operator shall notify the OCD when any operations of the facility are to be discontinued for a period in excess of six months. Prior to closure, or as a condition of this permit, or request from the OCD, the operator shall submit a closure plan or modify an existing plan, and/or provide adequate financial assurance.

Provide an itemized closure plan with cost estimates outlining the complete closure or decommissioning of the facility with 30 year remediation and post monitoring period to the OCD for approval, within 6 months of permit issuance. It should be descriptive enough for NMED to assess financial assurance on the environmental remediation and monitoring aspects of the facility and the OCD decommissioning of the entire facility. The closure plan will also help Western to identify a phased or logical approach to facility closure under the OCD discharge permit, if Western decides to completely close the facility. Adequate financial assurance shall be requested based on the OCD approved cost estimate for closure of the entire facility. The plan shall address how any remaining water contaminants will be monitored and abated to ensure the protection of public health and safety, fresh water, and the environment for the foreseeable future.

25. Certification: Western Refining Southwest, Inc. by the officer, whose signature appears below, acknowledges receipt of this Discharge Permit, and has reviewed its terms and conditions.

_____
Company Name- print name above

_____
Company Representative- print name

_____
Company Representative- Signature

Title_____

Date: _____

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Monday, February 22, 2010 1:28 PM
To: 'Schmaltz, Randy'
Cc: 'Allen.Hains@wnr.com'; Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; Sanchez, Daniel J., EMNRD; Jones, William V., EMNRD; VonGonten, Glenn, EMNRD; Perrin, Charlie, EMNRD
Subject: Re: Western Refining Southwest, Inc. Status of OCD Discharge Permits: Bloomfield Refinery (GW-001) & UIC Class I Disposal Well (UICI-009)

Randy, et al.:

FYI, the OCD will likely be processing Western Refining Southwest, Inc.'s (WRSWI) two OCD Discharge Permit Applications (see above subject) this week.

The landfill issues for GW-001 are resolved in the discharge permit along with the active status and closure plan issues.

The maximum allowable surface injection pressure for UICI-009 has been reduced to 600 psig in the discharge permit in order to prevent the half-fractures from growing in the present injection formation. WRSWI will likely need to change its dewatering w/ SVE remediation project at the river terrace as a result of this pressure reduction in order to comply with the change.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Western Refining

BLOOMFIELD REFINERY

WNR LISTED NYSE

RECEIVED OCD

2009 AUG -6 P 1:54

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

Certified Mail: #7007 0220 0004 0187 1012

August 4, 2009

RE: Western Refining Southwest, Inc. - Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Mr. Chavez,

Bloomfield Refinery personnel will begin the annual groundwater sampling event on August 17, 2009.

Refinery personnel will be following guidelines from the *Facility-Wide Groundwater Monitoring Plan* submitted to OCD and NMED in December 2007 and the letter from NMED titled *Approval with Direction Facility-Wide Groundwater Monitoring Plan* dated March 25, 2008.

Prior to groundwater sampling activities, all wells will be measured for groundwater levels and SPH thickness while the recovery wells are in operation on August 13, 2009. After measurements are completed, recovery pumps will be shut down and removed. All wells will be measured again for groundwater levels and SPH thickness on August 17, 2009. Sampling activities will begin after all measurements have been taken. Semi-annual samples will also be collected from Seeps 1, 6, 7, 8, and 9 if sufficient water is present. We anticipate sampling activities will be concluded no later than September 3, 2009.

If any representatives from OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery

Cc: Randy Schmaltz – Environmental Manager – Bloomfield Refinery
Hope Monzeglio – New Mexico Environmental Department – Santa Fe

Western Refining

BLOOMFIELD REFINERY

WNR LISTED NYSE

RECEIVED

2009 FEB 4 PM 1 13

Fed Ex Tracking # 7007 0220 0004 0187 0435

January 30, 2009

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 2009
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. 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 one year 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 Randy Schmaltz, Environmental Manager, at (505) 632-4171.

Sincerely,

Kelly R. Robinson

Kelly R. Robinson
Environmental Engineer
Western Refining Southwest, Inc.
Bloomfield Refinery

cc: Hope Monzeglio – NMED HWB
Wayne Price – NMOCD (w/attachment)
Dave Cobrain – NMED HWB
Laurie King – EPA Region 6 (w/attachment)
Todd Doyle – Bloomfield Refinery
Randy Schmaltz – Bloomfield Refinery
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
1/30/2009

Waste Management Area	NMED Order Provision	Capital Costs[1]	Operation & Maintenance Costs[2]	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	$35,532	$0		$35,532	Closure costs taken from 2008 Closure Plan, See Table A for detailed explanation of costs
Remedy Completion Report	VI.D.6			$4,500	$4,500	
				subtotal	$40,032	
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	

Western Refining Southwest, Inc.
Bloomfield, New Mexico Refinery
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate
1/30/2009

Waste Management Area	NMED Order Provision	Capital Costs[1]	Operation & Maintenance Costs[2]	NMED Review Fees	Total Costs	Explanation
Group 4						
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	
Group 5						
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	
Group 6						
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	
Group 7						
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
1/30/2009

Waste Management Area	NMED Order Provision	Capital Costs[1]	Operation & Maintenance Costs[2]	NMED Review Fees	Total Costs	Explanation
Group 8						
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	
Group 9						
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	

Western Refining Southwest, Inc.
Bloomfield, New Mexico Refinery
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate
1/30/2009

Waste Management Area	NMED Order Provision	Capital Costs[1]	Operation & Maintenance Costs[2]	NMED Review Fees	Total Costs	Explanation
Other Areas						
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	
Interim Measures & Facility Wide Ground Water Monitoring						
River Terrace Area Analytical	V.B.1		$103,200		$103,200	4 yrs. Monitoring @$25,800/yr - see detail Table B
River Terrace Annual Report	V.B.1		$14,000	$8,000	$22,000	4 yrs. reporting @$3,500/annual report & NMED fees of $2,000/annual rpt
River Terrace Operation & Maintenance	III.P.1 & V.B.		$32,000		$32,000	GAC filters & maintenance $8,000/yr x 4 yrs
North Barrier Wall collection operations	III.P.1		$108,640		$108,640	Bi-weekly fluid level measurements and passive recovery of PSH (labor 4hrs/biweekly event @ $65/hr = $6,760/yr & equipment $1,000/yr x 14 years)
Facility Wide Ground Water Monitoring (including North Barrier Wall & Tank Farm) analytical costs	IV.A.		$712,418		$712,418	Table C provides detailed cost on a annual basis($50,887) which is multiplied by 14 years pursuant to the Order.
Facility-Wide Annual Monitoring Report (including North Barrier Wall)	IV.A.2.		$98,000	$28,000	$126,000	14 yrs. Monitoring @ $7,000/annual report & NMED fees of $2,000/annual rpt
1# East Outfall	V.C.		$9,940		$9,940	See Table D for detailed estimate; annual cost of $710/yr x 14 years
San Juan River samples			$83,552		$83,552	See Table D for detailed estimate; assume 14 years @$5,968/yr
				subtotal	**$1,197,750**	
TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER (without inflation costs)					**$1,237,782**	
Inflation Factor [3]					**1.02%**	
CURRENT TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER.					**$1,250,407**	

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 = 122.357/119.816 = 1.03% http://www.bea.gov (Table 1.1.9 Implicit Price Deflators for GDP)

TABLE A

Interim Status Unit No. 1 Cost Estimate	
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
Total Closure Cost	**$35,532**

gph - gallons per hour

TABLE B
RIVER TERRACE SAMPLING COST ESTIMATE

RIVER TERRACE - AQUEOUS					
Analysis	**Frequency**	**# of Samples**	**Cost/Sample**	**Cost per QTR**	**Cost per Year**
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
RIVER TERRACE - Vapor					
Analysis	**Frequency**	**# of Samples**	**Cost/Sample**	**Cost per QTR**	**Cost per Year**
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		$400		$1,600
River Terrace Labor	4 X yr	3 days of 7 hour days	$65/hour	$1,365	$5,460
GAC Breakthrough Sampling					
8021B	12 x yr	1	$45	$345	$540
8015B (GRO, DRO)	12 x yr	1	$70		$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 C

Facility-Wide Groundwater Monitoring Cost Estimate

Annual Refinery Complex (33 Wells and East Outfall #2 & #3) [2]				
Analysis	**Frequency**	**# of Samples**	**Cost/Sample**	**Cost per Year**
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
Semi-Annual - Refinery Complex MW/RW [2]				
Analysis	**Frequency**	**# of Samples**	**Cost/Sample**	**Cost per Year**
8260B	Semi-Annual [1]	11	$45	$495
8015B (GRO, DRO)	Semi-Annual [1]	11	$70	$770
Level 4 Data Packet	Semi-Annual [1]	1	$200	$200
Semi-Annual - North Barrier Wall OW/CW [3]				
Analysis	**Frequency**	**# of Samples**	**Cost/Sample**	**Cost per Year**
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
Semi-Annual River Bluff (Outfall 2 & 3, & Seeps 1, 6, 7, 8, & 9) [4]				
Analysis	**Frequency**	**# of Samples**	**Cost/Sample**	**Cost per Year**
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	$3,199
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
Total Annual - Facility-Wide Groundwater Sampling & Analysis				$50,887

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 D

#1 East Outfall (Tank 33) Cost Estimate [1]

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 E

San Juan River Sampling Cost Estimate [2]

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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State of New Mexico
Energy Minerals and Natural Resources

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

Form C-118
Revised June 10, 2003
Sheet 1

Submit 2 Copies to appropriate District Office by 15th of Next succeeding month.

TREATING PLANT OPERATOR'S MONTHLY REPORT

Report of Sundance Services Inc. Month & Year December 2008

Address P.O. Box 1737 Eunice, NM 88231

TOTAL STOCKS PIPELINE OIL BEGINNING OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
SUNDANCE SERVICES INC.	EUNICE, NEW MEXICO	7343.56
	TOTAL ALL PLANTS	

TOTAL PIPELINE OIL RECOVERED (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
SUNDANCE SERVICES INC.	BROUGHT UP FROM PITS	2587.36
	TOTAL ALL PLANTS	

DELIVERIES PIPELINE OIL (Attach additional sheets if necessary)

FROM	TO	BARRELS
SUNDANCE SERVICES INC.	Blackhawk Gathering Andrews Oil Buyers	696.48 1741.24
	TOTAL ALL PLANTS	

TOTAL STOCKS PIPLELINE OIL END OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
SUNDANCE SERVICES INC.	EUNICE, NEW MEXICO	7493.20
	TOTAL ALL PLANTS	

I hereby certify that this report is true and complete to the best of my knowledge and belief.

Sundance Services, Inc 505-394-2511

Signature | Printed Name & Title | Date | Telephone No.

Sundanceservices.net

E-mail Address

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV

Sent: Friday, November 07, 2008 12:44 PM

To: Schmaltz, Randy

Cc: Cobrain, Dave, NMENV; Kieling, John, NMENV; Price, Wayne, EMNRD; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD; king.laurie@epa.gov; Hains, Allen

Subject: Evaluation of Interim Measures

Attachments: GRCB-08-001 11_08 NMED Resp to GRCB Oc8 8 lttr.pdf

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

Websites:
New Mexico Environment Department
Hazardous Waste Bureau

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

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

November 7, 2008

Mr. Randy Schmaltz
Environmental Supervisor
Western Refining Southwest, Inc., Bloomfield Refinery
P.O. Box 159
Bloomfield, New Mexico 87413

RE: MONITORING REQUIREMENTS
EVALUATION OF INTERIM MEASURES
WESTERN REFINING SOUTHWEST, INC., BLOOMFIELD REFINERY
EPA ID # NMD089416416
HWB-GRCB-08-001

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has received and reviewed Western Refining Southwest, Inc.'s, (Western) letter entitled *Monitoring Requirements Evaluation of Interim Measures* dated October 3, 2008. This letter was in response to NMED's September 2, 2008 letter that provided monitoring requirements to the evaluation of interim measures.

NMED's September 2, 2008 letter requires Western to submit a plan that proposes the hydraulic characterization of the aquifer on the down-gradient side of the barrier wall on or before November 17, 2008. Western has requested an extension for the submittal of this plan until after the six-month observation period for measurement of fluid levels from all of the observation wells, MW-45, and MW-47, in order to gather additional information.

NMED hereby approves Western's request. Western must submit the plan that proposes the hydraulic characterization of the aquifer to NMED and the Oil Conservation Division (OCD) on or before June 20, 2009. Western must schedule a meeting with NMED and the OCD at the end of the six-month observation period to review the results of the data collection and discuss any

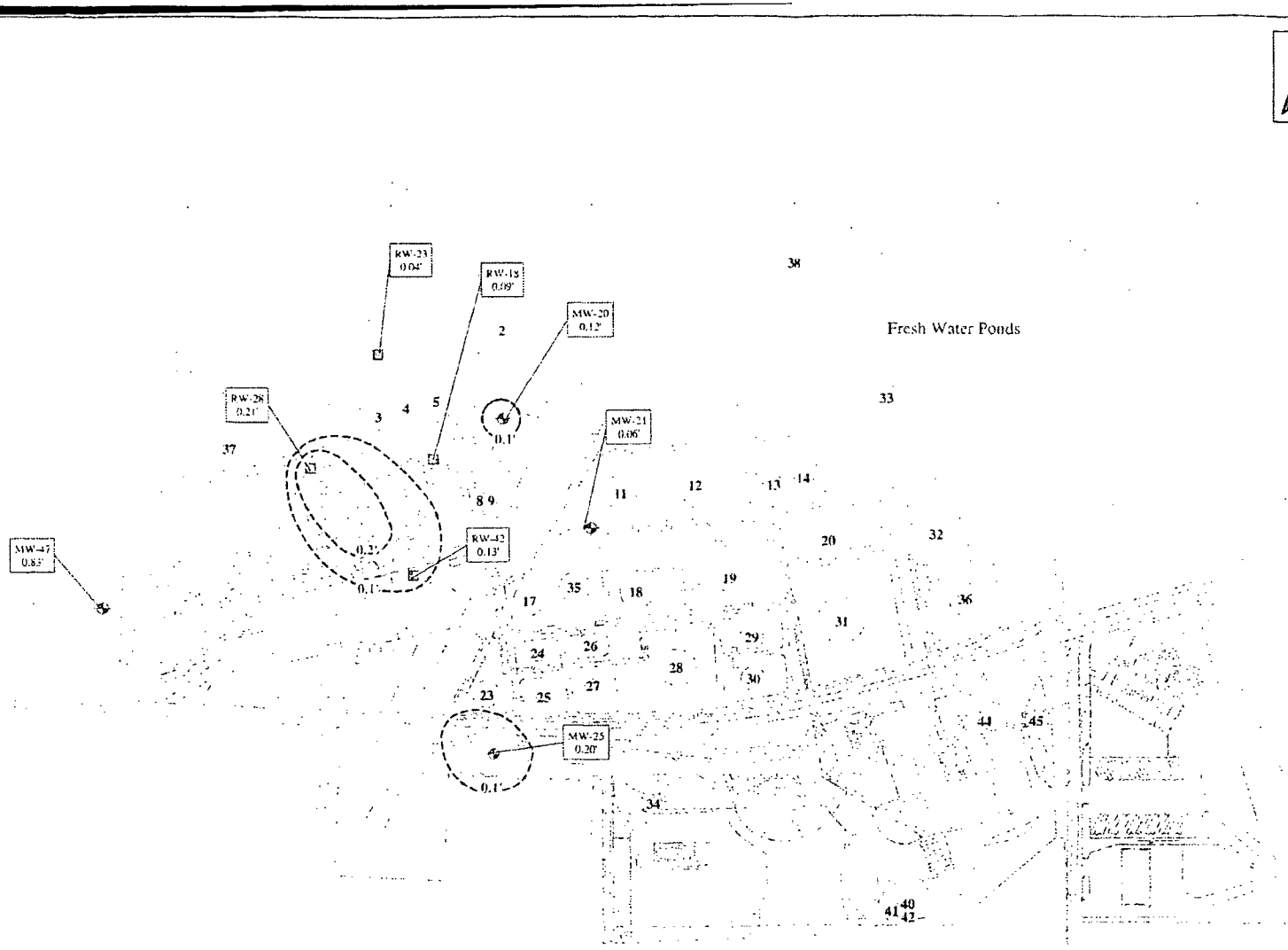
preliminary recommendations.

