GW - 40

GENERAL CORRESPONDENCE

YEAR(S):

1996 - 1993

GIANT
REFINING CO.

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

January 25, 1996

Mr. Bill Olson
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco Street
Santa Fe, NM 87505

Dear Bill:

RE: CARBON DISPOSAL

Giant Industries Arizona, Inc. (Giant) requests approval to dispose of activated carbon at our Ciniza Refinery landfarm. The spent carbon was used in treating water associated with the Giant Bloomfield Refinery remediation project. Enclosed are analytical results from recent testing of the media.

Thank you for your consideration. If questions arise, please contact me at (505) 632-4001.

Sincerely,

Tim Kinney
Refinery Remediation Project Manager

/tk
Enclosure
cc: Mike Hardy
Carl Shook
Kim Bullerdick
Jacque Cumbie

ANALYTICA

ENVIRONMENTAL LABORATORY

January 11, 1996

Giant Industries, Inc.
5764 HWY 64
Farmington, NM 87401

Dear Mr. Kinney:

Enclosed are the analytical results for the solid sample received at Analytica Environmental Lab, on December 5, 1995.

Samples were leached according to the Toxicity Characteristic Leaching Procedure (TCLP). Analytical tests were conducted in accordance the EPA 600 Series For The Examination Of Water and Wastes, the 40 CFR, Chapter 1, Part 122, Appendix A, Table II, Environmental Protection Agency, July, 1993, and Test Methods for Evaluating Solid Wastes, SW-846.

If you have any questions or comments concerning any information in this report, please contact me at your convenience.

Sincerely,

Dr. Denise A. Bohemier
Laboratory Manager

807 SOUTH CARLTON • FARMINGTON, NEW MEXICO 87401 • (505) 326-2395

GIANT

Giant Industries, Inc.
5764 Highway 64
Farmington, New Mexico 87401
Phone (505) 632-8006

CHAIN OF CUSTODY

Date: 12-5-95 Page 1 of 1

LABORATORY ADDRESS: Analytica

TELEPHONE ( ) _____ - _____

SAMPLER'S SIGNATURE: Jeany Overman

SAMPLE NUMBER	MATRIX	LOCATION	POLYNUCLEAR AROMATICS 610/8310	HALOGENATED VOLATILES 601/8010	AROMATIC VOLATILES 602/8020	GENERAL WATER CHEMISTRY	VOLATILES 601/8010 VOLATILES 602/8020	BTEX	CONDUCTIVITY	PAH / T.CLIP						NUMBER OF CONTAINERS
9512051030	Charcoal	Filtration System		✓	✓					✓						1

REQUESTED ANALYSIS

PROJECT INFORMATION	
PROJECT:	9834
PROJECT MANAGER:	Tim Kinney
SHIPPING I.D. NO.	
SHIPPED VIA	Hand Carried

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
REC'D GOOD CONDITION/COLD	
CONFORMS TO RECORD	
LABORATORY NUMBER:	

SPECIAL INSTRUCTIONS OR COMMENTS
Return original Chain of Custody to Giant

1004

RELINQUISHED BY: (Signature) 1.	RELINQUISHED BY: (Signature) 2.	RELINQUISHED BY: (Signature)
(Printed Name) Jeany Overman	(Printed Name)	(Printed Name)
(Company) Giant Industries	(Company)	(Company)
DATE AND TIME: 12-5-95 11:45	DATE AND TIME:	DATE AND TIME:
RECEIVED BY: (Signature) 1.	RECEIVED BY: (Signature) 2.	RECEIVED BY: (Signature) 3. LABORATORY
(Printed Name)	(Printed Name)	(Printed Name) Tamara Cashion
(Company)	(Company)	(Company) Analytica
DATE AND TIME:	DATE AND TIME:	DATE AND TIME: 12/5 11:45

san juan repr Form 209-29

ANALYTICA
ENVIRONMENTAL LABORATORY

Volatile Organic Compounds

Giant Industries, Inc.

Project ID:	9834	Report Date:	01/10/96
Sample ID:	9512051030/Filtraton System	Date Sampled:	12/05/95
Lab ID:	2064	Date Received:	12/05/95
Sample Matrix:	Solid	Date Extracted:	12/13/95
		Date Analyzed:	12/27/95

Target Analyte	Concentration (µg/L)
Benzene	**2.7**
Bromoform	< 0.5
Bromomethane	< 1.0
Carbon Tetrachloride	< 0.5
Chlorobenzene	< 0.5
Chlorodibromomethane	< 0.5
Chloroethane	< 1.0
2-Chloroethylvinyl ether	< 1.0
Chloroform	< 0.5
Chloromethane	< 1.0
1,2-Dichlorobenzene	< 0.5
1,3-Dichlorobenzene	< 0.5
1,4-Dichlorobenzene	< 0.5
Dichlorobromoethane	< 0.5
Dichlorodifluoromethane	< 1.0
1,1-Dichloroethane	< 0.5
1,2-Dichloroethane	**0.8**
1,1-Dichloroethene	< 0.5
trans-1,2-Dichloroethene	< 0.5
cis-1,2-Dichloroethene	**0.6**
1,2-Dichloropropane	< 0.5
cis-1,3-Dichloropropene	< 0.5
trans-1,3-Dichloropropene	< 0.5
Ethylbenzene	< 0.5
Methylene Chloride	< 0.5
1,1,2,2-Tetrachloroethane	< 0.5
Tetrachloroethene	< 0.5
Toluene	< 1.0
1,1,1,-Trichloroethane	< 0.5
1,1,2-Trichloroethane	< 0.5
Trichloroethene	< 0.5
Trichlorofluoromethane	< 1.0
Vinyl Chloride	< 1.0

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Trifluorotoluene	108	88 - 110%
	1,4-Dichlorobutane	108	86 - 115%

Reference: 40 CFR, Chapter 1, Part 122, Appendix A, Table II, Environmental Protection Agency, July, 1993.
Method 601/602, EPA 600 Series For The Examination Of Water and Wastes.

ANALYTICA
ENVIRONMENTAL LABORATORY

Polyaromatic Hydrocarbons

Giant Industries, Inc.

Project ID:	9834	Report Date:	01/10/96
Sample ID:	9512051030/Filtraton System	Date Sampled:	12/05/95
Lab ID:	2064	Date Received:	12/05/95
Sample Matrix:	Solid	Date Extracted:	12/21/95
		Date Analyzed:	12/22/95

Target Analyte	Concentration (µg/L)
Acenaphthene	< 2.0
Acenaphthylene	< 2.0
Anthracene	< 2.0
Benzo(a)anthracene	< 3.0
Benzo(a)pyrene	< 4.0
Benzo(b)fluoranthene	< 4.0
Benzo(k)fluoranthene	< 4.0
Benzo(ghi)perylene	< 5.0
Chrysene	< 3.0
Dibenzo(a,h)anthracene	< 5.0
Fluoranthene	< 2.0
Fluorene	< 3.0
Indeno(1,2,3-cd)pyrene	< 5.0
Naphthalene	< 2.0
Phenanthrene	< 2.0
Pyrene	< 3.0
Dibenzofuran	< 2.0
2 - Methylnaphthalene	< 2.0

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	d^5-Nitrobenzene	38	34 - 114%
	2-Flourobiphenyl	38*	43 - 116%
	d^{14}-Terphenyl	29*	33 - 141%

* Out of limits due to matrix effects.

Reference: 40 CFR, Chapter 1, Part 122, Appendix A, Table II, Environmental Protection Agency, July, 1993.
Method 8270, Semivolatile Organic Compounds by GC/MS; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District Office
1235 La Plata Highway
Farmington, New Mexico 87401

IN REPLY REFER TO
25 January, 1996

Mr. Kim Bullerdick
Giant Industries
23733 N. Scottsdale Road
Scottsdale, AZ 85255

Dear Mr. Bullerdick,

BLM wishes to inform Giant that the wells currently in place on Giant-Bloomfield Refinery (GBR)are now in the ownership/control of the Bureau of Land Management (BLM). The contract between Roy F. Weston and the BLM for the Remedial Investigation/Feasibility Study at the Lee Acres Landfill expired March 17, 1995.

