GW – 382

PERMITS, RENEWALS, & MODS Application

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. _____ dated 11/26/08

or cash received on _____ in the amount of $ 1700 00

from Reef Services LLC

for GW-382

Submitted by: Lawrence Romero Date: 12/2/08

Submitted to ASD by: Lawrence Romero Date: 12/2/08

Received in ASD by: _____ Date: _____

Filing Fee _____ New Facility _____ Renewal _____

Modification _____ Other _____

Organization Code 521.07 Applicable FY 2004

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment _____

RECEIVED
2008 NOV 31 PM 1 19

ATTACHMENT- DISCHARGE PERMIT APPROVAL CONDITIONS

1. Payment of Discharge Plan Fees: All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application will be assessed a filing fee of $100.00, plus a flat fee (*see* WQCC Regulation 20.6.2.3114 NMAC). The flat fee for an oil and gas service facility is $1,700.00. The Oil Conservation Division (OCD) has received the required filing fee, but not the associated flat fee. Please forward payment to the OCD in the amount of $1,700.00 along with a signed copy of these permit conditions.

2. Permit Expiration, Renewal Conditions and Penalties: Pursuant to WQCC Regulation 20.6.2.3109.H.4 NMAC, this permit is valid for a period of five years. **The permit will expire on November 17, 2013** and an application for renewal should be submitted no later than 120 days before the 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 will 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, 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 all discharges 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, NMSA 1978, Sections 70-2-1 through 70-2-38.

4. Owner/Operator Commitments: The owner/operator shall abide by all commitments submitted in its signed July 10, 2008 discharge plan application, including attachments and subsequent amendments and these conditions for approval. Permit applications that reference previously approved plans on file with the division shall be incorporated in this permit and the owner/operator shall abide by all previous commitments of such plans and these conditions for approval.

5. Modifications: WQCC Regulation 20.6.2.3107.C and 20.6.2.3109 NMAC addresses possible future modifications of a permit. The owner/operator (discharger) shall notify the OCD of any facility expansion, production increase, or process modification that would result in any significant modification in the potential discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified in 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 wastes at an OCD-approved facility. Only oilfield RCRA-exempt wastes may be disposed of by injection in a Class II well. RCRA non-hazardous, non-exempt oilfield wastes 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 by the OCD on a case-by-case basis.

A. OCD Rule 712 Waste: Pursuant to OCD Rule 712 (19.15.9.712 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.

B. 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 Storage: The owner/operator must store all drums, including empty drums, containing materials other than fresh water on an impermeable pad with curbing. The owner/operator must store empty drums on their sides with the bungs in place and lined up on a horizontal plane. The owner/operator must store chemicals in other containers, such as tote tanks, sacks, or buckets on an impermeable pad with curbing.

8. Process, Maintenance and Yard Areas: The owner/operator shall either pave and curb or have some type of spill collection device incorporated into the design at all process, maintenance, and yard areas which show evidence that water contaminants from releases, leaks and spills have reached the ground surface.

9. Above Ground Tanks: The owner/operator shall ensure that all aboveground tanks have impermeable secondary containment (e.g., liners and berms), which will contain a volume of at least one-third greater than the total volume of the largest tank or all interconnected tanks. The owner/operator shall retrofit all existing tanks before discharge permit renewal. Tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt from this condition.

10. 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 their emergency response plans.

11. Below-Grade Tanks/Sumps and Pits/Ponds.

A. All below-grade tanks and sumps must be approved by the OCD prior to installation 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. All existing below-grade tanks and sumps without secondary containment and leak detection must be tested annually or as specified herein. Systems that have secondary containment with leak detection shall have a monthly inspection of the leak detection system to determine if the primary containment is leaking. 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. All pits and ponds, including modifications and retrofits, shall be designed by a certified 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. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal.

C. 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.

D. The owner/operator shall maintain the results of tests and inspections at the facility covered by this discharge permit and available for OCD inspection. The owner/operator shall report the discovery of any system which is found to be leaking or has lost integrity to the OCD within 15 days. 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.

12. 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. 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 use other methods for testing if approved by the OCD.

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. All new underground piping must be approved by the OCD prior to installation. The owner/operator shall report any leaks or loss of integrity to the OCD within 15 days of discovery. The owner/operator shall maintain the results of all tests at the facility covered by this discharge permit and they shall be available for OCD inspection. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

13. Class V Wells: The owner/operator shall close all Class V wells (e.g., septic systems, leach fields, dry wells, etc.) that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes unless it can be demonstrated that ground water will not be impacted in the reasonably foreseeable future. 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).

14. 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 at the facility and make them available for OCD inspection.

15. Spill Reporting: The owner/operator shall report all unauthorized discharges, spills, leaks and releases and conduct corrective action pursuant to WQCC Regulation 20.5.12.1203 NMAC and OCD Rule 116 (19.15.3.116 NMAC). The owner/operator shall notify both the OCD District Office and the Santa Fe Office within 24 hours and file a written report within 15 days.

16. OCD Inspections: The OCD may place additional requirements on the facility and modify the permit conditions based on OCD inspections.

17. Storm Water: The owner/operator shall implement and maintain run-on and runoff plans and controls. 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 NMAC (Water Quality Standards for Interstate and Intrastate Streams) including any oil sheen in any stormwater runoff. The owner/operator shall notify the OCD within 24 hours of discovery of any releases and shall take immediate corrective action(s) to stop the discharge.

18. 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 or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) unless specifically listed in the permit application and approved herein. ***An unauthorized discharge is a violation of this permit.***

19. Vadose Zone and Water Pollution: 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. Failure to perform any required investigation, remediation, abatement and submit subsequent reports will be a violation of the permit.

20. Additional Site Specific Conditions:

A. The owner/operator shall provide reasonable and authorized access to the property for purposes of the continued investigation, remediation, and monitoring of soil and groundwater contamination resulting from the actions of others (OCD permit 1R-295) prior to the current operator's use of the property.

B. The owner/operator shall make every reasonable effort not to disturb, damage, or cover groundwater monitoring wells on the property.

C. The owner/operator shall make every reasonable effort not to damage or interfere with the operation of any current or future remediation activities or system(s) installed at the property.

21. Transfer of Discharge Permit: Pursuant to 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.

22. 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 will submit an approved closure plan, modified plan, and/or provide adequate financial assurance.

23. Certification: (Owner/Operator), by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. **Owner/Operator** further acknowledges the OCD may, for good cause shown, as necessary to protect fresh water, public health, safety, and the environment, change the conditions and requirements of this permit administratively.

Conditions accepted by: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

REEF SERVICES, LLC
Company Name - print name above

TOM L. ROLAND
Company Representative - print name

Company Representative - Signature

Title: D.R. SAFETY & ENVIRONMENTAL

Date: NOVEMBER 25, 2008

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor
Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Director
Oil Conservation Division

November 17, 2008

Mr. Tom Roland
Director of Safety and Environmental
Reef Services, LLC
7906 West Highway 80
Midland, Texas 79706

Re: Approval of Discharge Permit GW-382
Reef Chemical Company, Inc.
2703 West Marland Street
Hobbs, New Mexico 88240

Mr. Roland:

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 Reef Services, LLC (operator) for the above referenced site 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 30 days of receipt of this letter along with the associated flat fee of $1,700.00 (One Thousand Seven Hundred Dollars).**

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.

If you have any questions, please feel free to contact Jim Griswold at (505) 476-3465 or by email at *jim.griswold@state.nm.us*. On behalf of the staff at the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Wayne Price
Environmental Bureau Chief

Attachment

LWP/jg
xc: OCD District I Office, Hobbs

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1. **Payment of Discharge Plan Fees:** All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application will be assessed a filing fee of $100.00, plus a flat fee (*see* WQCC Regulation 20.6.2.3114 NMAC). The flat fee for an oil and gas service facility is $1,700.00. The Oil Conservation Division (OCD) has received the required filing fee, but not the associated flat fee. Please forward payment to the OCD in the amount of $1,700.00 along with a signed copy of these permit conditions.

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7. **Drum Storage:** The owner/operator must store all drums, including empty drums, containing materials other than fresh water on an impermeable pad with curbing. The owner/operator must store empty drums on their sides with the bungs in place and lined up on a horizontal plane. The owner/operator must store chemicals in other containers, such as tote tanks, sacks, or buckets on an impermeable pad with curbing.

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19. Vadose Zone and Water Pollution: 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. Failure to perform any required investigation, remediation, abatement and submit subsequent reports will be a violation of the permit.

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B. The owner/operator shall make every reasonable effort not to disturb, damage, or cover groundwater monitoring wells on the property.

C. The owner/operator shall make every reasonable effort not to damage or interfere with the operation of any current or future remediation activities or system(s) installed at the property.

21. Transfer of Discharge Permit: Pursuant to 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.

22. 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 will submit an approved closure plan, modified plan, and/or provide adequate financial assurance.

23. Certification: (Owner/Operator), by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. **Owner/Operator** further acknowledges the OCD may, for good cause shown, as necessary to protect fresh water, public health, safety, and the environment, change the conditions and requirements of this permit administratively.

Conditions accepted by: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

_____
Company Name - print name above

_____
Company Representative - print name

_____
Company Representative - Signature

Title:_____

Date:_____

Griswold, Jim, EMNRD

From: Marc Gentry [marc@sentinelgeo.com]
Sent: Thursday, October 09, 2008 8:37 AM
To: Tom.Roland@reefcorp.com
Cc: Griswold, Jim, EMNRD
Subject: RE: Discharge Permit Application GW-382
Attachments: Certified Mailings.pdf; Publication Affadavit.pdf

Tom,

Attached to this e-mail are two attachements.

1. Receipts of certified mailings to landowners surrounding the facility, and
2. The affidavit of Publication from the Hobbs Sun.

I have copied Mr. Griswold on this e-mail.

Please let me know if you have any questions or concerns.

marc

Marc E. Gentry, PG
Managing Partner

Sentinel Geo-Services, LLC
A DFJ Company
2855 Mangum Road, Suite 522
Houston, TX 77092
Phone: 713.686.8900
Fax: 713.686.5181
www.sentinelgeo.com

From: Tom.Roland@reefcorp.com [mailto:Tom.Roland@reefcorp.com]
Sent: Tuesday, October 07, 2008 3:23 PM
To: Marc E. Gentry
Subject: Fw: Discharge Permit Application GW-382

I thought everything was sent from you to him, I am now gleaning my e-mails on this but if I missed something, please let me know.

Tom L. Roland

Director of Safety & Environmental
Reef Services, LLC
7906 W. Hwy 80
Midland, TX 79706
(432) 560-5600
(432) 560-5636 fax
(432) 559-1564 cell

"At Reef, We Deliver Safety First"

----- Forwarded by Tom Roland/Reef on 10/07/2008 03:19 PM -----

From: "Griswold, Jim, EMNRD" <Jim.Griswold@state.nm.us>

To: <tom.roland@reefcorp.com>

Date: 10/07/2008 03:16 PM

Subject: Discharge Permit Application GW-382

Mr. Roland,

I have not received confirmation the required public notice has been undertaken by Reef Services with respect to the discharge permit application (GW-382) for the facility located at 2703 W. Marland in Hobbs, NM. Could you please have this information forwarded to me as soon as possible.

Jim Griswold

Hydrologist

Environmental Bureau

ENMRD/Oil Conservation Division

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

direct: 505.476.3465

email: jim.griswold@state.nm.us

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

PUBLISHER

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published in the regular and entire issue of said paper, and not a supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
SEPTEMBER 9, 2008
and ending with the issue dated
SEPTEMBER 9, 2008

Kathi Bearden
PUBLISHER

Sworn and subscribed to before me this 9TH day of SEPTEMBER, 2008

Notary Public.

My Commission expires
February 07, 2009
(Seal)

OFFICIAL SEAL
DORA MONTZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires:

PUBLIC NOTICE

Reef Services, Inc. (Reef), 7906 West Highway 80, Midland, Texas 79706, has submitted an application to the New Mexico Energy, Minerals, and Natural Resources Department, Oil Conservation Division for a discharge plan (OCD ID No. GW-382) for their Storage Yard located in the NW ? of the NE ? of Section 05, T19S, R38E in Lea County, New Mexico. The physical address of the facility is 2703 West Marland Road, Hobbs, New Mexico, 88240. The facility is located approximately 2 miles east of the Lea County Airport along State Highway 62.

The facility is a storage yard for the distribution of wellhead treatment chemicals. No chemical blending activities occur at the facility. Waste streams at the facility include rainwater within secondary containment impacted with wellhead treatment chemicals. All waste fluids are recycled for use as wellhead treatment flush water. All above ground storage tanks are within properly engineered secondary containment. The aquifer most likely to be affected is approximately 80 feet below ground surface, however, a perched groundwater zone is present beneath the site at 30 to 34 feet below ground surface. The New Mexico OCD is directing an ongoing site assessment and monitoring project (OCD ID No 1R-295) due to subsurface soil and groundwater impacts from past operations prior to Reef's occupancy of the property.

Any interested person or persons may obtain information, submit comments or request to be placed on a facility-specific mailing list for future notices by contacting Jim Griswold at the New Mexico OCD at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3465. The OCD will accept comments and statements of interest regarding the discharge permit and will create a facility-specific mailing list for persons who wish to receive future notices.

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

67103536 00016591
SENTINEL GEO SERVICES, LLC
2855 MANGUM ROAD
SUITE 522
HOUSTON, TX 77092

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

PUBLISHER

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published In the regular and entire issue of said paper, and not a supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
SEPTEMBER 9, 2008
and ending with the issue dated
SEPTEMBER 9, 2008

PUBLISHER
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SEPTEMBER, 2008

Notary Public.

My Commission expires
February 07, 2009
(Seal)

AVISO PUBLICO

La compañía Reef Services, Inc. (Reef), con domicilio en 7906 West Highway 80, Midland, Texas 79706, a entregado una solicitud al Departamento de Energía, Minería y Recursos Naturales de New Mexico, en la división de Conservación de Petróleo, con respecto a un plan de descarga (OCD ID Nro. GW-382) en su planta de almacenaje, ubicada en la sección NW ¼ de NE ¼ de la sección 05, T19S, R38E, en el condado de Lea, New Mexico. La dirección de esta planta es 2703 West Marland Road, Hobbs, New Mexico, 88240. Esta planta está localizada alrededor de 2 millas al este del aeropuerto del condado de Lea, en la autopista estatal 62.

Esta planta es una planta de almacenaje que se usa para la distribución de químicos para el tratamiento de cabezas de pozos. No se hace ninguna mezcla de químicos en esta planta. Las corrientes de desagüe de esta planta, solo incluyen agua de lluvia con el contenido secundario impactado de los químicos de tratamiento de la cabeza del pozo. Todos los líquidos de desecho son reciclados para el uso del lavado. Todos los contenedores que se encuentran sobre tierra, están diseñados adecuadamente como contenedores secundarios. El acueducto que puede ser afectado, se encuentra ubicado a aproximadamente 80 pies bajo la superficie. Sin embargo, una zona de acueducto se encuentra ubicada debajo del sitio entre 30 y 34 pies bajo la superficie. La división de conservación de petróleo (OCD) está dirigiendo una operación de asesoramiento y monitoreo del suelo y el agua, debido al impacto de operaciones anteriores, que ocurrieron antes de que Reef ocupara esta propiedad. (OCD ID nro. 1 R-295)

Cualquier persona interesada puede obtener información, entregar comentarios o pedir que su nombre sea colocado en la lista de correo, con relación a avisos futuros. Debe ponerse en contacto con Jim Griswold en la compañía OCD de New Mexico, 1220 South St. Francis Dr. Santa Fe, New Mexico 87505. Teléfono (505)476-3465. La compañía OCD aceptara comentarios y opiniones de interés, correspondientes al permiso de descarga y creara una lista de correo con el nombre de las personas que quieran recibir futuros avisos.

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

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Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW 382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No. 720 Gibbs Street
City, State, ZIP+4 Hobbs, New Mexico 88240

PS Form 3800, August 2006 See Reverse for Instructions

7008 1140 0002 0541 5215

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.35
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No. 716 South Ashen Street
City, State, ZIP+4 Hobbs, NM 88240

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7007 0220 0002 7113 1124

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 2529 Humble Street
City, State, ZIP+4: Hobbs, New Mexico 88240

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7008 1140 0002 0541 5141

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 719 Gibbs Street
City, State, ZIP+4: Hobbs, New Mexico 88240

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7007 0220 0002 7113 1148

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 2811 Humble Street
City, State, ZIP+4: Hobbs, New Mexico 88240

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7007 0220 0002 7113 1131

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 2613 Humble Street
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1162

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 2812 Humble Street
City, State, ZIP+4: Hobbs, New Mexico 88240

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7007 0220 0002 7113 1155

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 2810 Humble Street
City, State, ZIP+4: Hobbs, New Mexico 88240

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7007 0220 0002 7113 1186

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 819 Gibbs Street
City, State, ZIP+4: Hobbs, New Mexico 88240

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7007 0220 0002 7113 1179

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 901 Gibbs Street
City, State, ZIP+4: Hobbs, New Mexico 88240

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7007 0220 0002 7113 1537

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

Postmark Here

GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 728 Gibbs Street
City, State, ZIP+4: Hobbs, New Mexico 88240

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7007 0220 0002 7113 1193

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

Postmark Here

GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 805 Gibbs Street
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1636

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

Postmark Here

GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 702 Gibbs Street
City, State, ZIP+4: Hobbs NM 88240

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7007 0220 0002 7113 1544

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

Postmark Here

GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 727 Gibbs Street
City, State, ZIP+4: Hobbs, New Mexico 88240

PS Form 3800, August 2006 See Reverse for Instructions

7007 0220 0002 7113 1834

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

Postmark Here

GW.382

Sent To: The First Corporation
Street, Apt. No.; or PO Box No.: 3015 West Marland
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1704

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW.382

Sent To: Motel-
Street, Apt. No.; or PO Box No.: 2724 West Marland
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1797

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Elliott Pump & Supply Inc.
Street, Apt. No.; or PO Box No.: 2538 West Marland
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1803

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

Postmark Here

GW.382

Sent To: Custom Welding
Street, Apt. No.; or PO Box No.: 2534 West Marland
City, State, ZIP+4: Hobbs NM 88240

PS Form 3800, August 2006 — See Reverse for Instructions

7007 0220 0002 7113 1872

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: RMSCO PUMP Reconditioning
Street, Apt. No.; or PO Box No.: 2621 West Marland
City, State, ZIP+4: Hobbs, NM 88240

PS Form 3800, August 2006 — See Reverse for Instructions

7008 1140 0002 0541 5178

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

Postmark Here

GW.382

Sent To: Moose Lodge #2084
Street, Apt. No.; or PO Box No.: 2920 West Marland
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1629

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 617 Gibbs Street
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1810

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Weatherford Artificial Lift Systems
Street, Apt. No.; or PO Box No.: 2613 West Marland
City, State, ZIP+4: Hobbs, NM 88240

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7008 1140 0002 0541 5260

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 603 South Ashen Street
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1889

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

Postmark Here

GW382

Sent To: D Laboratory Services
Street, Apt. No.; or PO Box No.: 2607 West Marland
City, State, ZIP+4: Hobbs NM 88240

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7007 0220 0002 7113 1605

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 602 Gibbs Street
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1612

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 613 Gibbs Street
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1650

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 708 Gabbs Street
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1902

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: KEM-KIL, INC.
Street, Apt. No.; or PO Box No.: 2539 West Marland
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1896

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: WRIGHT PALCO CONSTRUCTION
Street, Apt. No.; or PO Box No.: 2541 WEST MARLAND
City, State, ZIP+4: HOBBS, NM 88240

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7007 0220 0002 7113 1599

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 810 South Ashen Street
City, State, ZIP+4: Hobbs, NM 88240

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7007 0220 0002 7113 1575

Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 807 South Ashen Street
City, State, ZIP+4: Hobbs, NM 88240

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Postage	$ 0.42
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 5.32

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GW382

Sent To: Current Landowner or Resident
Street, Apt. No.; or PO Box No.: 808 South Ashen Street
City, State, ZIP+4: Hobbs, NM 88240

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AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

PUBLISHER

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published in the regular and entire issue of said paper, and not a supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
AUGUST 16, 2008

and ending with the issue dated
AUGUST 16, 2008

Kathi Bearden

PUBLISHER
Sworn and subscribed to before

me this 18th day of
August, 2008

Notary Public.

My Commission expires
February 07, 2009
(Seal)

OFFICIAL SEAL
DORA MONTZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: _____

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL
AUGUST 16, 2008

NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 NMAC), the following discharge permit application has been submitted to the Director of the New Mexico Oil Conservation Division ("NMOCD"): 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-382) Reef Services, LLC, with a mailing address of 7906 West Highway 80, in Midland, Texas has submitted an application for a new discharge plan with respect to their chemical storage yard in Hobbs, NM, (Lea County) located at 2703 West Marland in the NW ¼ of the NE ¼ of Section 5, Township 19 South, Range 38 East, NMPM. Materials generated and/or stored at the facility include, but may not be limited to: Hexane, acetic acid, isopropanol, xylene, methanol, toluene, xylene, trimethylbenzene, formic acid, and other oil field-related chemicals. The aquifer beneath this facility lies at an approximate depth of 38 feet below ground surface with a concentration of total dissolved solids varying from 800 to 1,300 milligrams per liter. The discharge plan addresses how chemicals and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

The NMOCD has determined that the application is administratively complete and has prepared a draft permit. The NMOCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact the Environmental Bureau Chief of the Oil Conservation Division at the address given above. The administrative completeness determination and draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m. Monday through Friday, or may also be viewed at the NMOCD web site http://www.emnrd.state.nm.us/ocd/. Persons interested in obtaining a copy of the application and draft permit may contact the NMOCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that NMOCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en espan ol, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservacio n Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Dorothy Phillips, 505-476-3461).

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 13th day of August 2008.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

Mark Fesmire, Director

#24318

01101546 00015118
NM OIL CONSERVATION DIVISION
JIM GRISWOLD
1220 S. SAINT FRANCIS DR.
SANTA FE, NM 87505

THE SANTA FE
NEW MEXICAN
Founded 1849

2008 NOV 25

NMEMNRD Oil Conserv.
Leonard Lowe
1220 S. St. Francis Drive
Santa Fe, NM 87505

ALTERNATE ACCOUNT: 56689
AD NUMBER: 00265050 ACCOUNT: 00002212
LEGAL NO: 85840 P.O. #: 52100-00000137
325 LINES 1 TIME(S) 282.80
AFFIDAVIT: 7.00
TAX: 23.00
TOTAL: 312.80

AFFIDAVIT OF PUBLICATION

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 NMAC), the following discharge permit application(s) has been submitted to the Director of the New Mexico Oil Conservation Division ("NMOCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-155) Williams Four Corners, Mr. David Bays, Senior Environmental Specialist, 188 County Road 4900, Bloomfield, NM 87413, has submitted a renewal application for the previously approved discharge plan for their Aztec compressor station located in the SW/4 SW/4 of Section 8, Township 32 North, Range 10 West, NMPM, San Juan County, approximately 13 miles north of Aztec, New Mexico. The facility provides metering and compression services to various producers for the gathering of natural gas for treatment and delivery. Approximately 100-5000 gal/year/unit of waste/wash down water, 1000-4000 bbl/year of used glycol, and 500-2000 gal/year/engine of used oil are generated and stored in on-site within a bermed area prior to disposal at an NMOCD approved facility. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 50-200 feet with a total dissolved solids concentration

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, L.Paquin, being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication # 85840 a copy of which is hereto attached was published in said newspaper 1 day(s) between 08/20/2008 and 08/20/2008 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 20th day of August, 2008 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

GW88
OK to pay
Edward J. Hansen
8-27-08

/S/ L. Paquin
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 21st day of August, 2008

Notary Pamela Anne Beach

Commission Expires: May 31, 2011

OFFICIAL SEAL
Pamela Anne Beach
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 5-31-11

of approximately 200 - 2000 mg/l. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-88) - BP America Production Company - Farmington Operations Center, 200 Energy Court, Farmington, New Mexico 87401, Attention: Mr. Larry Schlotterback, Field Environmental Coordinator, (505) 326-9200, has submitted a renewal application for the previously approved discharge plan (GW-088) for their Gallegos Canyon (Highway 64) Compressor Station, located in the SW/4 of the NE/4 of Section 21, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico, approximately seven miles east of Farmington, New Mexico. Approximately 365 gallons of produced water are generated on site annually, which are collected and temporarily stored in a containment vessel prior to transport to an NMOCD approved Class II disposal well, operated by BP. Additionally, an estimated 300 gallons of used oil and approximately, one 55-gallon drum of used oil filters are generated annually. These wastes are picked up by a used oil recycler. Empty drums are taken back by the supplier of the oil or chemical contained in the drums. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 150 feet, with a total dissolved solids concentration of approximately 1000 mg/l. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(GW-382) Reef Services, LLC with a mailing address of 7906 West Highway 80 in Midland, Texas has submitted an application for a new discharge plan with respect to their chemical storage yard in Hobbs, NM, (Lea County) located at 2703 West Marland in the NW _ of the NE _ of Section 5, Township 19 South, Range 38 East, NMPM. Materials generated and/or stored at the facility include, but may not be limited to: Hexane, acetic acid, isopropanol, xylene, methanol, toluene, xylene, trimethylbenzene, formic acid and other oil field-related chemicals. The aquifer beneath this facility lies at an approximate depth of 38 feet below ground surface with a concentration of total dissolved solids varying from 800 to 1,300 milligrams per liter. The discharge plan addresses how chemicals and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

The NMOCD has determined that the application is administratively complete and has prepared a draft permit. The NMOCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact the Environmental Bureau Chief of the Oil Conservation Division at the address given above. The administrative completeness determination and draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the NMOCD web site http://www.emnrd.state.nm.us/ocd/. Persons interested in obtaining a copy of the application and draft permit may contact the NMOCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that NMOCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en espan_ol, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservacio n Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New Mexico (Contacto: Dorothy Phillips, 505-476-3461)

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 14th day of August 2008.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L
Mark Fesmire,
Director
Legal No. 85840
Pub. Aug. 20, 2008

Bill Richardson
Governor
Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Director
Oil Conservation Division

August 13, 2008

Mr. Tom Roland
Reef Services, LLC
7906 West Highway 80
Midland, Texas 79706

Re: Discharge Plan Permit Application GW-382
Reef Services Storage Yard
2703 West Marland (NW ¼ of NE ¼ in Sec. 5, T19S, R38E)
Hobbs, New Mexico

Mr. Roland,

The Oil Conservation Division (OCD) has received Reef Services, LLC application and subsequent amendments for discharge permit GW-382 with respect to your service facility in Hobbs, New Mexico. With the receipt of the requested amendments, the application is now deemed "administratively complete".

Therefore, the New Mexico Water Quality Control Commission (WQCC) regulations public notice requirements of 20.6.2.3108 NMAC must be satisfied and demonstrated to the OCD. The OCD will provide public notice pursuant to the WQCC notice requirements of 20.6.2.3108 NMAC to determine if there is any public interest.

If there are any questions regarding this matter, please do not hesitate to contact me by phone or email at *jim.griswold@state.nm.us*. Please refer to permit GW-382 in all future communication. On behalf of the OCD, I wish to thank you and your staff for your continued cooperation during the review process.

Respectfully,

Jim Griswold
Hydrologist

JG/jg
cc: OCD District I Office, Hobbs

Griswold, Jim, EMNRD

From: Griswold, Jim, EMNRD
Sent: Wednesday, August 13, 2008 9:25 AM
To: 'Marc Gentry'
Cc: 'tom.roland@reefcorp.com'
Subject: RE: Discharge Plan Application for Reef Facility in Hobbs, NM (GW-382)

Marc,

Thank you for the confirmation. I will be finalizing a letter of administrative completeness probably today and forwarding electronically to Reef and yourself perhaps as soon as today. OCD will then do our public notice requirements in the Santa Fe New Mexican and the Hobbs News-Sun as well. I have reviewed your draft public notice and it is fine other than the location needs to be corrected and my name and phone number needs to be used rather than Leonard Lowe's. Be sure to post everything in Spanish as well. Be sure to have the Hobbs paper send you verification that the ad was run and forward that certification to me.

With respect to the signage, the sign at the Reef facility needs to be at least 2x3 feet, but the other does not. It simply needs to be large enough for folks to notice and read. You can post it in any publically conspicuous place in the area such as a post office, grocery store, or convenience store. Both signs need to be up for 30 days and be tough enough to last that period of time. Please take some digital photos of the signs once they are up and forward them to me. Since this is a new permit, the adjacent land owners within 1/3 mile of the facility boundaries must all be notified by mail and Reef needs to submit verification of the mailings.

As for the materials that have been or are expected to be on-site, please estimate the volumes and forward to me as well. Thanks.

Jim

From: Marc Gentry [mailto:marc@sentinelgeo.com]
Sent: Tuesday, August 12, 2008 3:38 PM
To: Griswold, Jim, EMNRD; tom.roland@reefcorp.com
Subject: RE: Discharge Plan Application for Reef Facility in Hobbs, NM (GW-382)

Jim,

Thank you for the e-mail. You are correct in each of your comments regarding the location of the subject property. I can resubmit the corrected pages and .pdf to you if you wish. The quantities are in gallons, not barrels. Please note that if the amount is listed as "0-gallons", the material either has been, or is expected to be on-site at some time this year.

Reef will place the public notice in the Hobbs News-Sun. You should have a copy of the public notice draft. Reef will place one of the signs immediately in front of the subject property along the right of way facing West Marland Street. We are unsure where would be an appropriate location for the second sign, we welcome any suggestions the OCD might have.

Please feel free to call or reply with any questions or concerns,

Marc gentry

Marc E. Gentry, PG
Managing Partner

Sentinel Geo-Services, LLC

A DFJ Company
2855 Mangum Road, Suite 522
Houston, TX 77092
Phone: 713.686.8900
Fax: 713.686.5181
www.sentinelgeo.com

From: Griswold, Jim, EMNRD [mailto:Jim.Griswold@state.nm.us]
Sent: Monday, August 11, 2008 10:32 AM
To: tom.roland@reefcorp.com
Cc: marc@sentinelgeo.com
Subject: Discharge Plan Application for Reef Facility in Hobbs, NM (GW-382)

Mr. Roland,

I am currently reviewing Reef's application dated 7/10/08 for a new discharge permit for the facility located at 2703 West Marland in Hobbs, NM. The first step in the formal review process is a determination as to whether or not the application is "administratively complete". Certain specific criteria must be met under regulation for such a determination.

It would appear the ULSTR information (NE ¼ of the NE ¼ of Section 5 in Township 19 South, Range 38 East) is marginally incorrect. The facility is actually situated in the NW ¼ of the NE ¼ of Section 5. Also, the longitude provided in Attachment 1 would also appear to contain a typo (108 degrees 10' 12.6"). This would place the facility in the hills northeast of Lordsburg, NM about 300 miles west of Hobbs. The proper longitude should be 103.170348 degrees. If you could verify this to me via email, then Reef Services will not need to resubmit the application.

Furthermore, in Attachment 3 (Hobbs Material Inventory List) the units for column heading "Quantity on Hand" is not provided. I assume the quantities are in gallons rather than barrels, but I need confirmation from Reef.

Finally, Reef Services must provide to OCD the specific proposed locations and newspaper for issuing public notice. A sign at least 2 x 3 feet in size must be posted at the facility (in English and Spanish), another at a conspicuous location offsite, written notice sent by mail to all property owners within 1/3 mile including Mr. Staggs, and 3 x 4 inch ad in English and Spanish NOT in the classified or legal section of a local paper. The actual notice should not occur until AFTER the application is deemed administratively complete and I have reviewed and approved the public notice requirements. Verification will then be required substantiating newspaper publication, sign postings, and the property owner mailing list.

Thanks for your continued cooperation in this effort. Please feel free to contact me at any time with questions or comments. Please refer to this discharge plan by its OCD permit designation of GW-382 in all future correspondence.

Jim Griswold

Hydrologist

Environmental Bureau

ENMRD/Oil Conservation Division

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

direct: 505.476.3465

email: jim.griswold@state.nm.us

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. _____ dated 7/9/08

or cash received on _____ in the amount of $ 100 00

from Reef Services LLC

for GW-382

Submitted by: Lawrence Romero Date: 7/14/08

Submitted to ASD by: Lawrence Romero Date: 7/14/08

Received in ASD by: _____ Date: _____

Filing Fee ✓ New Facility _____ Renewal _____

Modification _____ Other _____

Organization Code 521.07 Applicable FY 2004

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment _____

RECEIVED
2008 JUL 11 PM 2 29

DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES, GAS PLANTS, REFINERIES, COMPRESSOR, GEOTHERMAL FACILITIES AND CRUDE OIL PUMP STATIONS

Reef Services Storage Yard
2703 West Marland Road
Hobbs, New Mexico 88240
OCD ID # GW-382

Project Number:

M-6849H

Presented To:

Mr. Leonard Lowe
New Mexico Oil Conservation District
1220 South St. Francis Drive
Santa Fe, New Mexico

Date of Report:

July 11, 2008

Sentinel GEO-SERVICES

713-686-8900 ~ www.sentinelgeo.com

Sentinel
GEO-SERVICES

A DEJ Company

Sentinel Geo-Services, LLC
2855 Mangum Road, Suite 522
Houston, Texas 77092
Phone: 713.686.8900
Fax: 713.686.5181
www.sentinelgeo.com

July 11, 2008

Mr. Leonard Lowe
New Mexico Oil Conservation District
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Discharge Plan Application
Reef Services Storage Yard
2703 West Marland Street
Hobbs, New Mexico 88240
OCD ID No. GW-382

Dear Mr. Lowe:

Sentinel Geo-Services, LLC (Sentinel) would like to thank you on behalf of our client, Reef Services, LLC, (Reef) for the opportunity to submit this *Discharge Plan Application for Service Companies, Gas Plants, Refineries, Compressor, Geothermal Facilities and Crude Oil Pump Stations* for the above referenced property (subject site). A check in the amount of $100.00 is included in your copy of the discharge plan application.