If you have questions regarding this letter, please contact Hope Monzeglio 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
W. Price, OCD
C. Chavez, OCD
B. Powell, OCD Aztec Office
L. King, EPA Region 6
A. Hains, Western Refining, El Paso
File: HWB-GRCB-08-001 and Reading



Legend

- Monitoring Well
- Recovery Well
- April 2007 Product Thickness
- Site
- MW-47 / 0.83' - Well ID / Product Thickness (feet)

0 500 1,000 1,500 2,000

Feet

Western Refining

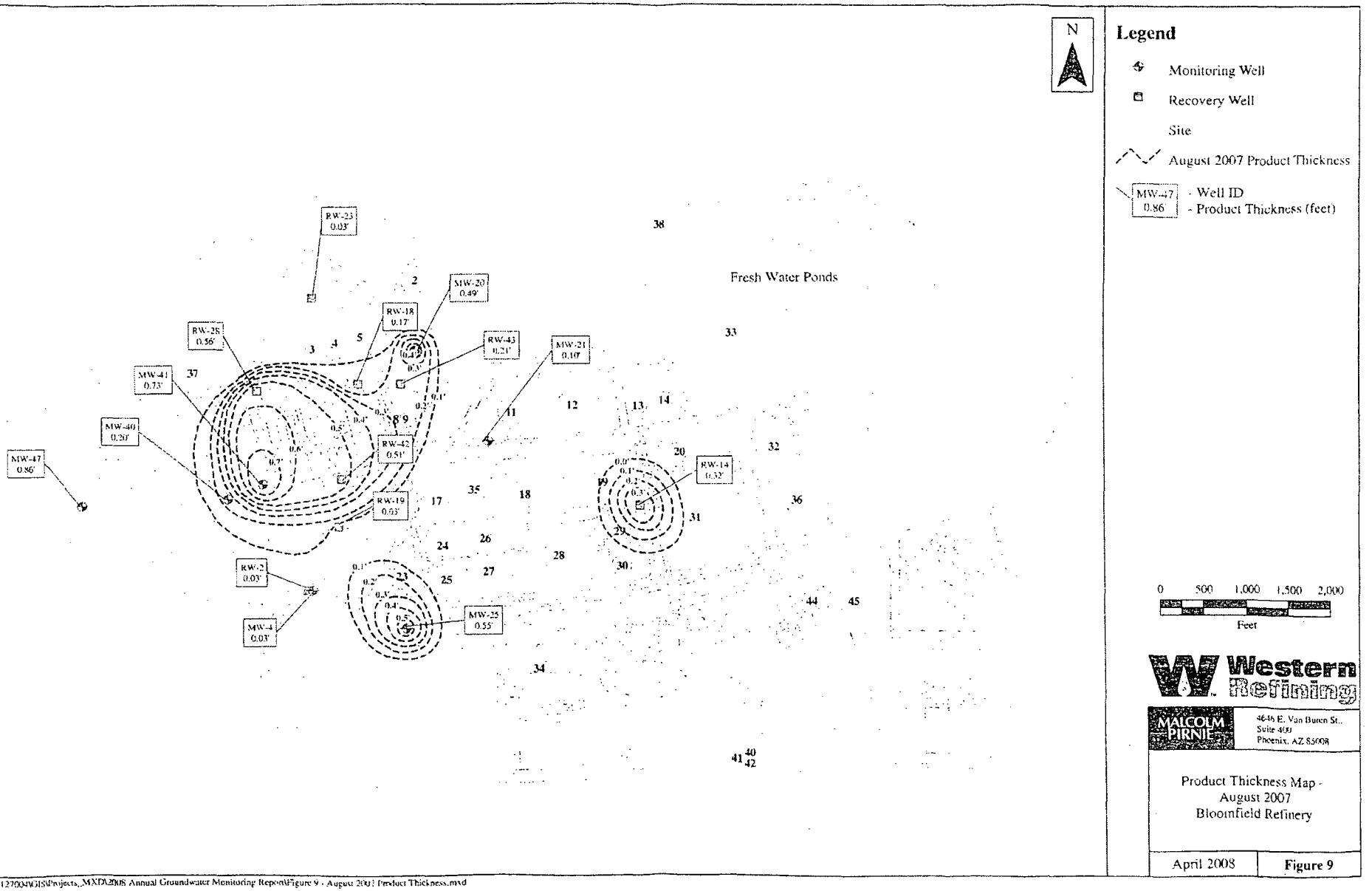
MALCOLM PIRNIE

4646 E. Van Buren St., Suite 400
Phoenix, AZ 85008

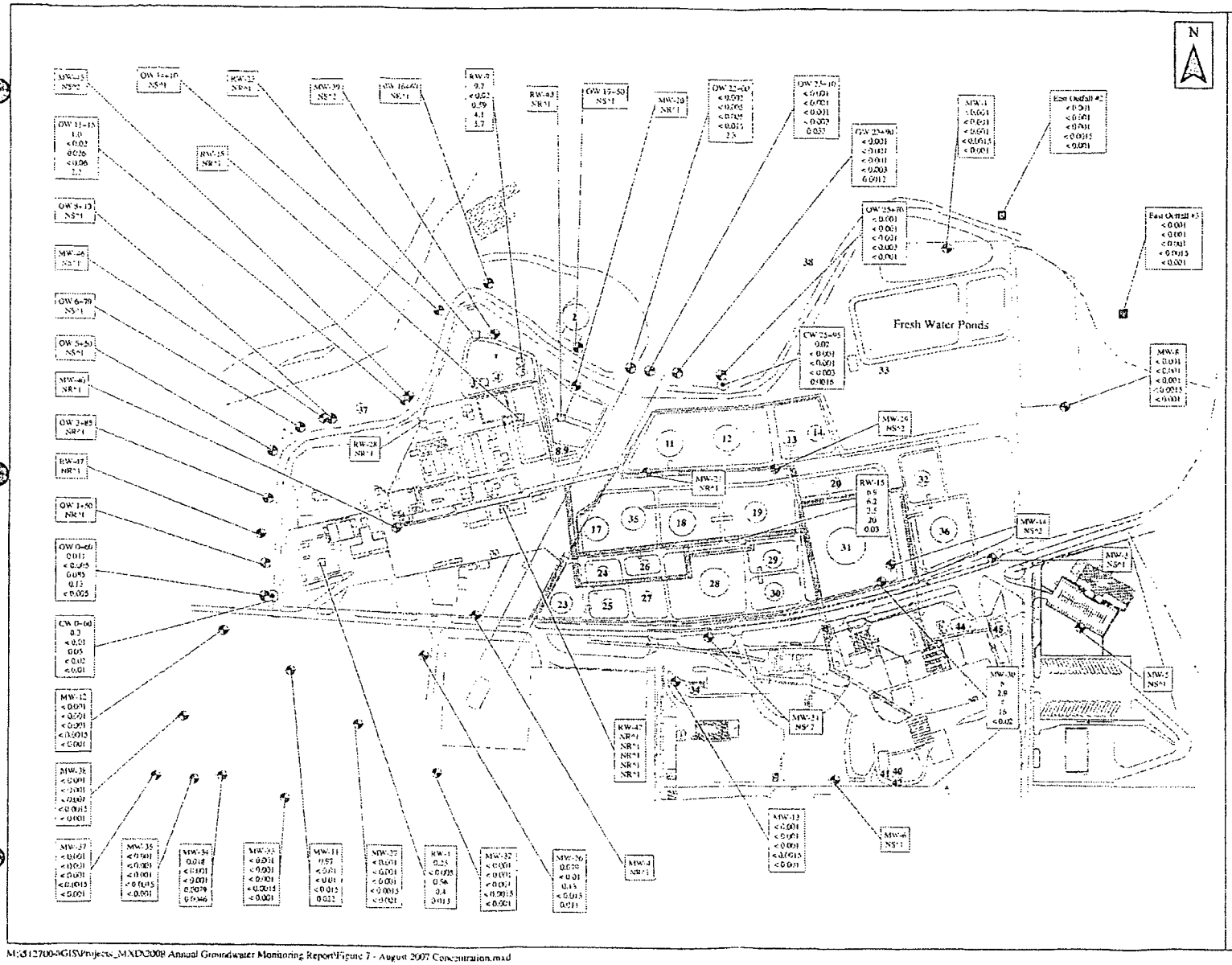
Product Thickness Map - April 2007
Bloomfield Refinery

April 2008 | **Figure 8**

M:\AS1270\GIS\Projects_MXD\2008 Annual Groundwater Monitoring Report\Figure 8 - April 2007 Product Thickness.mxd



M:\51270004\GIS\Projects_MXD\2008 Annual Groundwater Monitoring Report\Figure 9 - August 2007 Product Thickness.mxd



Legend

- Observation Well
- Monitoring Well
- Recovery Well
- Outfall
- Collection Well
- Site

MW-38	
< 0.001	- Benzene
< 0.001	- Toluene
< 0.001	- Ethylbenzene
< 0.0015	- Xylenes, Total
< 0.001	- MTBE

Notes:

All concentrations in milligrams per liter (mg/L)

NS^1= Well is Dry or Not Enough Water to Sample- No sample

NS^2 = Sample Inadvertently not Collected this Sampling Event

NR^1= No Sample Required - Well Contains Separate Phase Hydrocarbon

0 500 1,000 1,500 2,000

Feet

Western Refining

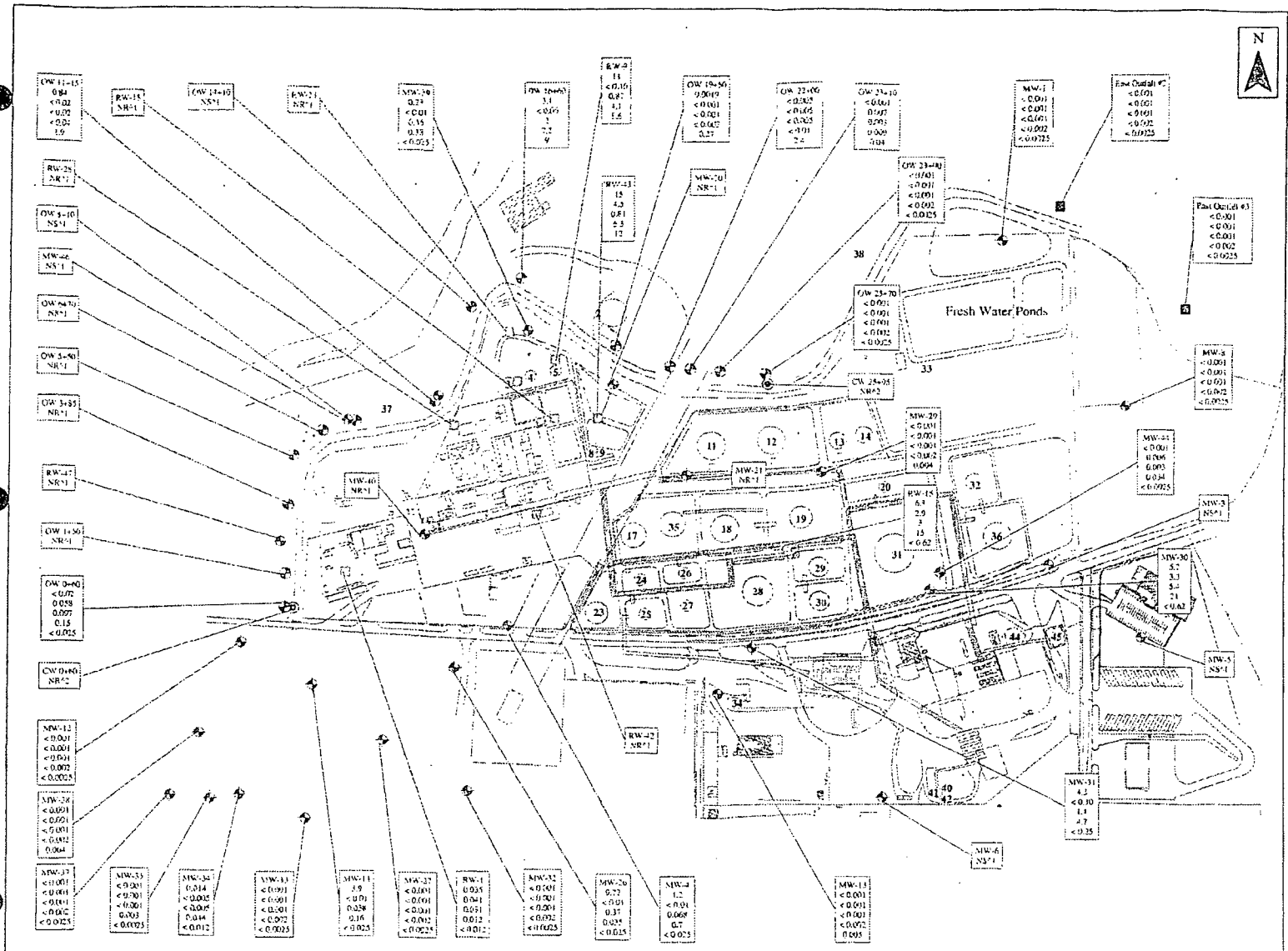
MALCOLM PIRNIE

4646 E. Van Buren St., Suite 400
Phoenix, AZ 85008

Groundwater BTEX and MTBE Concentration Map - August 2007 Bloomfield Refinery

April 2008 | **Figure 7**

M:\5127004GIS\Projects_MXD\2008 Annual Groundwater Monitoring Report\Figure 7 - August 2007 Concentration.mxd



Legend

- Observation Well
- Monitoring Well
- Recovery Well
- Outfall
- Collection Well
- Site

MW-38
< 0.001 - Benzene
< 0.001 - Toluene
< 0.001 - Ethylbenzene
< 0.002 - Xylenes, Total
0.004 - MTBE

Notes:

All concentrations in milligrams per liter (mg/L)