In order to continue to comply with the requirements of CERCLA under the EPA Region VI and New Mexico Environmental Department, BLM is requesting access to that section of GBR property for the purpose of complying with the requirements for sampling and remedial activities at the site.

These activities include: plugging and abandonment of wells, sampling and monitoring of existing wells, and installation, development, sampling and monitoring of five (5) new wells.

The BLM wells located on GBR property that have been identified for plug and abandonment include BLM well numbers: 63, 64, 73, 76, 78, and 79. BLM has also agreed to plug GBR well number 18, due to a cracked casing and its questionable integrity.

BLM is also requesting for access to the property to install wells 90 feet north of GBR 17 in an east-west orientation, 60 feet apart, and a well mid-way between GBR wells 32 and 48. These GBR wells have demonstrated characteristics unlike nearby BLM wells, and the completion data for these wells is inconclusive to provide information as to the possible cause for the data variations.

In order to comply with EPA and NMED requirements to prevent violations of CERCLA, BLM is also requesting permission to access the remaining BLM wells for purposes of sampling and monitoring, as has been occurring for the past 10 years.

The currently approved agreement with EPA and NMED requires the installation and monitoring of wells in 1996, sampling in 1996 to occur twice in the first twelve months after installation and development, and once per year for thirty year (as required by CERCLA) after that. This agreement is based on the expectation that no groundwater plume migration occurs. If plume migration does occur in the future, a groundwater remediation system will have to be installed at a location that would remediate the bulk of the plume, which is currently identified beneath GBR wells 48 and 32.

It is BLM's desire to complete the project as described above in a timely manner at to the satisfaction of

EPA and NMED, which the described proposal achieves at this time.

BLM has requested to EPA that any suspected liability that EPA holds for Giant Industries be released by the agreements for access to complete activities for the site. EPA has agreed to pursue alternatives to settle the CERCLA issue on Giant's behalf based on this request, however, the time frame and methods to achieve this goal are approximately two months.

BLM has the opportunity to complete a portion of this work (well plugging) beginning January 30, 1996, and is scheduled to perform well monitoring in April or May. The Bureau is in receipt of the draft access agreement from Giant dated January 24, 1996. Our concern is the expiration date of February 26, and the restraints that exclude monitoring will cause BLM to violate CERCLA requirements, and create non-compliance status for BLM, which will affect Giants possible settlement with EPA as well.

BLM strongly feels that it is in the best interest of both Giant Industries and the Bureau to reach an agreement. We encourage Giant to consider the proposal by BLM for access to the site for the settlement offered by EPA, and allow BLM to continue its program for compliance with CERCLA.

Please call me at 599-6314, if you have any at your earliest convenience

Sincerely,

Stephanie Odell
Lee Acres Project Manager
Farmington District
Bureau of Land Management

cc:
Tim Kinney-GBR
Bert Gorrod-EPA Region VI
Maura Hanning-NMED
Bill Olson-NMOCD

OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico 87505

August 30, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-407

Mr. Timothy A. Kinney
Giant Industries, Inc.
5764 US Highway 64
Farmington, New Mexico 87401

RE: SAMPLING PROGRAM
GIANT BLOOMFIELD REFINERY

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has completed a review of Giant Refining Company's August 14, 1995 "BLOOMFIELD REFINERY SAMPLING PLAN". This document contains Giant's plan to modify the existing ground water monitoring plan related to the remediation of petroleum contaminated ground water at the refinery.

The above requested modification of the refinery's ground water monitoring plan is approved with the following conditions:

1. Monitor wells SHS-4, SHS-6 and GBR-52 will be sampled for aromatic and halogenated volatile organics and major cations and anions on an annual basis.

2. Giant will notify the OCD at least 1 week in advance of all scheduled activities such that the OCD may have the opportunity to witness the events and/or split samples.

3. All original documents submitted to the OCD for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Aztec District Office.

Please be aware that OCD reserves the right to modify the proposed monitoring program if future sampling shows that the plan is not effectively monitoring ground water conditions at the site. In addition, OCD approval does not relieve Giant of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Maura Hanning, NMED Superfund Program
Herbert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington District Office

Z 765 962 407

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PS Form 3800, March 1993

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GIANT
REFINING CO.

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

August 14, 1995

Mr. Bill Olson
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco Street
Santa Fe, Nm 87505

Dear Bill:

RE: BLOOMFIELD REFINERY SAMPLING PLAN

Analytical data from the Bloomfield Refinery, collected under the present sampling plan, indicates a great degree of consistency in results from sampling to sampling. The present frequency of sampling and analysis is providing us with a large volume of what appears to be redundant information. As you are aware, sampling and analytical costs are continually rising.

Due to this redundancy and the expense of ongoing analytical work, Giant Industries is requesting that the sampling plan be modified as noted on the attached matrix. For comparison, the old matrix is also attached.

Thank you for your consideration. We will await your approval or comments prior to instituting any modifications.

Sincerely,

Tim Kinney
Refinery Remediation Manager

/dm
Attachments
cc: Carl Shook-Giant
Kim Bullerdick-Giant
Jacque Cumbie-Giant
Stephanie Odell-BLM
Maura Hanning-EID
Chris Shuey-SWRIC
Valda Terauds-H+GCL
Jim Durrett-SJC
Herbert Gorrod-EPA
Denny Foust-OCD

GIANT INDUSTRIES, INC.
BLOOMFIELD REFINERY

SAMPLE MATRIX

LOCATION	MONTHLY	QUARTERLY	SEMI-ANNUALLY	ANNUALLY
System Influent		601 602 GWC	601 602 GWC	601 602 GWC
System Effluent		601 602 GWC	601 602 GWC	601 602 GWC Metals PAH
GRW-3				601 602 GWC PAH
GRW-6				601 602 GWC PAH
GRW-13				601 602 GWC PAH
GBR-15			601 602	601 602 GWC
GBR-17			601 602	601 602 GWC PAH
GBR-24D			601 602 PAH	601 602 GWC PAH
GBR-30			601 602	601 602 GWC PAH

LOCATION	MONTHLY	QUARTERLY	SEMI-ANNUALLY	ANNUALLY
GBR-31		601 602	601 602	601 602 GWC PAH
SHS-3			601 602	601 602 GWC
SHS-4			601 602	601 602 GWC
SHS-6				601 602 GWC
SHS-10		601 602	601 602	601 602 GWC
SHS-12		601 602	601 602	601 602 GWC
SHS-13		601 602	601 602	601 602 GWC
SHS-14				601 602 GWC
SHS-15			601 602	601 602 GWC
SHS-16		601 602	601 602	601 602 GWC
SHS-17		601 602	601 602	601 602 GWC
SHS-7				601 602 GWC
SHS-9				601 602 GWC

LOCATION	MONTHLY	QUARTERLY	SEMI-ANNUALLY	ANNUALLY
SHS-18				601 602 GWC
GBR-51				601 602 GWC
GBR-52				601 602 GWC
GBR-32			601 602 GWC Metals	601 602 GWC Metals
GBR-48			601 602 GWC Metals	601 602 GWC Metals
GBR-49			601 602 GWC Metals	601 602 GWC Metals
GBR-50			601 602 GWC Metals	601 602 GWC Metals

NOTES: All wells will have water and free product elevations determined on a monthly basis.

Wells exhibiting free product will not be sampled.

GIANT INDUSTRIES, INC.
BLOOMFIELD REFINERY

PROPOSED REDUCED SAMPLE MATRIX

LOCATION	MONTHLY	QUARTERLY	SEMI-ANNUALLY	ANNUALLY
System Influent		601 602 GWC	601 602 GWC	601 602 GWC
System Effluent		601 602 GWC	601 602 GWC	601 602 GWC Metals PAH
GRW-3				601 602 GWC PAH
GRW-6				601 602 GWC PAH
GRW-13				
GBR-15				
GBR-17				601 602 GWC PAH
GBR-24D				601 602 GWC PAH
GBR-30				601 602 GWC PAH

LOCATION	MONTHLY	QUARTERLY	SEMI-ANNUALLY	ANNUALLY
GBR-31				601 602 GWC PAH
SHS-3				601 602 GWC
SHS-4				
SHS-6				
SHS-10				601 602 GWC
SHS-12				601 602 GWC
SHS-13				601 602 GWC
SHS-14				601 602 GWC
SHS-15				601 602 GWC
SHS-16				601 602 GWC
SHS-17				601 602 GWC
SHS-7				601 602 GWC
SHS-9				

LOCATION	MONTHLY	QUARTERLY	SEMI-ANNUALLY	ANNUALLY
SHS-18				601 602 GWC
GBR-51				601 602 GWC
GBR-52				
GBR-32				601 602 GWC Metals
GBR-48				601 602 GWC Metals
GBR-49				601 602 GWC Metals
GBR-50				601 602 GWC Metals

NOTES: All wells will have water and free product elevations determined on a monthly basis.