Please feel free to call with any questions or concerns,

Yours truly,

Sentinel Geo-Services, LLC

Marc E. Gentry, P.G.
Managing Partner

Cc: Tom Roland, Reef
file

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

State of New Mexico
Energy Minerals and Natural Resources

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

Revised June 10, 2003

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES,GAS PLANTS, REFINERIES, COMPRESSOR, GEOTHERMAL FACILITES AND CRUDE OIL PUMP STATIONS

(Refer to the OCD Guidelines for assistance in completing the application)

☒ New ☐ Renewal ☐ Modification

1. Type: Oil and Gas Service Company GW-382
2. Operator: Reef Services, LLC

   Address: 2703 West Marland Street

   Contact Person: Tom Roland Phone: (432) 560-5600
3. Location: NE /4 NE /4 Section 05 Township 19S Range 38E
   Submit large scale topographic map showing exact location.
4. Attach the name, telephone number and address of the landowner of the facility site.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.
6. Attach a description of all materials stored or used at the facility.
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.
10. Attach a routine inspection and maintenance plan to ensure permit compliance.
11. Attach a contingency plan for reporting and clean-up of spills or releases.
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

14. CERTIFICATIONI hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Tom Roland Title: Director of Safety and Environmental

Signature: Date: July 10, 2008

E-mail Address: Tom.Roland@Reefcorp.com

Attachment 1
Facility Owner and Operator Information

Attachment 1
Facility Owner and Operator Information

Facility Owner:

Mr. Bill Staggs
303 West Lawrence
Hobbs, New Mexico 88242
(505) 390-5303

Facility Operator:

Reef Services, LLC
7906 West Highway 80
Midland, TX 79706
(432) 560-5600
(432) 580-4931 (fax)

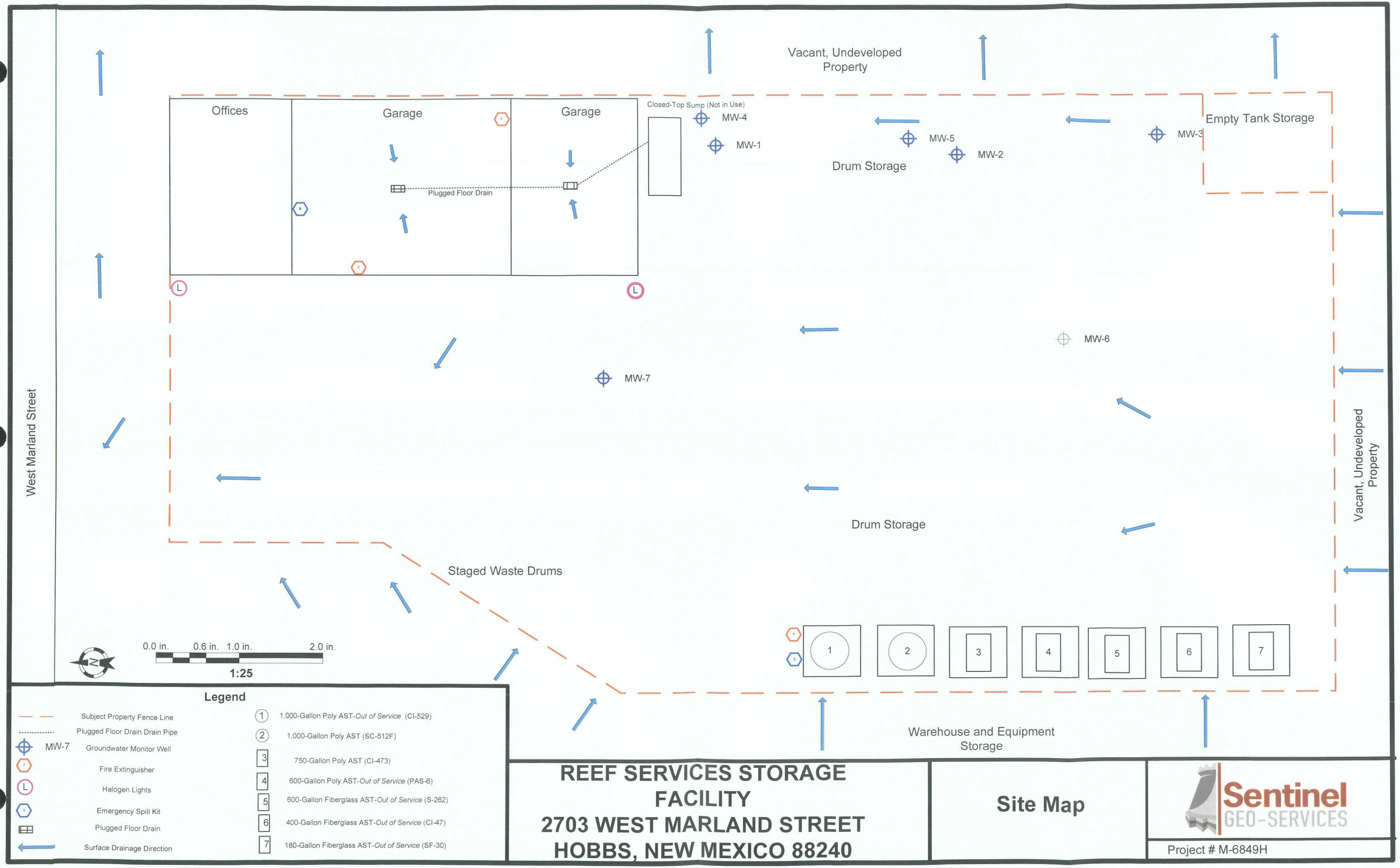
Facility Information:

Reef Chemical Company, Inc.
2703 West Marland Street
Hobbs, New Mexico 88240
(505) 390-0035
(505) 391-6724 (fax)

Latitude: 32° 41' 46.8" North
Longitude: 108° 10' 12.6" West

Attachment 2

Site Map



Legend

- Subject Property Fence Line
- Plugged Floor Drain Drain Pipe
- MW-7 Groundwater Monitor Well
- Fire Extinguisher
- Halogen Lights
- Emergency Spill Kit
- Plugged Floor Drain
- Surface Drainage Direction

1. 1,000-Gallon Poly AST-*Out of Service* (CI-529)
2. 1,000-Gallon Poly AST (SC-512F)
3. 750-Gallon Poly AST (CI-473)
4. 600-Gallon Poly AST-*Out of Service* (PAS-6)
5. 600-Gallon Fiberglass AST-*Out of Service* (S-262)
6. 400-Gallon Fiberglass AST-*Out of Service* (CI-47)
7. 180-Gallon Fiberglass AST-*Out of Service* (SF-30)

REEF SERVICES STORAGE FACILITY
2703 WEST MARLAND STREET
HOBBS, NEW MEXICO 88240

Site Map

Sentinel GEO-SERVICES

Project # M-6849H

Attachment 3

Hobbs Material Inventory List

Quantity on Hand	D.O.T Description	D.O.T Description 2
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS ETHYLENE GLYCOL MONOBUTYL ETHER & GLACIAL ACETIC ACID)
94	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: HEXANE, GLACIAL ACETIC ACID)
5	CORROSIVE LIQUID, TOXIC, NOS, 8, (6.1), UN 2922, PG III	(CONTAINS: HYDROCHLORIC ACID, THIOUREA)
5	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, EGMBE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, ISOPROPANOL)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS ISOPROPANOL, EGMBE)
155	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: ISOPROPANOL, EGMBE)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: ISOPROPANOL, AMMONIA)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: ISOPROPANOL, AMMONIA)
77	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: XYLENE, TRIMETHYLBENZENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS ISOPROPANOL & ETHANOL)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, NAPHTHALENE)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS METHANOL) DRUMS NOT REGULATED
78	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLUTARADEHYDE, METHANOL)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLUTARALDEHYDE, METHANOL)
20	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLUTARALDEHYDE, METHANOL)
55	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, SODIUM HYPOCHLORITE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL, ETHOXYLATED TALLOW POLYAMINE)
132	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL)
225	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID, METHANOL)
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL)
284	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL) DRUMS NOT REGULATED
676	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS METHANOL & ISOPROPYL ALCOHOL)
55	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL)
129	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, ISOPROPANOL)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1219, PG II	(CONTAINS: ISOPROPANOL)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
165	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS METHANOL)
128	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYL BENZENE, XYLENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, ISOPROPANOL)
76	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: MAGNESIUM CHLORIDE, METHANOL) (DRUMS NOT REGULATED)
110	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: MAGNESIUM CHLORIDE, METHANOL)
102	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, ISOPROPANOL)
84	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)

Quantity on Hand	D.O.T Description	D.O.T Description 2
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
330	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, TRIMETHYLBENZENE)
305	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
90	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
115	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, XYLENE)
83	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
144	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
237	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, XYLENE)
62	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, XYLENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, XYLENE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
180	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS XYLENE & DODECYLBENZENESULFONIC ACID)
141	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, TOLUENE)
55	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: TRIMETHYLBENZENE, AMMONIA)
110	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID, AMMONIA)
165	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
88	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
183	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
55	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, DODECYLBENZENESULFONIC ACID)
258	NON-HAZARDOUS, PG III	
0	NON-HAZARDOUS, PG III	
62	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, XYLENE)
750	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
39	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: TRIMETHYLBENZENE, XYLENE) DRUMS NOT REGULATED
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: ISOPROPANOL, GLACIAL ACETIC ACID)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: ISOPROPANOL, GLACIAL ACETIC ACID)
0	BISULFITES, AQUEOUS SOLUTIONS, NOS, 8, UN 2693, PG III	(CONTAINS: AMMONIUM BISULFITE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL, GLACIAL ACETIC ACID)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL)
330	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL)

Quantity on Hand	D.O.T Description	D.O.T Description 2
165	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS METHANOL)
533	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL)
1244	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID, METHANOL)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL, FORMIC ACID)
110	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: FORMIC ACID, ISOPROPANOL)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL) DRUMS NOT REGULATED

Quantity on Hand	D.O.T Description	D.O.T Description 2
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, ISOPROPANOL)
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
275	FLAMMABLE LIQUID, METHANOL, 3, UN 1230, PG II	
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
110	BISULFITES, AQUEOUS SOLUTIONS, NOS, 8, UN 2693, PG III	(CONTAINS AMMONIUM BISULFITE)
0	BISULFITES, AQUEOUS SOLUTIONS, NOS, 8, UN 2693, PG III	(CONTAINS: AMMONIUM BISULFITE)
110	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: CARBON DISULFIDE, TOLUENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, XYLENE)
301	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, CRESYLIC ACID)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
38	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, ISOPROPYLAMINE)
110	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, TOLUENE)
55	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, ISOPROPYLAMINE)
103	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, ISOPROPANOL)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: HEXANE & XYLENE)

Quantity on Hand	D.O.T Description	D.O.T Description 2
92	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, GLACIAL ACETIC ACID)
220	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, GLACIAL ACETIC ACID)
60	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, TOLUENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, HEXANE)
390	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, HEXANE)
33	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, TOLUENE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: HEXANE, GLACIAL ACETIC ACID)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: HEXANE & XYLENE)
226	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: ISOPROPANOL, GLACIAL ACETIC ACID)
65	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS XYLENE & ISOPROPYL ALCOHOL)
73	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	CONTAINS: XYLENE, ISOPROPANOL)
165	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, ISOPROPANOL)
110	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, XYLENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, LIGHT AROMATIC NAPHTHA)
147	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, ISOPROPANOL)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, HEXANE)
123	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, HEXANE)
311	CORROSIVE LIQUID, NOS, 8, UN 1760, PG III	(CONTAINS PHOSPHONIC ACID)
30 lbs	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
110	CHEMICALS, NOS, PG III	(NOT REGULATED)
220	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: HEXANE, SODIUM HYDROXIDE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, HEXANE)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: HYDROCHLORIC ACID, ISOPROPANOL)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: DIMETHYLAMMONIUM CHLORIDE, ETHANOL)
517	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: METHANOL, POLYPHOSPHORIC ACIDS)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: METHANOL, DODECYLBENZENESULFONIC ACID)
60	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID)
385	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: GLACIAL ACETIC ACID, METHANOL)
10	CORROSIVE LIQUID, NOS, 8, UN 1760, PG III	(CONTAINS: PHOSPHONIC ACID SALT)
622	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL)
410	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL) DRUMS NOT REGULATED
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL) DRUMS NOT REGULATED
110	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: GLACIAL ACETIC ACID, METHANOL)
110	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID, HYDROCHLORIC ACID)
534	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: DIMETHYLAMMONIUM CHLORIDE, ETHANOL)
39	CORROSIVE LIQUID, NOS, 8, UN 1760, PG III	(CONTAINS SODIUM XYLENE SULFONATE & SODIUM METASILLICATE)
170	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, ISOPROPANOL)

Quantity on Hand	D.O.T Description	D.O.T Description 2
249	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, EGMBE)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: METHANOL, PHOSPHORIC ACID)
30 lbs	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: SODIUM HYDROXIDE, SODIUM CARBONATE)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: SODIUM HYDROXIDE, SODIUM GLUCONATE)
110	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS XYLENE & TOLUENE)
102	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, ISOPROPANOL)
0	NON-HAZARDOUS	(NOT REGULATED)
30 lbs	CHEMICALS, NOS, PG III	(NOT REGULATED)
330	XYLENES, 3, UN 1307, PG III	
24	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: NAPTHA AROMATIC)
0	CHEMICALS, NOS, PG III	(NOT REGULATED)

Attachment 4

Present Sources of Effluent and Waste Solids

Attachment 4

Present Sources of Effluent and Waste Solids

Reef Services, LLC does not discharge effluent or have any on-site activities that require disposal of waste solids. The City of Hobbs services the on-site dumpster and collects trash from the facility at a rate of once per week.

Fluids collected within secondary containment and catchment traps are recycled as wellhead chemical flush water.

Attachment 5

Description of Current Liquid and Solid Waste Collection/Treatment/Disposal Procedures

Attachment 5

Description of Current Liquid and Solid Waste Collection/Treatment/Disposal Procedures

Reef Services, LLC, does not discharge waste liquids or have any on-site activities that require disposal of waste solids. The City of Hobbs services the on-site dumpster and collects trash from the facility at a rate of once per week.

Fluids collected within secondary containment and catchment basins are recycled as wellhead chemical flush water. Additional information regarding waste collection, treatment and disposal procedures can be located in the Draft Spill Prevention, Countermeasure and Control (SPCC) Plan included as Attachment 8 of this discharge plan application.

Attachment 6

Proposed Modifications to Liquid and Solid Waste Collection, Treatment, and Disposal

Attachment 6

Proposed Modifications to Liquid and Solid Waste Collection, Treatment, and Disposal

At the time of this application, Reef Services, LLC has no proposed modifications to liquid and solid waste collection, treatment, and disposal.

Attachment 7

Routine Inspection and Maintenance Plan

Attachment 7

Routine Inspection and Maintenance Plan

Reef Services, LLC conducts routine maintenance and inspections pursuant to the enclosed Draft SPCC Plan, included as Attachment 8 in this discharge application.

Attachment 8

Contingency Plan for Reporting and Clean-Up of Spills

DRAFT SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

Reef Services Storage Yard
2703 West Marland Road
Hobbs, New Mexico 88240
Harris County

Project Number:

M-6849H

Presented To:

Mr. Tom Roland
Reef Services, LLC
7906 West Highway 80
Midland, TX 79706

Date of Engagement:

June 15, 2008

Date of Report:

July 11, 2008

Sentinel GEO-SERVICES

713-686-8900 ~ www.sentinelgeo.com

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1.0 Introduction

This Spill Prevention, Control, and Countermeasure (SPCC) Plan has been developed for the Reef Services, LLC (Reef) chemical storage yard located at 2703 West Marland Street in Hobbs, New Mexico. The location of the subject property is shown on the Site Vicinity Map, Figure 1. This SPCC Plan complies with the requirements of Title 40 of the Code of Federal Regulations, Part 112 as amended July 17, 2002. This SPCC Plan was prepared in accordance with good engineering practices. The SPCC Plan has the full approval of Reef management personnel who are authorized to commit the resources necessary to ensure this plan is fully implemented.

Upon completion of deficiencies identified in this document, Reef will provide written confirmation and pictures to Sentinel Geo-Service's Professional Engineer for certification of the SPCC Plan. The final SPCC Plan will help prevent discharges into Monument Draw and adjacent areas and to conform to Federal and New Mexico laws concerning such discharges.

Spill Response Team

Role	Name	Title	Phone Number
Spill Response Coordinator	Tom Roland	Director, Safety and Environmental	(432) 560-5600 Cell: (432) 559-1564
Spill Response Team Leader	Jeremy Garcia	Yard Manager	(575) 391-6730 Cell:(432) 288-4532
Additional Contact	Randy Allison	Area Manager	(806) 897-2744 Cell: (806) 789-3278

Facility Contact Information:

Reef Services, LLC
2703 West Marland Street
Hobbs, New Mexico 88240
(505) 390-0035
(505) 391-6724 fax

Latitude: 32° 41' 46.8"
Longitude: 108° 10' 12.6"

1.1 Applicability

This plan was prepared in accordance with SPCC plan regulations, published in Federal Register Volume 67, No. 137, July 17, 2002. Provisions of this plan, required by the existing SPCC plan regulations, are effective immediately. Provisions required only by new regulations will be implemented upon the effective date of those regulations or as soon as practicable.

The Reef chemical storage yard meets the following criteria for applicability under 40 CFR 112.1:

- The facility has an aggregate aboveground storage capacity of greater than 1,320 gallons of oil and chemicals and only containers of these materials with a capacity of 55 gallons or greater are counted in this aggregate.

- The facility, due to its location, could reasonably be expected to discharge oil or chemicals in quantities that may be harmful, as defined in 40 CFR 110, into or upon the navigable waters of the United States or adjoining shorelines.

- This facility has oil or chemicals in any aboveground container, any completely buried tank, any container used for standby storage, for seasonal storage or temporary storage, and any bunkered tank or partially buried tank.

The requirements for preparation of an SPCC Plan do not apply to containers with a storage capacity of less than 55 gallons for the purposes of counting the total storage capacity of the facility. Only containers with a capacity of 55 gallons or greater are counted toward total storage capacity. Those portions of the facility used exclusively was wastewater treatment (excluding production, recovery, or recycling of oil, and not used to satisfy the requirements of 40 CFR Part 112) are also not subject to SPCC Plan requirements and are not included in the calculation of storage capacity of the facility.

1.2 Plan Availability, Professional Engineers Certification and Industry Standards

1.2.1 Plan Availability

This plan will be maintained at the facility and made available to the Regional Administrator for onsite review during normal working hours.

1.2.2 Professional Engineer's Certification

This plan and any technical amendments must be certified by a licensed professional engineer.

I hereby certify that I am familiar with the requirements of 40 CFR Part 112, that I or my agent visited and examined the facility, that this plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR Part 112, that the procedures for required inspections and testing have been established, and that the plan is adequate for the facility.

Name of Professional Engineer _____

Signature of Professional Engineer _____

Registration Number _____

Date _____

Seal:

1.3 Amendment, Review and Evaluation

This Plan will be reviewed and evaluated every five years from the date of the preparation of this plan and subsequently from the date of the last review of this Plan. Documentation of completion of the review and evaluation and documentation of whether the Plan will be amended based on the review and evaluation is provided in the appendix section of this report.

This Plan will be amended whenever required by the Regional Administrator and whenever there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge of oil in harmful quantities into or upon waters of the United States or adjoining shorelines. This Plan will also be amended if, as a result of the review and evaluation required to be performed every five years, it is determined that more effective prevention and control technology which has been field-proven at the time of the review will significantly reduce the likelihood of a discharge of oil or chemicals in harmful quantities into or upon the waters of the United States or adjacent shorelines.

Any amendment to this Plan will be completed within six months of identification of the need for an amendment, and implemented as soon as possible, but no later than six months following the preparation of said amendment. A professional engineer will certify any technical amendment to the Plan.

1.4 Plan Preparation and Management Approval

I certify that this SPCC Plan was prepared in accordance with good engineering practices. I further certify that the SPCC Plan has the full approval of Reef management personnel who are authorized to commit the resources necessary to ensure this plan is fully implemented.

Name _____

Signature _____

Title _____

Date _____

1.5 Deviations From 40 CFR 112 Requirements

In preparing this Plan, no specific deviations from 40 CFR Part 112 were included. However, if any deviations from the requirements of 40 CFR Part 112 are included during the subsequent reviews and amendments, they will be described in this section of the Plan.

2.0 Physical Layout of Facility and Current Use

The subject property is an approximately one-acre tract of land leased by Reef in Hobbs, New Mexico. The facility includes a one-story metal building on a concrete slab foundation, with a caliche gravel driveway/asphalt parking lot. A total of 5,500 square feet (sq ft) of building space is under roof, of which approximately 3,438 sq ft is warehouse space.

The facility is currently used as a wellhead chemical storage facility. Several types of wellhead treatment chemicals are currently in inventory at the Facility. The various treatment chemicals are stored in 55-gallon drums. These 55-gallon drums are unloaded by forklifts and placed into respective storage areas. Approximately 180 steel, 55-gallon drums, empty drums awaiting recycling, polyethylene totes and 5-gallon buckets are located at the facility. No chemical blending occurs onsite.

Additionally, various wellhead treatment chemicals are stored in two above ground storage tanks (ASTs) with capacities of 750-gallons and 1,000-gallons. Secondary containment is provided for all onsite ASTs. Several ASTs are located onsite that have been emptied of their contents and are scheduled to be removed from the facility. The emptied ASTs are not included in the determination of aggregate facility storage.

Storm water runoff from the facility drains to ditches and tributaries of an unnamed creek that is located approximately 12 miles west of the subject property. The unnamed creek empties into the Monahans Draw located approximately 25 miles southwest of the facility.

Figure 2 provides a map of the subject property. This figure includes:

- Tank locations and approximate drainage pathways indicated by arrows showing surface water flow
- Direction of surface water flow
- Locations of existing secondary containment or diversionary structures, and
- Emergency spill kit and fire extinguisher locations

2.1 Buildings

A single-story metal building occupied by warehouse space and facility offices is located on the northeast side of the subject property.

2.2 Tanks

One 1,000-gallon polyethylene AST and one 750-gallon polyethylene AST, with adequate secondary containment, are located on the southwest side of the subject property. These ASTs are used to store wellhead treatment chemicals. Numerous empty polyethylene ASTs are out of service and are stored onsite pending transportation to other Reef facilities. These tanks are out of service and are not counted included in this Plan.

Four polyethylene totes containing wellhead treatment chemicals are stored at the subject property. The total capacity of the four totes is approximately 400 gallons. At the time of this report, these totes were not stored within catchment basins or secondary containment. Reef will move these totes into secondary containment as soon as practicable.

3.0 Facility Diagram

A Site Map is included in this plan as Figure 2. The Site Map provides the physical layout of the facility and the location and contents of each storage container. Currently there are no known buried tanks at the facility. If any buried tanks are installed at the facility, Figure 2 will be updated to show the location of any buried tank.

4.0 Oil and Chemical Storage Containers

This section of the Plan provides a description of each storage container and its capacity. A material inventory, listing the types of materials transported by trucks and stored in the truck, shop or yard, is included as Appendix C. The material list will be maintained and updated whenever the materials handled change.

4.1 Oil Storage Areas

Not applicable at this facility.

4.2 Fuel Storage Area

Not applicable at this facility.

4.3 Chemical Storage Area

The facility is a wellhead treatment chemical storage yard, and as such, maintains an inventory of various chemicals. A complete list of chemicals stored at this site is included in the appendix section of this report. ASTs storing wellhead treatment chemicals are located on the southwest portion of the property. Several poly totes containing wellhead treatment chemicals are located along the southwest corner of the building.

4.4 Drum Storage Areas

Numerous drums are staged along the western, eastern and central portions of the properties. There are currently 185 (55-gallon) drums at the site. The number of drums onsite changes on a weekly basis. An inventory of various chemicals stored in the drums is maintained onsite. Drums are staged on wooden pallets to enable employees to immediately identify spills and discharges.

5.0 Discharge Prevention Measures

This section of the Plan describes the discharge prevention measures used a the facility, including procedures for the routine handling of products (loading, unloading, and facility transfers).

To minimize the release of pollutants during truck loading activities, delivery is performed following procedures outlined in the Reef Employee's Handbook, available at the subject property for review. In addition, the following procedures for transfer of materials from or into tanks are followed:

- All vehicles entering the facility are warned of possible vehicular impact that may endanger ASTs, drum stockpiles, and material transfer operations.

- Material transfer truck driver is present at the hose connection and observes the material transfer until completed.

- Prior to departure of the tank truck the lowermost drain on all outlets of the vehicle are examined for leakage. If necessary, drain valves are tightened, adjusted, or replaced to prevent liquid leakage while in transit.

Any and all employees are responsible for reporting immediately any spill or leak of material described in this plan to the Spill Response Coordinator.

6.0 Discharge of Drainage Controls

This section describes the discharge of drainage controls used at the facility, including secondary containment and other structures, equipment, or procedures for the control of a discharge.

There are currently two ASTs used onsite, each of which has been determined to have adequate secondary containment should a spill or rupture occur. Approximately 185 (55-gallon) drums containing wellhead treatment chemicals are stored at the subject property. At the time of this report, the drums were not maintained within bermed or secondary containment structures. Any releases would likely be maintained on the subject property; however, should a heavy rain event occur during a spill, impacted rainwater could migrate north along the surface gradient to West Marland Street.

7.0 Countermeasures for Discharge Discovery, Response, and Cleanup

This section describes the procedures that are followed for responses to spills or leaks. Spill response procedures have been established to respond to a release or spill at the subject property to ensure spill response procedures are carried out in an organized manner. Material Data Safety Sheets (MSDSs) for materials used and stored at the subject property are located in the Spill Response Coordinator's office. All drums and tanks are clearly labeled with their contents to facilitate spill response procedures. An inventory of spill response equipment materials is maintained and updated regularly by the Spill Response Coordinator. Spill Response Procedures and Spill Event Forms are included in the appendix section of this Plan.

ANY AND ALL EMPLOYEES ARE RESPONSIBLE FOR REPORTING IMMEDIATELY ANY SPILL OF LEAK OF MATERIAL DESCRIBED IN THIS PLAN TO THEIR SUPERVISOR.

In the event of a release or spill, the employee discovering the spill will report the following:

- Time of spill or discovery
- Location of spill
- Type of material spilled
- Estimated quantity of spilled material
- Condition of spilled material

The supervisor will immediately notify the Spill Response Coordinator.

7.1 Spill Response Team

A spill response team has been designated and trained in the proper actions to be taken in the event of a release or spill. The purpose of the team is to provide immediate response to the containment and cleanup of any spill. All spill response team members receive updated training on a yearly basis. The spill response team members and their individual responsibilities are listed below.

Role	Name	Title	Phone Number
Spill Response Coordinator	Tom Roland	Director, Safety and Environmental	(432) 560-5600 Cell: (432) 559-1564
Spill Response Team Leader	Jeremy Garcia	Yard Manager	(575) 391-6730 Cell:(432) 288-4532
Additional Contact	Randy Allison	Area Manager	(806) 897-2744 Cell: (806) 789-3278

The Spill Response Team is Responsible for the following:

- The Spill response Coordinator is responsible for determining whether the facility has had a release that could flow offsite, that could reach an offsite surface water body or navigable waterway, or that could threaten human health or the environment.

- The Spill Response Coordinator is responsible for assessing the spill, gathering the information required for notification requirements, making the proper notifications in a timely manner, and implementing the spill response procedures.

- The Spill Response Coordinator will coordinate with the Spill Response Team Leader in implementing the spill response procedures appropriate to the type of spill encountered and the Spill Response Leader will direct the Spill Response Team Members in spill response for the type of spill encountered. Spill response procedures are provided in the appendix section of this Plan.

- The Spill Response Coordinator will assess whether evacuation of the surrounding area is required and, if necessary, will notify proper local authorities, including the police department, fire department, hospital, and state and local emergency response teams. A list of local authorities and their phone numbers is shown in Appendix G.

- The Spill Response Team Leader is responsible for preventative maintenance, coordinating and implementing inspection schedules, documenting inspections, maintaining records required by this SPCC Plan, and sill response. He is also responsible for training of operations personnel on both the contents of the SPCC Plan and any modifications made to this Plan.

- The purpose of the team is to provide immediate response to the containment and cleanup of any spill. All Spill Response Team members receive updated training each year.

7.2 Spill Response Equipment

Spill response equipment, including shovels and sorbent material, are located adjacent to the onsite ASTs and inside the warehouse. Reef standard operating procedures require employees to treat each spill location with a proprietary bioremediation agent, Reclaim O and Reclaim W.

7.3 Communications Equipment

In the event of a spill, cell phones will be used for communication between the Spill Response Coordinator, the Spill Response Team Leader, the Spill Response Team, and facility personnel. For communications between the Spill Response Coordinator or his designee and offsite emergency personnel, site telephones or cell phones will be used. This communications equipment is used daily, is maintained in good working order, and is repaired as necessary.

7.4 Evacuation Procedures

If the Spill Response Coordinator determines that a release, spill, fire, or explosion has occurred that could threaten human health, he will notify site personnel of evacuation of a specific area of the facility or complete evacuation of the facility by using cellular telephones, and he will take the visitor's log. All personnel in the immediate vicinity of an evacuation will be required the leave the area immediately and report to his/her supervisor at the entrance of the property. Site personnel should be familiar with the evacuation procedure in case of an emergency.

8.0 Methods of Disposal of Recovered Material

Following a release within the tank secondary containment areas the recoverable released material will be pumped into the appropriate storage tank. Any material released outside of the tank secondary containment areas will be removed with sorbent material and placed in drums for proper offsite disposal. Recovered contaminated materials will be disposed at a facility permitted the manage these types of wastes.

9.0 Contact List

The contact list and phone numbers for the Spill Response Team, National Response Center, cleanup contractors who the facility uses for spill response, and all appropriate Federal, State, and local agencies who must be contacted in case of a discharge described in 40 CFR 112.1(b) are provided in Appendix F. The spill reporting and notification procedures to Federal and State agencies are provided in Appendix G.

10.0 Site-Specific Information for Reporting a Discharge

The following information will be provided when reporting a discharge:

- Name, address, and telephone number of the person making the telephone report
- Name, address, and telephone number of the facility
- If different for the person making the notification, the names, addresses, and telephone numbers of the responsible person and contact person at the location of the discharge or spill
- Date, time, and exact location of the spill or discharge
- Specific description of identification of the oil, chemical, or toher substances discharged or spilled
- Estimate of the quantity discharged or spilled
- Duration of the incident
- Source of the discharge of spill
- Cause of the discharge or spill
- Description of all effected media
- Any damages or injuries caused by the discharge or spill
- Descriptions of any actions that have been taken, are being take, and will be taken to stop, remove, and mitigate the effects of the discharge or spill
- Any known or anticipated health risks
- Whether an evacuation is needed
- Identity of any government representatives, including local authorities or third parties, responding to the discharge or spill
- Names of any individuals and/or organizations who have been contacted
- Any other information that may be significant to the response action

11.0 Discharge Response

The procedures described in Section 7.0, 8.0, and 9.0 are organized to make them readily usable to respond to an emergency at the facility.

12.0 Discharges From Equipment Failure

This section describes the potential types of equipment failure, and for each potential type of equipment failure, a prediction of the direction of flow, rate of flow, and total quantity of material that could be discharged from the facility as a result of each type of major equipment failure.

The onsite ASTs are shown on Figure 2. The activities that represent the greatest potential for release of material from the site to the environment are tank failures and loading to delivery trucks.

12.1 Tank Overflows and Leaks from ASTs

Wellhead chemicals stored in onsite ASTs have the potential to be released from tank overflows and failures at the site. The ASTs are located outside the warehouse and within secondary containment.

Direction of Flow: Within secondary containment
Rate of Flow: 1000 gallons/hour
Total quantity of material discharged: 1,615 including secondary containment

12.2 Drum Failures

Various wellhead treatment chemicals are stored onsite in steel DOT-approved drums. The number of drums vary, however, at the time of the report the site had approximately 185 drums. Releases due to drum rupture are possible.

Direction of Flow: West and north towards West Marland Street
Rate of Flow: 55 gallons/hour
Total quantity of material discharged: 55-gallons

12.3 Vehicle Fueling/Loading Into Tank Trucks

Loading and unloading of wellhead treatment chemicals takes place at the subject property. During loading and unloading there is the potential for chemicals to be released.

Direction of flow: Any potential release to the area outside of secondary containment would flow west and north, following site topography.

Rate of flow: The rate of flow for a release during delivery truck loading/unloading will depend on the pumping rate of the vehicle.

Total quantity of material discharged: The quantity of material that could be released during loading/unloading from the delivery vehicle would be 1,000-gallons, which is the maximum capacity of the largest tank at the facility.

13.0 Appropriate Containment or Diversionary Structures

Appropriate containment or diversionary structures or equipment to prevent a discharge as described in 40 CFR 112.1(b) are described in Section 6.0, Discharge or Drainage Controls. Adequate secondary containment systems are capable of containing oil based chemical products stored in onsite ASTs. These containment systems are constructed such that any discharge from a primary containment system, such as a tank, will not escape the containment system before clean-up occurs. Additionally, any releases from tanks or piping would be removed by pumping the released material into the respective tank or removing the residue with sorbent materials.

14.0 Practicability Determination

Reef has determined that the structures and pieces of equipment listed in Section 40 CFR 112.7(c) and (h)(1) to prevent a discharge in harmful quantities from the facility are practicable. If at any time Reef determines that any of these structures or pieces of equipment are not practicable, Reef will provide a statement regarding why such measures are not practicable in this section of the plan. Reef will conduct regular inspections of the facility. Inspection checklists are included in the appendix section of this Plan.

15.0 Inspections and Testing

Reef conducts weekly inspections as part of its preparedness and prevention procedures. Included in the inspections are the tank storage areas. The items inspected in the tank storage areas include the general condition and integrity of the tanks, pumps, valves, flange joints, expansion joints, catch pans, piping, tank and piping foundations and supports, whether the tank valves are closed, whether the tanks are labeled with the contents of the tank, any observed releases from the tanks, pump operation, the integrity of the concrete secondary containment, whether any releases from the secondary containment were observed, housekeeping, observation of accumulated liquids, inventory and condition of spill response equipment, and corrective actions recommended during previous inspections. Additional items included in the weekly inspections are the integrity of the drums stored inside the concrete containment area and any evidence of spills or releases. Areas where spills of oil could occur are described in Section 12.0.

A facility inspection checklist to document inspections conducted in accordance with this plan is included in the Appendix section.

16.0 Personnel Training and Discharge Prevention Procedures

This section provides a description of the employee training program for the facility that is provided to all material-handling personnel. The employee training includes:

- Procedure for loading and unloading from vehicles and /or tanks
- Inspections
- Equipment operation
- Preventative maintenance
- Operations and Maintenance of equipment to prevent discharges
- Discharge procedures
- Applicable pollution prevention laws, rules, and regulations
- General facility operations
- Spill prevention
- Location of spill response equipment
- Spill response procedures
- Material management practices for specific materials at the facility
- Spill reporting procedures
- Contents of the SPCC Plan

Training will be conducted annually or within one month of a new employee's hire date. Records of training will be maintained by the Spill Response Coordinator.