NS^1 = Well is Dry or Not Enough Water to Sample- No sample

NS^2 = Sample Inadvertently not Collected this Sampling Event

NR^1 = No Sample Required - Well Contains Separate Phase Hydrocarbon

NR^2 = No Sample Required per OCD and NMED Conditions

0 500 1,000 1,500 2,000
Feet

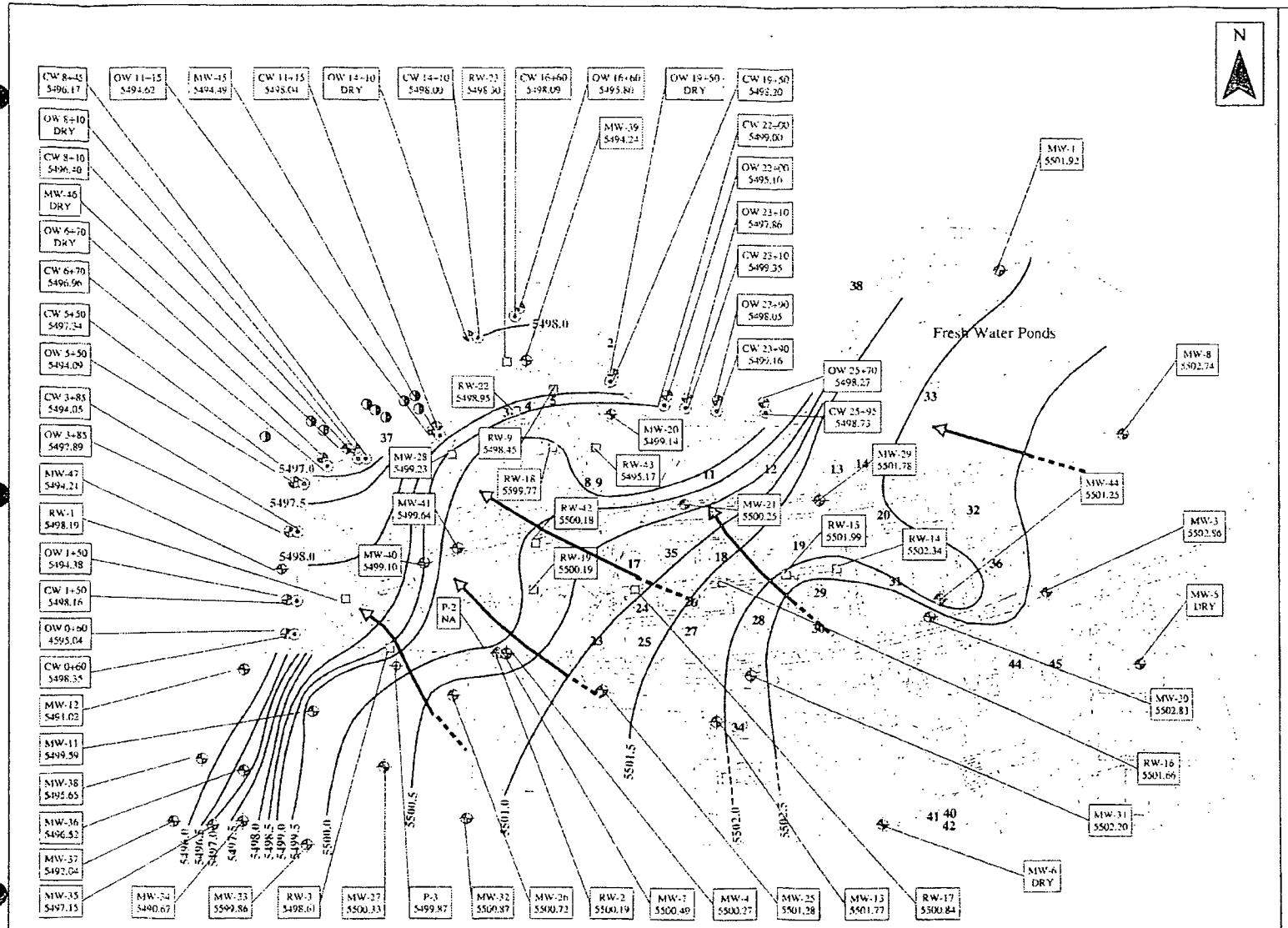
Western Refining

MALCOLM PIRNIE
4646 E. Van Buren St., Suite 400
Phoenix, AZ 85008

Groundwater BTEX and MTBE Concentration Map - April 2007
Bloomfield Refinery

April 2008 | Figure 6

M:\S1\2700\MGIS\Projects_MXD\2008 Annual Groundwater Monitoring Report\Figure 6 - April 2007 Concentration.mxd



Legend

- Monitoring Well
- Observation Well
- Recovery Well
- Piezometer
- Collection Well
- Seep
- Groundwater Elevation Contours
- Site
- Groundwater Flow Direction - dashed where inferred
- MW-13 5501.77 - Well ID - Groundwater Elevation (ft amsl)

Note:
Refer to Figure 10 for detail on seep locations along the San Juan River bluff.

0 500 1,000 1,500 2,000
Feet

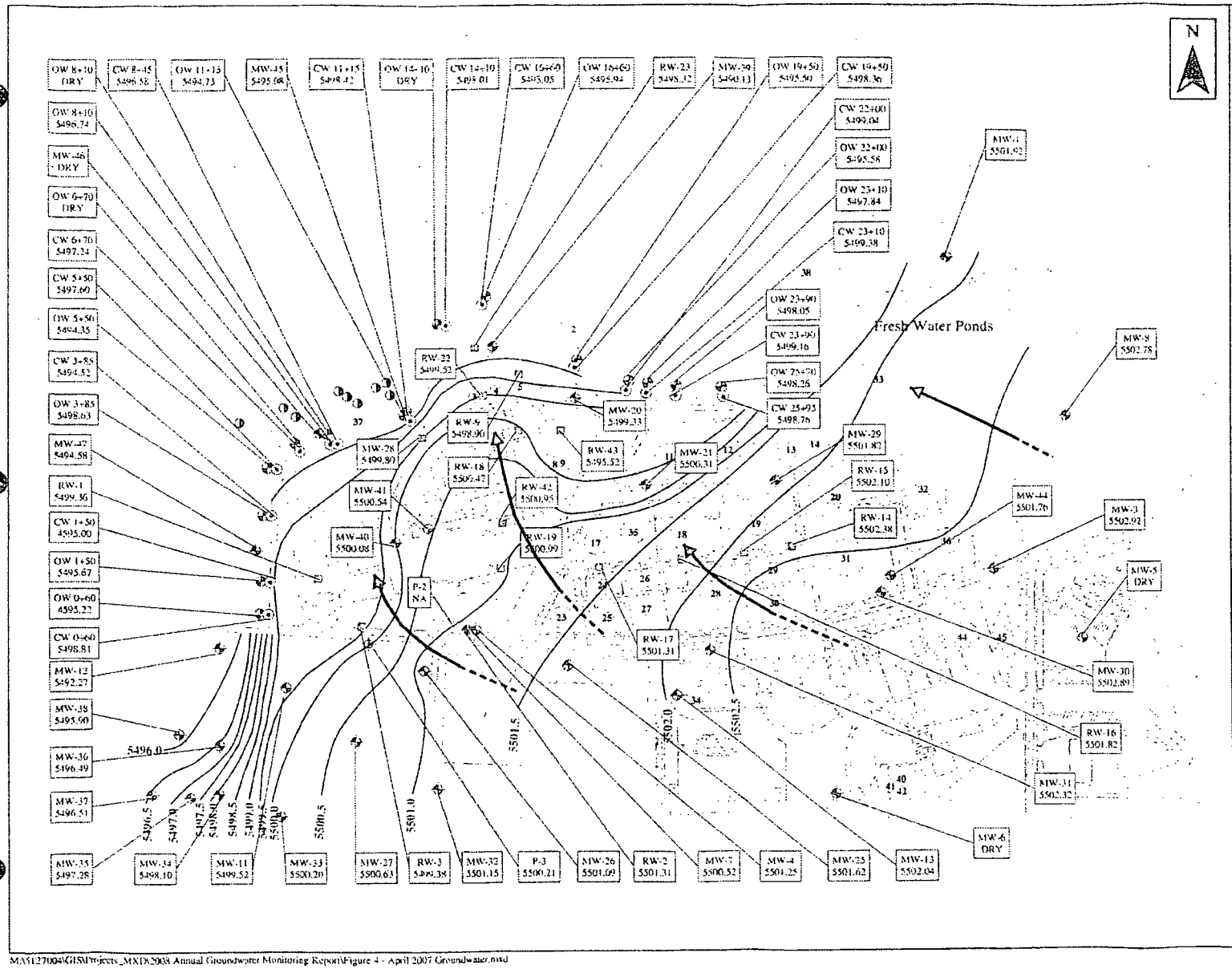
Western Refining

MALCOLM PIRNIE
4646 E. Van Buren St., Suite 400
Phoenix, AZ 85008

Groundwater Elevation and Flow Direction - August 2007
Bloomfield Refinery

April 2008 | Figure 5

M:\51270049\GIS\Projects_MXD\2008 Annual Groundwater Monitoring Report\Figure 5 - August 2007 Groundwater.mxd



Legend

- Monitoring Well
- Observation Well
- Recovery Well
- Piezometer
- Collection Well
- Seep
- Groundwater Elevation Contours
- Site
- Groundwater Flow Direction - dashed where inferred
- MW-13 5502.04 - Well ID - Groundwater Elevation (ft amsl)

Note:
Refer to Figure 10 for detail on seep locations along the San Juan River bluff.

0 500 1,000 1,500 2,000
Feet

Western Refining

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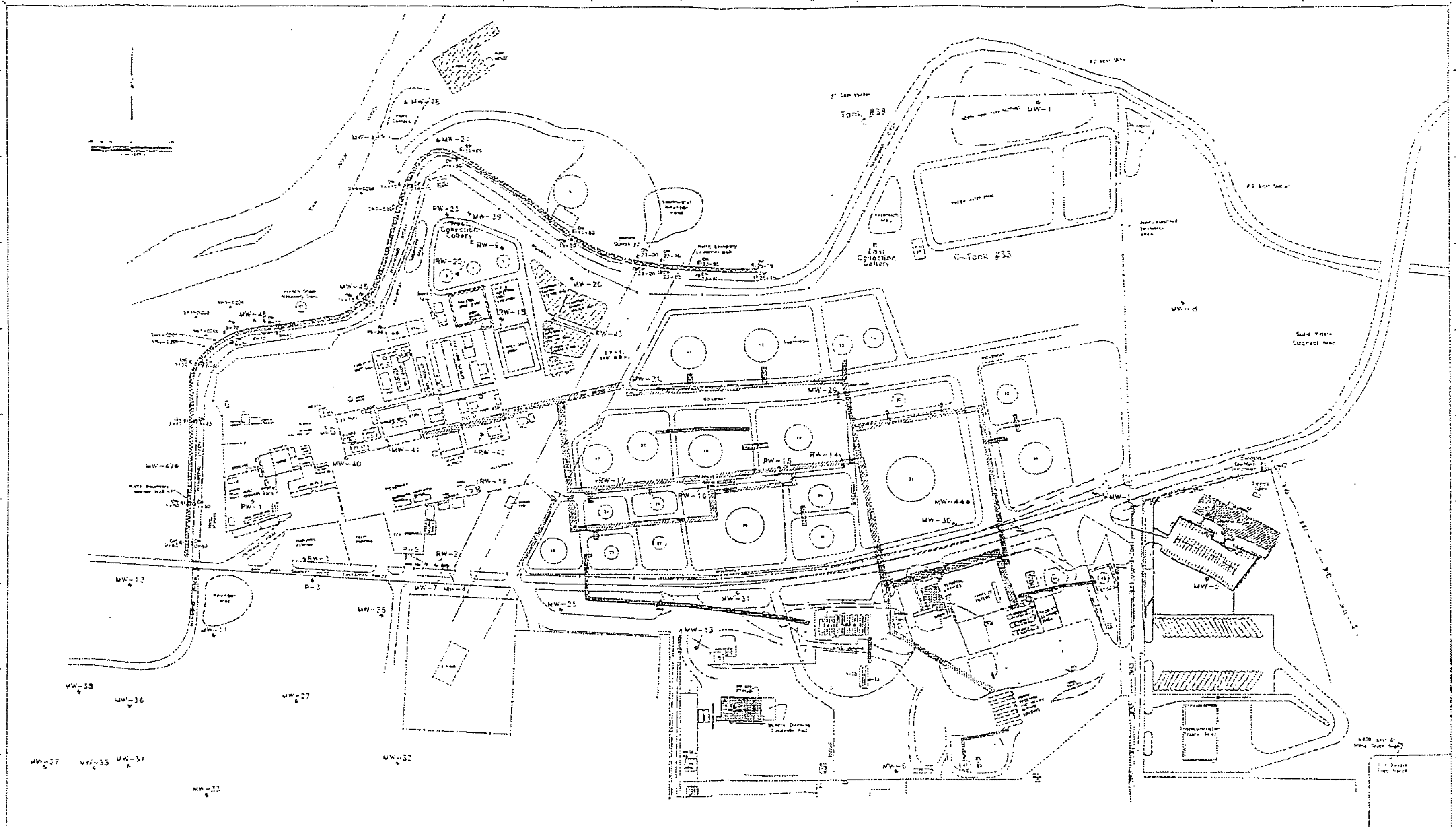
4646 E. Van Buren St., Suite 400
Phoenix, AZ 85008

Groundwater Elevation and Flow Direction - April 2007
Bloomfield Refinery

April 2008 | Figure 4

M:\S127004\GIS\Projects_MXD\2008 Annual Groundwater Monitoring Report\Figure 4 - April 2007 Groundwater.mxd

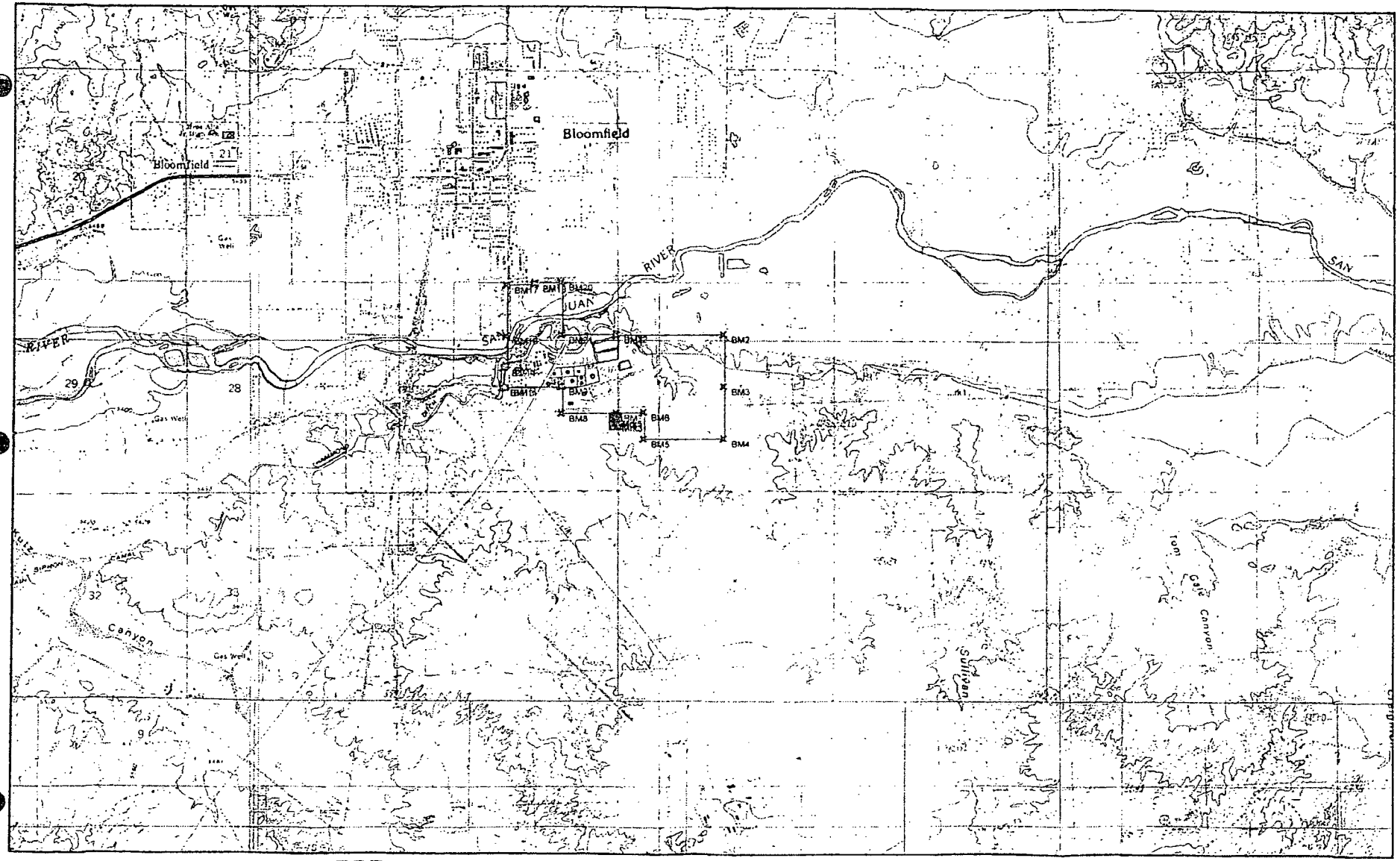


NOTES: "MW-XX" - Monitoring Wells Locations
"RW-XX" - Recovery Well Locations
"P" - Piezometer
- Denotes Under Ground Pipe-Way
- Denotes Above Ground Pipe-Way
- Denotes Slurry Barrier Wall