Wells exhibiting free product will not be sampled.

OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico 87505

July 25, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-381

Mr. Herbert M. Gorrod, 6H-E0
U.S. Environmental Protection Agency
Region 6
1445 Ross Ave., Suite 1200
Dallas, Texas 75202-2733

RE: OCD COMMENTS ON DRAFT FEASIBILITY STUDY
LEE ACRES LANDFILL SUPERFUND SITE

Dear Mr. Gorrod:

The New Mexico Oil Conservation Division (OCD) is in receipt of the Bureau of Land Management's (BLM) draft Feasibility Study (FS) for the Lee Acres Landfill Superfund Site. This document was received by the OCD from BLM on July 10, 1995.

Below you will find limited comments on the draft FS. The OCD's comments on the FS are limited and general in nature due to the lack of time allowed for the OCD to provide comments.

1. Conceptually, the OCD agrees that selected remediation alternatives S-5 and G-5 are potentially viable methods remediation of chlorinated organics, volatile organics and manganese contaminants which have originated from the landfill. It appears that the insitu nature of the proposed remediation system would not have an effect on Giant Refinery's downgradient ground water pump and treat remediation program since there is no net withdrawal of ground water. However, in order to ensure that these techniques do not impact Giant's ground water remediation system, final design of the permeable treatment wall using sheet piling containment will need to consider:

    a. the appropriate permeability of the treatment wall to prevent a reduction in ground water flow rates and prevent ground water from backing up behind and overflowing the wall or an increase in ground water flow rates which could cause turbulent effects immediately downstream of the wall, and;

b. proper location of the treatment wall such that ground water exiting the wall will be within the existing ground water flow pathways and will not create new or preferential ground water flow pathways.

2. Sections 1.2 "Background Summary" and 1.3 "Summary Of Contaminant Nature And Extent" should either be deleted with the reader referred to the Remedial Investigation Report (RIR) or the section should be rewritten for the following reasons:

a. The information in this section is overly cursory and the partial information provided does not appreciably have any value in the selection of a remedial alternative.

b. The conclusions/statements do not accurately reflect all investigation information collected to date, or that collected by BLM during the RI. Some examples include:

i. Recent concentrations of trichloroethene (TCE) are in excess of maximum contaminant levels (MCL) in ground water from monitor well GBR-32. This is contrary to the statements made in these sections.

ii. Chlorinated organics were detected at numerous locations throughout the landfill not "at isolated locations" as stated.

iii. Reference to chlorinated organics and aromatic organics in the fire water storage ponds at Giants Refinery continue despite data that shows that no contaminants are present at this location. Since this is a new document the summary should include all relevant information so that readers will not be given partial or misleading information.

iv. The discussion of chlorinated organics is contradictory. It is implied that waste disposal pits in the area of GBR-32 are the source of organics in the landfill ground water plume despite RI data showing no detectable soil contaminants in this area except in ground water. Other parts state that the plume extending south of the landfill documents "the past migration of lagoon leachate from the landfill".

The OCD apologizes for the brevity and general nature of their comments. The OCD currently has hundreds of active remediation cases which are handled with a small staff. If the EPA wishes to receive detailed input from the OCD on these draft documents and on potential effects of proposed landfill remedial actions on the Giant Bloomfield Refinery ongoing ground water remedial actions, the OCD must be provided the documents in a timely manner and the OCD must be given sufficient time for review. Otherwise, the OCD will reserve their comments for a future date.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Maura Hanning, NMED Superfund Program
Stephanie Odell, BLM Farmington District Office
Timothy Kinney, Giant Industries

OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico 87505

July 24, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-380

Mr. Timothy A. Kinney
Giant Industries, Inc.
5764 US Highway 64
Farmington, New Mexico 87401

RE: BIOVENTING PROJECT
GIANT BLOOMFIELD REFINERY

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has completed a review of Giant Refining Company's June 7, 1995 correspondence and May 1995 "WORKPLAN, BIOVENTING PILOT TEST, GIANT INDUSTRIES ARIZONA, INC., FORMER BLOOMFIELD REFINERY, SAN JUAN COUNTY, NEW MEXICO". This document contains Giant's work plan for a bioventing pilot test project to remediate soils insitu in former contaminant source areas within the refinery.

The above referenced proposal is approved with the following conditions:

1. If nutrients and moisture are to be added to the soils during the project, Giant will submit the compositions and application rates to the OCD for approval prior to implementation.

2. Giant will notify the OCD at least 1 week in advance of all scheduled activities such that the OCD may have the opportunity to witness the events and/or split samples.

3. All original documents submitted to the OCD for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Aztec District Office.

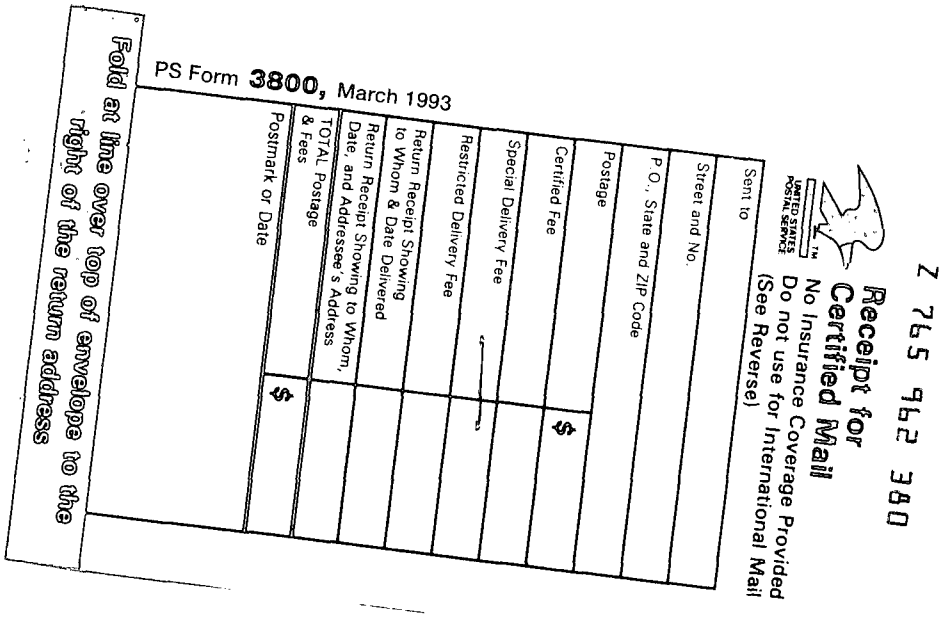
Please be advised that OCD approval does not relieve Giant of liability should the proposed system fail to adequately remediate soil contaminants in the source areas. In addition, OCD approval does not relieve Giant of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Maura Hanning, NMED Superfund Program
Herbert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington District Office



GIANT
INDUSTRIES, INC.

Crude Gathering Operations

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

June 7, 1995

Mr. Bill Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

Dear Bill:

RE: GIANT BLOOMFIELD REFINERY BIOVENTING PROJECT

Enclosed is a proposal for a bioventing pilot test project in the Giant Bloomfield Refinery. Bioventing may represent a technology which will be effective in some of the old source areas within the refinery. As noted in the proposal, the southern diesel spill area has been targeted for this project. With OCD approval, the pilot test could commence as early as the end of June.

Thank you for your consideration of this issue. Please call with any questions or comments.