The Spill Response Team Leader is responsible for discharge prevention and reports to the Spill Response Coordinator.

Discharge prevention briefings will be provided to all material handling personnel at least once per year to assure adequate understanding of the SPCC Plan. These discharge prevention briefings include a description of known discharges or failures, malfunctioning components, and any recently developed precautionary measures.

17.0 Security

17.1 Fencing

Each facility involved with handling, processing, or storing oil or other potentially hazardous substances at the facility, as defined by the regulation, will be fully fenced. The entrance gates will remain locked and/or guarded when the facility is unattended.

The subject property is fenced and has lockable gates at the main entrance of the facility.

17.2 Discharge Valves

The master flow and drain valves are maintained in the closed position when in non-operating or non-standby status. This is confirmed during daily visual observations of the subject property.

17.3 Locked Starter Control Valves

There are no starter control valves located at the subject property.

17.4 Cap of Blank Flange Loading/Unloading Connections

There is no loading/unloading piping located at the subject property.

17.5 Facility Lighting

Facility lighting is provided that is commensurate with the type and location of the facility. Lighting will assist in the discovery of discharges occurring during the hours of darkness, both by operating personnel, if present, and by non-operating personnel, and in the prevention of discharges occurring through acts of vandalism. Facility lighting is provided during operating hours. Lighting reduces the risk of vehicular impact, facilitates inspection of storage and transfer areas and discovery of discharges, and reduces the risk of discharges through acts of vandalism.

18.0 Facility Tank Truck Loading/Unloading

18.1 Tank Truck Containment System

Chemicals are received at the ASTs located on the southwest side of the property. The transport vehicle is parked along the ASTs during the loading/unloading. Each vehicle is provided with a spill kit which will be used to contain any release from the loading/unloading procedures. There are currently no containment structures proximal to the truck unloading areas; however, each of the ASTs, including loading/unloading valves, are located within secondary containment.

18.2 Prevention of Departure Prior to Disconnection

The facility complies with the requirement that prior to filling and departure of any truck, the lowermost drain and all outlets of such vehicles are closely inspected for discharges. If necessary, the drain and outlets are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

19.0 Brittle Fracture or Other Catastrophe Evaluation

Currently, the subject property does not have any field-constructed aboveground containers. If the facility installs a field-constructed aboveground container and it undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, the facility will evaluate the container for risk of discharge or failure and, as necessary, take appropriate action.

20.0 Conformance With Applicable Rules, Regulations, and Guidelines

21.0 Spill Prevention, Control and Countermeasure Plan Requirements For Petroleum and Non-Petroleum Oils at Onshore Facilities (Excluding Production Facilities)

This facility and this plan meet the general requirements of 40 CFR 112.7 and portions of 40 CFR 112.8 as described in the following sections of this plan as appropriate to adhere to the New Mexico Water Quality Control Commission (WQCC) Section 3103.

21.1 Facility Drainage From Diked Areas

Two floor drains are located within the warehouse section of the building. The drains historically drained to an open top sump located on the southeast exterior corner of the building. The sump is currently unused, and the drains in the warehouse have been plugged. Should a release occur from various 55-gallon drums, released material would pool inside the structure.

The facility does not have drains to empty containment of accumulated liquids. Any spills or leaks are pumped from the drums or trucks or absorbed by sorbent materials. The sorbent materials will be drummed in properly labeled DOT approved drums pending disposal at a permitted facility. At the time of this Plan, all fluids, including impacted and nonimpacted fluids are recycled for use as flush water for wellhead chemical treatment.

21.2 Facility Drainage From Undiked Areas

Drainage from undiked areas with a potential for discharge must be designed to flow into ponds, lagoons, or catchment basins designed to retain oil or materials and return it to the facility. The AST loading and unloading areas, as well as the drum storage areas do not have secondary containment. Secondary containment structures sufficiently impervious to stored materials, and with the capacity to contain the largest tank truck compartment loaded or unloaded at the facility plus 10% freeboard for precipitation, will be provided as soon as practicable.

There are no open facility catchment basins. If the facility installs a catchment basin, they will not be located in areas subject to periodic flooding.

21.3 Spill Diversion System

At the time of this report there are no spill diversion systems on the subject property.

21.4 Facility Drainage Systems

Drainage waters are not treated at the facility and exit the site on the eastern portion of the property as sheet flow and exit the north side of the property along West Marland Drive as surface sheet flow.

21.5 Bulk Storage Container Compatibility

The containers used for storage of materials at the facility are compatible with the materials stored and the conditions of storage such as pressure and temperature.

21.6 Bulk Storage Container Secondary Containment

One 1,000-gallon polyethylene AST and one 750-gallon polyethylene AST are currently used at the facility to store wellhead chemicals such as corrosion inhibiters. Secondary containment for each of these ASTs is sufficient to contain the contents should a spill or rupture occur.

The secondary containment structures have no drainage port. All drainage from the secondary containment structures must be manually activated, supervised, terminated, and documented. Visual inspections of the secondary containment competency should be conducted on a regular basis and included in this plan for five years. At the time of this report, all fluids in the secondary containment structures are recycled for use as flushing water during wellhead chemical applications conducted by Reef.

21.7 Discharge of Uncontaminated Rainwater

The facility will not allow drainage of uncontaminated rainwater from secondary containment into storm drains or discharge of effluent into an open water course, lake, or pond. Currently, all fluids in the secondary containment structures are recycled for use as flushing water during wellhead chemical applications conducted by Reef.

21.8 Completely Buried Storage Tanks

There are no completely buried storage tanks located at the facility. If any completely buried storage tanks are installed at the facility, they will be protected from corrosion by coatings or cathodic protection compatible with the local soil conditions. Each completely buried metallic storage tank will be regularly leak tested.

21.9 Partially Buried Storage Tanks

There are no partially buried or bunkered storage tanks located at the facility for the distribution of oil or potentially hazardous materials. If any partially buried or bunkered tanks are installed at the facility, the buried section of the tank will be protected from corrosion by coatings or cathodic protection compatible with local soil conditions.

21.10 Integrity Testing

The facility will conduct visual inspections of each of the onsite ASTs that are in use. The facility will frequently inspect the outside of the containers for signs of deterioration, discharges, or accumulation of product inside containment areas. Records of these inspections will be maintained onsite for three years.

21.11 Internal Heating Coils

There are no tanks equipped with internal heating coils located on the facility. If any tanks are installed with internal heating coils, leakage through defective internal heating coils will be controlled by monitoring steam return and exhaust lines.

21.12 Engineering Controls for Liquid Levels

Each active AST at the facility is translucent polyethylene that allows the operator to visually inspect the fluid levels in the tank. No engineered systems are anticipated to be added to the tanks.

21.13 Effluent Treatment

There is no effluent treatment system that discharges to a navigable water body. Any effluent treatment facilities installed at the facility will be observed frequently enough to detect possible contamination of navigable waters of the United States or adjoining shorelines.

21.14 Correction and Removal of Visual Discharges

The facility promptly corrects visible discharges, which result in a loss of material from containers including, but not limited to seams, gaskets, piping, pumps, valves, rivets, bolts, and bungs. Any accumulation of material on the ground will be immediately addressed by the spill team by removal of the material to the maximum amount practicable, after which a proprietary bioremediation agent, Reclaim O, will be applied.

Daily visual inspections are conducted by facility employees.

21.15 Mobile or Portable Oil Storage

The facility currently uses a varying amount of mobile/portable polyethylene totes to store wellhead chemicals, additionally; varying numbers of empty totes are stored at the facility pending transport. Portable or mobile storage containers will be positioned or located so as to prevent a discharge of harmful quantities of oil into or upon navigable water of the United States or adjoining shorelines.

For mobile or portable chemical totes containing chemicals, a secondary means of containment will be provided, such as a catchment basin with sufficient freeboard to contain the discharge and precipitation.

21.16 Buried Piping

There is currently no buried piping at the facility. However, if buried piping is installed or replaced at the facility, it will be provided with a protective wrapping and coating. The buried piping will also either be

cathodically protected or provided with another means of satisfying the corrosion protection of 40 CFR 280 or a state program approved under 40 CFR 281.

21.17 Out of Services Piping

When piping is not in service or is in standby mode for an extended amount of time, the facility will cap or blank flange the terminal connection at the transfer point and mark it as to origin.

21.18 Pipe Supports

There are currently no pipe supports at the facility; however, if pipe supports are to be added, they will be designed to minimize abrasion and corrosion and allow for expansion and contraction.

21.19 Inspection of Aboveground Valves and Piping

The facility will inspect all above ground valves and piping. During the inspection, the inspector will assess joints, expansion joints, valves; catch pans, pipeline supports, locking of valves, and metal surfaces. Integrity and leak testing of buried piping, if applicable, will be conducted at the time of the investigation.

21.20 Vehicle damage to Piping

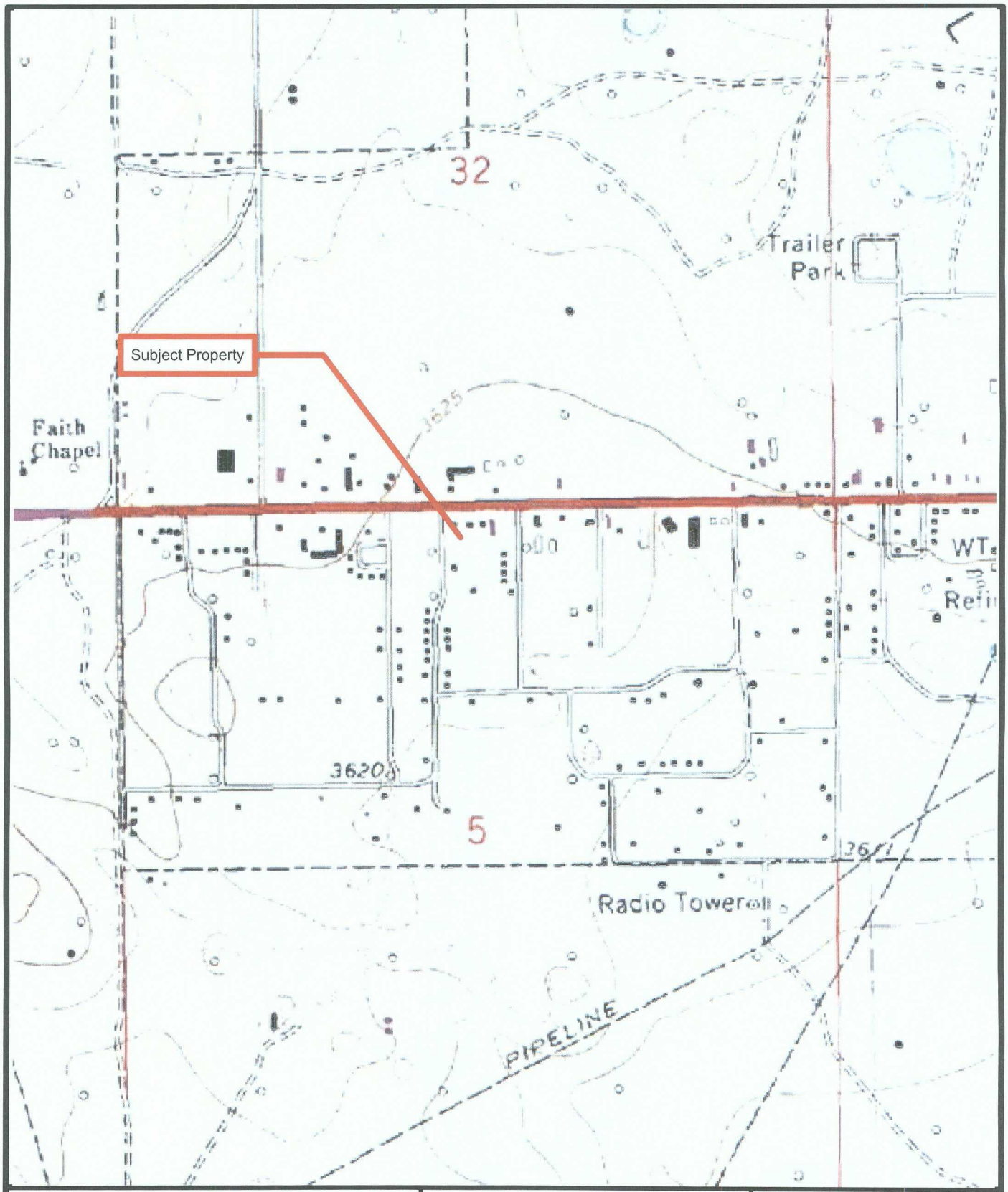
All vehicles entering the facility are warned of vehicular impact that may endanger aboveground tanks, drums, totes, and other material storage at the Hobbs Yard.

22.0 Substantial Harm Criteria

The Certification of Substantial Harm Criteria required by 40 CFR 112.20(e) is included in the appendix section of this report.

23.0 FIGURES

23.1 Site Location Map



1990 TOPOGRAPHIC MAP

N

Source: US Geological Survey
~Scale 1:1,400

REEF SERVICES FACILITY
2703 West Marland Road
Hobbs, New Mexico 88240

Sentinel GEO-SERVICES

Project #: F6870H

23.2 Site Map

Vacant, Undeveloped Property

Offices

Garage

Garage

Closed-Top Sump (Not in Use)

MW-4

MW-1

Plugged Floor Drain

MW-5

MW-2

Drum Storage

MW-3

Empty Tank Storage

MW-6

MW-7

West Marland Street

Vacant, Undeveloped Property

Drum Storage

Staged Waste Drums

1 2 3 4 5 6 7

Warehouse and Equipment Storage

0.0 in. 0.6 in. 1.0 in. 2.0 in.

1:25

Legend

- Subject Property Fence Line
- Plugged Floor Drain Drain Pipe
- MW-7 Groundwater Monitor Well
- Fire Extinguisher
- Halogen Lights
- Emergency Spill Kit
- Plugged Floor Drain
- Surface Drainage Direction
- (1) 1,000-Gallon Poly AST-*Out of Service* (CI-529)
- (2) 1,000-Gallon Poly AST (SC-512F)
- [3] 750-Gallon Poly AST (CI-473)
- [4] 600-Gallon Poly AST-*Out of Service* (PAS-6)
- [5] 600-Gallon Fiberglass AST-*Out of Service* (S-262)
- [6] 400-Gallon Fiberglass AST-*Out of Service* (CI-47)
- [7] 180-Gallon Fiberglass AST-*Out of Service* (SF-30)

REEF SERVICES STORAGE FACILITY
2703 WEST MARLAND STREET
HOBBS, NEW MEXICO 88240

Site Map

Sentinel GEO-SERVICES

Project # M-6849H

24.0 APPENDICES

24-A Plan Amendment Log

SPCC PLAN AMENDMENT LOG
REEF SERVICES – HOBBS, NEW MEXICO

Date of Amendment	General Description of Change Made	Page # of Changes Made	Name of Re-certifying PE	Name of Management Reviewer

24-B Employee Training Sign-In Page

Employee Training Sign-In Sheet

Date	Employee Name	Employee Signature

24-C Site Material Inventory List

Quantity on Hand	D.O.T Description	D.O.T Description 2
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS ETHYLENE GLYCOL MONOBUTYL ETHER & GLACIAL ACETIC ACID)
94	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: HEXANE, GLACIAL ACETIC ACID)
5	CORROSIVE LIQUID, TOXIC, NOS, 8, (6.1), UN 2922, PG III	(CONTAINS: HYDROCHLORIC ACID, THIOUREA)
5	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, EGMBE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, ISOPROPANOL)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS ISOPROPANOL, EGMBE)
155	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: ISOPROPANOL, EGMBE)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: ISOPROPANOL, AMMONIA)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: ISOPROPANOL, AMMONIA)
77	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: XYLENE, TRIMETHYLBENZENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS ISOPROPANOL & ETHANOL)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, NAPHTHALENE)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS METHANOL) DRUMS NOT REGULATED
78	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLUTARADEHYDE, METHANOL)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLUTARALDEHYDE, METHANOL)
20	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLUTARALDEHYDE, METHANOL)
55	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, SODIUM HYPOCHLORITE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL, ETHOXYLATED TALLOW POLYAMINE)
132	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL)
225	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID, METHANOL)
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL)
284	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL) DRUMS NOT REGULATED
676	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS METHANOL & ISOPROPYL ALCOHOL)
55	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL)
129	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, ISOPROPANOL)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1219, PG II	(CONTAINS: ISOPROPANOL)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
165	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS METHANOL)
128	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYL BENZENE, XYLENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, ISOPROPANOL)
76	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: MAGNESIUM CHLORIDE, METHANOL) (DRUMS NOT REGULATED)
110	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: MAGNESIUM CHLORIDE, METHANOL)
102	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, ISOPROPANOL)
84	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)

Quantity on Hand	D.O.T Description	D.O.T Description 2
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
330	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, TRIMETHYLBENZENE)
305	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
90	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
115	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, XYLENE)
83	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
144	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
237	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, XYLENE)
62	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, XYLENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, XYLENE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
180	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS XYLENE & DODECYLBENZENESULFONIC ACID)
141	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, TOLUENE)
55	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: TRIMETHYLBENZENE, AMMONIA)
110	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID, AMMONIA)
165	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
88	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
183	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
55	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, DODECYLBENZENESULFONIC ACID)
258	NON-HAZARDOUS, PG III	
0	NON-HAZARDOUS, PG III	
62	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, XYLENE)
750	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
39	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: TRIMETHYLBENZENE, XYLENE) DRUMS NOT REGULATED
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: ISOPROPANOL, GLACIAL ACETIC ACID)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: ISOPROPANOL, GLACIAL ACETIC ACID)
0	BISULFITES, AQUEOUS SOLUTIONS, NOS, 8, UN 2693, PG III	(CONTAINS: AMMONIUM BISULFITE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL, GLACIAL ACETIC ACID)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL)
330	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL)

Quantity on Hand	D.O.T Description	D.O.T Description 2
165	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS METHANOL)
533	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL)
1244	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID, METHANOL)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: METHANOL, FORMIC ACID)
110	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: FORMIC ACID, ISOPROPANOL)
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL) DRUMS NOT REGULATED

Quantity on Hand	D.O.T Description	D.O.T Description 2
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, XYLENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, ISOPROPANOL)
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
275	FLAMMABLE LIQUID, METHANOL, 3, UN 1230, PG II	
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
110	BISULFITES, AQUEOUS SOLUTIONS, NOS, 8, UN 2693, PG III	(CONTAINS AMMONIUM BISULFITE)
0	BISULFITES, AQUEOUS SOLUTIONS, NOS, 8, UN 2693, PG III	(CONTAINS: AMMONIUM BISULFITE)
110	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: CARBON DISULFIDE, TOLUENE)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, XYLENE)
301	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, CRESYLIC ACID)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, XYLENE)
38	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, ISOPROPYLAMINE)
110	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, TOLUENE)
55	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, ISOPROPYLAMINE)
103	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, ISOPROPANOL)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: HEXANE & XYLENE)

Quantity on Hand	D.O.T Description	D.O.T Description 2
92	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, GLACIAL ACETIC ACID)
220	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, GLACIAL ACETIC ACID)
60	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, TOLUENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, HEXANE)
390	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: TOLUENE, HEXANE)
33	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, TOLUENE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: HEXANE, GLACIAL ACETIC ACID)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: HEXANE & XYLENE)
226	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: ISOPROPANOL, GLACIAL ACETIC ACID)
65	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS XYLENE & ISOPROPYL ALCOHOL)
73	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	CONTAINS: XYLENE, ISOPROPANOL)
165	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, ISOPROPANOL)
110	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, XYLENE)
55	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: ISOPROPANOL, LIGHT AROMATIC NAPHTHA)
147	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TRIMETHYLBENZENE, ISOPROPANOL)
0	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, HEXANE)
123	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: TOLUENE, HEXANE)
311	CORROSIVE LIQUID, NOS, 8, UN 1760, PG III	(CONTAINS PHOSPHONIC ACID)
30 lbs	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	CHEMICALS, NOS, PG III	(NOT REGULATED)
110	CHEMICALS, NOS, PG III	(NOT REGULATED)
220	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: HEXANE, SODIUM HYDROXIDE)
0	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: XYLENE, HEXANE)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: HYDROCHLORIC ACID, ISOPROPANOL)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: DIMETHYLAMMONIUM CHLORIDE, ETHANOL)
517	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: METHANOL, POLYPHOSPHORIC ACIDS)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: METHANOL, DODECYLBENZENESULFONIC ACID)
60	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID)
385	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: GLACIAL ACETIC ACID, METHANOL)
10	CORROSIVE LIQUID, NOS, 8, UN 1760, PG III	(CONTAINS: PHOSPHONIC ACID SALT)
622	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL)
410	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL, ISOPROPANOL) DRUMS NOT REGULATED
0	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: METHANOL) DRUMS NOT REGULATED
110	FLAMMABLE LIQUID, CORROSIVE, NOS, 3, (8), UN 2924, PG II	(CONTAINS: GLACIAL ACETIC ACID, METHANOL)
110	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: GLACIAL ACETIC ACID, HYDROCHLORIC ACID)
534	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: DIMETHYLAMMONIUM CHLORIDE, ETHANOL)
39	CORROSIVE LIQUID, NOS, 8, UN 1760, PG III	(CONTAINS SODIUM XYLENE SULFONATE & SODIUM METASILLICATE)
170	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, ISOPROPANOL)

Quantity on Hand	D.O.T Description	D.O.T Description 2
249	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: METHANOL, EGMBE)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: METHANOL, PHOSPHORIC ACID)
30 lbs	CHEMICALS, NOS, PG III	(NOT REGULATED)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: SODIUM HYDROXIDE, SODIUM CARBONATE)
0	CORROSIVE LIQUID, NOS, 8, UN 1760, PG II	(CONTAINS: SODIUM HYDROXIDE, SODIUM GLUCONATE)
110	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS XYLENE & TOLUENE)
102	FLAMMABLE LIQUID, NOS, 3, UN 1993, PG II	(CONTAINS: XYLENE, ISOPROPANOL)
0	NON-HAZARDOUS	(NOT REGULATED)
30 lbs	CHEMICALS, NOS, PG III	(NOT REGULATED)
330	XYLENES, 3, UN 1307, PG III	
24	COMBUSTIBLE LIQUID, NOS, 3, NA 1993, PG III	(CONTAINS: NAPTHA AROMATIC)
0	CHEMICALS, NOS, PG III	(NOT REGULATED)

24-D Spill Response Procedures

Spill Response Procedures

If a spill occurs at the Hobbs Office and Yard facility, the Spill Response Coordinator will notify the Spill Response Team Leader and coordinate with the Spill Response Team Leader to have the Spill Response Team implement the following Spill Response Procedures:

1. Evacuate the area if necessary following the procedures listed in Section 7.4 of the SPCC Plan.
2. Call emergency response personnel, if necessary.
3. Stop operation of equipment that is the source of the spill, including closing valves, stopping pumps, etc.
4. Contain the spill using absorbent booms, a trench dug in the soil surrounding the spill, etc.
5. Deploy absorbent materials to soak up spilled material.
6. Once spill is contained and area where spill occurred is secured, the Spill Response Coordinator or his designee will gather information required for notifications and reports described in Section 7.0 and Section 8.0 of the SPCC Plan.
7. Contact spill cleanup, transportation, and disposal vendors, if necessary.
8. Remove spilled material from ground surfaces using pumps and sorbent material and place in containers approved by the Spill Response Coordinator or his designee.
9. Remove spilled material from equipment using cloth rags and a cleaning solution approved by the Spill Response Coordinator or his designee to be compatible with the spilled material.
10. Place used rags and other disposable spill cleanup equipment in containers approved by the Spill Response Coordinator or his designee.
11. Label all containers used for storage or recovered spill material, used disposable equipment and any other waste from the spill containment and recovery with the material stored, date accumulation began, contact name and phone number.
12. Store containers in a designated storage area compatible with the materials stored.
13. Arrange for transport and disposal of waste generated from spill response off site at a permitted disposal facility.
14. Inventory all equipment used in the spill response and test non-disposable equipment for proper operation. Replace or repair equipment as necessary.
15. Prepare all notifications and reports required to be submitted in accordance with state, federal, and local regulations. A summary of state and federal requirements is provided in Section 7.0 and Section 8.0 of the SPCC Plan.

24-E Spill Event Form

SPCC SPILL EVENT FORM
REEF SERVICES – HOBBS, NEW MEXICO

This form serves as a tool to collect spill information for regulatory agency reporting purposes and entering spill information.

REPORTING PARTY			
Last Name:		First Name:	
Company:		Title:	
Address:		City, State, Zip:	
Phone 1: ( ) -	Type (*Circle One*): Primary Alternate Cellular On-Scene Pager Other		
Phone 2: ( ) -	Type (*Circle One*): Primary Alternate Cellular On-Scene Pager Other		
Phone 3: ( ) -	Type (*Circle One*): Primary Alternate Cellular On-Scene Pager Other		

LOCATION OF RELEASE		
Lease/Facility Name:	County:	State:
System: Region:	Division:	Phone: ( ) -
Address or location of Lease/Facility:		
Nearest City:	Distance from City:	Direction:
Latitude:	Longitude:	

DESCRIPTION OF RELEASE

Source and Cause:_____

_____

_____

Immediate Actions Taken:_____

_____

_____

Date of Release:	Time of Release:

FLUIDS RELEASED	
Fluid Name or Description:	Estimated Quantity Released (include units; e.g. bbl, gal):
Reportable Quantity (RQ) for Material Released:	RQ Exceeded? Yes No

EQUIPMENT FAILURE DETAILS	
Equipment Type:	Aboveground or below:
Cause of Equipment Failure:	

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SPCC SPILL EVENT FORM
REEF SERVICES – HOBBS, NEW MEXICO

If there is a "sheen" on any body of water, complete this information. If there is no sheen on any body of water, cross out and complete next section.		
Amount in water:	Body of Water Affected:	
River Mile Marker:	Tributary of:	
Sheen Length:	Sheen Width:	
Color:	Direction of Movement:	Odor Description:

If the spill is on the ground surface, complete this information	
Community Impact Due to Spill?	Material Released Off Site?
Fire?	Fire Extinguished?
Injuries?	Number of Injuries?
Fatalities?	Number of Fatalities?
Evacuations?	Number of Evacuations?
Damages?	Damage in Dollars:
Road Closed?	Road:
Waterway Closed?	Waterway:

WEATHER INFORMATION	
Weather Conditions (*Circle all that apply*): Clear Foggy Overcast Partly Cloudy Rainy Sleeting Snowing Sunny Other Unknown	
Wind Speed:	Wind Direction:
Weather Forecast (*Circle all that apply*): Clear Foggy Overcast Partly Cloudy Rainy Sleeting Snowing Sunny Other Unknown	

REMEDIAL ACTIONS

Remedial Actions Taken:_____

_____

Remedial Actions To Be Taken in the Future:_____

_____

Release Secured:	Duration of Release:

SPCC SPILL EVENT FORM
REEF SERVICES – HOBBS, NEW MEXICO
REGULATORY NOTIFICATIONS

Regulatory Agency	Type of Report	Date/Time	Person Making Call	Person Taking Call	Incident #/ Miscellaneous
National Response Center 1-800-424-8802	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				
EPA Region Office:	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				
State Environmental Agency:	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				
Oil and Gas Conservation Commission:	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				
District Office:	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				
SERC	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				
LEPC	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				
Dept. of Transportation	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				
Other: _____	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				
Other: _____	☐ None ☐ Initial ☐ Follow-up ☐ Courtesy				

ADDITIONAL INFORMATION

24-F Emergency Contact List

EMERGENCY CONTACT LIST

Facility Spill Response Coordinator	Office: (432) 560-5600
Tom Roland	Cell: (432) 559-1564
Facility Spill Response Team Leader	Office: (575) 391-6730
Jeremy Garcia	Cell: (432) 288-4532
National Response Center	(800) 424-8802
Local Police	911
New Mexico State Patrol	(505) 334-6000
Fire	911
Hospital	911
New Mexico Oil Conservation Division	(505) 334-6178
New Mexico Environmental Dept.	(505) 827-9329
Environmental Protection Agency	(214) 665-2222
Sentinel Geo-Services	(713) 686-8900
Environmental Supply	(432) 697-1020

24-G Federal & State Spill Notification

SPILL NOTIFICATION

Upon notification of a spill, the Spill Response Coordinator will determine if the oil spill requires notification and/or reporting to regulatory agencies. Below is a summary of the notifications and reporting requirements based on the U.S. Environmental Protection Agency (EPA) regulations for Discharge of Oil contained in Title 40 of the Code of Federal Regulations (CFR) Part 110.

Federal Notification Requirements

The EPA regulations regarding discharge of oil require notification by a person in charge of a facility as soon as he or she has knowledge of any discharge of oil from a facility as may be harmful. 40 CFR Part 110.3 states that discharges of oil in such quantities that the Administrator has determined may be harmful to the public health or welfare or the environment of the United States include discharges of oil that:

1) violate applicable water quality standards; or
2) cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

Notification must be made to the National Response Center (NRC) at 800-424-8802.

Information Required for Notifications

The following information is required in notifications described in Sections 7.1.1 and 7.1.2:

1) the name, address, and telephone number of the person making the telephone report;
2) the name, address, and telephone number of the facility;
3) if different from the person making the notification, the names, addresses, and telephone numbers of the responsible person and contact person at the location of the discharge or spill;
4) the date, time and location of the spill or discharge;
5) a specific description or identification of the oil, petroleum product or other substances discharged or spilled;
6) an estimate of the quantity discharged or spilled;
7) the duration of the incident;
8) source of the discharge or spill;
9) the cause of the discharge or spill;
10) a description of all affected media;
11) a description of the extent of actual or potential water pollution or harmful impacts to the environment and an identification of any environmentally sensitive areas or natural resources at risk;
12) the name of the surface water or a description of the waters in the state affected or threatened by the discharge or spill;
13) any damages or injuries caused by the discharge;

14) a description of any actions that have been taken, are being taken, and will be taken to stop, remove and mitigate the effects of the discharge or spill;
15) any known or anticipated health risks;
16) whether an evacuation is needed;
17) the identity of any governmental representatives, including local authorities or third parties, responding to the discharge or spill; and
18) any other information that may be significant to the response action.

The Spill Response Coordinator must submit a report to the EPA Regional Administrator within 60 days following a release of the following quantities:

A discharge of more than 1,000 U.S. gallons of oil in a single discharge as described in 40 CFR 112.1 (b); or

A discharge of more than 42 U.S. gallons of oil, as described in 40 CFR 112.1 (b) in each of two discharges, within any 12-month period.

A discharge requiring reporting is defined as oil discharged in harmful quantities, defined in 40 CFR 110 as a quantity that violates applicable water quality standards or causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines, into or upon the navigable waters of the United States or adjoining shorelines in two spill events, occurring within any 12-month period.

The report must include the following information:

1) Name of the facility;
2) Name(s) of the owner or operator of the facility;
3) Location of the facility;
4) Date and year of initial facility operation;
5) Maximum storage or handling capacity of the facility and normal daily throughput;
6) Description of the facility, including maps, flow diagrams, and topographical maps;
7) A complete copy of the SPCC Plan with any amendments;
8) The cause(s) of such spill, including a failure analysis of system or subsystem in which the failure occurred;
9) The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;
10) Additional preventive measures taken or contemplated to minimize the possibility of recurrence; Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

State Notification Requirements

Notifications of Spills and Unauthorized Discharges

Who Must Provide Notification? The owner, operator, or person in charge of any facility where a discharge has occurred must provide notification of such release to the New Mexico Environment Department.

What Kinds of Discharges Must be Reported? Any amount of any material in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or may unreasonably interfere with the public welfare or use of property. This includes chemical, biohazardous, petroleum-product, and sewage spills and incidents. In addition to recent spills, the discovery of evidence of previous unauthorized discharges, such as contaminated soil or groundwater, also must be reported.

Are There Reportable Quantities? New Mexico has not established reportable quantities.

When Must Notification Be Provided? Verbal notification must be provided as soon as possible after learning of a discharge, but in no event more than twenty-four (24) hours thereafter.

How Should Notification be Provided?

For emergencies, call 505-827-9329 twenty-four hours a day.

For non-emergencies, call 866-428-6535 (voice mail, twenty-four hours a day).

For non-emergencies, and to reach an on-duty NMED staff member during normal business hours, call 505-428-2500.

24-H Inspection Checklist

ANNUAL FACILITY INSPECTION REPORT
REEF SERVICES – HOBBS, NEW MEXICO

*Date:*_____ *Time:*_____ *Inspector:*_____	*X=Satisfactory* *NA=Not Applicable* *0=Repair or Adjustment Required* *C=See comment under Remarks/Recommendations*

Containment Area: ____ *No visible oil or brine water outside of the containment area.* ____ *Containment area drainage valves are closed and locked.* ____ *Oil/water separator systems working properly.* ____ *Brine water injection system working properly.* ____ *No visible oil sheen in containment area.* ____ *No standing water in containment area.* ____ *Warning signs posted.*	*ASTs:* ____ *Tank surfaces checked for signs of leakage.* ____ *Valves, flanges, and gaskets are free from leaks.* ____ *All tanks are in good condition.* ____ *Tank foundation intact.* ____ *Connecting pipelines are free from leaks.* ____ *Vents are not obstructed.* ____ *Any indication of corrosion.*
Pipelines: ____ *No signs of corrosion damage to pipelines or visible leaks.* ____ *Buried pipelines are not exposed.* ____ *Out-of-service pipes capped.* ____ *Signs/barriers to protect pipelines from vehicles are in place.* ____ *No leaks at valves, flanged, or other fittings.*	*Truck Loading Area:* ____ *No leaks from supply pipe or valve.* ____ *No oil on ground at end of fill pipe.* ____ *No leaks in hoses.* ____ *Valve closed and locked.* ____ *Connections are capped or blank-flanged.*
Security: ____ *Fence and gates intact.* ____ *Gates have locks.* ____ *ASTs locked when not in use.* ____ *Starter controls for pumps locked when not in use.* ____ *Lighting is working properly.*	*Training:* ____ *Spill prevention briefing held.* ____ *Training records are in order.*

Remarks/Recommendations:

_____

_____

_____

_____

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ANNUAL FACILITY INSPECTION REPORT
REEF SERVICES – HOBBS, NEW MEXICO

The following inspection procedures for this report should be performed thoroughly and accurately. Inspection should be done at least annually. Entries in this Annual Facility Inspection Report will certify that all facilities have been inspected in accordance with the procedures listed below:

1. Visually examine AST's for condition and maintenance requirements.
2. Visually examine the general condition of above ground valves and pipelines. Items examined are flange points, valve glands and bodies, drip pans, and metal surfaces.
3. Examine flow line equipment for leaks, deterioration, and proper operation.
4. Inspect field drainage ditches, road ditches, oil traps, sumps, or skimmers, and natural drainage areas for oil sheens, or other possible discrepancies.
5. Inspect dikes or other secondary containment structures for damage and deterioration.
6. If any irregularity is found, report it to the supervisor and correct the problem as soon as possible.