"CW" - Collection Well Locations
"OW" - Observation Well Locations
"SW" - Sump Well Locations

Giant Bloomfield Refinery
Area Plot Plan
Recovery Well & Monitoring
Well Locations

GIANT REFINING CO.
BLOOMFIELD REFINERY
BLOOMFIELD NEW MEXICO
DWG. NO. D-000-000-023
REV. 10


Bloomfield
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SAN JUAN RIVER
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29
28
32
33
9
Canyon
Gas Well
Gas Well
Gas Well
Tom Gallo Canyon
Gallegos
Scale: 1 inch equals 2000 feet
Western Refining

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV

Sent: Tuesday, September 02, 2008 8:35 AM

To: Schmaltz, Randy

Cc: Cobrain, Dave, NMENV; Kieling, John, NMENV; Price, Wayne, EMNRD; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD; King.Laurie@epamail.epa.gov; Martinez, Cynthia, NMENV

Attachments: GRCB 08-001 Monitor Requirment Interim Measures 9_08.pdf

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

Websites:
New Mexico Environment Department
Hazardous Waste Bureau

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

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 2, 2008

Mr. Randy Schmaltz
Environmental Supervisor
Western Refining Southwest, Inc., Bloomfield Refinery
P.O. Box 159
Bloomfield, New Mexico 87413

RE: MONITORING REQUIREMENTS
EVALUATION OF INTERIM MEASURES
GIANT REFINING COMPANY, BLOOMFIELD REFINERY
EPA ID # NMD089416416
HWB-GRCB-08-001

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has completed its review of Western Refining Southwest, Inc. Bloomfield Refinery's (Western) *Evaluation of Interim Measures* letter dated July 15, 2008. The letter provided a three month update for the evaluation of fluid levels in the observation and collection wells and MW-45 and MW-47. Western recommended that recovery with passive techniques (e.g., absorbent socks) be conducted at OW-1+50, OW 3+85, OW-11+15, and MW-47.

NMED, in conjunction with the Oil Conservation Division (OCD), requires Western to obtain additional information to characterize water and separate phase hydrocarbons (SPH) levels on the river side of the barrier wall rather than installing passive product recovery equipment. Until recently, since the installation of the barrier wall, scheduled pumping of total fluids from the observation, collection, and nearby monitoring wells has been conducted on a frequent basis. It is not clear if SPH thickness will remain static or increase in some of the observation and monitoring wells on the river side of the barrier wall with the cessation of pumping. It is also not clear how much water or SPH is present on the river side of the barrier wall.

To monitor water/product thickness levels under static conditions Western must complete the following:

a. Collect depth to water (DTW) and depth to product (DTP) measurements to an accuracy of 0.01 foot from all observation wells, MW-45 and MW-47 on a biweekly basis for six months, starting October 1, 2008. The acquired data must be compiled in table format and submitted to NMED and OCD on or before April 20, 2008. The table must contain, but is not limited to the following information: collection date, monitoring well identification, total depth of the well (indicate the measuring point (e.g., ground level or top of casing, and include the casing elevation relative to the ground surface)), DTW, DTP, and groundwater elevations. Western shall provide a corrected water table elevation in wells containing SPH by adding 0.8 times the measured product thickness to the calculated water table elevation.

b. Because there is no clear solution of how to recover product on the river side of the barrier wall, Western must submit a plan to NMED and OCD that proposes the hydraulic characterization of the aquifer on the downgradient (river) side of the barrier wall. The plan must be submitted to NMED and OCD on or before November 17, 2008. The information will be used to determine if an active recovery system will be effective in the removal of product on the river side of the barrier wall.

c. If more than one foot of SPH is discovered in any observation well, MW-45, or MW-47 located on the river side of the barrier wall during water/product level monitoring, NMED and OCD must be notified within two business days.

If you have questions regarding this Approval with Direction please contact Hope Monzeglio 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
W. Price, OCD
C. Chavez, OCD
B. Powell, OCD Aztec Office
L. King, EPA Region 6
File: HWB-GRCB-08-001 and Reading

Western Refining

BLOOMFIELD REFINERY

WNR LISTED NYSE

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2008 AUG 25 PM 1 38

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

Certified Mail: 7006 0810 0003 7020 7063

August 21, 2008

RE: Western Refining - Bloomfield Refinery
Praxair Services, Inc. Tank and Underground Line Testing Program

Mr. Chavez,

Please find attached the QA/QC documentation that you requested at the Praxair Services, Inc. presentation conducted at the OCD offices on August 7, 2008.

As the attached notification letters indicate, Bloomfield Refinery has used Praxair Services, Inc. and their tracer gas technology for the past two years in our leak assessment program for tanks and underground lines. At this time, Bloomfield Refinery has completed testing approximately 4000 feet of underground lines and three aboveground tanks. It is our intent to continue using this method to test the remaining underground lines and aboveground tanks to comply with OCD requirements.

If you have questions or concerns please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Bloomfield Refinery – Western Refining Southwest, Inc.

Cc: Randy Schmaltz – Bloomfield Refinery

PRAXAIR

Praxair Services, Inc.

TRACERTIGHT® INSTALL & TESTING
Above Ground Storage Tanks
(ASTs)

METHOD STATEMENT & RISK ASSESMENT

Prepared by:

PRAXAIR SERVICES, Inc.
3755 N Business Center Dr
Tucson, AZ 85705

Telephone: **(520) 888-8400**
Facsimile: **(520) 293-1306**

TABLE OF CONTENTS

APPENDICES

1.0 METHOD STATEMENT

1.1 Praxair Services, Inc.

Praxair Services, Inc. is a wholly owned subsidiary of Praxair providing services to the chemical, refinery and transportation industries. The Asset Integrity Management Services (AIMS) group provides leak detection, corrosion control and pipe inspection services.

1.2 Personnel

Praxair Services uses licensed and certified personnel whenever required. Test technicians are trained and certified in the Tracer Tight method. All field personnel have completed Occupational Safety and Health Administration 40-hour Hazardous Materials Training.

1.3 Test Concept

Tracer Tight® leak testing is performed by mixing a volatile chemical concentrate, a tracer, with the product inside a tank or piping system. The tracer is selected for its compatibility with the product in the tank and piping system and its performance characteristics in each specific test environment. The tracer chemical is added to the product in very low concentrations, typically less than 1 part per million (ppm). The tracer has no impact on the physical properties of the product and works with all types of liquids. The tracers are non-corrosive, inert compounds.

The tracer chemical is distributed throughout the tank and piping system by the motion of the product and vapors. The tracer is partitioned between the vapor space and the liquid product. If the product from the tank or pipeline escapes into the soil, the tracer then evaporates out of the product and disperses into the surrounding soil by molecular diffusion.

After the tracer has had time to diffuse and migrate through the soil away from the leak, soil gas samples are collected from a leak detection probe system that is installed under the tank floor and along piping runs. The system is tested by analyzing these samples with a gas chromatograph for the presence of tracer. The detection of tracer in the soil vapor samples is then used as the sole criteria for determining if there is an active leak.

1.4 Probe System Design & Installation

The *TracerTight*® Test utilizes a probe system designed for each tank based on the area of the tank floor. Each probe is effective over a pre-established area. The design determines optimal placement of each probe so that each area of the tank floor is effectively tested by at least one probe

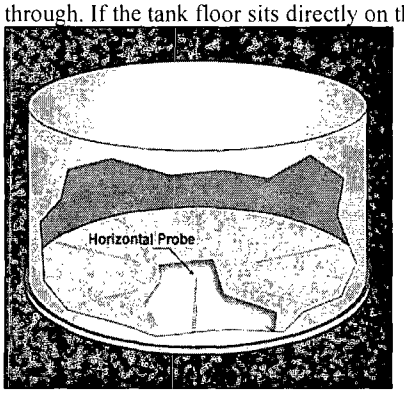
Installation procedures are outlined below:

Tank area is inspected and all utilities and tank design features are taken into account. The leak detection system design is reviewed to ensure that all tank features are considered.

Piping is prepared by cutting, threading and drilling holes in each end section.

Each probe location is checked and cleared to allow access to the soil below the tank floor and proper space allowing probe steel to slide beneath the tank floor without damaging tank floors or liners. In some cases,

where a deep ring-wall exists, a rock drill is used to create neat holes in the concrete for probes to pass through. If the tank floor sits directly on the ground, very shallow trenches need to be dug.



Probes are constructed to meet design specification for length and screening.

Sections of pipe are assembled and inspected for faults.

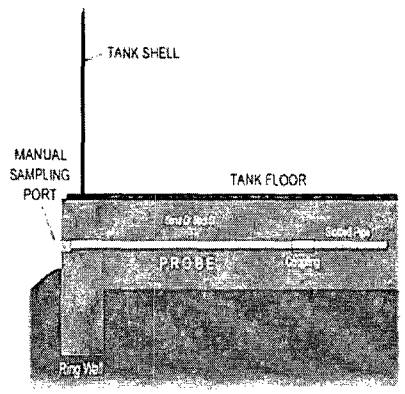
Probe assemblies and equipment are set up for installation and measurements are taken to ensure proper alignment under the tank.

Probes are installed by pounding them horizontally to the desired position beneath the tank floor. Hand pounding equipment designed by Praxair and/or a pneumatic Pierce Airrow is used to hammer probes into the soil beneath the tank floor.

Once installed, each probe is tested for any obstruction interfering with the flow of air required for testing. Vacuum measurements are taken to determine soil permeability and to help identify the need for any system design modifications.

Once each probe has been inspected and approved, a 90 degree elbow (or other attachment as needed) is attached to the outside end followed by a vertical extension to ground level where a termination cap is fixed. This cap will be later replaced by a TracerTight® Termination cap that is designed for easy access sampling and can be resealed for future testing.

All probes are finished flush with the surrounding grade. All excavations are back-filled and area is returned to pre-installation condition.



Once properly installed, the Tracer Tight® Leak Detection System can be used for repeated future testing with minimal service and repair.

1.5 Leak Simulation Procedures

A leak of known size, typically a few gallons, is simulated at the start of each test. A small amount of a tracer is injected below the tank at a midpoint between sampling probes. The leak simulation tracer is a chemical that is similar to but distinguishable from the tracer added to the tank. Detection of this tracer verifies that the transport of tracers throught the soil below the tank is adequate for the detection of a leak.

1.6 Inoculation Procedures

Inoculation is the introduction of the *TracerTight*® compound into the product of the Tank to be tested. This compound (Tracer) is added to the product to achieve the target concentration (typically less than one part per million). This small concentration is enough o allow proper testing of the system. Tracer is injected into the system using the following procedures.

Each tank is inspected for areas of concern. Leakage from valves and connections that may transport tracer to the ground are repaired or isolated before inoculation can proceed.

The tank volume and product level are used to determine the amount otracer needed. The tracer compound is placed in a pressurized container and is then released into the product.

Tracer may be injected into the receipt line while product is being added to the tank, through a gauging hatch or through some other access point such as a low point drain or sampling port.

1.7 Sampling Procedures

For a tightness test with on-site analysis of the tracer the following samples will be collected.

Background Samples – soil gas samples are collected from the monitoring probe system before inoculation to ascertain the background level of the chemical.

Confirmation Sample – collected to ensure adequate mixing of the Tracer – Product inside the tank.

24-Hour Samples - soil gas samples will be collected from the monitoring probe system 24hrs after confirmation of product / Tracer mixing.

48-Hour Samples - soil gas samples will be collected from the monitoring probe system 48hrs after confirmation of product / Tracer mixing.

For periodic leak detection monitoring, background samples may not be collected. Testing samples may be collected up to 30 days after the inoculation of the system.

Sampling Process - The aboveground end of the probe will be fitted with a probe adaptor and a length of polyethylene tubing leading to a vacuum pump. To ensure adequate flow of gas into the probe, the flow of gas will be monitored by a vacuum gauge.

The volume of air within the probe will be purged by evacuating 2 to 5 liters of gas. The evacuation time in minutes versus the vacuum in inches of mercury (Hg) will be used to calculate the necessary evacuation time. If soil gas does not flow into the sampling probe, an attemplt will be made to clear it. If the probe cannot be cleared it may be retracted and another probe installed. The vacuum will be monitored and recorded for each sample collected.

During the soil gas evacuation, samples will be collected from the evacuation line with a syringe and transferred to designated sample canisters. Subsamples of the soil gas sample will be injected into the GC in volumes ranging from 1 microliter (µL) to 2 mL, depending on the concentration at that particular location.

1.8 Analytical Procedures

The samples are analyzed using a gas chromatograph, equipped with an electron capture detector (ECD) and flame ionization detector (FID). Compounds will be separated in the GC on packed analytical columns in a temperature controlled oven. Nitrogen will be used as the carrier gas. The mobile analytical laboratory also is equipped with Hydrogen and Air cylinders to supply the FID to detect hydrocarbon in the soil gas samples.

1.9 Quality Control

Praxair has incorporated stringent quality assurance and quality control into its Tracer Tight® Leak Detection Method. Trained personnel, equipment calibration checks, background system checks and the leak simulation are designed to eliminate any false detection and ensure a valid test each time.

1.10 Criteria For Determination of Leakage

Determination of leakage is based on the presence or absence of tracer. In principal, any tracer detected indicates a leak. In practice, the act of bringing Tracer to the site creates the potential for the detection of extremely low background levels. Samples are collected from the ambient air around the tanks and from the probes under the tanks before and during the testing. Therefore, the indication of leakage is based on two criteria: the detection of tracer higher than levels present in background samples, and an increase in tracer concentration over time.

Western Refining

BLOOMFIELD REFINERY

WNR LISTED NYSE

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

Brandon Powell
New Mexico Oil Conservation Division
Environmental Bureau
1000 Rio Brazos Rd.
Aztec, New Mexico, 87410

Certified Mail: #7006 2150 0003 4368 9284

November 5, 2007

RE: Western Refining Company – Giant, Bloomfield Refinery
EPA ID# NMD089416416
GW - 001 & GW - 130

Dear Mr. Chavez and Mr. Powell,

Western Refining Company – Giant, Bloomfield Refinery has tentatively scheduled inspection of all water-draw sumps located in the Tank Farm to begin the week of November 12, 2007. Each sump will be cleaned out with a Vacuum Truck and then visually inspected. Sumps that can not be cleaned thoroughly enough to inspect (sumps with heavy oil) or sumps that display cracks will be hydro-tested to insure integrity.