Sincerely,

Tim Kinney
Project Manager
Bloomfield Refinery Remediation

/tk
Enclosure
cc w/enc: Carl Shook
Kim Bullerdick
Jacque Cumbie
Denny Foust
Valda Terauds
Stephanie Odell
Maura Hanning
Chris Shuey
Herbert Gorrod

GIANT
INDUSTRIES, INC.

Crude Gathering Operations

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

May 8, 1995

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Mr. Olson:

Enclosed you will find the quarterly report for Giant Refining Company's Bloomfield Refinery for the first quarter of 1995.

Please contact me if you have any questions.

Sincerely,

Tim Kinney
Remediation Project Manager

/dm

Enclosure

cc w/enc.: Carl Shook-Giant
Kim Bullerdick-Giant
Jacque Cumbie-Giant
Stephanie Odell-BLM
Maura Hanning-EID
Chris Shuey-SWRIC
Valda Terauds-H+GCL
Jim Durrett-SJC
Herbert Gorrod-EPA
Denny Foust-OCD

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

June 9, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-275

Mr. Timothy A. Kinney
Giant Industries, Inc.
5764 US Highway 64
Farmington, New Mexico 87401

RE: CARBON ADSORPTION UNIT
GIANT BLOOMFIELD REFINERY

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has completed a review of Giant Refining Company's April 25, 1995 "GIANT BLOOMFIELD REFINERY CARBON ADSORPTION UNIT" correspondence for the Giant Bloomfield Refinery near Bloomfield, New Mexico. This document contains Giant's proposal to cease use of the air stripper and to perform water treatment solely with the onsite carbon adsorption unit.

The above referenced proposal is approved.

Please be advised that OCD approval does not relieve Giant of liability should the carbon adsorption system fail to adequately treat ground water to New Mexico Water Quality Control Commission standards. In addition, OCD approval does not relieve Giant of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist

xc: OCD Aztec District Office
Dale Doremus, NMED Superfund Program
Hubert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington District Office

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PS Form **3800**, June 1990

Fold at line over top of envelope to the right of the return address.

Bill Olson

From: Bill Olson
To: Frank Chavez
Cc: Denny Foust
Subject: Giant Bloomfield Refinery
Date: Friday, June 02, 1995 2:53PM
Priority: High

Below is a draft approval letter for Giant's request to modify the water treatment system for ground water cleanup. Please provide me with any comments by 3:00 pm on 6/6/95. Thanks!

DRAFT

June 2, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-275

Mr. Timothy A. Kinney
Giant Industries, Inc.
5764 US Highway 64
Farmington, New Mexico 87401

RE: CARBON ADSORPTION UNIT
GIANT BLOOMFIELD REFINERY

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has completed a review of Giant Refining Company's April 25, 1995 "GIANT BLOOMFIELD REFINERY CARBON ADSORPTION UNIT" correspondence for the Giant Bloomfield Refinery near Bloomfield, New Mexico. This document contains Giant's proposal to cease use of the air stripper and to perform water treatment solely with the site carbon adsorption unit.

The above referenced proposal is approved.

Please be advised that OCD approval does not relieve Giant of liability should operation of this system result in actual pollution of surface water, ground water or the environment. In addition, OCD approval does not relieve Giant of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist

xc: OCD Aztec District Office
Dale Doremus, NMED Superfund Program

Hubert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington District Office

Bill Olson

From: Frank Chavez
Date sent: Monday, June 05, 1995 10:42AM
To: Bill Olson
Subject: Registered: Frank Chavez

Your message
To: Frank Chavez
Subject: Giant Bloomfield Refinery
Date: Friday, June 02, 1995 2:53PM
was accessed on
Date: Monday, June 05, 1995 10:42AM

Bill Olson

From: Denny Foust
Date sent: Tuesday, June 06, 1995 7:59AM
To: Bill Olson
Subject: Registered: Denny Foust

Your message
To: Denny Foust
Subject: Giant Bloomfield Refinery
Date: Friday, June 02, 1995 2:53PM
was accessed on
Date: Tuesday, June 06, 1995 7:59AM

Bill Olson

From: Denny Foust
To: Bill Olson
Subject: RE: Giant Bloomfield Refinery
Date: Tuesday, June 06, 1995 8:02AM

BILL, DO WE WANT TO REFER TO THE ON SITE CARBON ADSORPTION UNIT RATHER THAN "SITE"?

GIANT
INDUSTRIES, INC.

Crude Gathering Operations

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

April 25, 1995

Mr. Bill Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco Street
Santa Fe, NM 87505

Dear Bill:

RE: GIANT BLOOMFIELD REFINERY CARBON ADSORPTION UNIT

Some time ago, Giant Industries AZ, Inc. (Giant), added a carbon adsorption unit to remove semi-volatile organic compounds from the water treatment system effluent. It has proven very successful in this function as indicated by system effluent analyses.

As indicated by current analyses, levels of hydrocarbon contamination have dropped significantly in the air stripper influent. Levels have dropped to the point where it is cost effective for Giant to discontinue operation of the air stripper and perform water treatment solely with the carbon adsorption unit. This will reduce chemical injection and electrical costs significantly. System effluent quality should not be adversely impacted since carbon is very effective in removing the various hydrocarbon constituents found in the refinery effluent stream. Effluent monitoring will continue as per the present approved schedule.

With OCD approval, Giant proposes to discontinue use of the air stripper and treat the system effluent by carbon adsorption. A fresh charge of carbon will be installed so that we can develop an accurate timeline of carbon usage. The existing air stripper system will be left intact should conditions warrant its use in the future.

Thank you for your consideration of this issue. Please call with any questions or comments.

Sincerely,

Tim Kinney

Tim Kinney
Project Manager
Bloomfield Refinery Remediation

tk

cc: Carl Shook-Giant
Kim Bullerdick-Giant
Jacque Cumbie-Giant
Valda Terauds-H+GCL
Stephanie Odell-BLM
Maura Hanning-EID
Chris Shuey-SWRIC
Herbert Gorrod-EPA
Denny Foust-NMOCD
Jim Durrett-SJCA

March 17, 1995

GIANT INDUSTRIES, INC.

Crude Gathering Operations

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

Mr. Bill Olson
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco Street
Santa Fe, NM 87505

Dear Mr. Olson:

RE: ASSESSMENT ON IN SITU BIOLOGICAL TREATMENT DEMONSTRATION AT THE GIANT BLOOMFIELD REFINERY

Enclosed is an assessment prepared by Burlington Environmental for Giant Industries AZ, Inc. referencing the recently completed Biological Treatment Demonstration at the Bloomfield Refinery. As noted in the report, the demonstration was not overwhelmingly successful. The data appears to indicate that the bio activity in the area of the test is limited by availability of oxygen.

In the future, Giant will be investigating other in situ biological enhancements and hopefully develop a program for further pilot projects. Please call with any questions or comments.

Sincerely,

Tim Kinney
Remediation Project Manager

/dm
Enclosure
cc: Carl Shook - Giant
Kim Bullerdick - Giant
Jacque Cumbie - Giant
Valda Terauds - H+GCL
Stephanie Odell - BLM
Maura Hanning - EID
Chris Shuey - SWRIC
Herbert Gorrod - EPA
Jim Durrett - SJC
Denny Foust - NMOCD

BURLINGTON ENVIRONMENTAL

MEMORANDUM

DATE: March 14, 1995 Project 227022

TO: Mr. Tim Kinney, Giant Industries Arizona, Inc.

FROM: Julie Sutfin, Burlington Environmental Inc.
Martin Nee, Burlington Environmental Inc.

SUBJECT: Assessment of In Situ Biological Treatment Demonstration at Giant's Former Bloomfield Refinery

Introduction

Burlington Environmental Inc. (Burlington) is assisting Giant Industries Arizona, Inc. (Giant) with overseeing efforts at stimulating in situ biodegradation of impacted groundwater at their former refinery, by augmenting an existing groundwater pump, treat, and re-infiltration system. Benzene, toluene, ethylbenzene and xylenes (BTEX) are the primary compounds of concern. This memorandum summarizes testing activities during the second quarter of 1994. Giant also conducted a test in the first quarter of 1994. Figure 1 presents a site map that shows the location of the project area, including the infiltration gallery and monitoring wells.