This inspection record is part of the SPCC plan and must be retained for a minimum of three years.

DATE	REMARKS	SIGNATURE & JOB TITLE

AST INSPECTION REPORT
REEF SERVICES – HOBBS, NEW MEXICO

Date:_____ Inspector:_____

Location:_____ Liquid Level:_____

Tank No.:_____ Capacity:_____ Diameter:_____ Height:_____

1. **Secondary Containment Structure**
   a. Are all containment walls in good shape?_____
   _____

   b. Are there any apparent gaps that require repairs?_____
   _____

   c. Is there any visible oil sheen in the secondary containment?_____

2. **Hoses & Piping**
   a. General appearance of hoses and pipes:_____

   b. Any leaks?_____If so, explain:_____
   _____

   c. Aboveground piping free of leaks?_____

3. **Fencing**
   a. Does fencing need repair?_____

4. **Corrosion Control**
   a. Note general appearance of paint on shell, roof, ladder, and structural members:
   _____
   _____

   b. Is rusting or pitting occurring on any of the above?_____
   If yes, explain where and if repairs are needed immediately:_____
   _____

5. **Gauges**
   a. Are all gauges working properly?_____

6. **Other Observations**
   a. Note anything else that might be a problem:_____
   _____
   _____

7. **Attached Diagram (see next page)**
   a. Show any damaged areas or problem areas (on tanks with a floating roof, show location and size of any gaps in seal) on the attached drawing.

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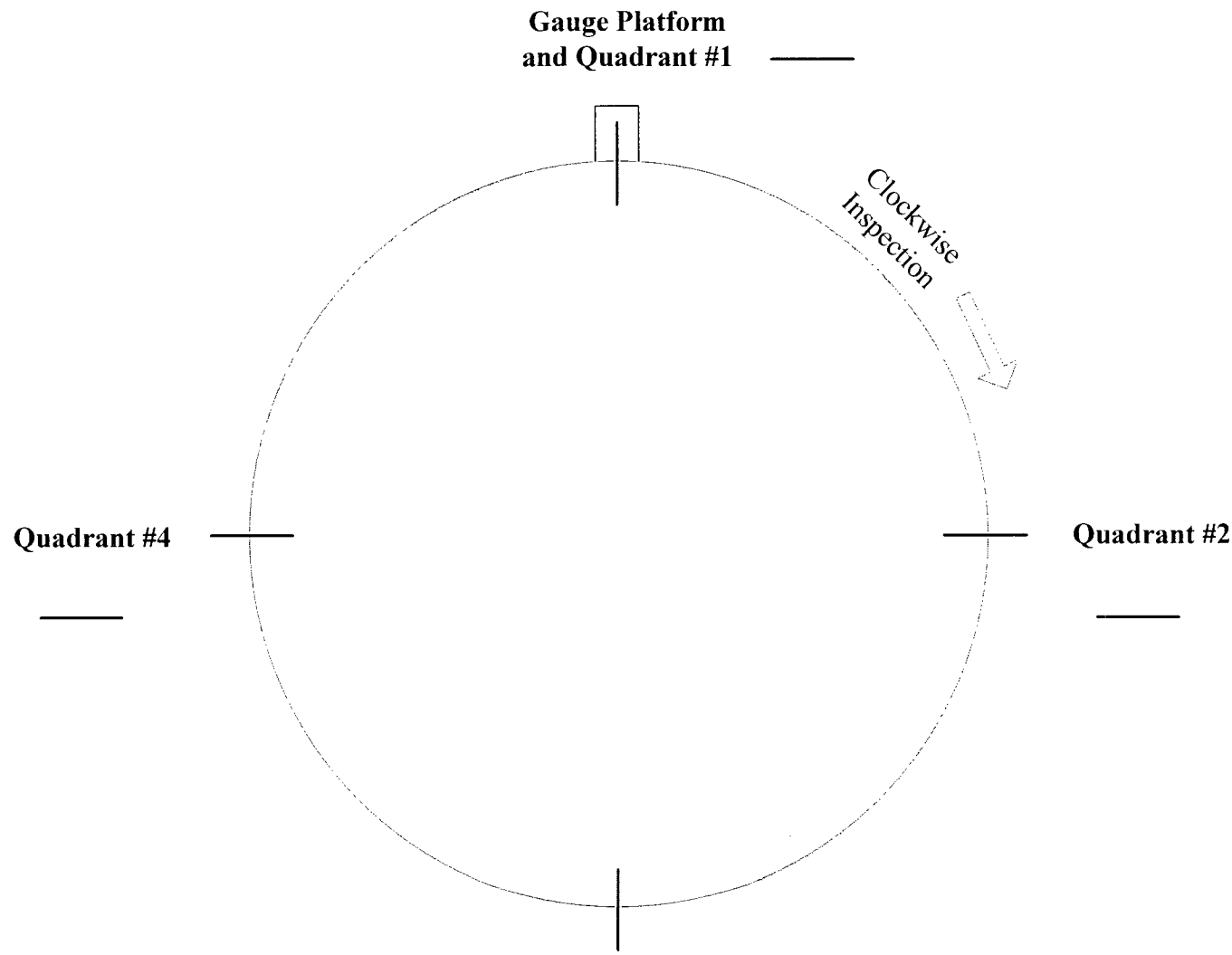
AST INSPECTION REPORT

REEF SERVICES – HOBBS, NEW MEXICO



Report prepared and appropriate work orders submitted by:

_____

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24-I Certification of Substantial Harm Criteria

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA CHECKLIST

FACILITY NAME: Reef Services-Hobbs, New Mexico
FACILITY LOCATION: 2703 West Marland Street, Hobbs, New Mexico

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?
   Yes___ No_X_

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
   Yes___ No_X_

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the formula in Attachment C-III, Appendix C, 40 CFR 112 or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Environments" (Section 10, Appendix E, 40 CFR 112 for availability) and the applicable Area Contingency Plan.
   Yes___ No_X_

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula (attachment C-III, Appendix C, 40 CFR 112 or a comparable formula)) such that a discharge from the facility would shut down a public drinking water intake?
   Yes___ No_X_

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?
   Yes___ No_X_

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

_____	_____
Printed Name	**Signature**
_____	_____
Printed Title	**Date**

Sentinel GEO-SERVICES

Attachment 9

Geological and Hydrogeological Information

Attachment 9

Geological and Hydrogeological Information

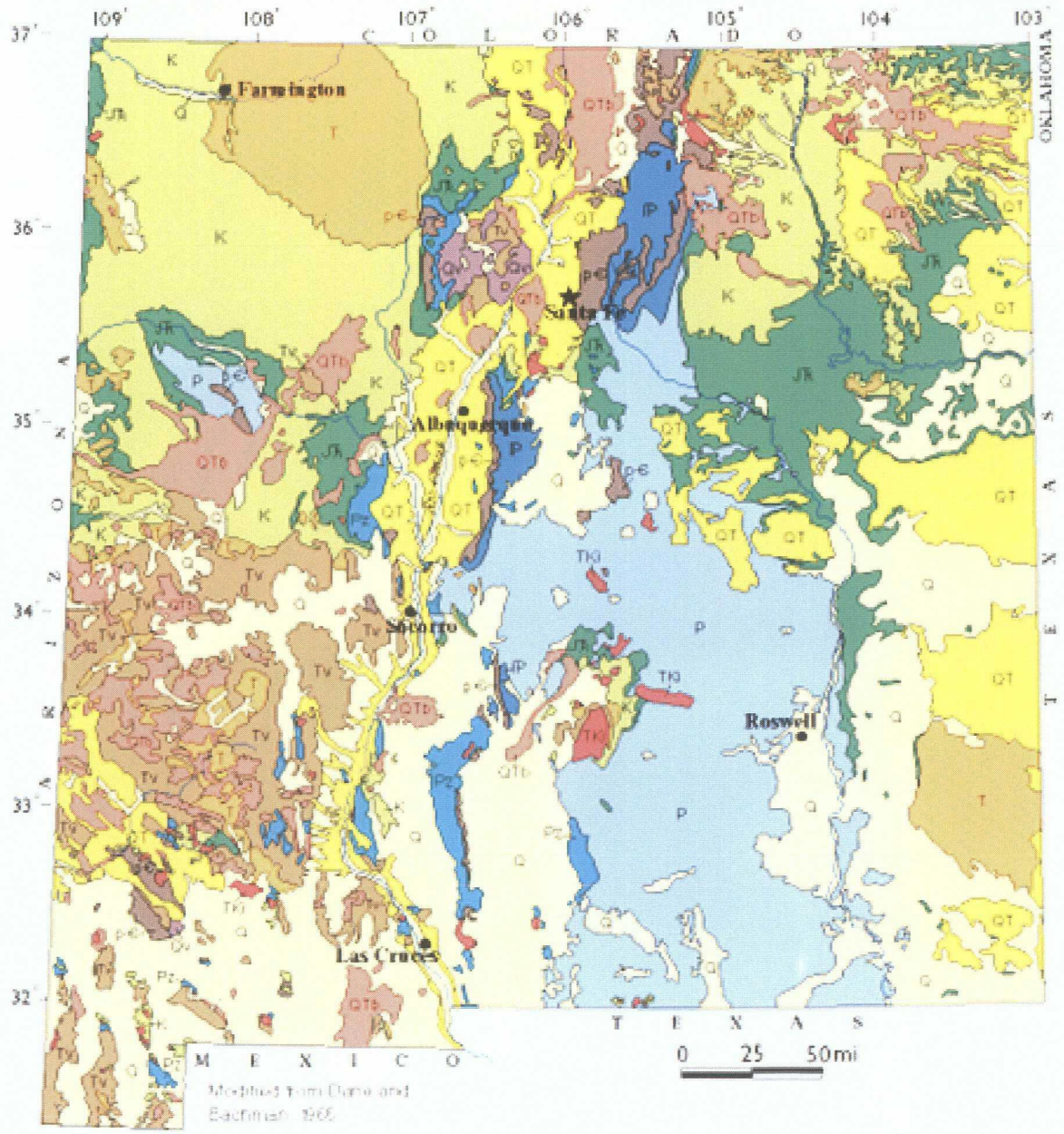
The site is located within the Southern Plains physiographic district. The site soils were described during previous environmental assessment activities (discussed below). The general on-site subsurface soils are, from ground surface, 17-19 feet of gray to brown silty sand and sandy silt. This unit is underlain by 3-6.5 feet of hard, brown, indurated sandstone that is underlain by brown, silty sand. The subject property is generally underlain by the Quaternary and Tertiary sediments that are underlain by Pliocene Series of the Tertiary Ogallala Formation. The Ogallala Formation is a thick sequence of interbedded sand, silt, and clay overlain by well indurated calcareous sandstone.

The Ogallala Aquifer (aka High Plains Aquifer), identified within the Ogallala Formation, is a drinking water supply aquifer. Groundwater is located approximately 80 feet below ground surface (ft bgs) within the Ogallala Aquifer in the vicinity of the subject property. There are no public groundwater supply wells within one mile radius of the facility according to previous site assessment reports. Additionally, perched groundwater was located at approximately 30-34 ft bgs.

The subject property was impacted by contaminants of concern by past site operations prior to occupancy by Reef Services, LLC. The New Mexico Oil Conservation District (OCD) has been involved with the investigation since as early as 1995. Correspondence relating to the various site assessment reports, corrective action, and continued monitoring are listed as **1R-295** in the OCD Database. Subsurface soil and groundwater analytical results for the most recent corrective action included in the OCD database file have been included in this application.

Attached Documents:
Figure 1 - Generalized Geologic Map of New Mexico
Figure 2 – New Mexico Aquifer Map
November 5, 2004 Soil Remediation Workplan

GENERALIZED GEOLOGIC MAP OF NEW MEXICO



EXPLANATION

ERA	PERIOD	SEDIMENTARY	IGNEOUS
CENOZOIC 65 m.y.-present	QUATERNARY	Q	Qv
	TERTIARY	T	Tv
MESOZOIC 245 m.y.-65 m.y.	CRETACEOUS	K	
	JURASSIC	JR	
	TRIASSIC		
PALEOZOIC 544 m.y.-245 m.y.	PERMIAN	P	
	PENNSYLVANIAN	IP	
	MISSISSIPPIAN		
	DEVONIAN		
	SILURIAN		
	ORDOVICIAN		
	CAMBRIAN		
PRECAMBRIAN 4.5 b.y.-544 m.y.		pC	

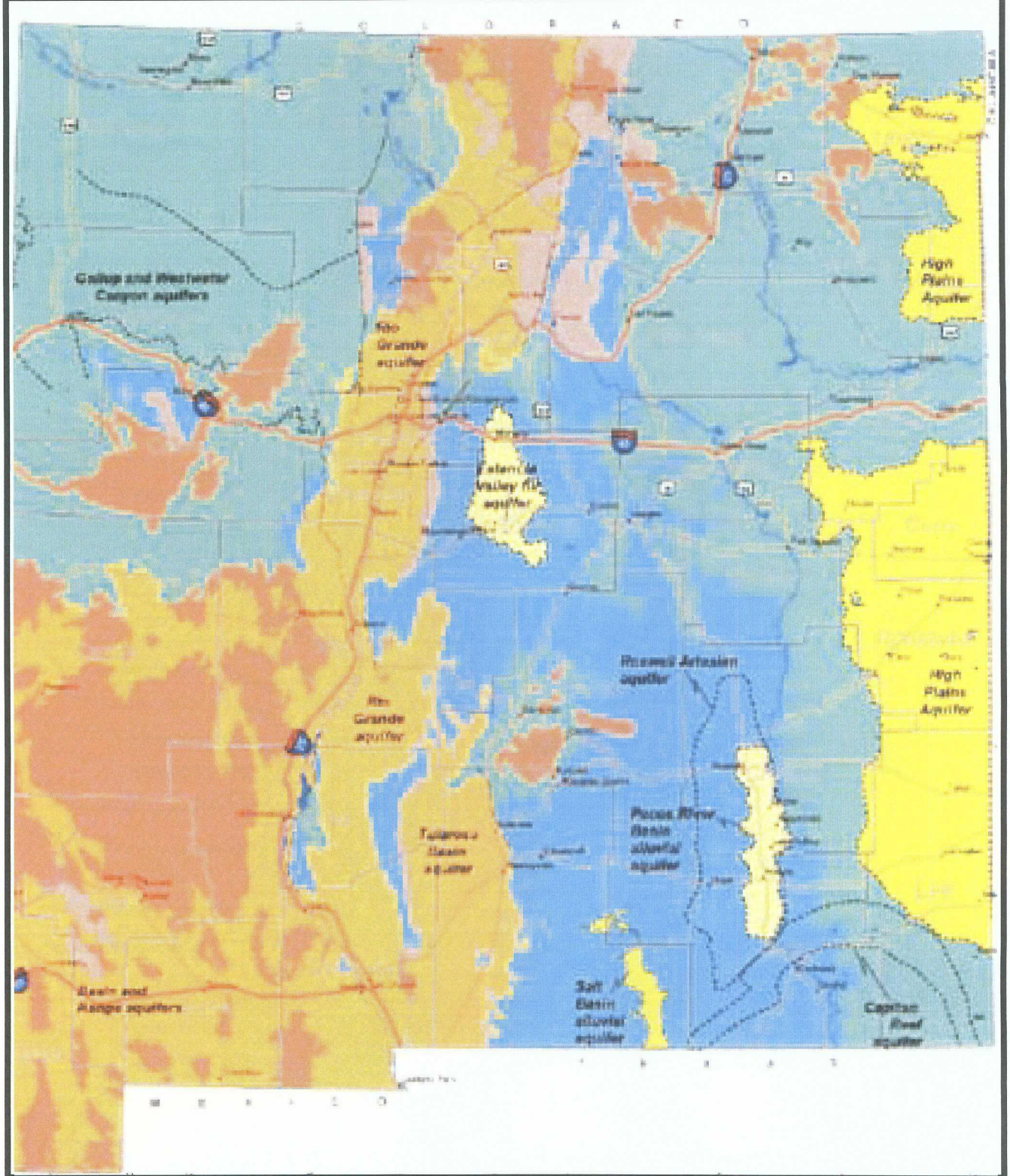
- Q — Quaternary sediments
- QT — Quaternary-Tertiary sediments
- Qv — Quaternary rhyolites and tuffs
- QTb — Quaternary-Tertiary basalts and andesites
- T — Tertiary sediments
- Tv — Tertiary volcanics
- TKI — Tertiary-Cretaceous intrusives
- K — Cretaceous sediments
- JR — Jurassic-Triassic
- P — Permian
- IP — Pennsylvanian
- Pz — Paleozoic undifferentiated
- pC — Precambrian

REEF SERVICES FACILITY
2703 WEST MARLAND STREET
HOBBS, NEW MEXICO 88240

Geologic Map

Sentinel GEO-SERVICES

Project # M6849H



2002 New Mexico Aquifer Map

N

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Source: New Mexico Water Resources Atlas

REEF SERVICES STORAGE YARD
2703 West Marland Road
Hobbs, New Mexico 88240

Sentinel GEO-SERVICES

Project #:M6849H

GeoTrans, Inc.
A TETRA TECH COMPANY

3035 Prospect Park Drive
Suite 40
Rancho Cordova, CA 95670-6070

www.geotransinc.com

916-853-1800 FAX 916-853-1860

November 5, 2004
P:\PROJECTS\BEAZER\2201.019\Hobbs Soil remediation workplan2.doc

Mr. Wayne Price
Petroleum Engineer Specialist
New Mexico Oil Conservation District
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Soil Remediation Work Plan
Former Axelson Facility
2703 W. Marland Boulevard, Hobbs, New Mexico

Dear Mr. Price:

On behalf of Beazer East, Inc. (Beazer), this letter presents the results of the April and May 2004 investigation activities implemented at the Former Axelson Facility located at 2703 W. Marland Boulevard in Hobbs, New Mexico (Site). This letter also presents a remediation work plan for impacted soils at the Site in order to achieve a No Further Action (NFA) status for Site soils from the New Mexico Oil Conservation District (OCD).

Site soil and groundwater samples were collected and analyzed in the spring of 2004 to compliment the findings of the June 2001 and February 1995 Site investigations, reported in the *Site Investigation Report, Former Axelson Facility, 2703 W. Marland Boulevard, Hobbs, New Mexico,* (GeoTrans, September 2001). OCD approved the 2004 investigation activities by letter, dated June 19, 2002. The delay between OCD approval and implementation of the investigation activities was due to negotiating property access; OCD was kept apprised of the access issues.

Results of the previous investigations indicated that soil and groundwater impacts at the Site are primarily total petroleum hydrocarbons (TPH) associated with historic operations conducted at the Site. The investigations in 2004 confirmed that soil impacts are present to approximately 25 to 35 feet below ground surface (bgs) in a localized area at the south side of the Site building. The 2004 investigations also confirmed that impacted Site groundwater is present in the vicinity of the impacted soil. The upgradient extent of the groundwater impacts has been defined and the cross-gradient extent has been defined to the south. Groundwater 300 feet downgradient of the Site boundary appears to be unimpacted by Site constituents.

This letter compliments the July 1, 2004 Data Transmittal and Request to Abandon/Plug Short-Term Wells, Former Axeslon Facility, 2703 W. Marland Boulevard, Hobbs, New Mexico (GeoTrans). The July 1, 2004 letter presented the analytical data for the downgradient portion of the 2004 investigation activities, therefore, this Soil Remediation Work Plan letter will only refer to the data presented in the July 1, 2004 letter and will not duplicate the downgradient data.

BACKGROUND

The purpose of the April and May 2004 soil and groundwater investigation activities, as identified in the Site Investigation Report, was to supplement the previous investigation results, assess the horizontal extent of soil impacts at the Site, and assess existing downgradient soil and groundwater conditions. In addition, the Site Investigation Report identified the need to delineate the vertical and lateral extent of naturally occurring radioactive materials (NORMs) that exceed New Mexico Administrative Code Title 20, Chapter 3, Part 1, Subpart 14 (20 NMAC 3.1, Subpart 14) at the Site. The NORM activities and subsequent removal and disposal occurred in July and August 2004. The NORM work will be reported under separate cover.

The Site was leased by Axelson, Inc. (Axelson) from 1980 to approximately 1997 to repair submersible rod sucker oil pumps and rods. A figure presenting a plot plan of the Site, with the location of the 1995 and 2001 investigation activities is shown on Figure 1. The Site is currently leased by Reef Chemical, an oil field chemical distribution company.

An underground tank south of the Site building was identified in the Site Investigation Report as the septic tank for the building. A camera survey was performed in April 2004 to identify what piping was connected to the septic tank. The camera survey indicated that the restroom sanitary sewer line is connected to a septic tank located north of the building in the asphalt parking area, as shown on Figure 1. A shallow excavation north of the building confirmed the septic tank location. The two catch basins inside the Site building are connected to the tank located south of the building, this piping is separate and distinct from the restroom and septic piping. Accordingly, the tank located south of the building will be referred to as the catch basin tank in this Work Plan letter and no further work will be performed in the vicinity of the septic tank north of the building.

The 2004 investigation performed on Site included drilling and sampling five soil borings; sampling the groundwater monitoring wells and the former water supply well located at the Site; and sampling the concrete catch basin tank.

SOIL INVESTIGATION

The Site Investigation Report identified soils to be impacted by TPH at concentrations above the OCD action level. Samples were collected during the 2004 soil investigation to refine the understanding of the lateral and vertical extent of soil impacts on Site. Five soil borings (SB-7 through SB-11) were completed at the Site, as shown on Figure 1. The borings were completed using an air rotary drill rig and soil samples were collected at 5-foot intervals for lithologic purposes, field screening, and potential laboratory analysis. The soil borings were completed to approximately 35 feet below ground surface (bgs).

The lithology encountered generally consists of an 18 to 20 foot thick layer of sandy silt/silty sand overlying a 2 to 4-foot thick caliche layer (hard pan). A well to medium graded sand material underlies the caliche layer and is present from approximately 23 to 40 feet bgs. Groundwater was not encountered in any of the soil borings.

Field indications of impacts (petroleum odors) were identified in the Site soil samples at SB-8 (30-35 feet bgs), SB-9 (10-35 feet bgs), and SB-10 (10-35 feet bgs). Selected soil samples from each boring location were analyzed for TPH and total solids. The soil analytes and corresponding analytical methods are presented in Table 1.

The soil borings were backfilled to ground surface with hydrated bentonite chips. Boring logs for SB-7 through SB-11 are presented in Attachment A.

GROUNDWATER INVESTIGATION

Groundwater samples were collected at the Site to asses the current groundwater conditions and evaluate the potential of natural attenuation of the petroleum hydrocarbons constituents.

Seven groundwater monitoring wells and a former water supply well (WSW-1) are located at the Site (Figure 1). The screened intervals and total depths of each well are summarized on Table 2. Three groundwater monitoring wells (MW-1 through MW-3) were installed at the Site in 1995 and are screened from 25 to 35 feet bgs. However, due to decreases in static water levels at the Site (currently 38 feet bgs), MW-1 through MW-3 are no longer screened in the water table and are currently dry. Therefore, groundwater samples were only collected from wells MW-4 through MW-7 and WSW-1 during April 2004. The former water supply well was sampled to assess the chemical constituents present in the well and to evaluate groundwater conditions upgradient of the Site wells. A list of groundwater analyses performed for the Site wells along with the corresponding analytical methods is presented in Table 1.

The four groundwater monitoring wells at the Site were re-sampled in May 2004, the former water supply well was not re-sampled.

Depth to water was measured at the four Site groundwater monitoring wells to calculate the groundwater flow direction. The groundwater elevations measured at the Site wells are presented in Table 3. These elevations were used to calculate the groundwater flow direction for April and May 2004, as shown on Figures 2 and 3. The groundwater flow direction was calculated to be southeast (S52°E to S61°E) with a flat gradient of 0.0011 to 0.0009 feet per foot (ft/ft). This is consistent with prior groundwater flow direction and gradient data collected at the Site.

Approximately 2-inches of a light non-aqueous phase liquid (LNAPL) were present in well MW-5 during the April 2004 sampling event. However, only 0.5-inches of LNAPL were present in well MW-5 during the May 2004 sampling event. This is the first time NAPL has been detected at the Site and in well MW-5. A sample of the NAPL material was submitted for fuel fingerprinting analysis to evaluate the type, nature, and estimated age of the product present in the well.

CATCH BASIN TANK INVESTIGATION

In May 2004, a grab sample was collected from the concrete catch basin tank, at the exterior south side of the building. Liquid was not present in the catch basin tank during the May 2004 sampling event. A sample of semi-solid material was collected from the catch basin tank and

analyzed for TPH, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and polynuclear aromatic hydrocarbons (PAHs). The semi-solid sample was analyzed to assess the chemical constituents present for disposal profiling purposes and to evaluate if the chemical constituents had changed since the June 2001 sampling event.

DISCUSSION OF ANALYTICAL RESULTS

This section presents an evaluation of the analytical results from the April and May 2004 sampling events. The evaluation also includes the results from the 2001 investigation to identify areas proposed for remediation activities.

Soil Results

The analytical results for the soil samples collected during the on-site investigation are summarized in Table 4. Petroleum hydrocarbons in the diesel, gasoline, and motor oil ranges were not detected in borings SB-7 and SB-11. The analytical results confirmed the field indications of petroleum hydrocarbon soil impacts in borings SB-8, SB-9, and SB-10.

The detected concentrations of petroleum hydrocarbons in borings SB-8, SB-9, and SB-10 exceed the corresponding OCD recommended remediation action level of 100 milligrams per kilogram (mg/Kg). TPH concentrations ranged from 512 mg/Kg to 16,700 mg/Kg. All 12 samples collected from both SB-9 and SB-10 (10 to 35 feet bgs) had TPH concentrations above the recommended action level. The highest concentrations of TPH were detected in soils collected from 15 to 20 feet bgs in both the 2001 and 2004 samples.

Groundwater Results

The analytical results for the groundwater samples collected in 2001 and 2004 are summarized in Tables 5 through 9. Petroleum hydrocarbons in the diesel, gasoline, and motor oil ranges were detected in samples from MW-4 and MW-5. The petroleum hydrocarbon concentrations detected in well MW-4 in 2004 decreased by an order of magnitude compared to the June 2001 sampling event. However, the TPH concentrations in well MW-4 still exceed the corresponding EPA Suggested No-Adverse Response Level (SNARL), as shown in Table 5. LNAPL was present in well MW-5 during April and May 2004, and this is reflected in the elevated TPH concentrations (up to 230,900 micrograms per liter [µg/L]) in groundwater at this well. This concentration is not considered to reflect dissolved TPH concentrations in groundwater, but rather reflects the presence of emulsion in the water sample. Only motor oil range TPH was detected in well MW-7 (at 110 µg/L) and all ranges of TPH were below reporting limits in samples from MW-6.

Although minor concentrations of VOCs, SVOCs, and PAHs were detected in the wells, the only detection that exceeded the New Mexico Waster Quality Control Commission Groundwater Standards (WQCCs) and/or Maximum Contaminant Levels (MCLs) was the detection of naphthalene at 140 µg/L at MW-5.

The LNAPL product from MW-5 was submitted to Friedman & Bruya, Inc. for a fuel fingerprinting analysis; the results determined that the LNAPL was "Kerosene / Diesel #1". According to the analytical laboratory report, the product "has undergone little to no biological degradation.... the

extent of degradation in this fuel is consistent with releases that occurred within the last 5 years".

The former water supply well was detected to have a very low level of motor oil range TPH (150 µg/L) and of toluene (5.8 µg/L). These results are below the respective SNARL, MCL, and WQCC values.

Catch Basin Tank Results

The analytical results for the grab sample collected from the concrete catch basin tank are summarized in Table 10. The semi-solid sample analytical results indicate that the VOCs, SVOCs, and PAHs present in the catch basin tank have not changed significantly since the June 2001 sampling event. The concentrations of petroleum hydrocarbons detected in 2004 decreased approximately one order of magnitude compared to the June 2001 results. The New Mexico Environment Hazardous Waste Bureau reviewed the catch basin tank sample results from 2001 and stated in an April 16, 2002 letter that "the sludge is not considered to be characteristic hazardous waste as defined in 40 CFR 261 Subpart C. The sludge may be handled as nonhazardous solid waste providing the facility is in compliance with OCD regulations."

RECOMMENDED REMEDIATION WORKPLAN

The strategy to remediate the Site addresses soil impacts with the intent to obtain an NFA designation from OCD for Site soils. The Site groundwater impacts are limited to petroleum hydrocarbons and low level concentrations of VOCs in the vicinity of the impacted soil. Source removal through soil excavation will enhance the progress of natural attenuation processes in groundwater currently occurring at the Site.

The impacted soils in the vicinity of the concrete catch basin tank at the south side of the building will be excavated, including soil boring locations SB-3 and SB-4 and wells MW-1, MW-4 and MW-5. It is anticipated that OCD will require these wells to be properly plugged prior to beginning the excavation activities.

The soil TPH concentrations at the eastern Site boundary (SB-9 and SB-10) indicate that the TPH impacts above the OCD recommended action level of 100 mg/Kg extend off-site onto Mr. Lewis Wright's property. OCD has stated that Beazer will be considered responsible to remediate Mr. Wright's property. Upon remediation of Mr. Wright's property, OCD will issue a clean closure notice for Mr. Wright's property. Beazer is currently attempting to negotiate access to Mr. Wright's property.

All remediation work will be conducted in accordance with GeoTrans' Standard Operating Procedures (SOPs), presented in Attachment B, and in accordance with the Site Health and Safety Plan (HASP), presented in Attachment C.

Soil Remediation

The scope of work to remediate the Site includes cleaning and removing the concrete catch basin tank and cleaning and backfilling the concrete catch basins located within the building. Impacted soil in the vicinity of the concrete catch basin tank will also be removed, based on the June 2001 and April 2004 analytical results and confirmatory visual assessment in the field. Figure 4 presents the approximate extent of the area to be excavated.

It is anticipated that the soil will be excavated to approximately 25 to 35 feet in depth (west to east trend in depth) using an excavator with shoring and sloping entrances for depths greater than 20 feet bgs. Soil impacts greater than 35 feet in the eastern portion and 25 feet in the western portion of the excavation area are associated with chemical partitioning from the groundwater and will be addressed by remediation of the Site groundwater. Soil excavation activities near well MW-5 may be expanded to remove NAPL material (if present) in the vadose zone at this location. The excavation will extend as close as possible to the edge of the building without compromising the structural integrity of the building. Although the specifics of completing the excavation may vary from what is described in this Work Plan, the extent of the excavation will remain as identified in this Work Plan.

If impacted soils remain in place under the building, soil samples will be collected from under the building following remediation activities. These soil samples will be used in the Johnson-Ettinger model to evaluate the potential of constituents volatilizing into the building.

The eastern extent of the excavation will extend onto Mr. Wright's property, assuming assess can be negotiated with Mr. Wright. The extent of the excavation on Mr. Wright's property will be based on visual and olfactory assessment, with confirmation soil samples.

A maximum of 15 confirmatory soil samples will be collected from the bottom of the excavation and sidewalls for laboratory analysis. The sample locations will be based on field observations and conditions (i.e., staining, discoloration, etc.) of the exposed soils. The samples will be analyzed for TPH to verify the impacted soils were removed.

The catch basins will be cleaned and backfilled with concrete. The concrete catch basin tank will be cleaned and removed from the ground in conjunction with the soil excavation activities. The tank void will be observed for indications of leaks or potential piping from the tank. The excavated areas will be backfilled and compacted. The estimated total volume of soil to be excavated is approximately 4,500 to 5,000 cubic yards. The contents of the catch basins and concrete catch basin tank and the excavated soils will be disposed of in accordance with local, state, and federal requirements, subject to approval by Beazer and Halliburton.

To enhance bioremediation in the excavation area, an Oxygen Release Compound (ORC) material is proposed to be placed in the vadose zone below the bottom of the excavation. The vadose zone is currently present at 35 to 37 feet bgs (May 2004). Several trenches will be constructed in the bottom of the excavation and ORC will be added to the trenches. ORC is a proprietary formulation of phosphate-intercalated magnesium peroxide that time releases oxygen when hydrated. ORC enhances in-situ bioremediation of dissolved phase

hydrocarbons, chlorinated compounds, and other biodegradable materials in groundwater and soil by stimulating the growth and activity of naturally occurring microbes. ORC is a non-hazardous, food grade material composed of less than 10 microns in diameter magnesium peroxide powder. ORC converts to a weakly cemented magnesium hydroxide. ORC does not affect the dimensions of the contaminant plume or volatilize the pollutants. Once the ORC material is placed at the desired depth, the trenches will backfilled and compacted along with the excavation area.

Groundwater Remediation

Two replacement wells will be installed at the Site after completion of the soil excavation and backfilling activities. One well will be installed near the current location of the concrete catch basin tank and the other well will be installed near the current location of well MW-5. The wells will be installed to monitor post-excavation groundwater conditions at the Site. The wells will be constructed so that the screened interval crosses the water table, currently 37 to 38 feet bgs. The location of the replacement monitoring wells is shown in Figure 4. The new wells will be developed, surveyed and sampled for the same constituents as well WSW-1 (Table 1).

Monitoring wells MW-2 and MW-3 will be abandoned, as they are no longer screened in the perched groundwater. The former water supply well will also be abandoned as it is not properly sealed and is a potential conduit to the perched groundwater at the Site.

The Site groundwater conditions will be monitored based on the analytical results from the replacement wells and the existing wells. It is anticipated that monitored natural attenuation will be an appropriate remedial technology for the groundwater impacts (principally petroleum hydrocarbons) present at the Site, combined with the source removal performed through soil excavation and placement of ORC material in the vadose zone.