Underground line testing will also commence the week of November 12, 2007. Western has contracted with Praxair Services, Inc. to conduct a tracer gas leak assessment program of the underground lines associated with tanks selling Unleaded Gasoline, Premium Gasoline, Subgrade Gasoline, Ultra-low Sulfur Diesel, Low Sulfur Diesel, and Ethanol. This list is subject to change due to blend stock availability and sales volume. The tracer gas program will initiate the week of November 12 and conclude by the first week of December.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

Western Refining

BLOOMFIELD REFINERY

WNR LISTED NYSE

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

Certified Mail: #7006 0810 0003 7020 6608

April 24, 2008

RE: Bloomfield Refinery – Western Refining
EPA ID# NMD089416416
GW - 001 & UICL-9

Dear Mr. Chavez and Mr. Powell,

Underground line testing will commence the week of May 5, 2008. Western has contracted with Praxair Services, Inc. to conduct a tracer gas leak assessment program of the underground lines related to the sweet naphtha transfer from associated tanks to the Vapor Recovery Unit. This list is subject to change due to product availability and volume. The tracer gas program will initiate the week of May 5, 2008 and conclude by the end of May.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Bloomfield Refinery

Cc: Randy Schmaltz – Environmental Manager – Bloomfield Refinery
Brandon Powell – NMOCD Aztec District Office

Western Refining
BLOOMFIELD REFINERY

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WNR
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NYSE

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

Certified Mail: #7006 0810 0003 7020 6943

July 22, 2008

RE: Western Refining Southwest, Inc. - Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

Bloomfield Refinery personnel will begin the annual groundwater monitoring event on August 7, 2008.

Refinery personnel will be following guidelines from the *Facility-Wide Groundwater Monitoring Plan* submitted to OCD and NMED in December 2007 and the letter from NMED titled *Approval with Direction Facility-Wide Groundwater Monitoring Plan* dated March 25, 2008.

Prior to groundwater sampling activities, all wells will be measured for groundwater levels and SPH thickness while the recovery wells are in operation on August 7, 2008. After measurements are completed, recovery pumps will be shut down and removed. All wells will be measured again for groundwater levels and SPH thickness on August 11, 2008. Sampling activities will begin after all measurements have been taken. Semi-annual samples will also be collected from Seeps 1, 6, 7, 8, and 9 if sufficient water is present. We anticipate sampling activities will be concluded no later than August 28, 2008.

If any representatives from NMED would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery

Cc: Randy Schmaltz – Environmental Manager – Bloomfield Refinery
Hope Monzeglio – New Mexico Environmental Department – Santa Fe

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, August 01, 2008 9:29 AM
To: 'Schmaltz, Randy'; Hurtado, Cindy; 'Riege, Ed'
Cc: Price, Wayne, EMNRD; 'Moore, Darrell'; 'Lackey, Johnny'; Monzeglio, Hope, NMENV
Subject: FW: OCD/Praxair Mtg

Randy, Ed and Cindy:

I am writing to invite some representatives (i.e., engineers, scientists...) to an upcoming presentation by Praxair on alternative methods for tank testing that the Navajo Refinery is interested in implementing at its refineries to address OCD required tank testing and alternative approvals on testing. I believe Western Refining SW faces similar challenges at its refineries and the OCD is willing to consider feasible alternative technologies for addressing its requirements. Please come and join Navajo Refining and the OCD at the upcoming presentation here at the Wendell Chino Building (OCD 3rd Floor Conference Room). Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Lackey, Johnny [mailto:Johnny.Lackey@hollycorp.com]
Sent: Tuesday, July 15, 2008 12:23 PM
To: Resinger, Jim; Moore, Darrell; Douglas_Wilson@Praxair.com; Chavez, Carl J, EMNRD
Subject: OCD/Praxair Mtg

When: Thursday, August 07, 2008 10:00 AM-12:00 PM (GMT-07:00) Mountain Time (US & Canada).
Where: Santa Fe

~~*~*~*~*~*~*~*~*~*

Meet with the New Mexico OCD to present Praxair's leak detection technology for Above Ground Storage Tanks.

Western Refining

BLOOMFIELD REFINERY

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

Certified Mail: #7006 0810 0003 7020 6608

April 24, 2008

RE: Bloomfield Refinery – Western Refining
EPA ID# NMD089416416
GW - 001 & UICL-9

Dear Mr. Chavez and Mr. Powell,

Underground line testing will commence the week of May 5, 2008. Western has contracted with Praxair Services, Inc. to conduct a tracer gas leak assessment program of the underground lines related to the sweet naphtha transfer from associated tanks to the Vapor Recovery Unit. This list is subject to change due to product availability and volume. The tracer gas program will initiate the week of May 5, 2008 and conclude by the end of May.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

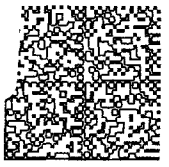
Cindy Hurtado
Environmental Coordinator
Bloomfield Refinery

Cc: Randy Schmaltz – Environmental Manager – Bloomfield Refinery
Brandon Powell – NMOCD Aztec District Office

Western Refining

P.O. Box 159, Bloomfield, NM 87413

7006 0810 0003 7020 6608



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

87505+4225-99 C011

GIANT
REFINING COMPANY

2007 MAY 22 PM 12 31

May 18, 2007

Certified Mail: 7006 0810 0003 7020 6073

Ms. Hope Monzeglio
NMED Hazardous Waste Bureau
2905 Rodeo Park Dr. East. BLDG 1
Santa Fe, New Mexico 87505

Re: **Giant Refining Company, Bloomfield Refinery**
River Terrace Voluntary Corrective Measures – Bioventing System Annual Report (January 2006 through December 2006)
NMD089416416 HWB-GRCB-05-002

Dear Ms. Monzeglio:

Giant Refining Company Bloomfield (GRCB) received the April 18, 2007 letter from the New Mexico Environmental Department (NMED) approving the River Terrace Corrective Measures Bioventing System Annual Report (Report) dated January 2007. Based on our review of NMED's comments and Table 1 and Table 2 of the letter, GRCB requests clarification and approval of the following variations to the tables:

1. Table 1C of the Bioventing System Monitoring Plan (Revised) dated October 28th, 2005 and approved by NMED on November 23, 2005 summarizes system performance monitoring activities for groundwater and soil gas. On March 23, 2006, a revised Table 1C was submitted to NMED (as requested) that added a groundwater mercury analysis for monitoring well DW-1. NMED Table 1 of the April 18th, 2007 letter adds additional groundwater parameters beyond those listed in the revised Table 1C, specifically: quarterly monitoring of lead at each TP well; and, annual monitoring of chromium and barium at each TP well, MW-49, and DW-1.

   While existing investigative data from the bioventing area indicate fugitive fuel products from a historic event may have potentially reached the River Terrace, chromium and barium are not constituents of fuel products manufactured at the GRCB refinery. Furthermore, the River Terrace has never been used for refinery process operations from which petroleum refining byproducts potentially could have been accidentally released. As such, GRCB requests clarification on the purpose for collecting the chromium and barium data, how those data are anticipated to contribute to furthering the technical understanding of the nature and

PHONE
505-632-8013
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505-632-3911

50 ROAD 4990
P.O. BOX 159
BLOOMFIELD
NEW MEXICO
87413

extent of petroleum hydrocarbon impacts at the River Terrace, and the proposed screening levels for those data should they be obtained.

2. In Item #4, NMED compares TP #7 to DW #1. There should not be any comparison of the wells concerning water volume as their construction is drastically dissimilar. TP #7 is a 2" boring that is backfilled with native soil. DW #1 has a 12" borehole that is backfilled with silica sand with 6" casing. Pump-down tests for DW #1 indicated that it did not recharge well enough to become a dewatering well. TP #7 does not recharge quickly enough to pull three well volumes out of it during a sampling event. GRCB will attempt to sample TP #7 during the 2007 Second Quarter sampling event. However, if the well does not yield sufficient water volume then GRCB proposes that TP #7 be eliminated from future monitoring events.

3. The Table 1C of the NMED-approved Bioventing System Monitoring Plan summarizes the monitoring location and frequency for collecting quarterly soil gas parameters (CO2, O2, and VOCs) to evaluate the performance of the bioventing system. NMED Table 2 of the April 18th, 2007 letter adds quarterly soil gas monitoring of the bioventing (BV) wells.

   BV Wells were constructed with a six inch borehole and backfilled with silica sand to facilitate air venting into the subsurface. The wells are not backfilled with native soil. The silica sand provides a barrier between the well and the native soil. Soil gas concentrations in the bioventing wells could possibly provide misleading results as the vapors must diffuse and equilibrate between the soil formation and the inside of the well bore.

   GRCB intended the quarterly soil gas monitoring events to be conducted while the bioventing system is operating. Air samples obtained from the BV wells during those times would essentially be of the ambient air being injected into the subsurface. In order to obtain meaningful air samples from the BV wells, the bioventing system would need to be turned off and the subsurface conditions allowed to equilibrate for an extended period (e.g., several weeks). Since, turning the bioventing system off for an extended period would hinder progress of the remediation, GRCB requests to conduct the soil gas sampling in accordance with the approved Monitoring Plan and collect soil gas samples from the BV wells during the in-situ respiration tests as described in the approved Monitoring Plan.

4. An Addendum to the approved Bioventing Monitoring Plan (Revised) was submitted to NMED on May 18, 2006, and approved on May 22, 2006. The Addendum included a modified sampling frequency for conducting in-situ respiration tests at the River Terrace. The note at the bottom of NMED Table 2 in

the April 18th, 2007 letter does not reflect the agreed-upon sampling frequency for the in-situ tests. GRCB previously explained the physical limitations surrounding the collection of more frequent samples during the test. As such, GRCB requests approval to perform the 2007 in-situ respiration test as outlined in the approved Addendum.

The note at the bottom of Table 2 also indicates the in-situ respiration test must be conducted during a river-flow stage that is the similar to that during the May 2006 test. GRCB contacted Bureau of Reclamation (BOR) regarding the anticipated flows of the San Juan River during the summer months of 2007. According to the BOR, the river flows during the summer months of 2007 are anticipated to be greater than those of May 2006. As such, it is unlikely the May 2006 water level conditions will be replicated. GRCB will record the water levels in the River Terrace monitoring wells at the time of the respiration test and report them to NMED. Those water levels will be compared to those measured during the May 2006 respiration test.

GRCB looks forward to receiving NMED approval of the requested variations. Please feel free to call me at (505) 632-4161 if you have any questions.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Giant Refining - Bloomfield

Cc: Wayne Price – NMOCD – Santa Fe
Robert Wilkinson – USEPA – Region VI
Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining - Bloomfield

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

Certified Mail: 7006 0810 0003 7020 6509

March 19, 2008

RE: Bloomfield Refinery – Western Refinery
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

Bloomfield Refinery personnel will begin collecting semi-annual groundwater samples the week of April 7, 2008.

Refinery personnel will be following guidelines from the revised Facility-Wide Groundwater Monitoring Plan submitted to OCD and NMED in December 2007.

MW #1, MW #6, MW #8, MW #12, MW #13, MW #20, MW #30, MW #33, MW #35, MW #37, and MW #38 will be sampled for the target VOC's (target list), TPH-GRO, and TPH-DRO. Samples will also be collected from CW 0+60, CW 25+95, and each observation well and analyzed for VOC's (target list), TPH-DRO, and TPH-GRO (observation wells only). East Outfall #2 and East Outfall #3 will be sampled and analyzed for VOC's (target list), dissolved metals, total metals (target list), carbon dioxide, alkalinity, and anions.

All wells within the facility will be monitored for groundwater elevation.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Bloomfield Refinery – Western Refining

Cc: Randy Schmaltz – Environmental Manager – Bloomfield Refinery
Hope Monzeglio – New Mexico Environmental Department – Santa Fe

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, March 05, 2008 1:56 PM
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc: Frischkorn, Cheryl, NMENV; Cobrain, Dave, NMENV
Subject: RE: Bloomfield (GW-1)

Hope:

Wayne and I spoke to Randy Schmaltz this morning about the SPH and use of socks (if SPH is present) at OW 1+50 (avg. 8 in. SPH) , OW 3+85 (avg. 12 in. SPH), MW-47 (?), OW 5+50 (0.6 in. SPH), and OW 16+60 (?). Randy said although the 2 in. Dia. wells are screened shallow into the water table, there is a water/SPH interface below the SPH in the wells; consequently, the concern that the SPH layer is thicker than the measured thickness in the wells does not appear to be an issue. He concedes that a 6 in. layer of SPH over a 200 x 200 square ft. area could mean over one-hundred thousand gallons of SPH is floating on the water table, but wants to try the socks (8in. x 2in) in each well with monitoring to see how much SPH they recover per well and can remove with a manual passive SPH recovery process. A 2 in. x 8 in. sock is not expected to recover much SPH. He is aware that the passive method, depending on the frequency that the socks will be squeezed, may require significant manual labor to remove the SPH, but they want to give it a try. He said in the course of monitoring and removing SPH they find it is not feasible to use socks, they will consider installing an active SPH recovery system similar to Navajo where they may install an automated free-product recovery system with sump well design or reactivate vacuum trucks again to recover the SPH. OCD notices in NMED's draft "Interim Measures Letter" that it would like to give the passive SPH system a chance. Randy would like to try the socks. Consequently, the OCD is in agreement, but if monitoring and SPH removal indicates that the passive sock system is ineffective, we need to make sure we include language that will require an active SPH removal system. OCD is a little concerned because the OWs and MW-47 are on the river-side of the barrier wall and not within the contained barrier wall area.

Two letters, one for each report is fine with OCD. OCD comments on NMED draft letters are provided below.

Facility-Wide Groundwater Monitoring Plan:

First sentence: You may want to add "and Oil Conservation Division (OCD)" have reviewed the FWGWMP.

First paragraph: You may want to add "dated January 2008" after the "Evaluation of Interim Measures."

SPH OWs and MW-47 (Comment 2 of your "Evaluation of Interim Measures" draft) could be incorporated into the FWGWMP, since it is part of the groundwater monitoring. We recommend weekly monitoring, SPH thickness, SPH recovery volume per well (discrete and cumulative) be recorded with a conference call to update the agencies on the success of recovery or SPH thickness reduction, and the refinery's determination of whether to continue passive SPH recovery versus active SPH recovery and the frequency of monitoring thereafter. In addition, the last sentence of Comment 2 should be revised as the goal is to monitor, remove SPH with the socks, and show that the passive SPH recovery method or process is reducing the thickness and overall volume of the SPH over time. OCD likes the SPH thickness greater than 1 foot notification to the agencies because it will alert the agencies to the actual volume of SPH still floating on the water table on the river side of the barrier wall and allow the agencies to mandate active SPH recovery.

Facility-Wide Groundwater Monitoring Plan:

Looks good with similar "Comment 2" changes above (see FWGWMP).

Please let me know what you think or if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Monzeglio, Hope, NMENV
Sent: Friday, February 29, 2008 2:47 PM
To: Price, Wayne, EMNRD; Chavez, Carl J, EMNRD
Cc: Frischkorn, Cheryl, NMENV; Cobrain, Dave, NMENV
Subject: Bloomfield

Carl and Wayne

I have attached drafts of NMED's Approval with Direction to the Evaluation Interim Measures report and the Facility Wide Groundwater Monitoring Plan. Hopefully by review of these, it will clarify the differences and overlapping issues between the two reports. After your phone call with Randy and review of the letters, let me know if OCD concurs and if not, please provide me with your recommendations.