Summary of Operations

1. Began Infiltration of Nutrients June 1, 1994
   Stopped Infiltration of Nutrients July 13, 1994
   Continued Infiltration without Nutrients

2. Total Water Infiltrated = 689,541 gallons
   Infiltration Rate = approximately 11 gallons per minute

3. Residual Nutrients July 21, 1994 (8 days after nutrient injection stopped)
   Ammonia
   - GBR-41 = 0.07 milligrams per liter (mg/L)
   - GBR-20 = <0.1 mg/L
   - RW-9 = 0.15 mg/L

   Total Phosphorus
   - GBR-41 = 0.13 mg/L
   - GBR-20 = <0.02 mg/L
   - RW-9 = 0.07 mg/L

Burlington Environmental Inc.
4000 Monroe Road • Farmington, NM 87401
Phone 505/326-2262 • FAX 505/326-2388

Trends

Trends in analytical results are explained below and on the associated graphs.

GBR-41: Close to Infiltration Gallery

- *Dissolved Oxygen (DO):* Very high before infiltration begins; declines during infiltration; drops off significantly after infiltration is stopped.
- *Total Organic Carbon (TOC):* Starts low; steadily increases during infiltration; remains high after infiltration stopped; generally higher than GBR-20 or RW-9.
- *Total Petroleum Hydrocarbon (TPH):* Starts low and remains below 10 mg/L throughout the test period; slightly higher than RW-9 value; much lower than GBR-20 value.
- *Benzene:* Consistently higher than GBR-20 and RW-9; increases during infiltration; drops off after infiltration stopped.
- *Nutrients:* Initial concentrations are nondetectable; periods of very low concentrations throughout infiltration and after infiltration stops; no real trends.
- *Total Heterotrophic Plate Counts (THPC):* Low initially; increasing during infiltration; drops off significantly when infiltration stopped.

GBR-20: Impacted, Downgradient from Infiltration Gallery

- *DO:* Very high before infiltration begins; declines during infiltration; drops off significantly after infiltration is stopped.
- *TOC:* Initial is low; increases slightly when infiltration begins; drops off slightly when infiltration stops.
- *TPH:* Initial is high; decreases during infiltration; rebounds after infiltration stopped; consistently higher than GBR-41 or RW-9.
- *Benzene:* Trends similar to GBR-41, but at lower concentrations; steadily increasing concentrations during infiltration; concentrations continue to increase at a slower rate after infiltration stops.
- *Nutrients:* Generally low or nondetectable concentrations of nutrients throughout the test period.
- *THPC:* Initial very low; no appreciable increase in counts throughout the test.

RW-9: Slight Impact, Downgradient from Infiltration Gallery

- *DO:* High initial; decreasing throughout infiltration; continuing to decrease after infiltration; generally higher than GBR-41 or GBR-20.
- *TOC:* Low initial; increasing slightly during infiltration; steady after infiltration stopped; lower than either GBR-41 or GBR-20.
- *TPH:* Initial very low; remains constant throughout the test period.
- *Benzene:* Nondetectable initial levels; remains nondetectable throughout infiltration; rises slightly after infiltration is stopped.
- *Nutrients:* Initial is nondetectable; short spikes of concentration throughout infiltration and after infiltration stops; no real trends.
- *THPC:* Initial is low; peaks during infiltration; drops off again during infiltration; remains at initial levels after infiltration is stopped.

Analysis and Recommendations

Generally, good conditions for biodegradation include the following parameter ranges:

- DO greater than 2 mg/L;
- TOC greater than 5 mg/L;
- Ammonia greater than 0.5 mg/L; and
- THPC greater than 1,000 (1.0 e 3) colony forming units/milliliter (CFU/ml).

An increase in bioactivity in wells GBR-41 and RW-9 does show that some biostimulation is occurring. However, bioactivity in well GBR-20 did not increase when infiltration of nutrients began (as it did during the last test period).

Biodegradation at GBR-41 was slow to start and was just beginning to peak when the nutrient infiltration was stopped. Dissolved oxygen concentrations in GBR-41 dropped off rapidly after THPC increased. This reduction in DO indicates that activity in GBR-41 may be oxygen limited. Biodegradation *may* be stimulated in this well with long-term nutrient addition and additional oxygen input.

Biodegradation peaked in RW-9 and fell off rapidly, presumably because RW-9 is only slightly impacted and the food concentrations are low.

The apparent inactivity at GBR-20 is difficult to explain, especially because we saw biostimulation during the last infiltration test. Nutrients did not appear to

reach GBR-20 and may be the cause of low bioactivity. Other unknown conditions may be inhibiting activity at GBR-20.

Trends in TPH and benzene concentrations do not indicate increases in system efficiency. However, since biostimulation in GBR-41 was just beginning at the end of nutrient infiltration, and concentrations at RW-9 began at and remained low, effects may not have been evident during the test period.

Based on these test results, it appears that to stimulate bioactivity consistently, constant infiltration of nutrients is important. However, because of the inconclusive results in GBR-41 and GBR-20, the increase in overall system efficiency due to nutrient feed is uncertain. At this point, it is difficult to predict if nutrient addition will improve system efficiency. If the system were operated with nutrient injection for a longer period of time, overall system efficiency improvements could be assessed. Giant needs to weigh the cost of injecting nutrients for a quarter, versus the benefits of potential increased system efficiency.

Other system enhancements such as air sparging and soil venting may be important options to explore. Adding oxygen to the groundwater system in the form of air is more efficient than adding oxygenated water and may improve biodegradation. In addition, air sparging and soil venting systems can be used to volatilize or strip volatile compounds (like BTEX compounds) from the groundwater into the vapor phase, where they can be discharged directly or adsorbed on carbon.