SCHEDULE

Preparation for the field activities will begin following OCD approval of the soil remediation work plan. Scheduling and mobilization of the subcontractors will require approximately 4 to 6 weeks, pending subcontractor availability. The Site remedial activities will require approximately 6 to 8 weeks to complete. Installation of the replacement wells, development, surveying, sampling, and well abandonment activities will require approximately two weeks, pending subcontractor availability. The groundwater monitoring well analytical results will be available within three weeks of completing the sampling activities.

OCD will be notified approximately five days prior to beginning the field activities. In addition, as the remediation activities proceed, OCD will be kept informed of the progress within a reasonable period of time.

A soil remediation report and request for No Further Action on soils will be prepared to document the field activities and submitted to OCD approximately 4 weeks after receipt of the analytical results for samples from the replacement wells. The report will include a description of the field activities, a map showing the excavation area and replacement well locations,

tabulated analytical results, well construction logs for the replacement wells, and analytical laboratory reports.

SUMMARY AND CONCLUSIONS

Soil samples collected from the Site in 2001 and 2004 characterize the limited extent of soil impacts; the impacts are mainly TPH and are localized to the vicinity of the catch basin tank located at the south side of the building. The soil impacts extend to approximately 25 to 35 feet in depth in this area and are associated with historic operations conducted at the Site. Groundwater impacts are limited to TPH impacts, and are directly associated with the impacted soils.

The recommended Site remediation includes cleaning and filling two catch basins inside the building, cleaning and removing the catch basin tank and excavating the impacted soil in the vicinity of the catch basin tank. Source removal through soil excavation combined with addition of ORC material in the vadose zone of the excavation is anticipated to enhance the natural attenuation processes in groundwater at the Site. The groundwater will continue to be monitored by sampling two replacement wells and existing on-site groundwater monitoring wells screened across the water table. A remediation report will be submitted to OCD documenting the soil remediation activities, and will request a No Further Action determination from OCD for soils at the Site.

Please contact GeoTrans at (916) 853-1800 if you have questions regarding this soil remediation work plan.

Sincerely,
GEOTRANS, INC.

Jennifer A. Abrahams, R.G.
Associate
Senior Hydrogeologist

Keith E. McCutyo
for

Tanya Akkerman
Senior Scientist

Attachments

cc: Mitchell Brourman, Beazer East, Inc.
Jim McGinty, Halliburton
Bill Staggs, Site Owner

Table 1
Summary of Analyses and Analytical Methods
Former Axelson Facility, Hobbs, New Mexico

April and May 2004

Rationale	Analyses Performed	EPA Method	Soil					Groundwater				
			SB-7	SB-8	SB-9	SB-10	SB-11	MW-4	MW-5	MW-6	MW-7	WSW-1
Site Specific	Total Petroleum Hydrocarbons	8015 Modified	X	X	X	X	X	X	X	X	X	X
WQCC	Total Solids	160.3	X	X	X	X	X	---	---	---	---	---
	Volatile Organic Compounds	8260B	---	---	---	---	---	O	X	X	O	X
	Semi-volatile Organic Compounds	8270C	---	---	---	---	---	O	X	O	O	X
	Polynuclear Aromatic Hydrocarbons	8270 SIM	---	---	---	---	---	O	X	X	X	X
	Total Dissolved Solids	160.1	---	---	---	---	---	X	X	X	X	X
	Total Cyanide	335.2	---	---	---	---	---	O	O	O	O	X
	Fluoride	300.0	---	---	---	---	---	X	X	X	X	X
	Nitrate as Nitrogen	300.0	---	---	---	---	---	X	X	X	X	X
	Polychlorinated biphenyls	8082	---	---	---	---	---	O	O	O	O	X
	Radium-226	903.1	---	---	---	---	---	X	X	X	X	X
	Radium-228	904	---	---	---	---	---	X	X	X	X	X
	Dissolved Metals: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, and Uranium	200 / 6000 / 7000 Series	---	---	---	---	---	X	X	X	X	X

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
WSW-1 = Samples collected from former water supply at the former Axelson facility

--- = not applicable
X = analysis performed
O = Approved by OCD to discontinue monitoring based on prior analytical results

Table 2
Summary of Monitor Well Construction Details
Former Axelson Facility, Hobbs, New Mexico

Well	Installation Date	Top of Casing Elevation (ft MSL)	Casing Diameter (inches)	Screen Interval (feet)	As Built Total Depth (feet)
On-site Wells					
MW-1	2/23/1995	3,624.76	2	25-35	35
MW-2	2/23/1995	3,624.34	2	25-35	35
MW-3	2/27/1995	3,623.94	2	25-35	35
MW-4	6/5/2001	3,624.74	2	30-45	45
MW-5	6/5/2001	3,624.46	2	29-44	44
MW-6	6/6/2001	3,623.97	2	30-45	45
MW-7	6/6/2001	3,625.32	2	30-45	45
Former water supply well (WSW-1)	unknown	unknown	7	unknown	53.60*

NOTE: All TOC elevations surveyed by Basin Surveys on June 8, 2001 and April 12, 2004.
Wells MW-1 through MW-3 installed by Environmental Management & Engineering, Inc.
Wells MW-4 through MW-7, KMW-1 and KMW-2 installed by GeoTrans, Inc.

ft MSL = feet Mean Sea Level
* as measured on 4/6/04

Table 3
Summary of Water Level and Flow Direction Data
Former Axelson Facility, Hobbs, New Mexico

Well	Date	Measured Depth to Water (feet)	Measured Depth to Product (feet)	Top of Casing Elevation (ft MSL)	Calculated Groundwater Elevation (ft MSL)	Groundwater Gradient Direction	Groundwater Gradient (ft/ft)	Notes
MW-1	6/9/2001	dry *	---	3624.76	na	---	---	---
	6/11/2001	dry *	---	3624.76	na	---	---	---
	4/6/2004	dry	---	3624.76	na	---	---	very slight petroleum odor
MW-2	6/9/2001	dry *	---	3624.34	na	---	---	---
	6/11/2001	dry *	---	3624.34	na	---	---	---
	4/6/2004	dry	---	3624.34	na	---	---	very slight petroleum odor
MW-3	6/9/2001	34.65**	none	3623.94	na	---	---	---
	6/11/2001	34.65**	none	3623.94	na	---	---	---
	4/6/2004	dry	---	3623.94	na	---	---	no odor
MW-4	6/9/2001	35.35	none	3624.74	3589.39	---	---	---
	6/11/2001	35.36	none	3624.74	3589.38	S52^{0}E	0.0014	---
	4/6/2004	37.64	none	3624.74	3587.10	---	---	mild petroleum odor
	4/15/2004	37.69	none	3624.74	3587.05	S61^{0}E	0.0009	mild petroleum odor
	5/18/2004	37.66	none	3624.74	3587.08	S52^{0}E	0.0011	mild petroleum odor
MW-5	6/9/2001	35.15	none	3624.46	3589.31	---	---	---
	6/11/2001	35.15	none	3624.46	3589.31	S52^{0}E	0.0014	---
	4/6/2004	38.01	---	3624.46	3586.45	---	---	@ 2" free product in well
	4/15/2004	37.51	---	3624.46	3586.95	S61^{0}E	0.0009	@ 2" free product in well
	5/18/2004	38.60	38.55	3624.46	3585.86	S52^{0}E	0.0011	@ 0.5" free product in well
MW-6	6/9/2001	34.62	none	3623.97	3589.35	---	---	---
	6/11/2001	34.63	none	3623.97	3589.34	S52^{0}E	0.0014	---
	4/6/2004	36.99	none	3623.97	3586.98	---	---	no odor
	4/15/2004	36.95	none	3623.97	3587.02	S61^{0}E	0.0009	no odor
	5/18/2004	36.96	none	3623.97	3587.01	S52^{0}E	0.0011	no odor
MW-7	6/9/2001	35.62	none	3625.11	3589.49	---	---	---
	6/11/2001	35.63	none	3625.11	3589.48	S52^{0}E	0.0014	---
	4/6/2004	37.99	none	3625.11	3587.12	---	---	no odor
	4/15/2004	37.94	none	3625.11	3587.17	S61^{0}E	0.0009	no odor
	5/18/2004	37.94	none	3625.11	3587.17	S52^{0}E	0.0011	no odor

NOTE: Depth to water measured from mark or notch at top of well casing.

ft MSL = feet Mean Sea Level
na = not applicable
ft/ft = feet per foot
--- = data not available
* = approximately 0.5" to 2" of thick oily grease in bottom of well (no groundwater present).

Table 4
Summary of Soil Analytical Results
Petroleum Hydrocarbons and Total Solids
Former Axelson Facility, Hobbs, New Mexico

Sample ID	Sample Depth (feet)	TPH-d	TPH-g	TPH-mo	Total Solids (%)
June-01					
SB-1 (MW-4)	5	21	<10	97	94.2
	10	**1,300**	**1,500**	**270**	86.4
	15	**2,400**	**2,300**	**370**	84.6
	20	**6,500**	**7,000**	**470**	85.9
	25	**2,100**	**1,100**	**190**	93.9
	30	**860**	**290**	94	95.1
	35	**1,100**	**490**	**110**	92.4
SB-2 (MW-5)	5	<10	<10	<26	94.8
	10	<11	<11	<28	86.3
	15	<11	<11	<27	89.4
SB-3	5	<11	<11	<26	91.5
	10	<11	<11	<26	92.9
	15	<12	<12	<29	86.2
SB-4	5	<10	<10	<25	97.2
	10	**2,700**	**1,000**	**120**	87.8
	15	**1,000**	**300**	46	89.6
	20	**100**	10	31	97.5
	25	<10	<10	<26	95.3
	30	**630**	**170**	58	95.2
	35	**300**	76	43	88.9
SB-5 (MW-7)	5	<10	<10	<25	95.7
SB-6 (MW-6)	5	<11	<11	<27	92.8
April-04					
SB-7	10	<12	<5.9	<30	82.5
	15	<11	<5.6	<27	88.9
	20	<10	<5.2	<25	95.9
	25	<10	<5.1	<25	97.9
	30	<10	<5.1	<25	95.4
	35	<11	<5.3	<26	94.7
SB-8	10	13	<0.0	<31	81.3
	15	<12	<5.8	<28	85.8
	20	<10	<5.1	<25	96.3
	25	<11	<5.2	<26	96.0
	30	**460**	23	29	96.6
	35	**610**	42	43	94.8

Table 4
Summary of Soil Analytical Results
Petroleum Hydrocarbons and Total Solids
Former Axelson Facility, Hobbs, New Mexico

Sample ID	Sample Depth (feet)	TPH-d	TPH-g	TPH-mo	Total Solids (%)
SB-9	10	**300**	7.1	**210**	91.7
	15	**7,100**	**700**	**510**	87.5
	20	**14,000**	**1,600**	**1,100**	86.4
	25	**1,900**	**180**	**170**	95.3
	30	**2,300**	**240**	**170**	95.2
	35	**750**	83	78	95.4
SB-10	10	**3,900**	81	**360**	86.5
	15	**6,100**	**640**	**130**	88.3
	20	**1,300**	73	46	96.8
	25	**3,300**	**370**	**130**	94.3
	30	**1,000**	82	69	95.4
	35	**1,400**	**250**	**100**	94.4
SB-11	10	<11	<5.5	<27	91.4
	15	<12	<5.5	<28	89.5
	20	<11	<5.6	<28	90.6
	25	<11	<5.3	<26	95.5
	30	<11	<5.2	<26	95.9
	35	<11	<5.3	<26	94.0
NMOCD		100	100	100	—

Note: All results presented as milligrams per kilogram (mg/kg) unless otherwise noted.
Petroleum Hydrocarbons analyzed using EPA Method 8015 Modified.
Total Solids analyzed using EPA Method 160.3 Modified.
Concentrations in bold exceed the NMOCD recommended action level.

NMOCD = New Mexico Oil Conservation Division recommended remediation action level.
TPH-d = Total Petroleum Hydrocarbons as diesel range
TPH-g = Total Petroleum Hydrocarbons as gasoline range
TPH-mo = Total Petroleum Hydrocarbons as motor oil range

Table 5
Summary of Groundwater Analytical Results
Petroleum Hydrocarbons
Former Axelson Facility, Hobbs, New Mexico

Well	Date	TPH-d	TPH-g	TPH-mo
MW-4	Jun-01	**13,000**	**4,500**	2,500
	Apr-04	**1,100**	**470**	370
	May-04	**2,000**	**560**	330
MW-5	Jun-01	**490**	**140**	410
	Apr-04*	**210,000**	**1,900**	19,000
	May-04*	**72,000**	**2,200**	7,400
MW-6	Jun-01	**<100**	**<100**	<260
	Apr-04	**<110**	**<50**	<110
Duplicate	Apr-04	**<110**	**<50**	<110
	May-04	**<110**	**<50**	<110
MW-7	Jun-01	**210**	**110**	380
Duplicate	Jun-01	**170**	**<100**	440
	Apr-04	**<110**	**<50**	<110
	May-04	**<100**	**<50**	110
WSW-1	Apr-04	**<110**	**<50**	150
SNARL	---	100	5	---

Note: Results reported as micrograms per liter (µg/L=ppb)
TPH analyzed using EPA Method 8015 Modified
Concentrations in bold exceed SNARL

TPH-d = Total Petroleum Hydrocarbons as Diesel
TPH-g = Total Petroleum Hydrocarbons as Gasoline
TPH-mo = Total Petroleum Hydrocarbons as Motor Oil
SNARL = EPA Suggested No-Adverse Response Levels

* = free product present in well

Table 6
Summary of Groundwater Analytical Results
BTEX Compounds, VOCs, and SVOCs
Former Axelson Facility, Hobbs, New Mexico

Well	Date	BTEX Compounds	Semi-volatile Organic Compounds (SVOCs)	Volatile Organic Compounds (VOCs)
MW-4	Jun-01	—	nd	nd
	Apr-04	—	na	na
	May-04	Ethyl benzene = 2.4 Total Xylenes = 3.7	na	na
MW-5	Jun-01	—	nd	nd
	Apr-04	—	na	na
(product present in well)	May-04	nd	Naphthalene = **140**; 2-Methylnaphthalene = 400; Dibenzofuran = 13; Fluorene = 17; Bis(2-ethylhexyl) Phthalate = 19	1,1-DCA = 0.87; 1,1,1-TCA = 0.76; PCE = 2.2; Total Xylenes = 0.73; Isopropylbenzene = 5.0; n-Propylbenzene = 9.4; 1,3,5-Trimethylbenzene = 74; 1,2,4-Trimethylbenzene = 210; sec-Butylbenzene = 12; 4-Isopropylbenzene = 13; n-Butylbenzene = 16; Naphthalene = **92**
MW-6	Jun-01	—	nd	1,1,1-TCA = 2.0; 1,2-DCA = **8.0**; PCE = 3.0
	Apr-04	—	nd	1,1,1-TCA = 2.1; 1,2-DCA = 4.1; PCE = 4.3
Duplicate	Apr-04	—	nd	1,1,1-TCA = 2.1; 1,2-DCA = 4.1; PCE = 4.5
	May-04	nd	nd	1,1,1-TCA = 2.2; 1,2-DCA = 3.4; PCE = 4.8
MW-7	Jun-01	—	nd	nd
Duplicate	Jun-01	—	nd	nd
	Apr-04	—	na	na
	May-04	nd	na	na
WSW-1	Apr-04	—	nd	Toluene = 5.8
MRL		Benzene = 0.5 Toluene = 1.0 Ethyl benzene = 1.0 Total Xylenes = 1.0	Naphthalene = 9.8; 2-*Methylnaphthalene = 9.8*; Dibenzofuran = 9.8; Fluorene = 9.8; Bis(2-ethylhexyl) Phthalate = 9.8	1,1-DCA = 0.5; 1,1,1-TCA = 0.5; 1,2-DCA = 0.5; PCE = 0.5; BTEX = 0.5; Isopropylbenzene = 2.0; *n-Propylbenzene = 2.0*; 1,3,5-Trimethylbenzene = 2.0; 1,2,4-Trimethylbenzene = 2.0; sec-Butylbenzene = 2.0; 4-Isopropylbenzene = 2.0; n-Butylbenzene = 2.0; Naphthalene = 2.0
WQCC		Benzene = 10 Toluene = 750 Ethyl benzene = 750 *Total Xylenes = 620*	Naphthalene = 30*; 2-Methylnaphthalene = —; Dibenzofuran = —; Fluorene = —; *Bis(2-ethylhexyl) Phthalate* = —	1,1-DCA = 25; 1,1,1-TCA = 60; 1,2-DCA = 10; PCE = 20; Total Xylenes = 620; Isopropylbenzene = —; n-Propylbenzene = —; 1,3,5-Trimethylbenzene = —; 1,2,4-Trimethylbenzene = —; sec-Butylbenzene = —; *Toluene = 750*; 4-Isopropylbenzene = —; n-Butylbenzene = —; Naphthalene = 30*
MCL		Benzene = 5 Toluene = 1,000 Ethyl benzene = 70 Total Xylenes = 10,000	Naphthalene = —; 2-Methylnaphthalene = —; Dibenzofuran = —; Fluorene = —; Bis(2-ethylhexyl) Phthalate = —	1,1-DCA = —; 1,1,1-TCA = 200; 1,2-DCA = 5; PCE = 5; Total Xylenes = 10,000; Isopropylbenzene = —; n-Propylbenzene = —; 1,3,5-Trimethylbenzene = —; 1,2,4-Trimethylbenzene = 70; sec-Butylbenzene = —; Toluene = 1,000; 4-Isopropylbenzene = —; n-Butylbenzene = —; Naphthalene = —

Note: All results reported as micrograms per liter (µg/L = ppb). Only detected analytes listed.
BTEX Compounds analyzed using EPA Method 8021B
Volatile Organic Compounds analyzed using EPA Method 8260B
SVOCs analyzed using EPA Method 8270C.
Concentrations in bold exceed the WQCC or MCL values.
Most stringent comparison criteria used when both WQCC and MCL values exist.

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
MCL = U.S. EPA Drinking Water Maximum Contaminant Level
MRL = Method Reporting Limit

1,1-DCA = 1,1-Dichloroethane
1,1,1-TCA = 1,1,1-Trichloroethane
1,2-DCA = 1,2-Dichloroethane
PCE = Tetrachloroethene
nd = not detected above the laboratory reporting limit
na = not analyzed
— = not applicable
* = Total naphthalene plus monomethylnaphthalenes

Table 7
Summary of Groundwater Analytical Results
Polynuclear Aromatic Hydrocarbons
Former Axelson Facility, Hobbs, New Mexico

Well	Date	Naphthalene	2-Methylnaphthalene	Dibenzofuran	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene	Benzo(g,h,i)perylene
MW-4	Jun-01	nd	0.037	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Apr-04	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
	May-04	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
MW-5	Jun-01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Apr-04	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
(product present in well)	May-04	140	490	13	11	7.2	0.82	0.39	0.63	<0.2	0.32	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW-6	Jun-01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Apr-04	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
Duplicate	Apr-04	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
	May-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-7	Jun-01	nd	nd	nd	nd	0.071	nd	nd	0.026	0.024	0.025	0.057	0.062	0.061	0.03	0.029	0.023
Duplicate	Jun-01	nd	nd	nd	nd	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Apr-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	May-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
WSW-1	Apr-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.033	0.031	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
WQCC		30*	---	---	---	---	---	---	---	---	---	---	---	0.7	---	---	---
MCL		---	---	---	---	---	---	---	---	0.1	---	---	---	0.2	---	---	---

Note: All results reported as micrograms per liter (µg/L = ppb). Only detected analytes listed.
Polynuclear Aromatic Hydrocarbons analyzed using EPA Method 8270 SIM
Concentrations in bold exceed the WQCC or MCL values.

--- = not available
nd = not detected above laboratory reporting limit
na = not analyzed
* = total naphthalene plus monomethylnaphthalenes

Most stringent comparison criteria listed when both WQCC and MCL values exist.

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
MCL = U.S. EPA Drinking Water Maximum Contaminant Level

Table 8
Summary of Groundwater Analytical Results
New Mexico Water Quality Control Commission Groundwater Standards (WQCC)
Former Axelson Facility, Hobbs, New Mexico

Well	Date	Total Cyanide (mg/L)	Fluoride (mg/L)	Nitrate as Nitrogen (mg/L)	TDS (mg/L)	PCBs (µg/L)	Radium 226 (pCi/L)		Radium 228 (pCi/L)		Total Radium (Ra-226 + Ra-228) (pCi/L)
							Result	Uncertainty	Result	Uncertainty	
MW-4	Jun-01	nd	1.5	7.2	**1,140**	nd	1.55	0.35	2.16	0.58	3.71
	Apr-04	na	1.4	6.5	**1,330**	na	6.34	0.8	0.07	0.3	**6.41**
	May-04	na	1.2	6.9	**1,280**	na	3.43	0.90	2.72	1.0	**6.15**
MW-5	Jun-01	nd	1.6	4.3	**916**	nd	2.42	0.52	3.60	0.84	**6.02**
	Apr-04	na	<1.0	4.0	**1,050**	na	3.78	0.4	5.77	0.7	**9.55**
	May-04	na	1.0	4.0	**1,060**	na	1.97	0.7	7.28	1.0	**9.25**
MW-6	Jun-01	nd	1.5	2.9	**676**	nd	2.06	0.45	2.14	0.57	4.20
	Apr-04	nd	1.3	4.6	**825**	na	2.53	0.4	7.17	0.6	**9.70**
Duplicate	Apr-04	nd	1.4	4.7	**825**	nd	3.07	0.4	4.76	0.6	**7.83**
	May-04	na	1.5	4.8	**885**	na	1.17	0.6	3.64	0.4	4.81
MW-7	Jun-01	nd	**2.2**	8.1	**908**	nd	1.81	0.4	2.39	0.61	4.20
Duplicate	Jun-01	nd	**2.1**	7.7	**800**	nd	2.4	0.52	3.19	0.76	**5.59**
	Apr-04	na	1.5	8.2	**990**	na	4.52	0.8	5.32	0.3	**9.84**
	May-04	na	**1.8**	7.9	**870**	na	2.93	0.7	2.73	0.3	**5.66**
WSW-1	Apr-04	<0.01	<1.0	<0.5	95	<0.4	0.91	0.4	0.41	0.3	1.32
WQCC		0.2	1.6	10	1,000	1.0	---	---	---	---	30 pCi/L
MCL		0.2	4	10	500	---	---	---	---	---	5 pCi/L

Note: All results reported a milligrams per liter (mg/L=ppm) unless noted otherwise.
Concentrations in bold exceed the WQCC or MCL values.

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
MCL = U.S. EPA Drinking Water Maximum Contaminant Level
TDS = Total Dissolved Solids using EPA Method 160.1
PCBs = Polychlorinated biphenyls using EPA Method 8082
Radium-226 analyzed using EPA Method 903.1
Radium-228 analyzed using EPA Method 904

µg/L = micrograms per liter (µg/L = ppb)
nd = not detected at or above the laboratory reporting limit
pCi/L = pico Curies per liter
na = not analyzed
--- = not available

Table 9
Summary of Groundwater Analytical Results
Dissolved Metals
Former Axelson Facility, Hobbs, New Mexico

Well	Date	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Uranium
MW-4	Jun-01	**<100**	55.2	<5.0	<5.0	**<100**	<0.20	<8.0	<10	18.1
	Apr-04	<5.0	59.8	<5.0	<5.0	0.56	<0.20	<8.0	<10	23.1
	May-04	12.2	56.7	<5.0	<5.0	0.59	<0.2	<2.0	<10	23.3
MW-5	Jun-01	**<100**	70.9	<5.0	<5.0	**<100**	<0.20	<8.0	<10	15.3
	Apr-04	<5.0	67.2	<5.0	<5.0	1.39	<0.20	<10	<10	18.8
	May-04	14.5	68.1	<5.0	<5.0	0.94	<0.2	<2.0	<10	20.3
MW-6	Jun-01	**<100**	162	<5.0	<5.0	**<100**	<0.20	<8.0	<10	11.9
	Apr-04	8.4	114	<5.0	<5.0	0.15	<0.20	<10	<10	8.78
Duplicate	Apr-04	8.5	114	<5.0	<5.0	0.10	<0.20	<10	<10	8.63
	May-04	17.7	116	<5.0	<5.0	0.43	<0.2	4.1	<10	9.27
MW-7	Jun-01	**<100**	57.5	<5.0	<5.0	**<100**	<0.20	<8.0	<10	11.3
Duplicate	Jun-01	**<100**	51.6	<5.0	<5.0	**<100**	<0.20	<8.0	<10	10.4
	Apr-04	<5.0	40.7	<5.0	<5.0	0.22	<0.20	<8.0	<10	13.7
	May-04	12.0	42.1	<5.0	<5.0	0.11	<0.2	<2.0	<10	14.8
WSW-1	Apr-04	<5.0	88.1	<5.0	<5.0	0.38	<0.20	<8.0	<10	1.04
WQCC		100	1,000	10	50	50	2.0	50	50	5,000
MCL		50	2,000	5.0	100	15	2	50	50	30

Note: All results reported as micrograms per liter (µg/L = ppb).
Metals analyzed using EPA Method 6010B/7470B/7740/200.8
Concentrations in bold exceed the WQCC or MCL values.
Most stringent comparison criteria listed when both WQCC and MCL values exist.

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
MCL = U.S. EPA Drinking Water Maximum Contaminant Level

Table 10
Summary of Catch Basin Tank Analytical Results
Former Axelson Facility, Hobbs, New Mexico

Date	TPH-d	TPH-g	TPH-mo	Total Solids (%)	Volatile Organic Compounds (VOCs)	Semi-volatile Organic Compounds (SVOCs)	Polynuclear Aromatic Hydrocarbons (PAHs)
Jun-01	110,000	42,000	40,000	54.9	Acetone = 0.11 Methylene Chloride = 0.036 2-Butanone (MEK) = 0.026 Tetrachloroethene (PCE) = 0.01 Carbon Disulfide = 0.0052	Naphthalene = 15 2-Methylnaphthalene = 32 1,2-Dichlorobenzene = 79 Butyl Benzl Phthalate = 6.3 Bis(2-ethylhexyl) Phthalate = 62	na
May-04	24,000	200	10,000	62.6	Toluene = 2.2 Total Xylenes = 10.8 Ethyl Benzene = 1.6 Naphthalene = 14 sec-Butlybenzene = 1.8 n-Butylbenzene = 2.9 1,2-Dichlorobenzene = 1.3 1,2,4-Trimethylbenzene = 9.3 4-Isopropyltoluene = 2.0	Naphthalene = 8.6 2-Methylnaphthalene = 26 Bis(2-ethylhexyl) Phthalate = 6.6	Naphthalene = 23 2-Methylnaphthalene = 69 Acenaphthene = 0.53 Fluorene = 1.2 Dibenzofuran = 1.4 Phenantthrene = 1.7 Anthracene = 0.30 Fluoranthene = 0.34 Pyrene = 1.0 Benzo(b)fluoranthene = 0.22 Benzo(k)fluoranthene = 0.083 Benz(a)anthracene = 0.13 Chrysene = 0.50 Benzo(a)pyrene = 0.19 Indeno(1,2,3-cd)pyrene = 0.21 Benzo(g,h,i)perylene = 0.39

Note: Results reported as milligrams per kilogram (mg/kg=ppm) unless otherwise noted. Only detected analytes listed.
Petroleum Hydrocarbons analyzed using EPA Method 8015 Modified.
Percent Total Solids analyzed using EPA Method 160.3 Modified.
VOCs analyzed using EPA Method 8260B.
SVOCs analyzed using EPA Method 8270C.
Polynuclear Aromatic Hydrocarbons analyzed using EPA Method 8270 SIM

TPH-d = Total Petroleum Hydrocarbons as diesel range
TPH-g = Total Petroleum Hydrocarbons as gasoline range
TPH-mo = Total Petroleum Hydrocarbons as motor oil range
na = not analyzed

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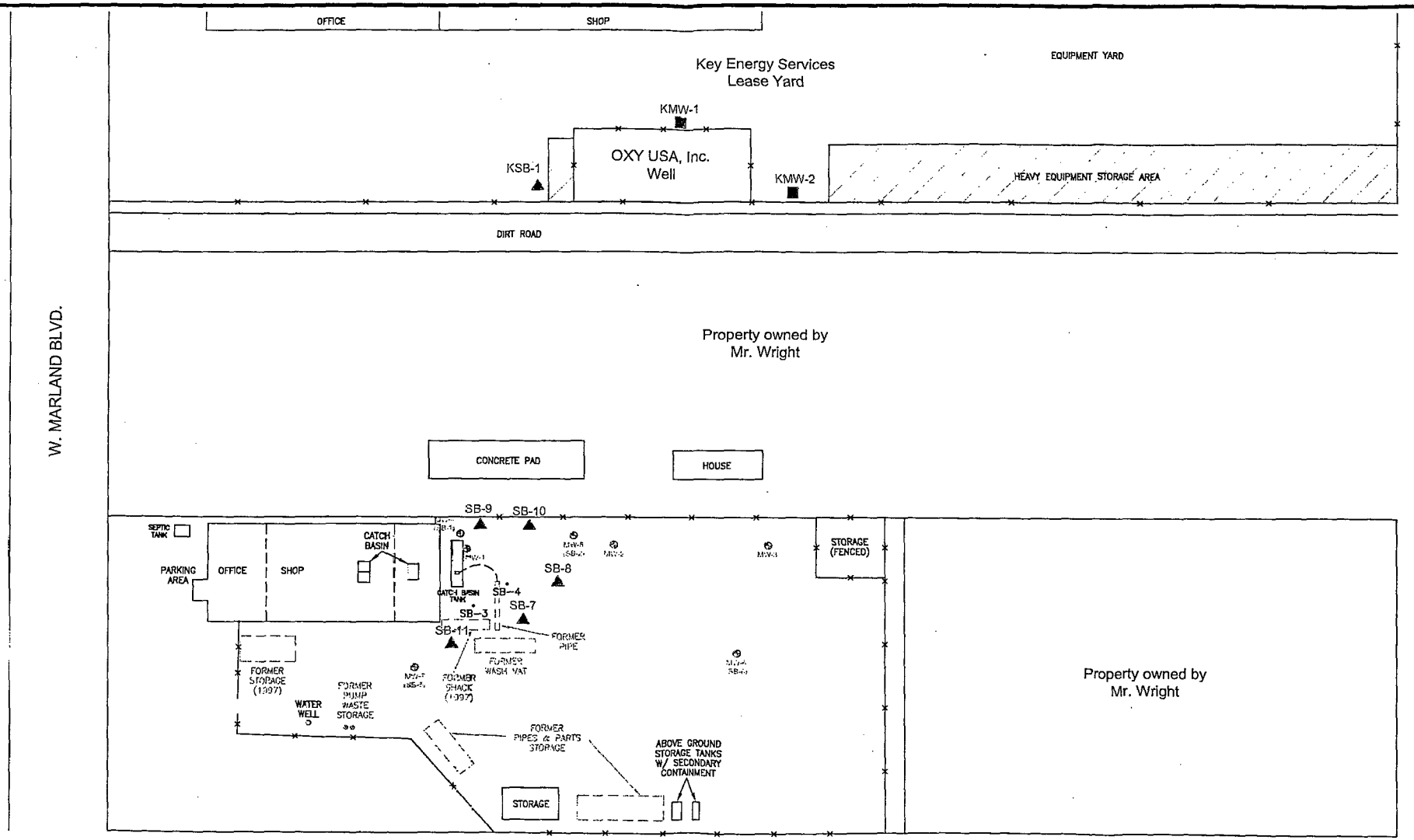

Explanation

- Monitor Well Location
- Soil Boring Location (2004)
- Short-Term Monitor Well Location
- Soil Boring Location (2001)

N

0 25 50

Scale: 1"=50'

TITLE: Sampling Locations April 2004

LOCATION: Former Axelson Facility
2703 West Morland Blvd., Hobbs, New Mexico

GeoTrans, Inc.

CHECKED:	TRA
DRAFTED:	GHP
DATE:	08-17-04

EXHIBIT: 1

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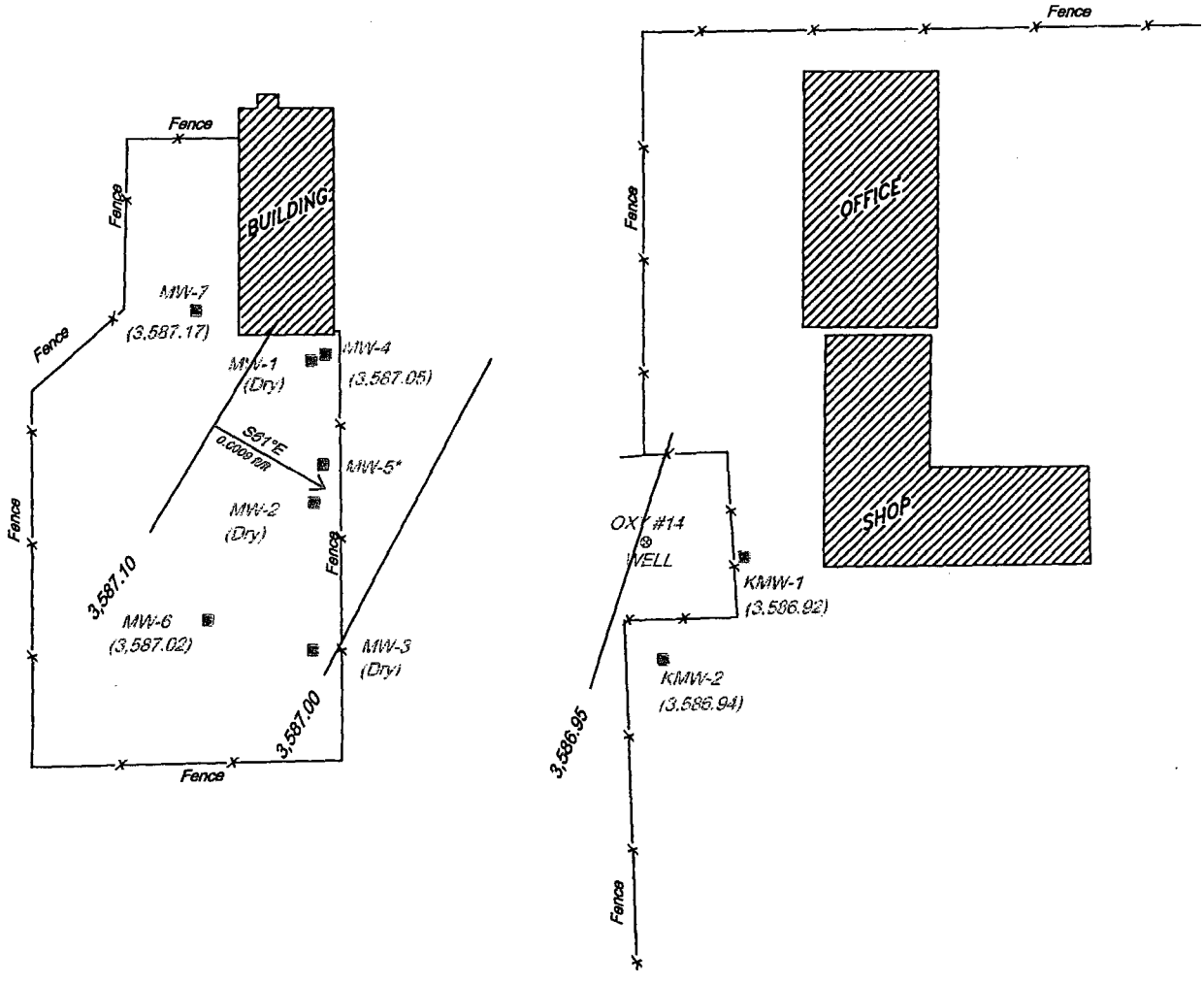
WEST MARLAND BLVD



Explanation

MW-5* — Not used in groundwater contouring due to presence of free floating product

MW-4 (3587.05) — Monitor Well Location with groundwater elevation on 06/11/01 (ft msl)

S61°E 0.0009 ft/ft — Groundwater flow direction with bearing and gradient

——— Groundwater elevation contour (ft)

N

0 50 100

Scale: 1"=100'

(Base map surveyed by Basin Surveys, Inc.)