Thanks
Hope

Hope Monzeglio
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Fax: (505)-476-6060
hope.monzeglio@state.nm.us

Websites:
New Mexico Environment Department
Hazardous Waste Bureau

GIANT
REFINING COMPANY

RECEIVED
2008 FEB 29 PM 12 16

CERTIFIED MAIL # 7007 0220 0004 0187 0299

February 26, 2008

Ms. Hope Monzeglio
State of New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Re: Evaluation of Interim Measures
GIANT REFINING COMPANY, BLOOMFIED REFINERY

Dear Ms. Monzeglio:

Thanks for your timely review of our recent submittal regarding our evaluation of the interim measures along the North Boundary Barrier. In response to you email of February 15, 2007, the "seeps", which are located primarily north of MW-45, MW-46 and MW-47, are numbered 1 through 9. This is reflected on Figure 9 of the Facility-Wide Groundwater Monitoring Plan. Because there are no current discharges of groundwater at seep locations 2, 3, 4, or 5, these "seeps" were not identified as future sample locations in the Evaluation of Interim Measure Report.

It is important to note that seeps # 3 and #4 are actually secondary catchments that were constructed in the arroyo below seep #1 and that in this area groundwater discharges from only from seep #1. Seeps #2 and #5 did have historic flows but groundwater discharge has ceased since installation of the slurry wall.

Giant Refining Company proposes to check all of the identified seep locations (#1 - #9) on a bi-weekly basis to determine if there is evidence of an active groundwater discharge. The presence of groundwater discharges will be recorded and during the semi-annual sampling event, water samples will be collected from all seeps that have indicated an active groundwater discharge within the past six months, assuming water is present during the sampling event.

Just Sample if water is present

If you have additional questions or would like to discuss the sampling further, please contact me at (505) 632-4171.

Sincerely,

James R. Schmaltz
Environmental Manager

Cc: Carl Chavez - OCD
Dave Cobrain – NMED HWB
C. Frischkorn – NMED HWB
A. Hains – Western Refining, El Paso

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD

Sent: Friday, February 22, 2008 3:47 PM

To: 'Randy Schmaltz'

Cc: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV

Subject: OCD Discharge Plan Application for Modification (July 2007) GW-1

Mr. Schmaltz:

Good afternoon. The New Mexico Oil Conservation Division (OCD) has reviewed Western Refining Southwest, Inc.'s (WRSW) letter (letter) dated January 29, 2008 regarding the above subject associated with EPA ID# NMD089416416 (HWB-GRCB-07-003). WRSW's letter indicates that it is their intent for the Facility-Wide Groundwater Monitoring Plan (FWGWMP) to be accepted by both the New Mexico Environment Department (NMED) and OCD as the prevailing document for comprehensive groundwater monitoring at the Bloomfield Refinery. The OCD regards WRSW's letter with attachments dated January 29, 2008 to the NMED as the updated version of Appendix D from the report in the paragraph below.

Previously, WRSW submitted a letter dated July 30, 2007 with a report (Report) entitled, "OCD Discharge Plan Application For Modification" (July 2007) to the OCD. The report was developed to address OCD Administrative Compliance Order (ACO) and Stipulated Final Order (SFO) No. NM-OCD 2006-100, and an EPA Administrative Order on Consent (Docket No. VI-303-H). Section 9 of the report contained proposed modifications to resolve contamination issues associated with the refinery. A FWGWMP was developed in Appendix D of the report along with Section 10 (Inspection, Maintenance & Reporting) to address state and federal requirements.

OCD comments and/or recommendations on the report and letter aforementioned are as follows:

1) The OCD will continue to work with the NMED and WRSW to complete a FWGWMP before the discharge permit renewal date in order to include it as part of the discharge permit renewal with the understanding that the OCD may modify the monitoring requirements as specified under its WQCC discharge plan or permit at any time based on inspections or additional inspection requirements. A finalized version of the FWGWMP in the form of a table (electronic file requested) will assist the OCD with the incorporation of the FWGWMP into the OCD discharge permit. According to OCD records, the existing discharge permit is set to expire on June 7, 2009.

2) The OCD notices the on-site landfill disposal provisions for Fluid Catalytic Cracking Unit (FCCU) Catalyst and Sulfur Byproducts. The OCD is aware of Discharge Permit Items #21 (Active Landfill) and 22 (In-Active Landfill), and the closure plans requested under the permit by December 1, 2005. The OCD is concerned about the proximity of the landfills to the San Juan River; the RCRA ramifications (SWMU vs. AOC) of the landfills; and will likely seek to phase out the existing active landfill at the facility during the discharge permit renewal application process. The permit is set to expire on June 7, 2009. Please prepare to discuss and plan accordingly for above.

3) The Report references "GW-130" for the facility Underground Injection Control (UIC) Class I Non-Hazardous Injection Well; however, the well is now permitted under OCD records as "UICL-9." Please refer to the UIC Class I Well permit as "UICL-9" from now on.

4) Section 10 requirements are to be completed one time within the next 5 years (OCD extended to 3/1/2013) and are as follows:

a) An electronic version of the spreadsheet is requested to assist OCD with tracking the inspections, maintenance and reporting (IMR).

b) Columns for "Inspection, Maintenance, and Repair" shall be added to the spreadsheet to track one and/or multiple items performed at the same unit at the same time. A field with "date", "ok" or "problem" (also denoted w/ an asterisk to explain at the bottom of the spreadsheet what action was conducted to correct the problem) shall be added to the spreadsheet to report the results of the IMR to the OCD. The OCD recommends that WRSW provides separate spreadsheets for different locations or units (i.e., sumps, tanks, API, etc.) for

simplified review of compliance with dates, etc. of the SFO. The operator shall provide an annual report in a format that satisfies the above with the Annual Ground Water Monitoring Report.

c) A storage tank numbering system shall be implemented at the facility with tank number references in the spreadsheet to show the exact tank of concern. A numbering system for other units is recommended.

d) Pits/Ponds shall be added to the spreadsheet.

e) The dates need to be revised up through March 1, 2013 for all locations or units to undergo testing. Only large tanks are exempted (see paragraph below) and WRSW needs to denote tanks that are exempted in the spreadsheet with the new date for the inspection.

The "OCD Tank Inspection" spreadsheet indicates a 10 year inspection frequency; however, the SFO indicates that all locations or units are required on a one time basis to be tested within 5 years of the SFO date (3/1/2006) or by March 1, 2011. Exempted from this one time testing requirement are large tanks that have been tested within the past five years or are due to be tested within the next five years under other regulatory agency rules, regulations or guidelines, or under any other standards accepted by regulatory agencies, such as API Code 653, provided that the tanks shall be identified in the spreadsheet and test dates and results provided to the OCD. WRSW may request a time extension for accomplishing requirement or recommendations, which the OCD, in its sole discretion, may grant for good cause shown by WRSW. The OCD extends the end of the one time five year date to March 1, 2013 for good cause.

In conclusion, the OCD concludes that WRSW has complied with SFO Section I.V. Compromise and Settlement (Section 18(a)(c). WRSW shall address Item #4 above satisfy Section 18(b) of the SFO. Regarding Section 18 (c), the OCD has opted to address the modification in the discharge permit renewal process for good cause as stated in Item #1 above.

Please contact me if you have questions. Thank you.

Note: Please be advised that NMOCD approval of this plan does not relieve Western Refining Southwest, Inc., Bloomfield Refinery of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Western Refining Southwest, Inc., Bloomfield Refinery of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
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Oil Conservation Division, Environmental Bureau
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Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD

Sent: Thursday, February 14, 2008 4:10 PM

To: Monzeglio, Hope, NMENV

Cc: Price, Wayne, EMNRD; Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV

Subject: RE: Bloomfield facility wide groundwater monitoring plan

Hope:

After looking at the "Evaluation of Interim Measures Bloomfield Refinery (January 2008) report (report), and how it may also apply to the Facility-Wide Groundwater Monitoring Plan, I have the following concerns or comments for your consideration:

1) OCD would like all of the seeps to be reflected in Figures and in Table 3 of the Facility-Wide Ground Water Monitoring Plan (FWGWMP). In addition to VOC and SVOC semi-annual analysis, the OCD would like General Chemistry to be included in order to give us better information on the impacts from any residual oil, etc., outside of the barrier wall and its potential impact via storm water discharges, etc. on land, to the bluff area and eventually into the river. Scott Crouch thought this was a good idea too in order to assess the impacts from residual oil outside of the barrier wall.

Western Refining seems to discount the water quality in the seeps because they feel the majority of water is storm water runoff and not from ground water discharge Although this may be true, there is still some ground water discharging into the seeps and it is the residual oil in saturated sediments outside of the barrier wall that OCD is most concerned may migrate and discharge to the bluff wall, reach the river via overland flow, etc. This concern is greatest during the rainy season (Summer Months or monsoon season). The semi-annual sampling does not appear to coincide with high precipitation period, unless NMED views April to be the best month to sample? They identify Seeps #1, 6, 7, 8 and 9 in Figure 1 of the report. However, in talking to Scott Crouch today, there are other seeps, i.e., 2 - 5 that exist and should be considered for inclusion in the FWGWMP.

2) The OCD would like OCD sump recovery wells, i.e., SW-1, SW-2, SW-3, SW-4, SW-5, SW-6 and SW-07, illustrated in Figure 1 of the report and installed for the OCD under a CO to minimize the threat of oil releases along the bluff wall to also be included in Table 3 of the FWGWMP with the stipulation that these wells will be monitored during high precipitation events and be evacuated as needed to prevent releases along the bluff wall adjacent to the river. These wells are constructed with about 10 to 15 feet of black below screen to allow for fluid accumulation; consequently, it may be prudent to also have them check for free product of SPH during high precipitation periods? These sump wells were installed in major swale areas upgradient from the historical oily discharges that have occurred along the bluff in the past.

3) Western Refining would like to place socks to address LNAPL only in OW 1+ 50 and OW 3 + 85, which have shown LNAPL historically. I notice MW-47 is located between these locations and Scott Crouch could find no historical monitoring data from MW-47 during our discusssion. After reviewing the literature (SoakEase™ - passive system), it appears that only the LNAPL in water transecting the socks is going to be absorbed to the sock; consequently, the socks appear to be largely ineffective for capturing significant volumes of free product over a wider area. In addition, the capture of LNAPL will be a function of the maintenance of the socks where small volumes would be removed.

I recommend that Western install automatic free product recovery systems in these wells, which would serve to draw down the water table and induce the flow of product toward the wells for capture, which in my opinion would be more efficient and effect in addressing the free product in that area of concern. A sump well positioned in that area would also lower the piezometric surface and induce the flow of free product toward the sump for skimming and recovery and over a wider area. Scott also said they could perform a bail down test to assess the recovery rate, but acknowledged that a sump well constructed in the area or automatic skimmer wells at the OWs and MW-47 may also be more effective over a wider area.

Let us know what you think. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
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Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Monzeglio, Hope, NMENV
Sent: Thursday, February 14, 2008 10:49 AM
To: Chavez, Carl J, EMNRD
Cc: Price, Wayne, EMNRD; Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV
Subject: Bloomfield groundwater monitoring plan

Carl

Resulting from our phone call yesterday, I am in the process of drafting up comments for Bloomfield's Facility Wide Groundwater Monitoring Plan. Please let me know what OCD would like for analytical analysis at the Seeps which, will be sampled on a semi-annual basis. I will also address the MDL issue you pointed out. I will email the draft comments to you before they are sent out.

Thanks

Hope

Hope Monzeglio
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Fax: (505)-476-6060
hope.monzeglio@state.nm.us

Websites:
New Mexico Environment Department
Hazardous Waste Bureau

GW-1

Chavez, Carl J, EMNRD

From: Scott Crouch [scrouch@jdconsult.com]
Sent: Wednesday, February 13, 2008 10:17 AM
To: Monzeglio, Hope, NMENV; Randy Schmaltz; Hains, Allen
Cc: Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV; Chavez, Carl J, EMNRD; Price, Wayne, EMNRD
Subject: RE: Evaluation of Interim Measures
Attachments: passive recovery examples.pdf

Hope:

Please see my responses to each of your questions below:

1) Page 8 of Section 4 states "[t]he samples are identified as Outfall #1, Outfall # 2, Outfall #7, Outfall #8, and Outfall #9, and their locations are shown on Figure 1." These outfalls are again referenced in Appendix D. Are these outfalls identified as Seep 1, Seep 6, Seep 7, Seep 8, and Seep 9 on Figure 1? where's Seeps 2-5? Should Seeps.

Response: You are correct, in that the "outfall" and "seeps" are one in the same. The water samples were labeled as Outfall #1, Outfall #2, etc. on the chain-of-custody forms so I retained this sample ID in the data summary table, which appears in Appendix D. I recalled that in your October 22, 2007 comment letter on the Facility-Wide Groundwater Monitoring Plan, you requested that we discontinue the use of the term "catchments" for these locations and call them "seeps." Therefore, we primarily referred to these locations as seeps in the text and labeled the maps as seeps. Moving forward, we will try to be consistent with the use of "seeps" to identify these locations.

2) Section 6 Recommendations: Bullet 1 states "Measures water levels while recovery wells are in operation to allow an evaluation of the capture zone of the system and again after pumps have been removed and water levels have stabilized" Question: How often will this process be completed and what time of year (when)?

Response: We are proposing to add this step to the existing schedule. Section VIII.B.1 of the Order requires that Giant discontinue all automated and manual extraction of SPH and water from wells for 48 hours prior to measurement of water and product level. We are proposing to complete this activity as required but also check fluid levels in automated wells while the pumps are in operation, just before shutting down for sampling in accordance with the Facility-Wide Groundwater Monitoring Plan.

2) Section 6 Recommendations: Bullet 2 states "Discontinue recovery from the collection wells and recover from only observation wells with LNAPL using passive measures (e.g., absorbent sock)." Question - Specifically, which wells will the absorbent sock be in? Can you send some information on the sorbent sock that will actually be used?

Response: The two observation wells with currently measurable LNAPL are OW 1+50 and OW 3+85. We propose to use passive LNAPL recovery technologies in these two wells and if LNAPL appears in other observation wells, we would add these additional locations to the passive recovery program. There is no purging / S. only LNAPL in contact w/ Sock are captured? Not effective

I have attached information on several examples of products that are used for passive recovery of LNAPL. The potentiometric surface has been relatively stable in OW 1+50 and OW 3+85 so it may not be necessary to use socks/bailers that are capable of maintaining recovery efficiencies with fluctuating water levels; however, we will want to utilize the best product for our site-specific application. The volume and viscosity of recoverable material will direct our final choice as to the best passive recovery tool. FP recovery system more effect

2) Section 6 Recommendations: Bullet 2 on page 12: Question: what time of year (months) was Giant planning on sampling the seeps semi annually?

Response: We were planning on doing this during the regularly scheduled semi-annual sampling events in April and October.

miss the Monsoon Season.

Let me know if you have any additional questions.

Scott T. Crouch, P.G.

RPS JDC
404 Camp Craft Rd., Austin, TX 78746
Office (512) 347-7588 **Direct (512) 879-6697**
Cell (512) 297-3743 **Fax (512) 347-8243**
crouchs@rpsgroup.com

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Tuesday, February 12, 2008 5:12 PM
To: Randy Schmaltz; Scott Crouch
Cc: Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV; Chavez, Carl J, EMNRD; Price, Wayne, EMNRD
Subject: Evaluation of Interim Measures

Randy and Scott

I have a few questions pertaining to the Evaluation of Interim Measures Report.