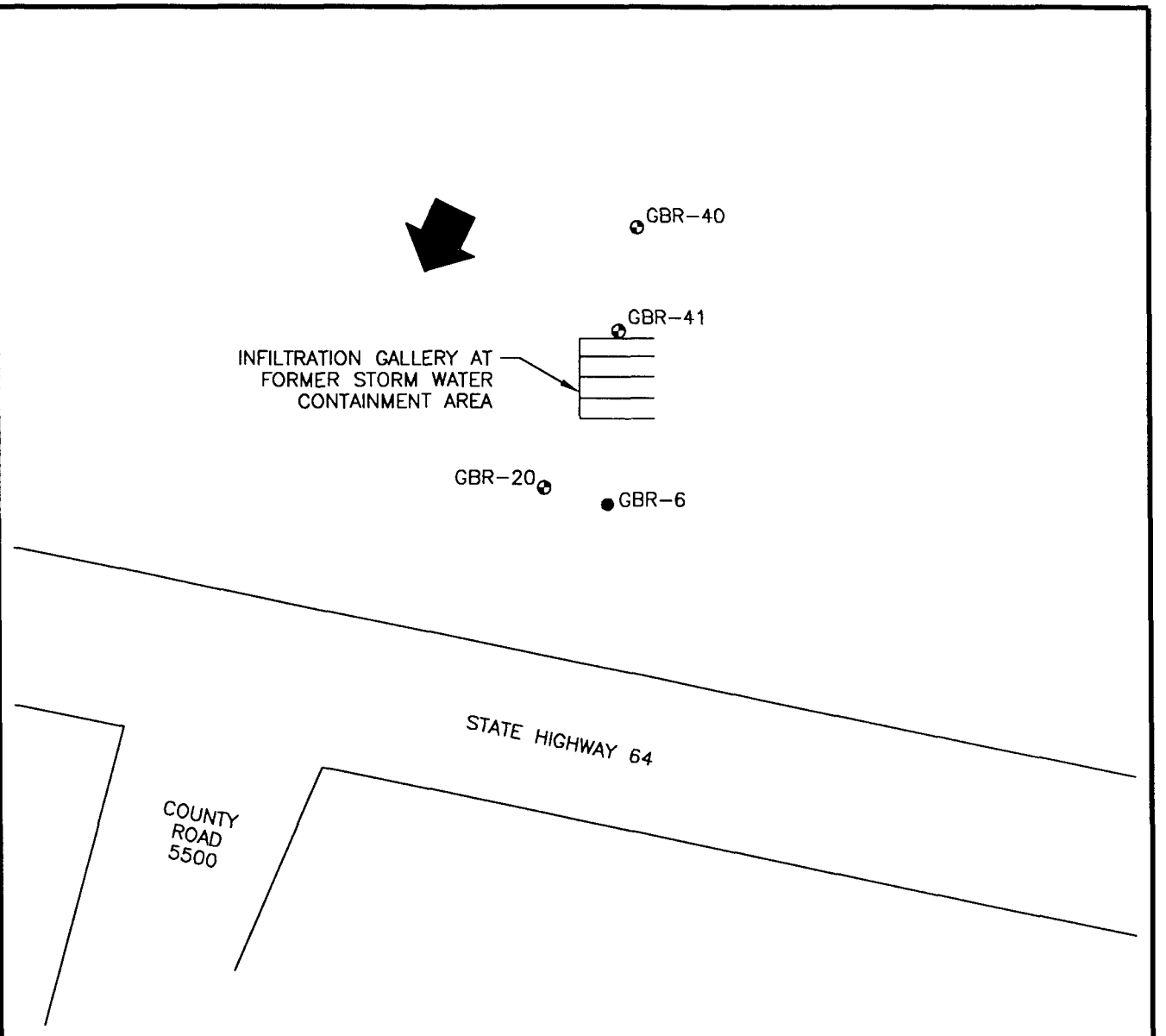
PROJECT MANAGER

DOCUMENT MANAGER

CHECKED BY

DRAWN BY

10204A-001
REV. DATE
8/18/93



EXPLANATION

GBR-20 APPROXIMATE MONITORING WELL LOCATION AND NUMBER

GBR-6 APPROXIMATE RECOVERY/MONITORING WELL LOCATION AND NUMBER

APPROXIMATE DIRECTION OF LOCAL HYDRAULIC GRADIENT

0 200 400

SCALE IN FEET

N

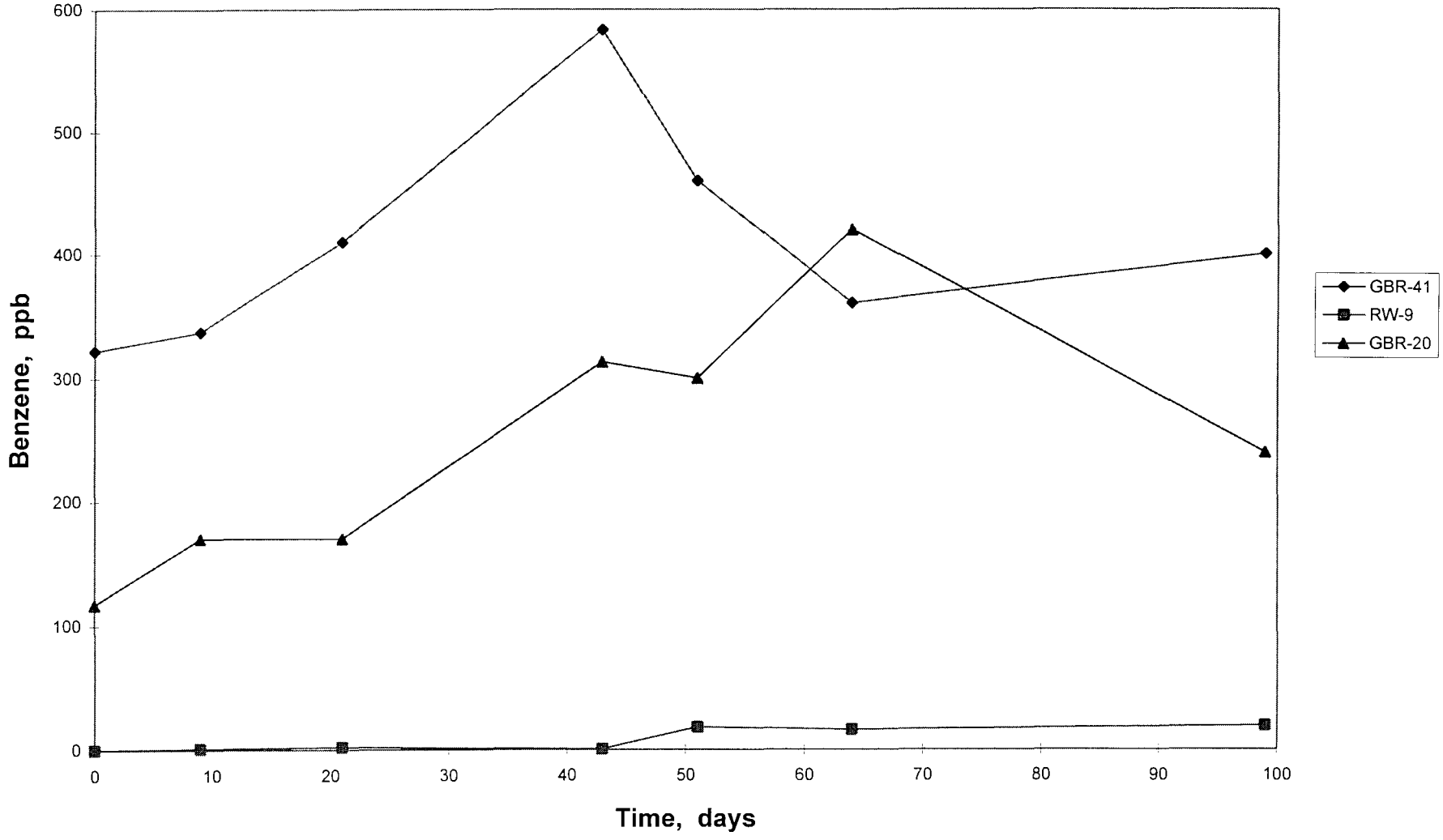
Burlington Environmental Inc.