TITLE:	Groundwater Elevations April 2004
LOCATION:	Former Axelson Facility 2703 W. Marland Boulevard, Hobbs, New Mexico

GeoTrans, Inc.

CHECKED:	TRA	FIGURE:
DRAFTED:	GHP	2
DATE:	08-17-04	

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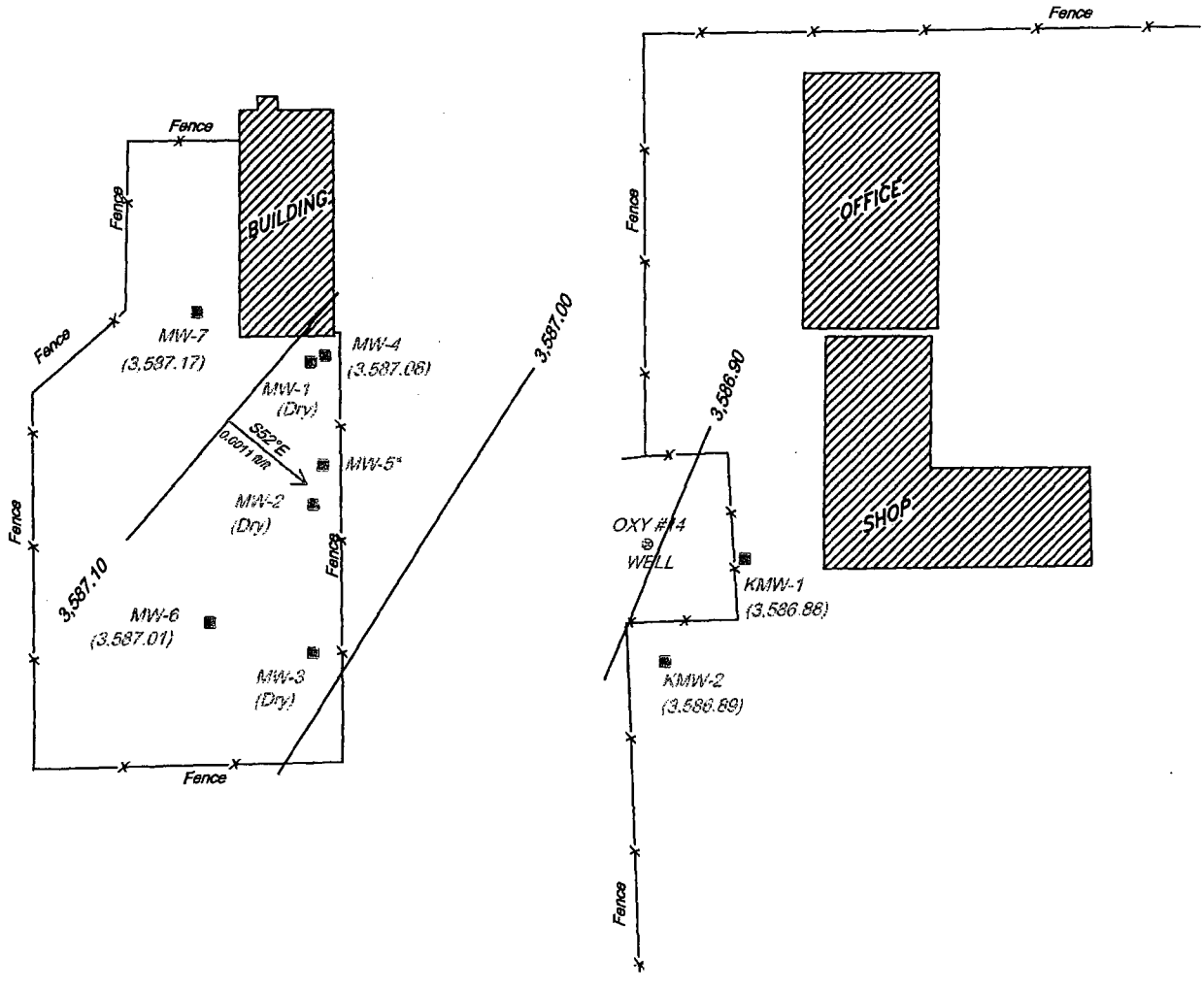
WEST MARLAND BLVD



Explanation

MW-5*	Not used in groundwater contouring due to presence of free floating product
MW-4 (3587.06)	Monitor Well Location with groundwater elevation on 06/11/01 (ft msl)
S52°E 0.0011 ft/ft	Groundwater flow direction with bearing and gradient
———	Groundwater elevation contour (ft)

N

0 50 100

Scale: 1"=100'

(Base map surveyed by Basin Surveys, Inc.)

TITLE:	Groundwater Elevations May 2004
LOCATION:	Former Axelson Facility 2703 W. Marland Boulevard, Hobbs, New Mexico

GeoTrans, Inc.

CHECKED:	TRA	FIGURE: 3
DRAFTED:	GHP	
DATE:	08-17-04	

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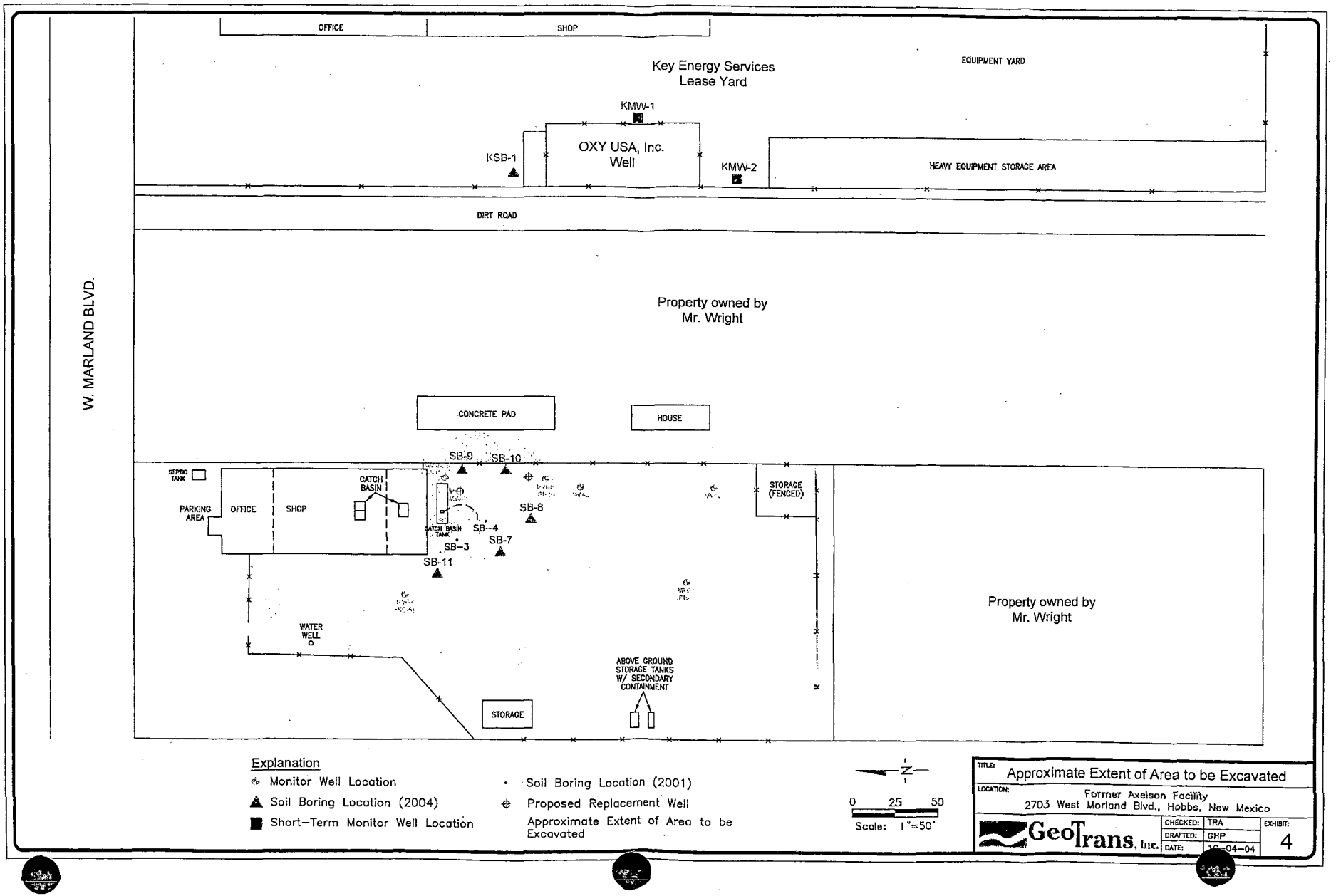


GeoTrans, Inc.

BORING LOG

PROJECT NUMBER	2201.019.01	**BORING/WELL NUMBER**	SB-7
PROJECT NAME	Former Axelson Facility (Site No. 2067)	**DATE DRILLING BEGAN**	4/6/2004
LOCATION	2703 West Marland Boulevard, Hobbs, New Mexico	**DATE DRILLING ENDED**	4/6/2004
DRILLING METHOD	Air Rotary	**NORTHING**	
SAMPLING METHOD	Grab	**EASTING**	
DEPTH TO SATURATED SOIL (ft)		**GROUND SURFACE ELEVATION (ft, MSL)**	
LOGGED BY	Tanya Akkerman	**REMARKS**	Groundwater not encountered in soil boring.

PID (ppm)	BLOW COUNTS	RECOVERY (ft)	SAMPLE ID.	SAMPLE DEPTH	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (Percent Gravel, Sand, Silt, Clay)
0.0			SB-7-5'	G	5	CL ML		**SILTY CLAY:** Very dark brown (10YR 4/4); (0,5,40,55); fine sand; low plasticity; dry to slightly damp. No odor. Some minor gravel present near ground surface.
4.1			SB-7-10'	G	10	ML SM		**SANDY SILT:** Very pale brown (10YR 7/3); (0,10,90,0); fine to medium sand; dry. No odor.
4.1			SB-7-15'	G	15			
4.1			SB-7-20'	G	20			Hard pan layer present.
4.1			SB-7-25'	G	25	SP		**SAND:** Light reddish brown (5YR 6/4); (0,100,0,0); fine to medium sand; dry to wet at depth. No odor, discoloration or staining present. Groundwater not encountered.
4.1			SB-7-30'	G	30			
12.3			SB-7-35'	G	35			T.D. = 35 feet. Boring backfilled with hydrated bentonite chips.

GEOTRANS BZRHOBBS.GPJ LAEWNN01.GDT 7/6/04

Tanya Akkerman
Signature of Geologist

Signature of Reviewer

GeoTrans, Inc.

BORING LOG

PROJECT NUMBER	2201.019.01	**BORING/WELL NUMBER**	SB-8
PROJECT NAME	Former Axelson Facility (Site No. 2067)	**DATE DRILLING BEGAN**	4/6/2004
LOCATION	2703 West Marland Boulevard, Hobbs, New Mexico	**DATE DRILLING ENDED**	4/6/2004
DRILLING METHOD	Air Rotary	**NORTHING**	
SAMPLING METHOD	Grab	**EASTING**	
DEPTH TO SATURATED SOIL (ft)		**GROUND SURFACE ELEVATION (ft, MSL)**	
LOGGED BY	Tanya Akkerman	**REMARKS**	Groundwater not encountered in soil boring.

PID (ppm)	BLOW COUNTS	RECOVERY (ft)	SAMPLE ID.	SAMPLE DEPTH	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (Percent Gravel, Sand, Silt, Clay)
						CL ML		**SILTY CLAY:** Very dark brown (10YR 4/4); (0,5,40,55); fine sand; low plasticity; dry to slightly damp. No odor. Some minor gravel present near ground surface.
4.1			SB-8-5'	G	5			
4.1			SB-8-10'	G	10	ML SM		**SANDY SILT:** Very pale brown (10YR 7/3); (0,10,90,0); fine to medium sand; dry. No odor.
4.1			SB-8-15'	G	15			
—			SB-8-20'	G	20			Hard pan layer present.
4.1			SB-8-25'	G	25	SP		**SAND:** Light reddish brown (5YR 6/4); (0,100,0,0); fine to medium sand; dry to wet at depth. No discoloration or staining present. Groundwater not encountered.
70.1			SB-8-30'	G	30			Mild petroleum odor present at 30 and 35 feet in depth.
111.3			SB-8-35'	G	35			T.D. = 35 feet. Boring backfilled with hydrated bentonite chips.

GEOTRANS BZRHOBBS.GPJ LAEWNN01.GDT 7/6/04

Tanya Akkerman
Signature of Geologist

Signature of Reviewer

GeoTrans, Inc.

BORING LOG

PROJECT NUMBER	2201.019.01	**BORING/WELL NUMBER**	SB-9
PROJECT NAME	Former Axelson Facility (Site No. 2067)	**DATE DRILLING BEGAN**	4/7/2004
LOCATION	2703 West Marland Boulevard, Hobbs, New Mexico	**DATE DRILLING ENDED**	4/7/2004
DRILLING METHOD	Air Rotary	**NORTHING**	
SAMPLING METHOD	Grab	**EASTING**	
DEPTH TO SATURATED SOIL (ft)		**GROUND SURFACE ELEVATION (ft, MSL)**	
LOGGED BY	Tanya Akkerman	**REMARKS**	Groundwater not encountered in soil boring.

PID (ppm)	BLOW COUNTS	RECOVERY (ft)	SAMPLE ID.	SAMPLE DEPTH	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (Percent Gravel, Sand, Silt, Clay)
								SANDY SILT: White (10YR 8/1) to Light gray (10YR 7/2); (0,10,90,0) to (0,15,85,0); very fine to fine sand; dry.
0			SB-9-5'	G	5			
32.9			SB-9-10'	G	10	ML SM		Mild turpentine odor present at 10 feet in depth.
243			SB-9-15'	G	15			Mild to strong turpentine ordor present at 15 feet in depth.
400			SB-9-20'	G	20			Mild to strong turpentine odor along with mild petroleum odor present at 20 feet in depth.
								Hard pan layer present.
136			SB-9-25'	G	25			**SAND**: Pink (7.5YR 7/4) to Light brown (7.5YR 6/3); (0,100,0,0); fine to medium sand; dry. Mild to strong petroleum odor present. No discoloration or staining present. Groundwater not encountered.
173			SB-9-30'	G	30	SP		
140			SB-9-35'	G	35			
								T.D. = 35.5 feet. Boring backfilled with hydrated bentonite chips.

GEOTRANS_BZRHOBBS.GPJ LAEWNN01.GDT 7/6/04

Tanya Akkerman
Signature of Geologist

Signature of Reviewer

GeoTrans, Inc.

BORING LOG

PROJECT NUMBER	2201.019.01	**BORING/WELL NUMBER**	SB-10
PROJECT NAME	Former Axelson Facility (Site No. 2067)	**DATE DRILLING BEGAN**	4/7/2004
LOCATION	2703 West Marland Boulevard, Hobbs, New Mexico	**DATE DRILLING ENDED**	4/7/2004
DRILLING METHOD	Air Rotary	**NORTHING**	
SAMPLING METHOD	Grab	**EASTING**	
DEPTH TO SATURATED SOIL (ft)		**GROUND SURFACE ELEVATION (ft, MSL)**	
LOGGED BY	Tanya Akkerman	**REMARKS**	Groundwater not encountered in soil boring.

PID (ppm)	BLOW COUNTS	RECOVERY (ft)	SAMPLE ID.	SAMPLE DEPTH	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (Percent Gravel, Sand, Silt, Clay)
0			SB-10-5'	G	5			**SANDY SILT**: Very pale brown (10YR 7/4 to 10YR 8/2); (0,10,90,0) to (0,20,80,0); fine to medium sand; dry.
78			SB-10-10'	G	10			Mild turpentine odor present at 10 and 15 feet in depth.
169			SB-10-15'	G	15			
107			SB-10-20'	G	20			Hard pan layer present.
206			SB-10-25'	G	25	SP		**SAND**: Pink (7.5YR 8/3) to Light brown (7.5YR 6/3); (0,100,0,0); fine to medium sand; dry. Mild petroleum odor present. No discoloration or staining present. Groundwater not encountered.
78			SB-10-30'	G	30			
280			SB-10-35'	G	35			T.D. = 35 feet. Boring backfilled with hydrated bentonite chips.

GEOTRANS BZRHOBBS.GPJ LAEWNN01.GDT 7/6/04

Tanya Akkerman
Signature of Geologist

Signature of Reviewer

GeoTrans, Inc.

BORING LOG

PROJECT NUMBER 2201.019.01
PROJECT NAME Former Axelson Facility (Site No. 2067)
LOCATION 2703 West Marland Boulevard, Hobbs, New Mexico
DRILLING METHOD Air Rotary
SAMPLING METHOD Grab
DEPTH TO SATURATED SOIL (ft)
LOGGED BY Tanya Akkerman

BORING/WELL NUMBER SB-11
DATE DRILLING BEGAN 4/6/2004
DATE DRILLING ENDED 4/6/2004
NORTHING
EASTING
GROUND SURFACE ELEVATION (ft, MSL)
REMARKS Groundwater not encountered in soil boring.

PID (ppm)	BLOW COUNTS	RECOVERY (ft)	SAMPLE ID.	SAMPLE DEPTH	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (Percent Gravel, Sand, Silt, Clay)
4.1			SB-11-5'	G	5	CL ML		**SILTY CLAY:** Very dark brown (10YR 4/4); (0,5,40,55); fine sand; low plasticity; dry to slightly damp. No odor. Some minor gravel present near ground surface.
8.2			SB-11-10'	G	10	ML SM		**SANDY SILT:** Very pale brown (10YR 7/3); (0,10,90,0); fine to medium sand; dry. No odor.
8.2			SB-11-15'	G	15			
4.1			SB-11-20'	G	20			Hard pan layer present.
4.1			SB-11-25'	G	25	SP		**SAND:** Light reddish brown (5YR 6/4); (0,100,0,0); fine to medium sand; dry to wet at depth. No odor, discoloration or staining present. Groundwater not encountered.
12.3			SB-11-30'	G	30			
4.1			SB-11-35'	G	35			
					40			T.D. = 40 feet. Boring backfilled with hydrated bentonite chips.

GEOTRANS BZRHOBBS.GPJ LAEWNNO: .3DT 7/6/04

Tanya Akkerman
Signature of Geologist

Signature of Reviewer

ATTACHMENT B

GEOTRANS, INC.

STANDARD OPERATING PROCEDURES: EXCAVATION PRACTICES

This standard operating procedure (SOP) outlines minimum requirements to protect employees who may be exposed to hazards during trenching and excavation activities and to provide general guidance for compliance with Title 29 of the *Code of Federal Regulations* (CFR), Part 1926, Subpart P, "Excavations."

Project managers shall ensure that all excavation, shoring, and trenching activities are conducted in accordance with the requirements outlined in this document and Subpart P of 29 CFR 1926. Project managers must also ensure that projects involving trenching and excavation are staffed by an individual capable of performing "competent person" duties as described in this procedure.

The site safety coordinator (SSC) is responsible for on-site enforcement of this SOP. Definitions and procedures used for excavations are discussed below.

1.0 DEFINITIONS

The following definitions apply to this SOP:

Benching: Forming one or a series of horizontal levels or steps in the sides of an excavation to protect employees from cave-ins

Competent Person: One capable of identifying existing or predictable hazards in the work environment that are unsanitary or dangerous to employees and who has authorization to take prompt corrective measures to eliminate the hazards

Excavation: Any manmade cut, cavity, trench, or depression in an earth surface formed by earth removal

Shoring: Metal, hydraulic, mechanical, or timber system that supports the sides of an excavation and that is designed to prevent cave-ins

Sloping: Sloping the sides of an excavation at an incline away from the excavation to protect employees from cave-ins

Trench: A narrow excavation (in relation to its length) that is usually deeper than it is wide but less than 15 feet wide

2.0 PROCEDURES

Described below are the general safety requirements and protective system requirements for trenching and excavation activities.

2.1 GENERAL SAFETY REQUIREMENTS

General safety requirements that must be in place before work begins are as follows:

- Utility companies or a utilities locating service in the area must be notified **before excavation or trenching activities begin** to arrange for locating and protecting underground utilities.
- Access to trenching areas must be controlled and limited to authorized personnel. Prior to entering a trench or excavation, workers must notify the project manager, SSC, and nearby equipment operators whose activities could affect the trench or excavation.
- No person may enter a trench or work at the foot of the face of an excavation until a qualified, competent person has inspected the excavation and determined whether sloping or shoring is required to protect against cave-in or subsidence and the appropriate protection has subsequently been installed.
- Trenches and excavations must be assessed by a qualified, competent person, even in the absence of working personnel, whenever heavy equipment will be operating nearby in order to ensure that the trench or excavation will support the weight of the equipment without subsistence or causing the accidental overturning of machinery.
- Trenches and excavations must be inspected regularly (daily at a minimum) to ensure that changes in temperature, precipitation, shallow groundwater, overburden, nearby building weight, vibration, or nearby equipment operation have not caused weakening of the sides, faces, and floors and to ensure that personnel protection is being maintained.
- When subsidence or tension cracks are apparent anywhere in an excavation, all work should be stopped until the problem is corrected.
- The competent person must inspect trenches or excavations after any precipitation event to ensure integrity has been maintained.
- Sufficient ramps or ladders must be provided in excavations 4 or more feet deep to allow quick egress. Ramps or ladders may be placed no more than 25 feet apart, must be secured from shifting, and must extend at least 3 feet above the top of the trench or excavation. Structural ramps must be designed by a competent person.
- Material removed from an excavation or trench must be placed far enough from the edge (at least 2 feet) to prevent it from sliding into the excavation or trench or from stressing the trench or excavation walls. Worker protection must also be provided from loose rock or soil on the excavation faces.

- If trenches or excavations are near walkways or roadways, guards or warning barriers must be placed to alert pedestrians and drivers of the presence of the trench or excavation.

- If possible, trenches or excavations should be covered or filled in when unattended. Otherwise, strong barriers must be placed around the trench or excavation and lighting must be provided at night if the trench or excavation is near a walkway or roadway.

- When a hazardous atmosphere could exist, the excavation must be tested for appropriate hazardous substances and oxygen level before personnel entry. Excavation where hazardous atmospheres exist must be treated as a confined space. Entry must follow procedures outlined in "Confined Spaced Entry Program," Document Control No. 2-5.

- Entry is not allowed into excavations where water has accumulated.

2.2 PROTECTIVE SYSTEM REQUIREMENTS

Protective systems protect employees from cave-ins, material that could fall in or roll off the face of the excavation, and collapse of adjacent structures. Protective systems include shoring, shielding, sloping and benching, and other systems. Sloping and benching and shoring system requirements are described below.

2.2.1 Sloping and Benching Requirements

Sloping and benching system construction must follow the guidelines established in Appendix B to Subpart P of 29 CFR 1926. Maximum allowable slopes for excavations are summarized below. All slopes indicated are expressed as the ratio of horizontal distance (H) to vertical rise (V).

Soil or Rock Type	Maximum Allowable Slope (H:V) for Excavations Less than 20 Feet Deep
Stable Rock	Vertical (90°)
Type A	0.75:1 (53°)
Type B	1:1 (45°)
Type C	1.5:1 (34°)

Soil types are defined in Appendix A to Subpart P of 29 CFR 1926 and are summarized below.

Type A: Cohesive soils with an unconfined compression strength of 1.5 tons per square foot (ton/ft^2) or greater (such as clay, silty clay, sandy clay, or clay loam)

Type B: Cohesive soils with an unconfined compression strength of greater than 0.5 but less than 1.5 ton/ft^2 (such as angular gravel, silt, silt loam, or sandy loam)

Type C: Cohesive soils with an unconfined compression strength of less than 0.5 ton/ft^2 (such as gravel, sand, loamy sand, submerged soil, or unstable submerged rock)

Sloping and benching for excavations greater than 20 feet deep must be designed by a registered professional engineer.

Soil types must be determined by the competent person using at least one visual and one manual test. Manual tests include plasticity, dry strength, thumb penetration, and drying tests.

2.2.2 Shoring System Requirements

Appendixes C, D, and E to Subpart P of 29 CFR 1926 outline requirements for timber shoring for trenches, aluminum hydraulic shoring for trenches, and alternatives to timber shoring, respectively. Guidelines for shoring systems are listed below.

- If it is not economically feasible or there are space restrictions to prevent cutting the trench or excavation walls back to a safe angle of repose, all trenches or excavations 5 feet deep or more must be shored.
- Shoring should be erected as trenching or excavation progresses and as closely as possible to the excavation floor.
- Shoring timber dimensions must meet the minimum timber requirements specified in Tables C1.1 through C1.3 of Appendix C to Subpart P 29 CFR 1926. Aluminum hydraulic shoring must be constructed using the guidelines and dimension requirements specified in Appendix D of the same standard.
- Trench shields may be used instead of shoring or bracing. Shields must be constructed of steel flat sides welded to a heavy framework of structural pipe. Shields should be moved along by the excavator as trenching or excavation proceeds.

GEOTRANS, INC.

STANDARD OPERATING PROCEDURES: GENERAL SAFE WORK PRACTICES

To prevent injuries and adverse health effects, the following general standard operating procedures (SOPs) are to be followed when conducting work involving known and unknown site hazards. These SOPs establish a pattern of general precautions and measures for reducing risks associated with hazardous site operations. This list is not inclusive and may be amended as necessary.

- Do not eat, drink, chew gum or tobacco, take medication, or smoke in contaminated or potentially contaminated areas or where the possibility for the transfer of contamination exists.
- Wash hands and face thoroughly upon leaving a contaminated or suspected contaminated area. A thorough shower and washing must be conducted as soon as possible if excessive skin contamination occurs.
- Avoid contact with potentially contaminated substances. Do not walk through puddles, pools, mud, or other such areas. Avoid, whenever possible, kneeling on the ground or leaning or sitting on drums, equipment, or the ground. Do not place monitoring equipment on potentially contaminated surfaces.
- Remove beards or facial hair that interfere with a satisfactory qualitative respirator fit test or routine pre-entry positive and negative pressure checks.
- Be familiar with and knowledgeable of and adhere to all instructions in the site-specific health and safety plan (HASP). At a minimum, a safety meeting will be held at the start of each project to discuss the HASP. Additional meetings will be held, as necessary, to address new or continuing safety and health concerns.
- Be aware of the location of the nearest telephone and all emergency telephone numbers.
- Attend a briefing on the anticipated hazards, equipment requirements, SOPs, emergency procedures, and communication methods before going on site.
- Plan and delineate entrance, exit, and emergency escape routes.
- Rehearse unfamiliar operations prior to implementation.
- Use the "buddy system" whenever respiratory protection equipment is in use. Buddies should establish hand signals or other means of emergency communication in case radios break down or are unavailable.
- Buddies should maintain visual contact with each other and with other on-site team members by remaining in close proximity in order to assist each other in case of emergency.

- Minimize the number of personnel and equipment in contaminated areas (such as the exclusion zone). Nonessential vehicles and equipment should remain within the support zone.
- Establish appropriate support, contamination reduction, and exclusion zones.
- Establish appropriate decontamination procedures for leaving the site.
- Immediately report all injuries, illnesses, and unsafe conditions, practices, and equipment to the site safety coordinator (SSC).
- Maintain a portion of the site field logbook as a project safety log. The project safety log will be used to record the names, entry and exit dates, and times on site of all GeoTrans, subcontractor, and project site visitor personnel; air quality and personal exposure monitoring data; and other information related to safety matters. Form SSC-1, Daily Site Log, may be used to record names of on-site personnel.
- A portable eyewash station should be located in the support zone if chemical splashes to eyes are possible.
- Do not bring matches and lighters in the exclusion zone or contamination reduction zone.
- Observe coworkers for signs of toxic exposure and heat or cold stress.
- Inform coworkers of nonvisual effects of illness if you experience them, such as headaches, dizziness, nausea, or blurred vision.

GEOTRANS, INC.

STANDARD OPERATING PROCEDURES:

OIL AND PETROLEUM DISTILLATE FUEL PRODUCT HAZARDS

This safe work practice (SOP) establishes minimum procedures for protecting GeoTrans personnel against the hazardous properties of oil and petroleum distillate fuel products during the performance of field work, including known and suspected releases of such materials. The SOP was developed to enable health and safety personnel and project managers to quickly prepare and issue site-specific health and safety plans (HASP) for investigations of such releases. A completed short form HASP and this SOP can comprise a site-specific HASP for sites where oil and petroleum distillate fuel products may be encountered. Forms HSP-3A and HSP-3B in Volume III, "Forms," should be used as checklists for site preparation activities. These forms should be attached to the HASP. Safety procedures for drilling, trenching, and other construction operations should be attached as necessary. Anticipated physical hazards associated with site activities should be discussed in the HASP.

This SOP must not be used for confined space entry (including trench entry) or for installing or operating full-scale fuel recovery systems. The applicability of this SOP, hazard evaluation, health and safety requirements, air monitoring, area controls, decontamination, emergency response, and accident reporting associated with work involving oil and petroleum distillate fuel products are discussed below.

1.0 APPLICABILITY

This SOP is applicable to field investigations involving any of the substances listed below and involving any of the activities listed below.

SUBSTANCES

- Motor oil (used and unused)
- Leaded and unleaded gasoline
- Fuel oil No. 1 (kerosene and JP-1)
- Fuel oil No. 1-D (light diesel)
- Fuel oil No. 2 (home heating oil)
- Fuel oil No. 2-D (medium diesel)
- Fuel oil No. 4 (residual fuel oil)
- Fuel oil No. 5 (residual fuel oil)
- Fuel oil No. 6 (Bunker C fuel oil)

- JP-3, JP-4, and JP-5 (Jet fuels)
- Gasohol

ACTIVITIES

- Collection of subsurface soil samples using a truck-mounted drill rig, hand-held power auger, or hand auger
- Construction, completion, and testing of groundwater monitoring wells
- Collection of groundwater samples from new and existing wells
- Observation of removal of underground fuel pipes and USTs
- Small-scale removal of contaminated soils

2.0 HAZARD EVALUATION

Oil and petroleum distillate fuel products are mixtures of aliphatic and aromatic hydrocarbons. The predominant classes of compounds in motor oil, gasoline, kerosene, and jet fuels are paraffins (such as hexane and octane), naphthenes (such as cyclohexane), and aromatics (such as benzene and toluene). For example, gasoline contains about 80 percent paraffins, 6 percent naphthenes, and 14 percent aromatics. Kerosene and jet fuels contain 42 to 48 percent paraffins, 36 to 68 percent naphthenes, and 16 to 20 percent aromatics. Diesel fuels and heating oils contain 14 to 23 percent naphthenes, 68 to 78 percent nonvolatile aromatics, and less than 10 percent paraffins. Heavier fuels contain almost no volatile aromatic compounds. Chemicals may be added to automotive and aviation fuels to improve their burning properties. Examples are tetraethyl-lead and ethylene dibromide. Flammability, toxicity, and exposure limits of oil and petroleum distillate fuel products are discussed below.

2.1 FLAMMABILITY

Oil and petroleum distillate fuel products possess two intrinsic hazardous properties—flammability and toxicity. The flammable property of oils and fuels presents a far greater hazard to field personnel than toxicity. Vapors of volatile components of oils and fuels can therefore also be explosive when confined.

Oil and petroleum distillate fuel products will not burn in liquid form. Only the vapors burn and then only if (1) the vapor concentration is between the compound-specific upper explosive limit (UEL) and lower explosive limit (LEL), (2) sufficient oxygen is present, and (3) an ignition source is present. The probability of fire and explosion can be minimized by eliminating any of the three factors needed to produce combustion. Two of the factors, ignition source and vapor concentration, can be controlled in many cases. Ignition can be controlled by the following:

- Open fires and smoking should be prohibited on site.

- Spark arresters should be installed on drill rig engines.
- Engines should be turned off when any compound's LEL is approached.

Vapor concentrations can be reduced by using fans and portable ventilation systems. In fuel storage tanks, vapor concentrations in head spaces can be reduced by introducing dry ice (solid carbon dioxide) into the tank because the carbon dioxide gas displaces combustible vapors and oxygen.

The LELs (in air) of the fuels discussed in this section range from 0.6 percent for JP-5 to 1.4 percent for gasoline. Flash points range from -36 °F for gasoline to greater than 150 °F for fuel oil No. 6. JP-5 has a flashpoint of 140 °F. Although it has a lower LEL than gasoline, JP-5 is usually considered less hazardous than gasoline because its vapors must be heated to a higher temperature to ignite.

2.2 TOXICITY

Oil and petroleum distillate fuel products exhibit relatively minor acute inhalation and dermal toxicity effects. Concentrations of 160 to 270 parts per million (ppm) gasoline vapor have been reported to cause eye, nose, and throat irritation after several hours of exposure. Gasoline vapor concentrations of 500 to 900 ppm can cause irritation and dizziness in 1 hour, and levels of 2,000 ppm or above have produced mild anesthesia in 30 minutes. Most fuels, particularly gasoline, kerosene, and jet fuels, are capable of causing skin irritation after several hours of contact.