1) Page 8 of Section 4 states "[t]he samples are identified as Outfall #1, Outfall # 2, Outfall #7, Outfall #8, and Outfall #9, and their locations are shown on Figure 1." These outfalls are again referenced in Appendix D. Are these outfalls identified as Seep 1, Seep 6, Seep 7, Seep 8, and Seep 9 on Figure 1?

2) Section 6 Recommendations: Bullet 1 states "Measures water levels while recovery wells are in operation to allow an evaluation of the capture zone of the system and again after pumps have been removed and water levels have stabilized" Question: How often will this process be completed and what time of year (when)?

Bullet 2 states "Discontinue recovery from the collection wells and recover from only observation wells with LNAPL using passive measures (e.g., absorbent sock)." Question - Specifically, which wells will the absorbent sock be in? Can you send some information on the sorbent sock that will actually be used?

Bullet 2 on page 12: Question: what time of year (months) was Giant planning on sampling the seeps semi annually?

Thanks

Hope

Hope Monzeglio
Environmental Specialist

2/13/2008

New Mexico Environment Department
Hazardous Waste Bureau
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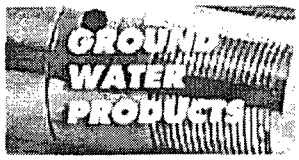
Hazardous Waste Bureau

DURHAM GEO SLOPE INDICATOR



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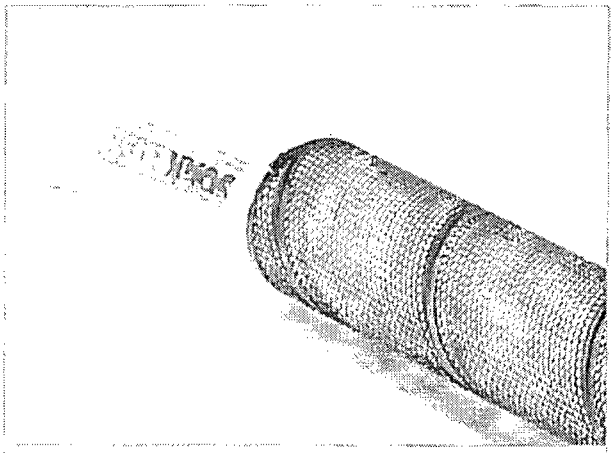
Customer Satisfaction

DURHAM GEO SLOPE INDICATOR
2175 West Park Court
Stone Mountain, GA
USA 30087
Tel 770-465-7557
Fax 770-465-7447
Email Us

SoakEase™

Absorbent material for immediate response or minimal product.



SoakEase™ absorbent sock inside a stainless steel canister

Catalog page (PDF)

Application:

- Passive LNAPL recovery

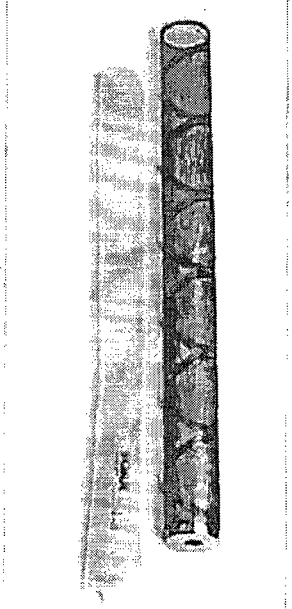
Description

SoakEaseis a product-selective absorbent sock inside a stainless steel canister. It is used as a passive collection system for free phase product such as jet fuel, gasoline or diesel fuel from 1.25 in (3.17cm) and larger recovery wells, monitoring wells and recovery trenches.

SoakEase is 36 in (0.9 m) long and is available in three sizes to accommodate specific site requirements:

- 1 in. absorbs 0.18 quart (0.47 L) of product per sock
- 2 in. absorbs 1 quart (0.95 L) of product per sock
- 4 in. absorbs 3 quarts (2.8 L) of product per sock

The SoakEase can be used as a bailer for periodic product removal or as a dedicated system for a more continuous method of recovery. Prior to dedicating the SoakEase, it is recommended that excess free product be removed by bailing with the SoakEase.



SoakEase™ absorbent sock and stainless steel canister

To use SoakEase as a bailer, an absorbent sock is placed in the stainless steel canister, a cord is attached to the support loop and then lowered through the product layer. The full length of the sock should come into contact with the product for greater recovery. Immediately the SoakEase™ will begin absorbing product at a rate of approximately 0.1 gallon (0.38 L) per second, depending on the product viscosity. After some time, the SoakEase should be raised from the well, the sock removed from the canister and disposed of in accordance with regulations.

To use the SoakEase as a dedicated system, it is necessary to determine the amount of product present using an oil/water interface indicator as well as the water table fluctuation. When these have been determined, the SoakEase may be installed to accommodate level changes of up to 36 in (0.9 m).

TB1-100 1" SoakEase Kit

TB2-100 2" SoakEase Kit

TB4-100 4" SoakEase Kit

Individual refills available.

Tech Tip: The product absorption rate is determined by the viscosity of the product and can vary depending on site conditions. The SoakEase is designed to be used with hydrocarbon-based products. The user must determine the necessary replacement schedule by gauging site conditions. The socks can be squeezed out and reused. Approximately 80% of the original absorption can be recovered.

For More Information:

Catalog Page

Related items:

Product/Water Interface Probe
CapCop protection vault

PASSIVE REMEDIATION

Passive Skimmer

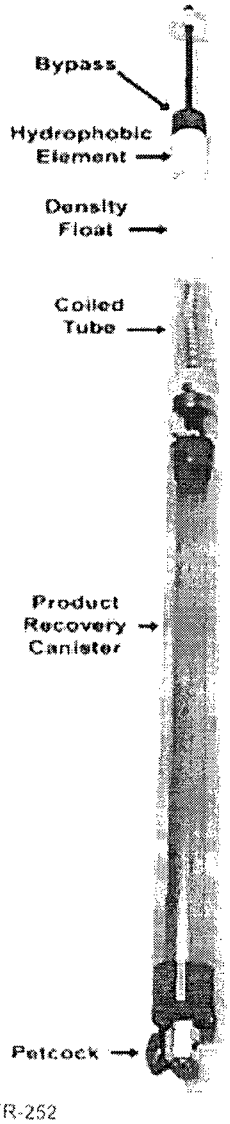
Floating inlet automatically adjusts to water table changes.

Application

- Passive LNAPL recovery
- Use when minimal product is present or slow recovery rates are expected
- 2 in and larger wells
- May be upgraded to an active system by adding the F.A.P. Plus™ Pump.

Description

- Skimmer
- Canister
- Well Clincher with 30 ft cord



TR-252

Skimmer. The Passive Skimmer utilizes the F.A.P. Plus™ skimmer to provide a 36 in floating intake for the recovery of free phase products such as gasoline, diesel and jet fuel. It is used when minimal product is present or slow recovery rates are expected. For passive recovery of products with higher than 80 SSU, the 4 in high viscosity skimmer (TR-25410) is used. This system provides a floating intake of 30 inches.

Product Recovery Canister. The clear PVC collection canister uses a quick connect fitting to attach it to the skimmer and provides venting through the skimmer support hollow rod. The bottom of the canister incorporates a petcock for easy draining. The petcock assembly can be removed allowing an extension canister to be threaded into the existing canister to increase the volume of free product that can be recovered. Additional weights are included with each canister and must be used for proper installation.

Well Clincher and Cord. The Well Clincher and 30 ft Nylon® suspension cord are used to support the passive skimmer in the recovery well. The clincher incorporates an eye hook to attach the suspension cord. Correct measurement of the product water interface is necessary to properly position the passive skimmer.

__Tech Tip.__ The critical measurement for proper recovery is from the bottom of the well to the product water interface. Custom canisters are available for shallow well applications.

SPECIFICATIONS		
	2" Model	4" Model
Length	93.5 in	93.5 in
Outside Dia.	1.75 in	3.5 in
Effective Travel	36 in (30 in for High-Viscosity Skimmer)	
Canister Volume	0.13 gal	0.45 gal
Canister Length	24 in	15 in
Min. Water Depth	50.5 in	
Weight	4 lb	6 lb
Extension Canister Length	18 in	16.5 in
Extension Canister Volume	0.10 gal (Additional)	0.52 gal (Additional)
Materials	UHMW polyethylene, stainless steel hollow rod and clamps, urethane tubing, polyethylene hydrophobic filter, Nitrophyl float material, brass fittings, PVC tubing mouldings	

ORDERING INFORMATION		
TR-252	2 in Passive Skimmer	4 lb
TR-253	2 in Extension Canister	1 lb
TR-254	4 in Passive Skimmer	6 lb
TR-25410	4 in Passive Skimmer (High-Viscosity)	6 lb
TR-255	4 in Extension Canister	2 lb
Parts required to convert a Passive Skimmer into an Active Skimming System:		
TR-516	F.A.P. Plus™ Pump	6 lb
TR-762	2 in Well Clincher	1 lb
TR-764	4 in Well Clincher	2 lb
301822	1/4 in Brass Plug	.25 lb
301139	Push-Lok Fitting	.25 lb

Petro-Bailer™

Low-cost passive skimmer with a fixed product inlet.

Application

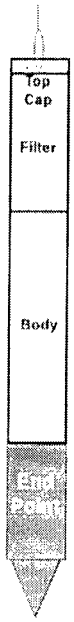
- Passive LNAPL Recovery.
- 2 in and larger wells

Description

The Petro-Bailer™ comprises:

- Top cap with a stainless loop
- Hydrophobic inlet filter element
- Collection reservoir
- Weighted end point

The fixed inlet passive skimmer is made from threaded PVC components and is designed to collect free phase product from 2 in and larger wells. The hydrophobic inlet filter element connects between the body and top cap. The passive skimmer will accommodate water table fluctuations of up to 12 inches. The device will collect water if level fluctuations are greater than 12 in.



SPECIFICATIONS	
Size	61.5 in long x 1.66 in diameter
Volume	0.21 gal
Weight (Net)	3.25 lb
Depth	41.5 in water (minimum for skim)
Materials	PVC body, end point and top. Porous polypropylene fiber element, 12 in stainless steel suspension loop, Buna-N® "O" Rings

ORDERING INFORMATION		
TR-007	2" Petro-Bailer™ (1.66 x 61.5 in)	4 lb
TR-008	Petro-Bailer™ Weighted End	
TR-009	Petro-Bailer™ Replacement Reservoir	
TR-010	Petro-Bailer™ Replacement Hydrophobic Element	
TR-011	Petro-Bailer™ Replacement Top	

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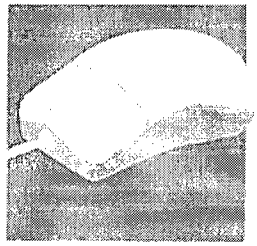
Because we strive to constantly improve our products, our offerings may have changed since the publication of this catalog. Please consult our web site for the latest and most complete information including data sheets, manuals and miscellaneous technical notes.



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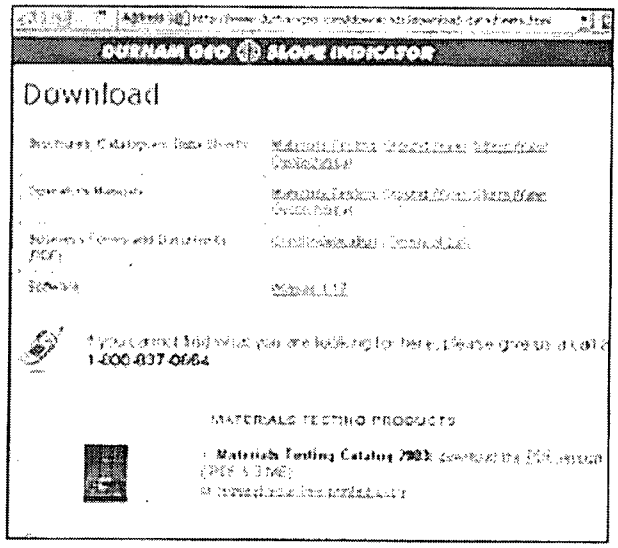

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Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV

Sent: Tuesday, February 12, 2008 4:12 PM

To: Randy Schmaltz; Scott Crouch

Cc: Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV; Chavez, Carl J, EMNRD; Price, Wayne, EMNRD

Subject: Evaluation of Interim Measures

Randy and Scott

I have a few questions pertaining to the Evaluation of Interim Measures Report.

1) Page 8 of Section 4 states "[t]he samples are identified as Outfall #1, Outfall # 2, Outfall #7, Outfall #8, and Outfall #9, and their locations are shown on Figure 1." These outfalls are again referenced in Appendix D. Are these outfalls identified as Seep 1, Seep 6, Seep 7, Seep 8, and Seep 9 on Figure 1?

2) Section 6 Recommendations: Bullet 1 states "Measures water levels while recovery wells are in operation to allow an evaluation of the capture zone of the system and again after pumps have been removed and water levels have stabilized" Question: How often will this process be completed and what time of year (when)?

Bullet 2 states "Discontinue recovery from the collection wells and recover from only observation wells with LNAPL using passive measures (e.g., absorbent sock)." Question - Specifically, which wells will the absorbent sock be in? Can you send some information on the sorbent sock that will actually be used?

Bullet 2 on page 12: Question: what time of year (months) was Giant planning on sampling the seeps semi annually?

Thanks

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

Websites:
New Mexico Environment Department
Hazardous Waste Bureau

Chavez, Carl J, EMNRD

Subject:	Western Refining- Giant Bloomfield Refinery Notification of Release
Location:	*Giant Bloomfield Refinery*
Start:	Wed 1/23/2008 10:03 AM
End:	Wed 1/23/2008 10:05 AM
Show Time As:	*Tentative*
Recurrence:	(none)
Meeting Status:	Not yet responded
Required Attendees:	Chavez, Carl J, EMNRD; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD

Randy Schmaltz (505) 632-4171 called today to notify OCD about a diesel release of about 20 bbls. that was contained within the unlined tank farm berm area. I called 11:05 a.m. on 1/23/2008 to get estimated time of release and date of occurrence? He became aware of release on 1/23/2008 at about 12:01 a.m. Cause of release? Operator error. Opened valve and was distracted. Also exact location was at Tk 18. Recovery and next steps for cleanup?. Enviro-Tech is on-site and will excavate impacted soils and replace w/ clean soil. Disposal to Enviro Tech land farm. Recovered all standing liquids (~20 bbls. + snow melt). C-141 forthcoming. Will collect some BTEX samples from beneath excavated area for confirmation sampling. Ok.