INFILTRATION AND MONITORING WELL LOCATION MAP

GIANT BLOOMFIELD REFINERY
FARMINGTON, NEW MEXICO
227022

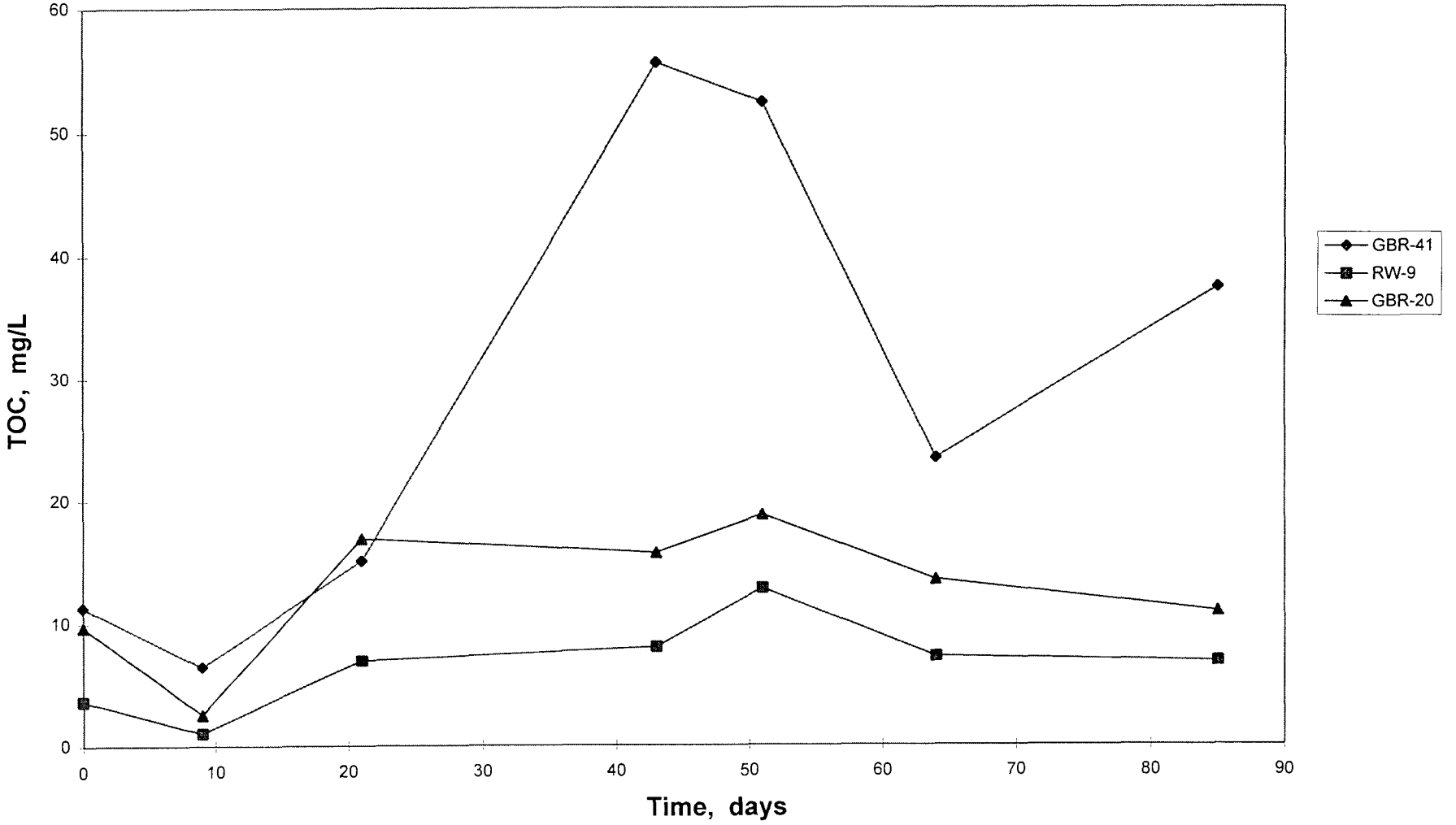
FIGURE 1

Benzene



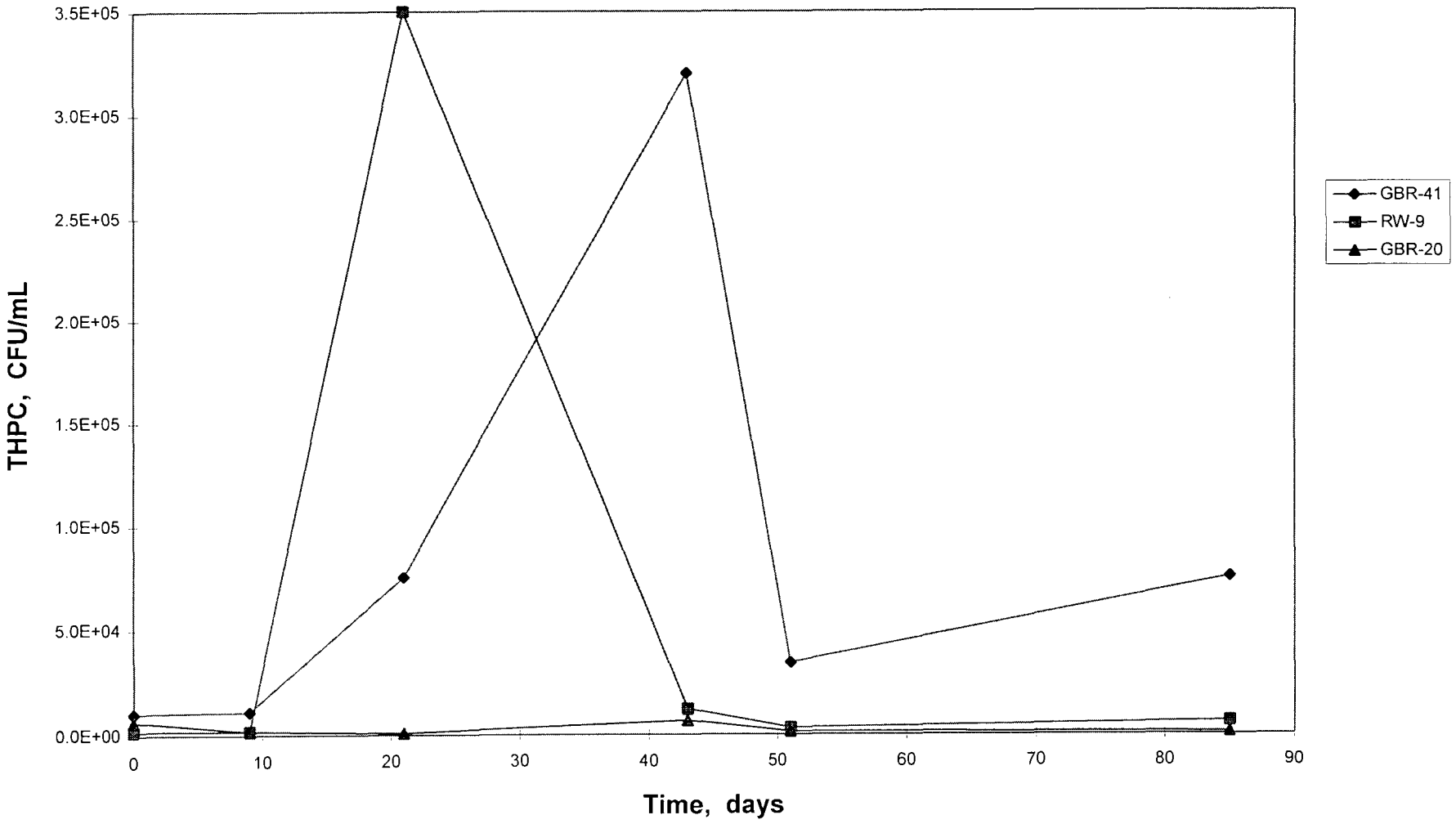
12/9/94

Total Organic Carbon



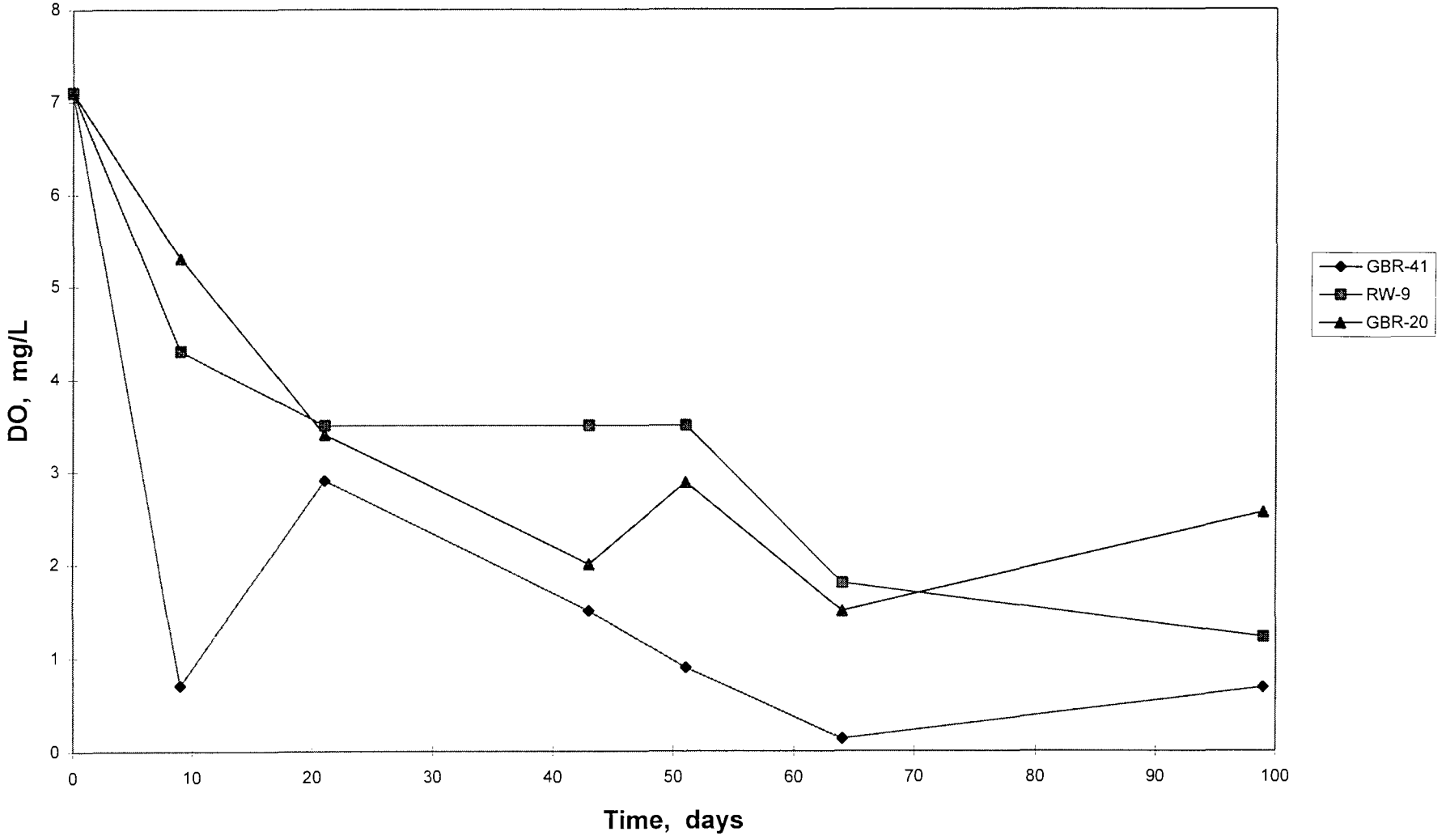
12/9/94

Total Heterotrophic Plate Count



12/9/94

Dissolved Oxygen



12/9/94

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

January 3, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-191

Mr. Timothy A. Kinney
Giant Industries, Inc.
5764 U.S. Highway 64
Farmington, New Mexico 87401

RE: INVESTIGATION REPORT
FORMER FIRE WATER POND
GIANT BLOOMFIELD REFINERY

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has reviewed Giant Industries, Inc. October 27, 1994 "FIREWATER POND SAMPLING". This document contains the results of Giant's investigation of the Giant Bloomfield Refinery fire water pond which was formerly used to hold fresh water for fire fighting purposes. The purpose of the investigation was to determine if the firewater pond is a source of ground water contamination at the Lee Acres Landfill Superfund Site as the Bureau of Land Management has maintained in their investigations of the site.

A review of the sampling and analytical results contained in this document shows no detectable aromatic or halogenated organics were found in the soils underlying the fire water pond or in the ground water directly downgradient of the fire water pond. This corresponds with the OCD's 1986 analyses of water samples taken during the operation of the firewater pond which show the water in the pond to be of a drinking water quality.

In light of these facts, the OCD concurs with Giant's assessment that the firewater pond is not a source of soil or ground water contaminants at the Lee Acres Landfill Superfund Site. Consequently, the OCD approves of Giant's recommendation that no further actions at the firewater pond are necessary.

Please be advised that OCD approval does not relieve Giant of liability if future information shows that the firewater pond is a source of contamination at the site. In addition, OCD approval does not relieve Giant of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Maura Hanning, NMED Superfund Program
Herbert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington Office

P 667 242 191

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PS Form 3800, June 1990

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

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

November 18, 1994

Timothy A. Kinney
Giant Refining Co.
P.O. Box 256
Farmington, New Mexico 87499

RE: FIRE WATER POND SAMPLING
GIANT BLOOMFIELD REFINERY

Dear Mr. Kinney:

On July 26, 1994, the New Mexico Oil Conservation Division (OCD) split samples of soils from the fire water pond at the Giant Bloomfield Refinery. Enclosed you will find copies of the analytical results for these samples.

No aromatic or halogenated organics were detected in any of the samples. However, the detection limits for the methods used were 200 micrograms/liter.

If you have any questions please contact me at 827-7154.

Sincerely,

William C. Olson
Hydrogeologist

Enclosures

xc with enclosures: OCD Aztec District Office
Maura Hanning, NMED Superfund Program
Herbert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington Office