Some gasoline additives, such as ethylene dichloride, ethylene dibromide, and tetraethyl and tetramethyl lead, are highly toxic; however, the additives are present in gasoline at low concentrations and their contribution to the overall toxicity of gasoline and other fuels is therefore negligible in most cases.

2.3 EXPOSURE LIMITS

In 1989, the Occupational Safety and Health Administration (OSHA) developed a permissible exposure limit (PEL) of 300 ppm for gasoline. However, this PEL was subsequently vacated. OHSA has also established PELs for individual components, such as benzene. The American Conference of Governmental Industrial Hygienists has established a threshold limit value (TLV) of 300 ppm for gasoline. This TLV takes into consideration the average concentration of benzene in gasoline (1 percent), as well as gasoline's common additives. Oil mist has a PEL of 5 milligrams per cubic meter of air. Exposure limits have been established for some of the other petroleum constituents.

3.0 HEALTH AND SAFETY REQUIREMENTS

This section discusses medical surveillance, training, and personal protective equipment (PPE) requirements for personnel working at sites where oil or petroleum distillate fuel products may be encountered.

3.1 MEDICAL SURVEILLANCE REQUIREMENTS

On-site personnel must participate in a medical surveillance program and be certified by an occupational health physician as being physically fit to wear respiratory protective devices and to perform their assigned field work.

3.2 TRAINING REQUIREMENTS

On-site personnel potentially exposed to site health and safety hazards must successfully complete 40 hours of initial, off-site training and receive a certificate from a course meeting the requirements of Title 29 of the *Code of Federal Regulations* (CFR), Part 1910.120 (e). Supervisory and refresher training must also have been completed, as necessary, for applicable site personnel.

Before field work begins, the site safety coordinator (SSC) will brief all field personnel, including subcontractor employees, on their work assignments and site safety procedures. Each worker must read the site-specific HASP and sign a safety compliance agreement before commencing work. Individuals that refuse to sign the agreement will be prohibited from on-site work.

3.3 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

PPE for work at sites where oil or petroleum distillate fuel products may be encountered is summarized below.

- Chemical-resistant safety boots, such as neoprene or butyl boots with steel toe and shank, must be worn during the performance of work where surface soil is obviously contaminated with oil or fuel, when product quantities of oil or fuel are likely to be encountered, and within 10 feet of operating heavy equipment.

- National Institute for Occupational Safety and Health-approved full- or half-face respirator with organic vapor cartridges must be worn whenever total airborne hydrocarbon levels in the breathing zone of field personnel reach or exceed a 15-minute average of 11 ppm in summer and 25 ppm in winter. If total airborne hydrocarbons in the breathing zone exceed 100 ppm, work must be suspended, personnel directed to move a safe distance from the source, and the regional health and safety representative (RHSR) or subsidiary health and safety representative (SHSR) or designee consulted.

- Chemical-resistant gloves, such as nitrile or neoprene gloves, must be worn whenever soil or water known or suspected of containing oil or petroleum hydrocarbons is collected or otherwise handled.

- Chemical-resistant coveralls, such as Saranex or polyethylene-coated Tyvek coveralls, must be worn whenever product quantities of oil or fuel are actually encountered and when oil- or fuel-saturated soil is handled.

- Splash-proof safety goggles or glasses with full side shields must be worn when working within 10 feet of any operating heavy equipment (such as a drill rig or backhoe). Splash-proof goggles or face shields must also be worn whenever product quantities of oil or fuel are encountered.

- Hard hats must be worn when personnel work with or in the vicinity of an operating drill rig, backhoe, or other heavy equipment.

Operators of some sites such as refineries often require all personnel working within site boundaries to wear certain specified safety equipment. Such requirements shall be strictly observed by GeoTrans personnel and subcontractors.

4.0 AIR MONITORING

Air monitoring shall be performed to protect field personnel and prevent fires or explosions. Monitoring must be performed by individuals trained in the use and care of the monitoring equipment. Instruments used on site must be maintained and calibrated in accordance with manufacturer requirements. Instrument manuals with calibration instructions shall be transported to each site along with the instrument. The following equipment is required for monitoring for oil or petroleum distillate vapors:

- Organic vapor monitor using flame ionization or photoionization technology
- Combustible gas indicator (CGI)

During drilling operations, vapor emissions from boreholes must be measured whenever the auger is removed from the boring and whenever flights are added or removed from hollow-stem augers. This requirement does not apply to borings less than 5 feet deep and borings of any depth drilled to install monitoring wells in soil known to be uncontaminated. Measurements should first be made with an organic vapor monitor and then with a CGI if vapor levels exceed the highest concentration measurable with the organic vapor monitor. (For example, if the organic vapor monitor goes off the scale when set on the highest range.)

Initially, measurements shall be made about 12 inches from the borehole at both upwind and downwind positions. If the total hydrocarbon concentration 12 inches from the borehole exceeds the respirator use action level (11 ppm in summer and 25 ppm in winter averaged over 15 minutes), measurements must be made in the breathing zone of the individual(s) working closest to the borehole. Decisions regarding respiratory protection should be made based on vapor concentrations in the breathing zone.

If total organic vapor concentrations within 12 inches of the borehole exceed the capacity of the organic vapor monitor, a CGI must be used to determine if explosive conditions exist. If combustible gas concentrations reach 5-10 percent of the LEL, continuous monitoring is required and operations may proceed with caution. If combustible gas concentrations reach 10 percent of the LEL within a 12-inch radius of the borehole or 5 percent of the LEL at a distance greater than 24 inches from the borehole, operations must be suspended, the drill rig motor shut down, and corrective action taken. If corrective action cannot be taken, field personnel and all other individuals in the vicinity of the borehole must move to a safe area and the local fire department and project manager must be alerted.

5.0 AREA CONTROLS

Access to hazardous and potentially hazardous areas must be controlled to reduce the possibility of physical injury and chemical exposure to field personnel, site visitors, and the public. A hazardous or potentially hazardous area includes any area where field personnel are required to wear respirators, borings are being drilled with powered augers, or excavation with heavy equipment is being performed.

The boundaries of hazardous and potentially hazardous areas must be identified by cordons, barricades, or emergency traffic cones, depending on conditions. If such areas are left unattended, signs warning of danger and forbidding entry must be placed around the perimeter if the areas are accessible to the public. Trenches and other large holes must be guarded with wooden or metal barricades spaced no further than 20 feet apart and connected with yellow or yellow and black nylon tape not less than 0.75 inch wide. The barricades must be placed no less than 2 feet from the edge of the excavation or hole.

Entry to hazardous areas shall be limited to individuals who must work in these areas. Unofficial visitors must not be permitted to enter hazardous areas while work is in progress. Official visitors should be discouraged from entering hazardous areas but may be allowed to enter only if they agree to abide by the provisions of this document, follow orders issued by the SSC, and are informed of the potential dangers that could be encountered in these areas.

6.0 DECONTAMINATION

A mild detergent and hot water can be used to remove oil and petroleum distillate fuel products from skin. Liquid dishwashing detergent is more effective than hand soap, and hot water is more effective than cold. Mechanic's waterless hand cleaner is recommended for initial cleaning, followed by a detergent and water wash, for removing motor oil and heavier fuel oils (fuel oils No. 4 through 6) that are weathered to an asphaltic condition.

Detergent and hot water should also be used to clean gloves, respirators, hard hats, boots, and goggles. However, if boots do not come clean after washing with detergent and water, a strong solution of trisodium phosphate and hot water can be used. Split-spoon sampling equipment, augers, vehicle undercarriages, and tires should be steam cleaned.

7.0 EMERGENCY RESPONSE

Standard procedures to follow in the event of an emergency involving oil and petroleum distillate fuel products are summarized below. All responses should be coordinated through the designated SSC. First aid should be administered by trained first aid providers.

- In the event of a fire,
    - Stop work, shut off equipment, and evacuate to safe distance (a company vehicle should be kept at a reasonable distance from the work area to prevent fire hazards);

- Contact the fire department and then the appropriate GeoTrans office;
- Keep a safe distance away until emergency services arrive; and
- Do not attempt to fight fires that are not incipient fires

- In the event of an injury or illness,
  - Perform first aid, if possible, and call 911;
  - Do not move the victim if broken bones are suspected unless life is endangered; and
  - If the person is safe to move (has minor cuts or burns), transport the person to the hospital, but if injuries or illness are more serious, arrange for a rescue squad or ambulance.

- In the event of overexposure,
  - Remove the employee (only if there is no danger to rescuers) from the exposure source to a location with fresh air;
  - Contact a rescue squad or ambulance as necessary;
  - Do not continue work until the source of exposure is identified and controlled; and
  - Contact the appropriate GeoTrans office for technical assistance.

- In the event of a hazardous materials accident,
  - Stop equipment and work;
  - Relocate to a safe distance;
  - To the extent possible, determine the source of incident (such as a utility line, gas line, pipeline, or other);
  - Contact the appropriate GeoTrans office; and
  - Do not attempt to backout equipment from an underground utility strike without the guidance of the utility company.

8.0 ACCIDENT REPORTING

All accidents and near misses must be reported within 24 hours to the Project Manager as required by GeoTrans company policy. The Project Manager is responsible for informing the Corporate Health and Safety Officer of the accident and/or near miss on the job site.

GEOTRANS, INC.

STANDARD OPERATING PROCEDURES: USE OF HEAVY EQUIPMENT

Truck-mounted heavy equipment and field trucks are among the types of equipment that may be used during field work. Heavy equipment can present a substantial hazard to workers. General requirements for motor vehicles and material-handling equipment are provided in the Occupational Safety and Health Administration (OSHA) Construction Industry Standards, 29 CFR 1926, Subpart O. The following precautions will be followed when heavy equipment (such as drill rigs, front-end loaders, and backhoes) is in use:

1. Heavy equipment will be inspected by the operator before each work shift. The site safety coordinator (SSC) will ensure compliance with these precautions.

2. Equipment operators will be instructed to report any abnormalities, such as equipment failure, oozing liquids, and unusual odors, to their supervisors or the SSC.

3. Only qualified and licensed personnel will operate heavy equipment.

4. Hard hats, steel-toed boots, and safety glasses or goggles will be worn at all times around heavy equipment. Other personal protective equipment (PPE) specified in the site health and safety plan (HASP) will also be required.

5. Workers will *not* assume that the equipment operator is keeping track of their exact location. Workers will never walk directly behind or to the side of heavy equipment without the operator's knowledge.

6. Workers in close proximity to heavy equipment will maintain visual contact with equipment operators at all times.

7. When an operator must maneuver equipment in tight quarters, the presence of a second person will be required to ensure adequate clearance. If backing is required, two ground guides will be used: one in the direction the equipment is moving, and the other in the operators's normal field of vision to relay signals.

8. All heavy equipment used at a contaminated work site will be kept in the exclusion zone until the work has been completed. Such equipment will then be decontaminated within the designated decontamination area.

9. Hand-signal communications will be established when verbal communication is difficult. One person per work team will be designated to give hand signals to equipment operators.

10. Equipment with an obstructed rear view must have an audible alarm that sounds when the equipment is moving in reverse (unless a spotter guides the operator).

11. Parking brakes will be kept engaged when equipment is not in use.

12. Blades, buckets, dump bodies, and other hydraulic systems will be kept fully lowered when equipment is not in use.

13. Equipment cabs will be kept free of all nonessential and loose items.

14. Seat belts must be present in all vehicles having a rollover protective structure (ROPS).

15. With certain exceptions, all material-handling equipment must be equipped with ROPS.

16. Material-handling equipment that lacks a ROPS will not be operated on a grade unless the grade can safely accommodate the equipment involved.

17. Drilling auger sections and other equipment are extremely heavy. All precautions must be taken before moving heavy equipment. Appropriate equipment must be used to transport heavy equipment.

18. Only chains, hoists, straps, and other equipment that safely aids transport of heavy materials will be used.

19. Proper personal lifting techniques will be used. Workers will lift using their legs, not their backs.

20. A safety barrier will be used to protect workers when tires are inflated, removed, or installed on split rims.

21. An ongoing maintenance program for all tools and equipment must be in place. All tools and moving equipment will be inspected regularly to ensure that parts are secured, are intact, and have no cracks or areas of weakness. The equipment must turn smoothly without wobbling and must operate according to manufacturer specifications. Defective items will be promptly repaired or replaced. Maintenance and repair logs will be kept.

22. Tools will be stored in clean, secure areas to prevent damage, loss, or theft.

23. Workers will not use equipment with which they are not familiar. This precaution applies to heavy as well as light equipment.

24. Loose-fitting clothing and loose, long hair will be prohibited around moving machinery.

25. Workers will make sure that no underground or overhead power lines, sewer lines, gas lines, or telephone lines present a hazard in the work area.

26. All personnel who are not essential to work activities will be kept out of the work area.

27. Workers will be aware of their footing at all times.

28. Workers will remain alert at all times.

ATTACHMENT C

FORM HSP-3

GEOTRANS
LIMITED SCALE SITE
HEALTH AND SAFETY PLAN

1.0 GENERAL INFORMATION

Site/Location: Former Axelson facility, 2703 W. Marland Boulevard, Hobbs, New Mexico

Project #: 2201.019.01

Plan Prepared by: Tanya Akkerman **Date:** August 16, 2004

Hazard Assessment Prepared by: * Keith McIntyre **Date:** August 16, 2004

* I certify that I have assessed the type, risk level and severity of hazards for this project and have selected appropriate personal protective equipment for site personnel.

Plan Reviewed by: Keith McIntyre **Date:** _____

_____

Activity(s): 1) Contact ONE CALL for Lea County, New Mexico (1-800-321-2537).
2) Clean out concrete catch basins inside building and backfill with concrete.
3) Remove top of concrete sludge tank, cleanout tank, and then remove tank.
4) Install two 2-inch diameter monitor wells to 45 feet in depth using an air rotary drill rig.
5) Develop new monitor wells.
6) Have the new monitor wells professionally surveyed to the existing monitor well network.
7) Collect groundwater samples at new monitor wells.

Dates of work: To Be Determined.

GeoTrans personnel: **Signature**

Keith McIntyre * _____

Tanya Akkerman** _____

Jennifer Abrahams*** _____

* Safety coordinator/emergency coordinator
** On-site safety/emergency coordinator and designated First-Aid provider
*** Project Manager/contact

Description of Site: Axelson, Inc. formerly operated a parts and repair shop for submersible oil (rod sucker) pumps at the subject site from 1980 to approximately 1997. The subject site is currently occupied by Reef Chemical, an oil feild chemical storage and supply business. Pump repair activities are not currently conducted at the subject site. The Site layout is presented on the attached Figures.

A soil and groundwater investigation was conducted by GeoTrans at the subject site in June 2001 and April 2004. Four groundwater monitoring wells were installed and two soil borings were completed during the June 2001 investigation. In addition, Naturally Occurring Radioactive Materials (NORM) were present in surface soils. Five additional soil borings were completed at the subject site in April 2004. Grab groundwater samples were collected from the on-site water supply well and the groundwater monitoring wells in April and May 2004. Petroleum hydrocarbons and low concentrations of metals and VOCs were detected in the soil and groundwater at the subject site. In July and August 2004, NORM soil excavation and disposal activities were conducted at the subject site.

Description of Work:

Clean out the concrete catch basins located inside the shop building and backfill with concrete. After breaking and removing the concrete lid on the sludge tank, located south of the existing building, clean out the tank and then remove the concrete sidewalls and bottom. Excavate TPH impacted soil south of the building and in the vicinity of the concrete sludge tank to 25 to 35 feet in depth (east to west trend in depth). The excavated soil will be disposed in accordance with local and state regulations. Place Oxygen Release Compound (ORC) in the bottom of the excavation at the vadose zone prior to backfilling and compacting the excavation area.

Two replacement groundwater monitoring wells will be installed in the excavation area after completion of the backfilling and compaction activities. The replacement wells will be developed and surveyed prior to being sampled. Development and purge water will be temporarily stored in labeled, 55-gallon drums stored at the subject site.

Types of hazardous material: Petroleum hydrocarbons, low concentrations of metals in soil and groundwater and low concentrations of VOCs in soil and groundwater. See attached Tables for existing data.

Major safety/health hazards/risks:

1) Underground utilities.
2) Excavation equipment, sloping, and shoring activities.
3) Physical hazards associated with the air rotary drill rig.
4) On-site traffic associated with the haul trucks for the excavated soil.
5) On-site traffic associated with the heavy equipment for the excavation.

2.0 SAFETY PLAN

Protective Equipment/Instruments (specify type, as necessary)

Hard hat:	X	Boots:	X	Glasses (type): Safety	X
Suits:		Respirator:	X	First aid kit:	X
OVM:	X	CGI:		Hearing Protectors:	X

Detector tubes: _____

Safety Equipment Levels/Upgrades: Level D: steel-toed boots, hearing protection, safety glasses, hard hat, and gloves. Level C: add full- or half-face respirator with organic vapor and HEPA cartridge, and Tyvek.

Monitoring Requirements: Monitor perimeter of the excavation with OVM every 60 minutes, or if obvious odors are noted by personnel. Monitor breathing zone of personnel working inside the excavation with OVM every 30 minutes, or if obvious odors are noted by personnel. Upgrade to Level C if OVM detects 25 ppm for 15 minutes, or if personnel notice obvious chemical odors; in such a case contact Project Manager (Jennifer Abrahams) to confirm whether to continue with work. Cartridges will be changed and replaced with new cartridges on a daily basis in accordance with California Code of Regulations Title 8, Section 5218 (G: Respiratory Protection). Continue monitoring. Stop work and move away from source if level in breathing space exceeds 100 ppm. Contact Health & Safety Officer and Project Manager.

Monitoring Instruments: Organic Vapor Monitor (OVM).

Action Levels for Upgrades:	**Level of Protection:**
OVM Concentration in breathing zone: 25 ppm for 15 minutes	Upgrade to Level C; call PM
OVM Concentration in breathing zone: 100 ppm	Stop work, move out of source area.

Decontamination/Work Zone Requirements: A work zone and decontamination zone will be established at the site prior to performing excavation activities. After completing excavation and backfilling activities, decontaminate the excavation equipment by steam cleaning.

Decontaminate drilling equipment between borings by steam cleaning or washing with Alconox (or equivalent) and rinsing with clean water. Soil cuttings will be placed in 55-gallon drums, labeled,

and stored at the former Axelson facility. Dispose of contaminated personal protective equipment by placing in a 55-gallon drum.

Calibration Procedures: Calibrate OVM daily according to manufacturers specifications.

3.0 EMERGENCY PLANNING

Emergency Phone Numbers

Lea Regional Medical Center
3320 N. Dal Paso Street, Hobbs, New Mexico 88240
(505) 392-3314 or 911

Local Fire Department: 911

Local Police Department: 911

National Poison Control Center: (800) 222-1222

GeoTrans Rancho Cordova Office (916) 853-1800

Subcontractor: Eades Drilling and Pump Service (well installation subcontractor)
Phone Number: (505) 392-2457

Subcontractor: Basin Surveys (well surveying subcontractor)
Phone Number: (505) 393-7316

Excavation subcontractor to be determined at a later date.

Note: Map of route to hospital must be attached.

Directions to Hospital (approximately 6 miles away from site):

1. Turn right (east) on W. Marland Boulevard.
2. Turn left (north) at N. Morris Street.
3. Travel north on N. Morris Street (name changes to E. Glorietta Dr. and Dal Paso Street).
4. Hospital located at 3320 N. Dal Paso Street.

4.0 ATTACHMENTS

X Site Map	____ Heat Stress
X Site Standard Safety Operating Procedures	____ Cold Stress
X Route to Hospital	X Drill Rig Safety Procedures
X Chemical Hazard Information	____ UST Removal Safety Checklists
X Site Safety Plan Acknowledgment Form	____ Trenching Procedures

X Health & Safety Guidelines for Field Activities Involving Petroleum Distillate Products

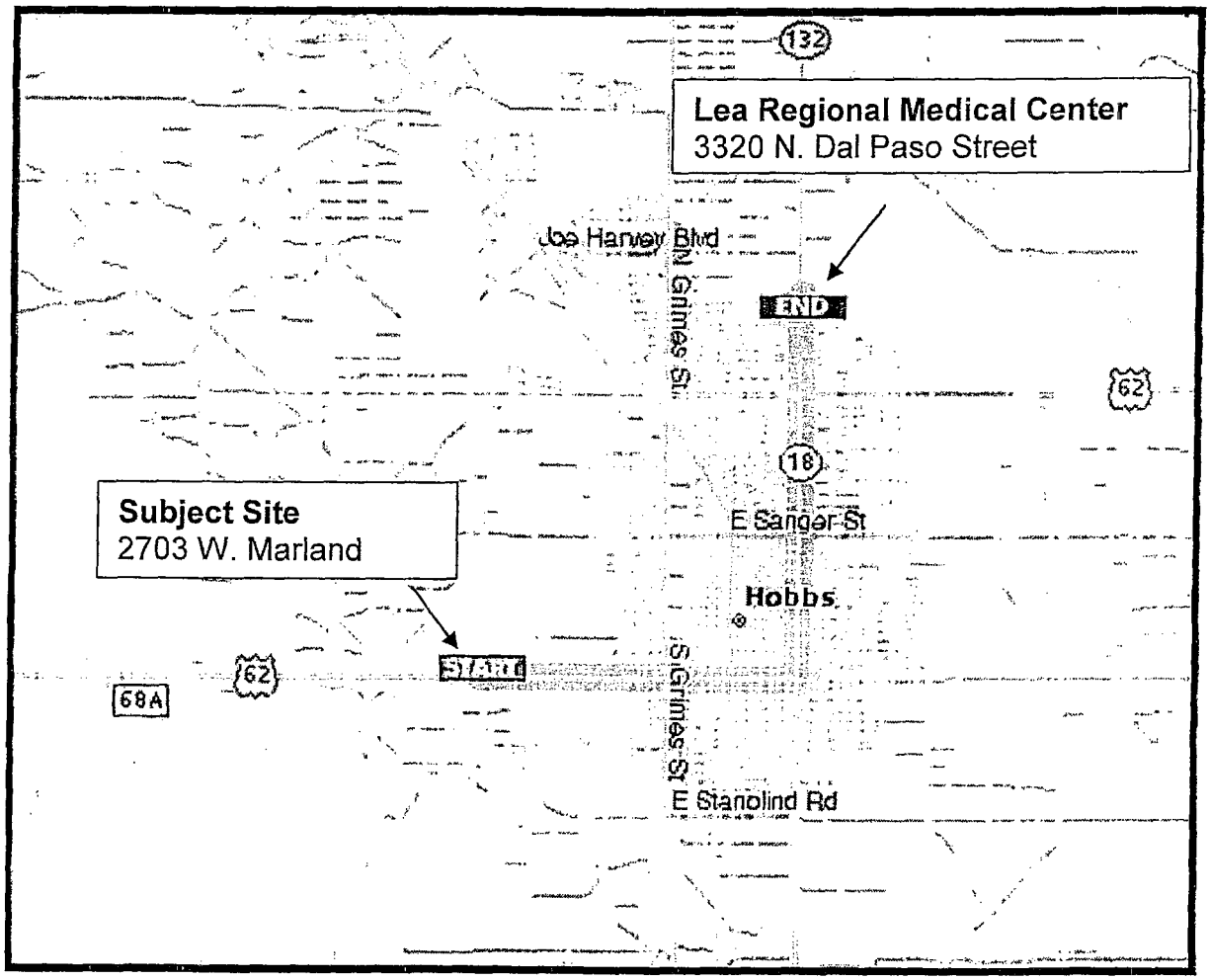
X Standard Operating Procedures for Excavation Activities

HOSPITAL ROUTE MAP

Lea Regional Medical Center (505) 392-3314 or 911

3320 N. Dal Paso Street

Hobbs, New Mexico



Directions to Hospital: Drive east on W. Marland Boulevard. Turn left on N. Morris Street. Street names changes to E. Glorietta Drive and then Dal Paso Street. Hospital is located at 3320 N. Dal Paso Street.

FORM 2
FIELD SAFETY BRIEFING ATTENDANCE SHEET

Date: _____

Location: _____

Presented by: _____

Topics Covered:

HEALTH AND SAFETY PLAN

- Hazardous/Toxic Substances
- On-Site Organization and Coordination
- Emergency Medical Care and Procedures
- Contingency Plan
- Additional Controls for Complex/Hazardous Jobs

SPECIFIC PRECAUTIONS FOR DAY'S ACTIVITIES

OTHER: _____

ATTENDEE LIST

Name (Print)	Company	Signature

New Mexico ONE CALL
LOCATION REQUEST INFORMATION

CALL TOLL FREE

800-321-2537 (Lea County)

TWO WORKING DAYS BEFORE YOU DIG

TICKET NUMBER:

JOB LOCATION & LIMITS:

CITY: CROSS STREET:

COUNTY:

NATURE OF WORK:

WORK DONE FOR:

WORK TO BEGIN: DATE: TIME:

FOREMAN:

CALLER: PHONE:

COMPANY:

ADDRESS:

CITY, STATE, ZIP:

PERMIT: TYPE: NUMBER:

NOTES:

Table 1
Summary of Analyses and Analytical Methods
Former Axelson Facility, Hobbs, New Mexico

April and May 2004

Rationale	Analyses Performed	EPA Method	Soil					Groundwater				
			SB-7	SB-8	SB-9	SB-10	SB-11	MW-4	MW-5	MW-6	MW-7	WSW-1
Site Specific	Total Petroleum Hydrocarbons	8015 Modified	X	X	X	X	X	X	X	X	X	X
WQCC	Total Solids	160.3	X	X	X	X	X	---	---	---	---	---
	Volatile Organic Compounds	8260B	---	---	---	---	---	O	X	X	O	X
	Semi-volatile Organic Compounds	8270C	---	---	---	---	---	O	X	O	O	X
	Polynuclear Aromatic Hydrocarbons	8270 SIM	---	---	---	---	---	O	X	X	X	X
	Total Dissolved Solids	160.1	---	---	---	---	---	X	X	X	X	X
	Total Cyanide	335.2	---	---	---	---	---	O	O	O	O	X
	Flouride	300.0	---	---	---	---	---	X	X	X	X	X
	Nitrate as Nitrogen	300.0	---	---	---	---	---	X	X	X	X	X
	Polychlorinated biphenyls	8082	---	---	---	---	---	O	O	O	O	X
	Radium-226	903.1	---	---	---	---	---	X	X	X	X	X
	Radium-228	904	---	---	---	---	---	X	X	X	X	X
	Dissolved Metals: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, and Uranium	200 / 6000 / 7000 Series	---	---	---	---	---	X	X	X	X	X

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
WSW-1 = Samples collected from former water supply at the former Axelson facility

--- = not applicable
X = analysis performed
O = Approved by OCD to discontinue monitoring based on prior analytical results

Table 2
Summary of Monitor Well Construction Details
Former Axelson Facility, Hobbs, New Mexico

Well	Installation Date	Top of Casing Elevation (ft MSL)	Casing Diameter (inches)	Screen Interval (feet)	As Built Total Depth (feet)
On-site Wells					
MW-1	2/23/1995	3,624.76	2	25-35	35
MW-2	2/23/1995	3,624.34	2	25-35	35
MW-3	2/27/1995	3,623.94	2	25-35	35
MW-4	6/5/2001	3,624.74	2	30-45	45
MW-5	6/5/2001	3,624.46	2	29-44	44
MW-6	6/6/2001	3,623.97	2	30-45	45
MW-7	6/6/2001	3,625.32	2	30-45	45
Former water supply well (WSW-1)	unknown	unknown	7	unknown	53.60*

NOTE: All TOC elevations surveyed by Basin Surveys on June 8, 2001 and April 12, 2004.
Wells MW-1 through MW-3 installed by Environmental Management & Engineering, Inc.
Wells MW-4 through MW-7, KMW-1 and KMW-2 installed by GeoTrans, Inc.

ft MSL = feet Mean Sea Level
* as measured on 4/6/04

Table 3
Summary of Water Level and Flow Direction Data
Former Axelson Facility, Hobbs, New Mexico

Well	Date	Measured Depth to Water (feet)	Measured Depth to Product (feet)	Top of Casing Elevation (ft MSL)	Calculated Groundwater Elevation (ft MSL)	Groundwater Gradient Direction	Groundwater Gradient (ft/ft)	Notes
MW-1	6/9/2001	dry *	—	3624.76	na	—	—	—
	6/11/2001	dry *	—	3624.76	na	—	—	—
	4/6/2004	dry	—	3624.76	na	—	—	very slight petroleum odor
MW-2	6/9/2001	dry *	—	3624.34	na	—	—	—
	6/11/2001	dry *	—	3624.34	na	—	—	—
	4/6/2004	dry	—	3624.34	na	—	—	very slight petroleum odor
MW-3	6/9/2001	34.65**	none	3623.94	na	—	—	—
	6/11/2001	34.65**	none	3623.94	na	—	—	—
	4/6/2004	dry	—	3623.94	na	—	—	no odor
MW-4	6/9/2001	35.35	none	3624.74	3589.39	—	—	—
	6/11/2001	35.36	none	3624.74	3589.38	S52°E	0.0014	—
	4/6/2004	37.64	none	3624.74	3587.10	—	—	mild petroleum odor
	4/15/2004	37.69	none	3624.74	3587.05	S61°E	0.0009	mild petroleum odor
	5/18/2004	37.66	none	3624.74	3587.08	S52°E	0.0011	mild petroleum odor
MW-5	6/9/2001	35.15	none	3624.46	3589.31	—	—	—
	6/11/2001	35.15	none	3624.46	3589.31	S52°E	0.0014	—
	4/6/2004	38.01	—	3624.46	3586.45	—	—	@ 2" free product in well
	4/15/2004	37.51	—	3624.46	3586.95	S61°E	0.0009	@ 2" free product in well
	5/18/2004	38.60	38.55	3624.46	3585.86	S52°E	0.0011	@ 0.5" free product in well
MW-6	6/9/2001	34.62	none	3623.97	3589.35	—	—	—
	6/11/2001	34.63	none	3623.97	3589.34	S52°E	0.0014	—
	4/6/2004	36.99	none	3623.97	3586.98	—	—	no odor
	4/15/2004	36.95	none	3623.97	3587.02	S61°E	0.0009	no odor
	5/18/2004	36.96	none	3623.97	3587.01	S52°E	0.0011	no odor
MW-7	6/9/2001	35.62	none	3625.11	3589.49	—	—	—
	6/11/2001	35.63	none	3625.11	3589.48	S52°E	0.0014	—
	4/6/2004	37.99	none	3625.11	3587.12	—	—	no odor
	4/15/2004	37.94	none	3625.11	3587.17	S61°E	0.0009	no odor
	5/18/2004	37.94	none	3625.11	3587.17	S52°E	0.0011	no odor

NOTE: Depth to water measured from mark or notch at top of well casing.

ft MSL = feet Mean Sea Level
na = not applicable
ft/ft = feet per foot
--- = data not available
* = approximately 0.5" to 2" of thick oily grease in bottom of well (no groundwater present).

Table 4
Summary of Soil Analytical Results
Petroleum Hydrocarbons and Total Solids
Former Axelson Facility, Hobbs, New Mexico

Sample ID	Sample Depth (feet)	TPH-d	TPH-g	TPH-mo	Total Solids (%)
June-01					
SB-1 (MW-4)	5	21	<10	97	94.2
	10	**1,300**	**1,500**	**270**	86.4
	15	**2,400**	**2,300**	**370**	84.6
	20	**6,500**	**7,000**	**470**	85.9
	25	**2,100**	**1,100**	**190**	93.9
	30	**860**	**290**	94	95.1
	35	**1,100**	**490**	**110**	92.4
SB-2 (MW-5)	5	<10	<10	<26	94.8
	10	<11	<11	<28	86.3
	15	<11	<11	<27	89.4
SB-3	5	<11	<11	<26	91.5
	10	<11	<11	<26	92.9
	15	<12	<12	<29	86.2
SB-4	5	<10	<10	<25	97.2
	10	**2,700**	**1,000**	**120**	87.8
	15	**1,000**	**300**	46	89.6
	20	**100**	10	31	97.5
	25	<10	<10	<26	95.3
	30	**630**	**170**	58	95.2
	35	**300**	76	43	88.9
SB-5 (MW-7)	5	<10	<10	<25	95.7
SB-6 (MW-6)	5	<11	<11	<27	92.8
April-04					
SB-7	10	<12	<5.9	<30	82.5
	15	<11	<5.6	<27	88.9
	20	<10	<5.2	<26	95.9
	25	<10	<5.1	<25	97.9
	30	<10	<5.1	<25	95.4
	35	<11	<5.3	<26	94.7
SB-8	10	13	<6.0	<31	81.3
	15	<12	<5.8	<28	85.8
	20	<10	<5.1	<25	96.3
	25	<11	<5.2	<26	96.0
	30	**460**	23	29	96.6
	35	**610**	42	43	94.8

Table 4
Summary of Soil Analytical Results
Petroleum Hydrocarbons and Total Solids
Former Axelson Facility, Hobbs, New Mexico

Sample ID	Sample Depth (feet)	TPH-d	TPH-g	TPH-mo	Total Solids (%)
SB-9	10	**300**	7.1	**210**	91.7
	15	**7,100**	**700**	**510**	87.5
	20	**14,000**	**1,600**	**1,100**	86.4
	25	**1,900**	**180**	**170**	95.3
	30	**2,300**	**240**	**170**	95.2
	35	**750**	83	78	95.4
SB-10	10	**3,900**	81	**360**	86.5
	15	**6,100**	**640**	**130**	88.3
	20	**1,300**	73	46	96.8
	25	**3,300**	**370**	**130**	94.3
	30	**1,000**	82	69	95.4
	35	**1,400**	**250**	**100**	94.4
SB-11	10	<11	<5.5	<27	91.4
	15	<12	<5.5	<28	89.5
	20	<11	<5.6	<28	90.6
	25	<11	<5.3	<26	95.5
	30	<11	<5.2	<26	95.9
	35	<11	<5.3	<26	94.0
NMOCD		100	100	100	—

Note: All results presented as milligrams per kilogram (mg/kg) unless otherwise noted.
Petroleum Hydrocarbons analyzed using EPA Method 8015 Modified.
Total Solids analyzed using EPA Method 160.3 Modified.
Concentrations in bold exceed the NMOCD recommended action level.