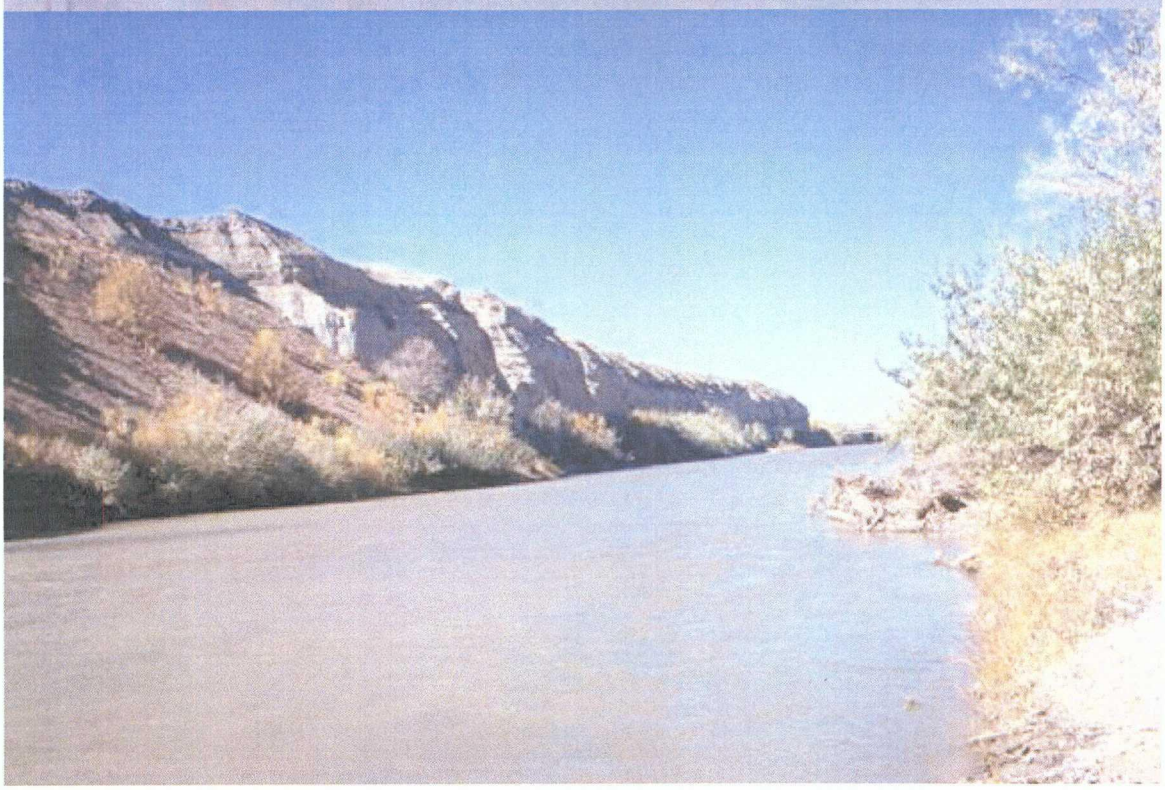
Chavez, Carl J, EMNRD

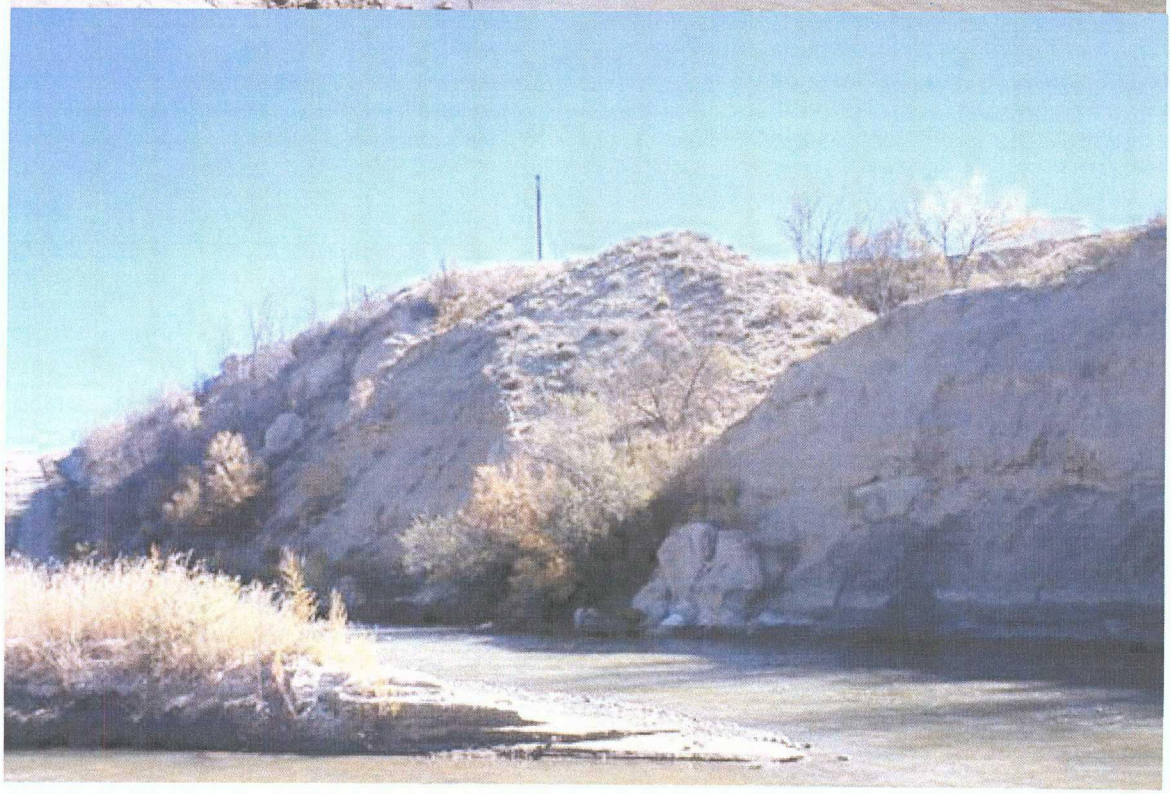
From: Chavez, Carl J, EMNRD
Sent: Wednesday, November 28, 2007 8:28 AM
To: Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV
Cc: Price, Wayne, EMNRD; Powell, Brandon, EMNRD; 'Randy Schmaltz'
Subject: RE: Navajo- Artesia Refinery

Hope:

FYI.

On Oct. 18, 2007, OCD was in Farmington for a NMOGA Meeting and was able to inspect the bluff adjacent to the river and park down below at Western Refining Company's Giant Refinery. Looks ok along the bluff at the seepage areas with some discolored soils slightly noticeable along the bluff that we noticed last year (see photos).





Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Monzeglio, Hope, NMENV
Sent: Wednesday, November 28, 2007 7:43 AM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV
Cc: Price, Wayne, EMNRD
Subject: RE: Navajo- Artesia Refinery

Carl

Thanks for the update.

Hope

From: Chavez, Carl J, EMNRD
Sent: Tuesday, November 27, 2007 2:32 PM
To: Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV
Cc: Price, Wayne, EMNRD
Subject: Navajo- Artesia Refinery

Hope, et al:

FYI.

Hi. Spoke to Darrell Moore briefly today about the status of the full-time or continuous free-product recovery system that the OCD had requested they install in KWB-8 in Chase-Mack's Pecan Orchard during last year's refinery inspection. I will see Darrell next week and he said he is going to tell me what they are planning to do about free-product at KWB-8. He recalls that there is a nearby trench recovery system west of the KWB-8 that facilitates this option. I will keep you posted.

Also, he indicated that the centralized chemical storage area at the refinery is complete. You may recall that this was also an issue during the OCD's last inspection.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Western Refining

BLOOMFIELD REFINERY

WNR LISTED NYSE

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

Brandon Powell
New Mexico Oil Conservation Division
Environmental Bureau
1000 Rio Brazos Rd.
Aztec, New Mexico, 87410

Certified Mail: #7006 2150 0003 4368 9284

November 5, 2007

RE: Western Refining Company – Giant, Bloomfield Refinery
EPA ID# NMD089416416
GW - 001 & GW - 130

Dear Mr. Chavez and Mr. Powell,

Western Refining Company – Giant, Bloomfield Refinery has tentatively scheduled inspection of all water-draw sumps located in the Tank Farm to begin the week of November 12, 2007. Each sump will be cleaned out with a Vacuum Truck and then visually inspected. Sumps that can not be cleaned thoroughly enough to inspect (sumps with heavy oil) or sumps that display cracks will be hydro-tested to insure integrity.

Underground line testing will also commence the week of November 12, 2007. Western has contracted with Praxair Services, Inc. to conduct a tracer gas leak assessment program of the underground lines associated with tanks selling Unleaded Gasoline, Premium Gasoline, Subgrade Gasoline, Ultra-low Sulfur Diesel, Low Sulfur Diesel, and Ethanol. This list is subject to change due to blend stock availability and sales volume. The tracer gas program will initiate the week of November 12 and conclude by the first week of December.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

GIANT
REFINING COMPANY

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

Certified Mail: #7006 0810 0003 7020 6189

August 1, 2007

RE: Giant Refining Company, Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Mr. Price,

Giant Refinery – Bloomfield has tentatively scheduled the annual groundwater sampling campaign to start the week of August 20, 2007.

Giant will be following guidelines from the Facility Groundwater Monitoring Plan presented in the OCD Discharge Plan Application for Modification submitted July 2007.

If any representatives from the OCD would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,
Cindy Hurtado
Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining
Hope Monzeglio – New Mexico Environmental Department – Santa Fe

GIANT
REFINING COMPANY

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 South St. Frances Dr.
Santa Fe, New Mexico 87505

Certified Mail: 7006 0810 0003 7020 6158

July 30, 2007

RE: **Application for Modification**
of the Discharge Plan
GW –01
San Juan Refining Company
Giant – Bloomfield Refinery

Dear Mr. Price,

Giant Refining Company – Bloomfield Refinery submits this application for modification of Groundwater Discharge Permit #GW – 01 at this site.

The application reflects upgrades and environmental improvements, which Giant has implemented since 2005.

If you need more information, please contact me at (505) 632-4171.

Sincerely,

James R. Schmaltz
Environmental Manager
Giant Refining Company – Bloomfield

Cc: Ann Allen, VP of Environmental and Regulatory Affairs, Western Refining
Ed Riege, Environmental Superintendent, Giant Industries, Inc.
Brandon Powell, New Mexico Oil Conservation Division – Aztec
Hope Monzeglio, NMED Hazardous Waste Bureau

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2007 JUL 26 PM 1 25

GIANT
REFINING COMPANY

Hope Monzeglio
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East
Bldg 1
Santa Fe, NM 87505

Certified Mail: 7006 0810 0003 7020 6110

July 23, 2007

Re: In-Situ Respiration Test
River Terrace Voluntary Corrective Measures Bioventing System
Giant Refining Company, Bloomfield Refinery
EPA ID #NMD089416416

Dear Ms. Monzeglio,

Giant Refining Company Bloomfield (GRCB) has tentatively scheduled the In-Situ Respiration Test for the River Terrace Corrective Measures Bioventing System to be conducted during the week of July 30, 2007. GRCB will perform the 2007 in-situ respiration test as outlined in the approved Addendum to the Bioventing Monitoring Plan (Revised) outlined in the May 18, 2006 letter from GRCB to New Mexico Environmental Department (NMED).

GRCB will contact the Bureau of Reclamation (BOR) and obtain the flow rates for the San Juan River at the time of the in-situ respiration test. Currently, the release from Navajo Dam is 750 cfs but that is subject to change depending on precipitation events.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Wayne Price – OCD-Santa Fe
Ed Riege – Environmental Superintendent – Giant Refining
Randy Schmaltz – Environmental Manager – Giant Refining

GW-1

Chavez, Carl J, EMNRD

From: Price, Wayne, EMNRD
Sent: Thursday, June 21, 2007 12:09 PM
To: Randy Schmaltz; Chavez, Carl J, EMNRD
Cc: Ed Riege
Subject: RE: Discharge Plan Extension

Approved!

From: Randy Schmaltz [mailto:rschmaltz@giant.com]
Sent: Wednesday, June 20, 2007 2:41 PM
To: Price, Wayne, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege
Subject: Discharge Plan Extension

Wayne,

The New Mexico Environment Department Hazardous Waste Bureau is in the final stages of the draft Compliance Order process. The Bloomfield refinery is anticipating the Compliance Order to be issued the early part of July. Due to this fact Bloomfield requests to extend the submittal date of the OCD Discharge Plan to July 31, 2007. This extension will allow Bloomfield to incorporate any new compliance requirements into the Discharge Plan.

Your consideration into this matter is greatly appreciated!

Randy Schmaltz
Giant Refining Company
(505) 632-4171
(505) 320-6989 cell

Lodestar Services, Incorporated

2007 APR 12 AM 10 20

April 11, 2007

Mr. Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87504

Dear Mr. Wayne Price:

On behalf of Giant Industries Arizona, Inc., Lodestar Services, Incorporated is pleased to present to you *Annual Data Report, Giant Bloomfield Refinery, March, 2007.*

Should you have any questions or require additional information please do not hesitate to call Bill Robertson of Giant at (505) 632-4077.

Sincerely,
LODESTAR SERVICES, INCORPORATED

Martin Nee

Enclosure

cc w/enc.: Luke Wethers-Giant
David Kirby-Giant
Jacque Cumbie-Giant
Stephanie Odell-BLM
Maura Hanning-NMED
Chris Shuey-SWRIC
Herbert Gorrod-EPA
Brandon Powell-OCD

GIANT
REFINING COMPANY

2007 MAR 23 AM 11 13

Hope Monzeglio
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East
Bldg 1
Santa Fe, NM 87505

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

Certified Mail: 7006 0810 0003 7020 5922

March 19, 2007

RE: Giant - Bloomfield Refinery
EPA ID# NMD089416416

Dear Ms. Monzeglio and Mr. Price,

Giant Refinery – Bloomfield will be collecting semi-annual groundwater samples starting the week of April 2, 2007.

Samples will be collected from all monitoring wells, recovery wells, and observation wells, with the exception of wells that contain separate phase hydrocarbon or wells that are dry or do not contain enough water to pull a sample. Wells that are included in the River Terrace Voluntary Corrective Measures Work Plan will not be incorporated into this sampling event as that project is on a quarterly sampling schedule.

Semi-annual groundwater samples will be analyzed for BTEX and MTBE using EPA Method 8021B. Basic water quality parameters such as pH, electrical conductivity, and temperature shall be monitored during purging of the wells.

If any representatives from the NMED Hazardous Waste Bureau would like to participate, Giant requires all incoming personnel to undergo safety orientation training before entering the plant.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Giant Refining – Bloomfield

Cc: Randy Schmaltz – Environmental Manager – Giant Refining - Bloomfield

PHONE
505-632-8013
FAX
505-632-3911

50 ROAD 4990
P.O. BOX 159
BLOOMFIELD
NEW MEXICO
87413

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone (505) 476-6000
Fax (505) 476-6030
www.nmenv.state.nm.us

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GOVERNOR

RON CURRY
SECRETARY

CINDY PADILLA
DEPUTY SECRETARY

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January 17, 2007

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

Randy Schmaltz
Environmental Supervisor
Giant Refining Company
P.O. Box 159
Bloomfield, New Mexico 87413

Ed Riege
Environmental Superintendent
Giant Refining Company
Route 3, Box 7
Gallup, New Mexico 87301

RE: NORTH BOUNDARY BARRIER COLLECTION SYSTEM PHASE II ANNUAL REPORT MAY 2005 TO MAY 2006; HWB-GRCB-06-004
RCRA PERMIT NO. NMD 089416416

Dear Messrs. Schmaltz and Riege:

The New Mexico Environment Department (NMED) has completed its review of Giant Refining Company, Bloomfield Refinery (GRCB) response letter dated December 27, 2006 titled *Approval North Boundary Barrier Collection System Phase II Annual Report May 2005 to May 2006.*

In response to Comment # 7, NMED concurs, that GRCB should include the data collected from May 2006 through December 2006 (6 month monitoring report) for the North Boundary Barrier Wall in the Annual Groundwater Monitoring Report due April 15, 2007. The report must include the information required in the November 2, 2006 letter from NMED to GRCB titled *Approval North Boundary Barrier Collection System Phase II Annual Report May 2005 to May 2006.*

Please contact Hope Monzeglio of my staff with any questions regarding this letter at (505)-476-6045.

Sincerely,

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

JEK:hm

cc: D. Cobrain, NMED, HWB
H. Monzeglio, NMED HWB
W. Price, OCD, Santa Fe Office
B. Powell, OCD Aztec Office
B. Wilkinson, EPA Region VI
File: Reading and GRCB 2007 File
HWB-GRCB-06-004