NMOCD = New Mexico Oil Conservation Division recommended remediation action level.
TPH-d = Total Petroleum Hydrocarbons as diesel range
TPH-g = Total Petroleum Hydrocarbons as gasoline range
TPH-mo = Total Petroleum Hydrocarbons as motor oil range

Table 5
Summary of Groundwater Analytical Results
Petroleum Hydrocarbons
Former Axelson Facility, Hobbs, New Mexico

Well	Date	TPH-d	TPH-g	TPH-mo
MW-4	Jun-01	**13,000**	**4,500**	2,500
	Apr-04	**1,100**	**470**	370
	May-04	**2,000**	**560**	330
MW-5	Jun-01	**490**	**140**	410
	Apr-04*	**210,000**	**1,900**	19,000
	May-04*	**72,000**	**2,200**	7,400
MW-6	Jun-01	**<100**	**<100**	<260
	Apr-04	**<110**	**<50**	<110
Duplicate	Apr-04	**<110**	**<50**	<110
	May-04	**<110**	**<50**	<110
MW-7	Jun-01	**210**	**110**	380
Duplicate	Jun-01	**170**	**<100**	440
	Apr-04	**<110**	**<50**	<110
	May-04	**<100**	**<50**	110
WSW-1	Apr-04	**<110**	**<50**	150
SNARL	---	100	5	---

Note: Results reported as micrograms per liter (µg/L=ppb)
TPH analyzed using EPA Method 8015 Modified
Concentrations in bold exceed SNARL

TPH-d = Total Petroleum Hydrocarbons as Diesel
TPH-g = Total Petroleum Hydrocarbons as Gasoline
TPH-mo = Total Petroleum Hydrocarbons as Motor Oil
SNARL = EPA Suggested No-Adverse Response Levels

* = free product present in well

Table 6
Summary of Groundwater Analytical Results
BTEX Compounds, VOCs, and SVOCs
Former Axelson Facility, Hobbs, New Mexico

Well	Date	BTEX Compounds	Semi-volatile Organic Compounds (SVOCs)	Volatile Organic Compounds (VOCs)
MW-4	Jun-01	---	nd	nd
	Apr-04	---	na	na
	May-04	Ethyl benzene = 2.4 Total Xylenes = 3.7	na	na
MW-5	Jun-01	---	nd	nd
	Apr-04	---	na	na
(product present in well)	May-04	nd	Naphthalene = **140**; 2-Methylnaphthalene = 400; Dibenzofuran = 13; Fluorene = 17; Bis(2-ethylhexyl) Phthalate = 19	1,1-DCA = 0.87; 1,1,1-TCA = 0.76; PCE = 2.2; Total Xylenes = 0.73; Isopropylbenzene = 5.0; n-Propylbenzene = 9.4; 1,3,5-Trimethylbenzene = 74; 1,2,4-Trimethylbenzene = 210; sec-Butylbenzene = 12; 4-Isopropylbenzene = 13; n-Butylbenzene = 16; Naphthalene = **92**
MW-6	Jun-01	---	nd	1,1,1-TCA = 2.0; 1,2-DCA = **8.0**; PCE = 3.0
	Apr-04	---	nd	1,1,1-TCA = 2.1; 1,2-DCA = 4.1; PCE = 4.3
Duplicate	Apr-04	---	nd	1,1,1-TCA = 2.1; 1,2-DCA = 4.1; PCE = 4.5
	May-04	nd	nd	1,1,1-TCA = 2.2; 1,2-DCA = 3.4; PCE = 4.8
MW-7	Jun-01	---	nd	nd
Duplicate	Jun-01	---	nd	nd
	Apr-04	---	na	na
	May-04	nd	na	na
WSW-1	Apr-04	---	nd	Toluene = 5.8
MRL		Benzene = 0.5 Toluene = 1.0 Ethyl benzene = 1.0 Total Xylenes = 1.0	Naphthalene = 9.8; 2-Methylnaphthalene = 9.8; Dibenzofuran = 9.8; Fluorene = 9.8; Bis(2-ethylhexyl) Phthalate = 9.8	1,1-DCA = 0.5; 1,1,1-TCA = 0.5; 1,2-DCA = 0.5; PCE = 0.5; BTEX = 0.5; Isopropylbenzene = 2.0; n-Propylbenzene = 2.0; 1,3,5-Trimethylbenzene = 2.0; 1,2,4-Trimethylbenzene = 2.0; sec-Butylbenzene = 2.0; 4-Isopropylbenzene = 2.0; n-Butylbenzene = 2.0; Naphthalene = 2.0
WQCC		Benzene = 10 Toluene = 750 Ethyl benzene = 750 Total Xylenes = 620	Naphthalene = 30*; 2-Methylnaphthalene = ---; Dibenzofuran = --; Fluorene = ---; Bis(2-ethylhexyl) Phthalate = ---	1,1-DCA = 25; 1,1,1-TCA = 60; 1,2-DCA = 10; PCE = 20; Total Xylenes = 620; Isopropylbenzene = ---; n-Propylbenzene = ---; 1,3,5-Trimethylbenzene = ---; 1,2,4-Trimethylbenzene = ---; sec-Butylbenzene = ---; Toluene = 750; 4-Isopropylbenzene = ---; n-Butylbenzene = ---; Naphthalene = 30*
MCL		Benzene = 5 Toluene = 1,000 Ethyl benzene = 70 Total Xylenes = 10,000	Naphthalene = ---; 2-Methylnaphthalene = ---; Dibenzofuran = ---; Fluorene = ---; Bis(2-ethylhexyl) Phthalate = ---	1,1-DCA = ---; 1,1,1-TCA = 200; 1,2-DCA = 5; PCE = 5; Total Xylenes = 10,000; Isopropylbenzene = ---; n-Propylbenzene = ---; 1,3,5-Trimethylbenzene = ---; 1,2,4-Trimethylbenzene = 70; sec-Butylbenzene = ---; Toluene = 1,000; 4-Isopropylbenzene = ---; n-Butylbenzene = ---; Naphthalene = ---

Note: All results reported as micrograms per liter (µg/L = ppb). *Only detected analytes listed.*
BTEX Compounds analyzed using EPA Method 8021B
Volatile Organic Compounds analyzed using EPA Method 8260B
SVOCs analyzed using EPA Method 8270C.
Concentrations in bold exceed the WQCC or MCL values.
Most stringent comparison criteria used when both WQCC and MCL values exist.

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
MCL = U.S. EPA Drinking Water Maximum Contaminant Level
MRL = Method Reporting Limit

1,1-DCA = 1,1-Dichloroethane
1,1,1-TCA = 1,1,1-Trichloroethane
1,2-DCA = 1,2-Dichloroethane
PCE = Tetrachloroethene
nd = not detected above the laboratory reporting limit
na = not analyzed
--- = not applicable
* = Total naphthalene plus monomethylnaphthalenes

Table 7
Summary of Groundwater Analytical Results
Polynuclear Aromatic Hydrocarbons
Former Axelson Facility, Hobbs, New Mexico

Well	Date	Naphthalene	2-Methylnaphthalene	Dibenzofuran	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene	Benzo(g,h,i)perylene
MW-4	Jun-01	nd	0.037	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Apr-04	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
	May-04	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
MW-5	Jun-01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Apr-04	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
(product present in well)	May-04	140	490	13	11	7.2	0.82	0.39	0.63	<0.2	0.32	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW-6	Jun-01	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Apr-04	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
Duplicate	Apr-04	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
	May-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-7	Jun-01	nd	nd	nd	nd	0.071	nd	nd	0.026	0.024	0.025	0.057	0.062	0.061	0.03	0.029	0.023
Duplicate	Jun-01	nd	nd	nd	nd	0.07	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Apr-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	May-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
WSW-1	Apr-04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.033	0.031	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
WQCC		30*	—	—	—	—	—	—	—	—	—	—	—	0.7	—	—	—
MCL		—	—	—	—	—	—	—	—	0.1	—	—	—	0.2	—	—	—

Note: All results reported as micrograms per liter (µg/L = ppb). Only detected analytes listed.
Polynuclear Aromatic Hydrocarbons analyzed using EPA Method 8270 SIM
Concentrations in bold exceed the WQCC or MCL values.

— = not available
nd = not detected above laboratory reporting limit
na = not analyzed
* = total naphthalene plus monomethylnaphthalenes

Most stringent comparison criteria listed when both WQCC and MCL values exist.

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
MCL = U.S. EPA Drinking Water Maximum Contaminant Level

Table 8
Summary of Groundwater Analytical Results
New Mexico Water Quality Control Commission Groundwater Standards (WQCC)
Former Axelson Facility, Hobbs, New Mexico

Well	Date	Total Cyanide (mg/L)	Fluoride (mg/L)	Nitrate as Nitrogen (mg/L)	TDS (mg/L)	PCBs (µg/L)	Radium 226 (pCi/L)		Radium 228 (pCi/L)		Total Radium (Ra-226 + Ra-228) (pCi/L)
							Result	Uncertainty	Result	Uncertainty	
MW-4	Jun-01	nd	1.5	7.2	**1,140**	nd	1.55	0.35	2.16	0.58	3.71
	Apr-04	na	1.4	6.5	**1,330**	na	6.34	0.8	0.07	0.3	**6.41**
	May-04	na	1.2	6.9	**1,280**	na	3.43	0.90	2.72	1.0	**6.15**
MW-5	Jun-01	nd	1.6	4.3	**916**	nd	2.42	0.52	3.60	0.84	**6.02**
	Apr-04	na	<1.0	4.0	**1,050**	na	3.78	0.4	5.77	0.7	**9.55**
	May-04	na	1.0	4.0	**1,060**	na	1.97	0.7	7.28	1.0	**9.25**
MW-6	Jun-01	nd	1.5	2.9	**676**	nd	2.06	0.45	2.14	0.57	4.20
	Apr-04	nd	1.3	4.6	**825**	na	2.53	0.4	7.17	0.6	**9.70**
Duplicate	Apr-04	nd	1.4	4.7	**825**	nd	3.07	0.4	4.76	0.6	**7.83**
	May-04	na	1.5	4.8	**885**	na	1.17	0.6	3.64	0.4	4.81
MW-7	Jun-01	nd	**2.2**	8.1	**908**	nd	1.81	0.4	2.39	0.61	4.20
Duplicate	Jun-01	nd	**2.1**	7.7	**800**	nd	2.4	0.52	3.19	0.76	**5.59**
	Apr-04	na	1.5	8.2	**990**	na	4.52	0.8	5.32	0.3	**9.84**
	May-04	na	**1.8**	7.9	**870**	na	2.93	0.7	2.73	0.3	**5.66**
WSW-1	Apr-04	<0.01	<1.0	<0.5	95	<0.4	0.91	0.4	0.41	0.3	1.32
WQCC		0.2	1.6	10	1,000	1.0	---	---	---	---	30 pCi/L
MCL		0.2	4	10	500	---	---	---	---	---	5 pCi/L

Note: All results reported a milligrams per liter (mg/L=ppm) unless noted otherwise.
Concentrations in bold exceed the WQCC or MCL values.

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
MCL = U.S. EPA Drinking Water Maximum Contaminant Level
TDS = Total Dissolved Solids using EPA Method 160.1
PCBs = Polychlorinated biphenyls using EPA Method 8082
Radium-226 analyzed using EPA Method 903.1
Radium-228 analyzed using EPA Method 904

µg/L = micrograms per liter (µg/L = ppb)
nd = not detected at or above the laboratory reporting limit
pCi/L = pico Curies per liter
na = not analyzed
--- = not available

Table 9
Summary of Groundwater Analytical Results
Dissolved Metals
Former Axelson Facility, Hobbs, New Mexico

Well	Date	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Uranium
MW-4	Jun-01	**<100**	55.2	<5.0	<5.0	**<100**	<0.20	<8.0	<10	18.1
	Apr-04	<5.0	59.8	<5.0	<5.0	0.56	<0.20	<8.0	<10	23.1
	May-04	12.2	56.7	<5.0	<5.0	0.59	<0.2	<2.0	<10	23.3
MW-5	Jun-01	**<100**	70.9	<5.0	<5.0	**<100**	<0.20	<8.0	<10	15.3
	Apr-04	<5.0	67.2	<5.0	<5.0	1.39	<0.20	<10	<10	18.8
	May-04	14.5	68.1	<5.0	<5.0	0.94	<0.2	<2.0	<10	20.3
MW-6	Jun-01	**<100**	162	<5.0	<5.0	**<100**	<0.20	<8.0	<10	11.9
	Apr-04	8.4	114	<5.0	<5.0	0.15	<0.20	<10	<10	8.78
Duplicate	Apr-04	8.5	114	<5.0	<5.0	0.10	<0.20	<10	<10	8.63
	May-04	17.7	116	<5.0	<5.0	0.43	<0.2	4.1	<10	9.27
MW-7	Jun-01	**<100**	57.5	<5.0	<5.0	**<100**	<0.20	<8.0	<10	11.3
Duplicate	Jun-01	**<100**	51.6	<5.0	<5.0	**<100**	<0.20	<8.0	<10	10.4
	Apr-04	<5.0	40.7	<5.0	<5.0	0.22	<0.20	<8.0	<10	13.7
	May-04	12.0	42.1	<5.0	<5.0	0.11	<0.2	<2.0	<10	14.8
WSW-1	Apr-04	<5.0	88.1	<5.0	<5.0	0.38	<0.20	<8.0	<10	1.04
WQCC		100	1,000	10	50	50	2.0	50	50	5,000
MCL		50	2,000	5.0	100	15	2	50	50	30

Note: All results reported as micrograms per liter (µg/L = ppb).
Metals analyzed using EPA Method 6010B/7470B/7740/200.8
Concentrations in bold exceed the WQCC or MCL values.
Most stringent comparison criteria listed when both WQCC and MCL values exist.

WQCC = New Mexico Water Quality Control Commission Groundwater Standards
MCL = U.S. EPA Drinking Water Maximum Contaminant Level

Table 10
Summary of Catch Basin Tank Analytical Results
Former Axelson Facility, Hobbs, New Mexico

Date	TPH-d	TPH-g	TPH-mo	Total Solids (%)	Volatile Organic Compounds (VOCs)	Semi-volatile Organic Compounds (SVOCs)	Polynuclear Aromatic Hydrocarbons (PAHs)
Jun-01	110,000	42,000	40,000	54.9	Acetone = 0.11 Methylene Chloride = 0.036 2-Butanone (MEK) = 0.026 Tetrachloroethene (PCE) = 0.01 Carbon Disulfide = 0.0052	Naphthalene = 15 2-Methylnaphthalene = 32 1,2-Dichlorobenzene = 79 Butyl Benzl Phthalate = 6.3 Bis(2-ethylhexyl) Phthalate = 62	na
May-04	24,000	200	10,000	62.6	Toluene = 2.2 Total Xylenes = 10.8 Ethyl Benzene = 1.6 Naphthalene = 14 sec-Butlybenzene = 1.8 n-Butylbenzene = 2.9 1,2-Dichlorobenzene = 1.3 1,2,4-Trimethylbenzene = 9.3 4-Isopropyltoluene = 2.0	Naphthalene = 8.6 2-Methylnaphthalene = 26 Bis(2-ethylhexyl) Phthalate = 6.6	Naphthalene = 23 2-Methylnaphthalene = 69 Acenaphthene = 0.53 Fluorene = 1.2 Dibenzofuran = 1.4 Phenantthrene = 1.7 Anthracene = 0.30 Fluoranthene = 0.34 Pyrene = 1.0 Benzo(b)fluoranthene = 0.22 Benzo(k)fluoranthene = 0.083 Benz(a)anthracene = 0.13 Chrysene = 0.50 Benzo(a)pyrene = 0.19 Indeno(1,2,3-cd)pyrene = 0.21 Benzo(g,h,I)perylene = 0.39

Note: Results reported as milligrams per kilogram (mg/kg=ppm) unless otherwise noted. Only detected analytes listed.
Petroleum Hydrocarbons analyzed using EPA Method 8015 Modified.
Percent Total Solids analyzed using EPA Method 160.3 Modified.
VOCs analyzed using EPA Method 8260B.
SVOCs analyzed using EPA Method 8270C.
Polynuclear Aromatic Hydrocarbons analyzed using EPA Method 8270 SIM

TPH-d = Total Petroleum Hydrocarbons as diesel range
TPH-g = Total Petroleum Hydrocarbons as gasoline range
TPH-mo = Total Petroleum Hydrocarbons as motor oil range
na = not analyzed

NIOSH Pocket Guide to Chemical Hazards

Benzene	CAS 71-43-2
C_6H_6	RTECS CY1400000
Synonyms & Trade Names Benzol, Phenyl hydride	**DOT ID & Guide** 1114 130

Exposure Limits	NIOSH REL: Ca TWA 0.1 ppm ST 1 ppm See Appendix A
	OSHA PEL: [1910.1028] TWA 1 ppm ST 5 ppm See Appendix F

IDLH Ca [500 ppm] See: 71432	**Conversion** 1 ppm = 3.19 mg/m^3

Physical Description
Colorless to light-yellow liquid with an aromatic odor. [Note: A solid below 42°F.]

MW: 78.1	BP: 176°F	FRZ: 42°F	Sol: 0.07%
VP: 75 mmHg	IP: 9.24 eV		Sp.Gr: 0.88
Fl.P: 12°F	UEL: 7.8%	LEL: 1.2%	

Class IB Flammable Liquid: Fl.P. below 73°F and BP at or above 100°F.

Incompatibilities & Reactivities
Strong oxidizers, many fluorides & perchlorates, nitric acid

Measurement Methods
NIOSH 1500, 1501, 3700, 3800; OSHA 12, 1005
See: NMAM or OSHA Methods

Personal Protection & Sanitation Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contaminated Remove: When wet (flammable) Change: No recommendation Provide: Eyewash, Quick drench	**First Aid** (See procedures) Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Important additional information about respirator selection
Respirator Recommendations NIOSH
At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration: (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode/(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus
Escape: (APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister/Any appropriate escape-type, self-contained breathing apparatus

Exposure Routes inhalation, skin absorption, ingestion, skin and/or eye contact

Symptoms Irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude (weakness, exhaustion); dermatitis; bone marrow depression; [potential occupational carcinogen]

Target Organs Eyes, skin, respiratory system, blood, central nervous system, bone marrow

Cancer Site [leukemia]

See also: INTRODUCTION See ICSC CARD: 0015 See MEDICAL TESTS: 0022

NIOSH Pocket Guide to Chemical Hazards

Gasoline

CAS 8006-61-9

RTECS LX3300000

Synonyms & Trade Names
Motor fuel, Motor spirits, Natural gasoline, Petrol [Note: A complex mixture of volatile hydrocarbons (paraffins, cycloparaffins & aromatics).]

DOT ID & Guide
1203 128

Exposure Limits

NIOSH REL: Ca See Appendix A

OSHA PEL†: none

IDLH Ca [N.D.] See: IDLH INDEX

Conversion 1 ppm 2.95 mg/m^3 (approx)

Physical Description
Clear liquid with a characteristic odor.

MW: 72 (approx)	BP: 102°F	FRZ: ?	Sol: Insoluble
VP: 38-300 mmHg	IP: ?		Sp.Gr(60°F): 0.72-0.76
Fl.P: -45°F	UEL: 7.6%	LEL: 1.4%	

Class IB Flammable Liquid: Fl.P. below 73°F and BP at or above 100°F.

Incompatibilities & Reactivities
Strong oxidizers such as peroxides, nitric acid & perchlorates

Measurement Methods
OSHA PV2028
See: NMAM or OSHA Methods

Personal Protection & Sanitation
Skin: Prevent skin contact
Eyes: Prevent eye contact
Wash skin: When contaminated
Remove: When wet (flammable)
Change: No recommendation
Provide: Eyewash, Quick drench

First Aid (See procedures)
Eye: Irrigate immediately
Skin: Soap flush immediately
Breathing: Respiratory support
Swallow: Medical attention immediately

Important additional information about respirator selection
Respirator Recommendations NIOSH
At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration: (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode/(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus
Escape: (APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister/Any appropriate escape-type, self-contained breathing apparatus

Exposure Routes inhalation, skin absorption, ingestion, skin and/or eye contact

Symptoms Irritation eyes, skin, mucous membrane; dermatitis; headache, lassitude (weakness, exhaustion), blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonitis (aspiration liquid); possible liver, kidney damage; [potential occupational carcinogen]

Target Organs Eyes, skin, respiratory system, central nervous system, liver, kidneys

Cancer Site [in animals: liver & kidney cancer]

See also: INTRODUCTION

NIOSH Pocket Guide to Chemical Hazards

Kerosene

CAS 8008-20-6

RTECS OA5500000

Synonyms & Trade Names
Fuel Oil No. 1, Range oil [Note: A refined petroleum solvent (predominantly C9-C16), which typically is 25% normal paraffins, 11% branched paraffins, 30% monocycloparaffins, 12% dicycloparaffins, 1% tricycloparaffins, 16% mononuclear aromatics & 5% dinuclear aromatics.]

DOT ID & Guide
1223 128

Exposure Limits

NIOSH REL: TWA 100 mg/m^3

OSHA PEL: none

IDLH N.D. See: IDLH INDEX

Conversion

Physical Description
Colorless to yellowish, oily liquid with a strong, characteristic odor.

MW: 170 (approx)	BP: 347-617°F	FRZ: -50°F	Sol: Insoluble
VP(100°F): 5 mmHg	IP: ?		Sp.Gr: 0.81
Fl.P: 100-162°F	UEL: 5%	LEL: 0.7%	

Class II Combustible Liquid: Fl.P. at or above 100°F and below 140°F.

Incompatibilities & Reactivities
Strong oxidizers

Measurement Methods
NIOSH 1550
See: NMAM or OSHA Methods

Personal Protection & Sanitation
Skin: Prevent skin contact
Eyes: Prevent eye contact
Wash skin: When contaminated
Remove: When wet or contaminated
Change: No recommendation
Provide: Quick drench

First Aid (See procedures)
Eye: Irrigate immediately
Skin: Soap flush immediately
Breathing: Respiratory support
Swallow: Medical attention immediately

Important additional information about respirator selection

Respirator Recommendations NIOSH

Up to 1000 mg/m^3: (APF = 10) Any chemical cartridge respirator with organic vapor cartridge(s)/(APF = 10) Any supplied-air respirator

Up to 2500 mg/m^3: (APF = 25) Any supplied-air respirator operated in a continuous-flow mode/(APF = 25) Any powered, air-purifying respirator with organic vapor cartridge(s)

Up to 5000 mg/m^3: (APF = 50) Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s)/(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister/(APF = 50) Any powered, air-purifying respirator with a tight-fitting facepiece and organic vapor cartridge(s)/(APF = 50) Any self-contained breathing apparatus with a full facepiece/(APF = 50) Any supplied-air respirator with a full facepiece

Emergency or planned entry into unknown concentrations or IDLH conditions: (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode/(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

Escape: (APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister/Any appropriate escape-type, self-contained breathing apparatus

Exposure Routes inhalation, ingestion, skin and/or eye contact

Symptoms Irritation eyes, skin, nose, throat; burning sensation in chest; headache, nausea, lassitude (weakness, exhaustion), restlessness, incoordination, confusion, drowsiness; vomiting, diarrhea; dermatitis; chemical pneumonitis

(aspiration liquid)
Target Organs Eyes, skin, respiratory system, central nervous system
See also: INTRODUCTION See ICSC CARD: 0663

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GEOTRANS
STANDARD SAFETY
PROCEDURES DURING DRILLING

1) Hard hat, safety glasses or goggles, shirt and full length pants and work shoes/boots are required for all personnel working with or near the rig. Tuck shirts at belt.

2) No eating, drinking or smoking is allowed near the rig if site has known of suspected contamination of soils or ground water.

3) Direct contact with contaminated or suspected contaminated surfaces should be avoided.

4) Tools, materials, cords, hoses or debris should be located so as not to cause tripping or to come into contact with moving rig parts.

5) Tools, materials and equipment subject to displacement or falling must be adequately secured.

6) Flammable materials must be stored free of ignition sources. Flammable liquids must be stored in an approved container.

7) *All underground utility locations must be identified prior to drilling.*

8) Maintain adequate clearance of drill from overhead transmission lines. Minimum clearance is 25 feet unless special permission is granted by utility company. Call local utility company for proper clearance.

9) Loose and frayed clothing, loose long hair, loose jewelry, rings or chains may not be worn while working with rotating equipment.

10) Machinery must be shut down prior to repairs or lubrication (except parts that must be in motion for lubrication).

11) Mechanical equipment must be shut down prior to and during fueling operations. When refueling or transferring fuel, containers/equipment must be bonded.

12) Appropriate respiratory and personal protective equipment must be worn when conditions warrant their use.

13) The drill rig, and any other machinery used, should be inspected daily by a competent, qualified individual.

GEOTRANS, INC.

GENERAL SAFE WORK PRACTICES

To prevent injuries and adverse health effects, the following general standard operating procedure (SOP) are to be followed when conducting work involving known and unknown site hazards. These SOPs establish a pattern of general precautions and measures for reducing risks associated with hazardous site operations. This list is not inclusive and may be amended as necessary.

- Do not eat, drink, chew gum or tobacco, take medication, or smoke in contaminated or potentially contaminated areas or where the possibility for the transfer of contamination exists.
- Wash hands and face thoroughly upon leaving a contaminated or suspected contaminated area. A thorough shower and washing must be conducted as soon as possible if excessive skin contamination occurs.
- Avoid contact with potentially contaminated substances. Do not walk through puddles, pools, mud, or other such areas. Avoid, whenever possible, kneeling on the ground or leaning or sitting on drums, equipment, or the ground. Do not place monitoring equipment on potentially contaminated surfaces.
- Remove beards or facial hair that interfere with a satisfactory qualitative respirator fit test or routine pre-entry positive and negative pressure checks.
- Be familiar with and knowledgeable of and adhere to all instructions in the site-specific health and safety plan (HASP). At a minimum, a safety meeting will be held at the start of each project to discuss the HASP. Additional meetings will be held, as necessary, to address new or continuing safety and health concerns.
- Be aware of the location of the nearest telephone and all emergency telephone numbers.
- Attend a briefing on the anticipated hazards, equipment requirements, SOPs, emergency procedures, and communication methods before going on site.
- Plan and delineate entrance, exit, and emergency escape routes.
- Rehearse unfamiliar operations prior to implementation.
- Use the "buddy system" whenever respiratory protection equipment is in use. Buddies should establish hand signals or other means of emergency communication in case radios break down or are unavailable.

- Buddies should maintain visual contact with each other and with other on-site team members by remaining in close proximity in order to assist each other in case of emergency.

- Minimize the number of personnel and equipment in contaminated areas (such as the exclusion zone). Nonessential vehicles and equipment should remain within the support zone.

- Establish appropriate support, contamination reduction, and exclusion zones.

- Establish appropriate decontamination procedures for leaving the site.

- Immediately report all injuries, illnesses, and unsafe conditions, practices, and equipment to the site safety coordinator (SSC).

- Maintain a portion of the site field logbook as a project safety log. The project safety log will be used to record the names, entry and exit dates, and times on site of all HSI GeoTrans, subcontractor, and project site visitor personnel; air quality and personal exposure monitoring data; and other information related to safety matters. Form SSC-1, Daily Site Log, may be used to record names of on-site personnel.

- A portable eyewash station should be located in the support zone if chemical splashes to eyes are possible.

- Do not bring matches and lighters in the exclusion zone or contamination reduction zone.

- Observe coworkers for signs of toxic exposure and heat or cold stress.

- Inform coworkers of nonvisual effects of illness if you experience them, such as headaches, dizziness, nausea, or blurred vision.

GEOTRANS, INC.

STANDARD OPERATING PROCEDURES: EXCAVATION PRACTICES

This standard operating procedure (SOP) outlines minimum requirements to protect employees who may be exposed to hazards during trenching and excavation activities and to provide general guidance for compliance with Title 29 of the *Code of Federal Regulations* (CFR), Part 1926, Subpart P, "Excavations."

Project managers shall ensure that all excavation, shoring, and trenching activities are conducted in accordance with the requirements outlined in this document and Subpart P of 29 CFR 1926. Project managers must also ensure that projects involving trenching and excavation are staffed by an individual capable of performing "competent person" duties as described in this procedure.

The site safety coordinator (SSC) is responsible for on-site enforcement of this SOP. Definitions and procedures used for excavations are discussed below.

1.0 DEFINITIONS

The following definitions apply to this SOP:

Benching: Forming one or a series of horizontal levels or steps in the sides of an excavation to protect employees from cave-ins

Competent Person: One capable of identifying existing or predictable hazards in the work environment that are unsanitary or dangerous to employees and who has authorization to take prompt corrective measures to eliminate the hazards

Excavation: Any manmade cut, cavity, trench, or depression in an earth surface formed by earth removal

Shoring: Metal, hydraulic, mechanical, or timber system that supports the sides of an excavation and that is designed to prevent cave-ins

Sloping: Sloping the sides of an excavation at an incline away from the excavation to protect employees from cave-ins

Trench: A narrow excavation (in relation to its length) that is usually deeper than it is wide but less than 15 feet wide

2.0 PROCEDURES

Described below are the general safety requirements and protective system requirements for trenching and excavation activities.

2.1 GENERAL SAFETY REQUIREMENTS

General safety requirements that must be in place before work begins are as follows:

- Utility companies or a utilities locating service in the area must be notified **before excavation or trenching activities begin** to arrange for locating and protecting underground utilities.
- Access to trenching areas must be controlled and limited to authorized personnel. Prior to entering a trench or excavation, workers must notify the project manager, SSC, and nearby equipment operators whose activities could affect the trench or excavation.
- No person may enter a trench or work at the foot of the face of an excavation until a qualified, competent person has inspected the excavation and determined whether sloping or shoring is required to protect against cave-in or subsidence and the appropriate protection has subsequently been installed.
- Trenches and excavations must be assessed by a qualified, competent person, even in the absence of working personnel, whenever heavy equipment will be operating nearby in order to ensure that the trench or excavation will support the weight of the equipment without subsistence or causing the accidental overturning of machinery.
- Trenches and excavations must be inspected regularly (daily at a minimum) to ensure that changes in temperature, precipitation, shallow groundwater, overburden, nearby building weight, vibration, or nearby equipment operation have not caused weakening of the sides, faces, and floors and to ensure that personnel protection is being maintained.
- When subsidence or tension cracks are apparent anywhere in an excavation, all work should be stopped until the problem is corrected.
- The competent person must inspect trenches or excavations after any precipitation event to ensure integrity has been maintained.
- Sufficient ramps or ladders must be provided in excavations 4 or more feet deep to allow quick egress. Ramps or ladders may be placed no more than 25 feet apart, must be secured from shifting, and must extend at least 3 feet above the top of the trench or excavation. Structural ramps must be designed by a competent person.
- Material removed from an excavation or trench must be placed far enough from the edge (at least 2 feet) to prevent it from sliding into the excavation or trench or from stressing the trench or excavation walls. Worker protection must also be provided from loose rock or soil on the excavation faces.

- If trenches or excavations are near walkways or roadways, guards or warning barriers must be placed to alert pedestrians and drivers of the presence of the trench or excavation.

- If possible, trenches or excavations should be covered or filled in when unattended. Otherwise, strong barriers must be placed around the trench or excavation and lighting must be provided at night if the trench or excavation is near a walkway or roadway.

- When a hazardous atmosphere could exist, the excavation must be tested for appropriate hazardous substances and oxygen level before personnel entry. Excavation where hazardous atmospheres exist must be treated as a confined space. Entry must follow procedures outlined in "Confined Spaced Entry Program," Document Control No. 2-5.

- Entry is not allowed into excavations where water has accumulated.

2.2 PROTECTIVE SYSTEM REQUIREMENTS

Protective systems protect employees from cave-ins, material that could fall in or roll off the face of the excavation, and collapse of adjacent structures. Protective systems include shoring, shielding, sloping and benching, and other systems. Sloping and benching and shoring system requirements are described below.

2.2.1 Sloping and Benching Requirements

Sloping and benching system construction must follow the guidelines established in Appendix B to Subpart P of 29 CFR 1926. Maximum allowable slopes for excavations are summarized below. All slopes indicated are expressed as the ratio of horizontal distance (H) to vertical rise (V).

Soil or Rock Type	Maximum Allowable Slope (H:V) for Excavations Less than 20 Feet Deep
Stable Rock	Vertical (90°)
Type A	0.75:1 (53°)
Type B	1:1 (45°)
Type C	1.5:1 (34°)

Soil types are defined in Appendix A to Subpart P of 29 CFR 1926 and are summarized below.

Type A: Cohesive soils with an unconfined compression strength of 1.5 tons per square foot (ton/ft^2) or greater (such as clay, silty clay, sandy clay, or clay loam)

Type B: Cohesive soils with an unconfined compression strength of greater than 0.5 but less than 1.5 ton/ft^2 (such as angular gravel, silt, silt loam, or sandy loam)

Type C: Cohesive soils with an unconfined compression strength of less than 0.5 ton/ft^2 (such as gravel, sand, loamy sand, submerged soil, or unstable submerged rock)

Sloping and benching for excavations greater than 20 feet deep must be designed by a registered professional engineer.

Soil types must be determined by the competent person using at least one visual and one manual test. Manual tests include plasticity, dry strength, thumb penetration, and drying tests.

2.2.2 Shoring System Requirements

Appendixes C, D, and E to Subpart P of 29 CFR 1926 outline requirements for timber shoring for trenches, aluminum hydraulic shoring for trenches, and alternatives to timber shoring, respectively. Guidelines for shoring systems are listed below.

- If it is not economically feasible or there are space restrictions to prevent cutting the trench or excavation walls back to a safe angle of repose, all trenches or excavations 5 feet deep or more must be shored.
- Shoring should be erected as trenching or excavation progresses and as closely as possible to the excavation floor.
- Shoring timber dimensions must meet the minimum timber requirements specified in Tables C1.1 through C1.3 of Appendix C to Subpart P 29 CFR 1926. Aluminum hydraulic shoring must be constructed using the guidelines and dimension requirements specified in Appendix D of the same standard.
- Trench shields may be used instead of shoring or bracing. Shields must be constructed of steel flat sides welded to a heavy framework of structural pipe. Shields should be moved along by the excavator as trenching or excavation proceeds.

Attachment 10

Closure Plan and Any Other OCD Compliance Information

Attachment 10

Closure Plan and Any Other OCD Compliance Information

Reef Services, LLC will remove equipment, assess potential adverse impacts to the subject property by on-site operations, and clean-up the property pursuant to an OCD approved workplan.