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

LABORATORY SAMPLE RECORD

PROJ. NO.	PROJECT NAME: Giant Bloomfield Refinery (firewater pond)		NO. OF CONTAINERS	601/602	REMARKS
SAMPLERS: (Signature) Olson					
DATE TIME	STATION LOCATION				
940726 1050	FP-SW		1	X	
940726 1150	FP-SE		1	X	
940726 1325	FP-NE		1	X	
940726 1350	FP-NW		1	X	
940726 1415	FP-C		1	X	
Relinquished by: (Signature) Will Olson	Date / Time 7/27/94 1130	Received by: (Signature) Chris Cumbie			
Relinquished by: (Signature) Chris Cumbie	Date / Time 7/27/94 150	Received by: (Signature) Brian Combs			
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

SEALS INTACT ☐ YES ☐ NO

: (Signature)

: (Signature)

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

September 6, 1994

Request ID No. 022278

ANALYTICAL REPORT
SLD Accession No. OR-94-2371

Distribution
( ) User 70320
(X) Submitter 260
(x) SLD Files

To: David Boyer
NM Oil Consv. Div.
State Land Office Bldg.
P.O. Box 2088
Santa Fe, NM 87504-2088

From: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, N.E.
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: **A soil sample submitted to this laboratory on July 27, 1994**

DEMOGRAPHIC DATA

COLLECTION
On: 26-Jul-94 *By:* Ols . . .
At: 14:15 hrs. *In/Near:* San Juan County

LOCATION
FP-C

ANALYTICAL RESULTS: Aromatic & Halogenated Purgeable [EPA-601/2] Screen {754}

Parameter	Value	Note	PQL	Units
EPA 601/2 Volatiles (60)	0.00	N	200.00	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

PQL = Practical Quantitation Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified;
T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.

Evidentiary Seals: Not Sealed [X]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Soil Lab Sample ID: OR-94-2371
Sample wt/vol: 9.68 (g/mL) g SLD Batch No: 357
Level: (low/med) Low Date Received: 7/27/94
% Moisture: not dec. 4.7 dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 8/05/94
GPC Cleanup: (Y/N) No pH: Dilution Factor: 200
CONCENTRATION UNITS:
(ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds
using EPA Methods 601 & 602

(Continued on page 2.)

CAS NO.	COMPOUND	CONC.	Q	PQL
67-64-1	Acetone		U	1000
71-43-2	Benzene		U	200
108-86-1	Bromobenzene		U	200
74-97-5	Bromochloromethane		U	200
75-27-4	Bromodichloromethane		U	200
75-25-2	Bromoform		U	200
78-93-3	2-Butanone (MEK)		U	1000
104-51-8	n-Butylbenzene		U	200
135-98-8	sec-Butylbenzene		U	200
98-06-6	tert-Butylbenzene		U	200
1634-04-4	tert-Butyl methyl ether (MTBE)		U	1000
56-23-5	Carbon tetrachloride		U	200
108-90-7	Chlorobenzene		U	200
67-66-3	Chloroform		U	200
95-49-8	2-Chlorotoluene		U	200
106-43-4	4-Chlorotoluene		U	200
96-12-8	1,2-Dibromo-3-chloropropane		U	200
124-48-1	Dibromochloromethane		U	200
106-93-4	1,2-Dibromoethane		U	200
74-95-3	Dibromomethane		U	200
95-50-1	1,2-Dichlorobenzene		U	200
541-73-1	1,3-Dichlorobenzene		U	200
106-46-7	1,4-Dichlorobenzene		U	200
75-71-8	Dichlorodifluoromethane		U	200
75-34-3	1,1-Dichloroethane		U	200
107-06-2	1,2-Dichloroethane		U	200
75-35-4	1,1-Dichloroethene		U	200
156-59-4	cis-1,2-Dichloroethene		U	200
156-60-5	trans-1,2-Dichloroethene		U	200
78-87-5	1,2-Dichloropropane		U	200
142-28-9	1,3-Dichloropropane		U	200
590-20-7	2,2-Dichloropropane		U	200
563-58-6	1,1-Dichloropropene		U	200
1006-01-5	cis-1,3-Dichloropropene		U	200
1006-02-6	trans-1,3-Dichloropropene		U	200
100-41-4	Ethylbenzene		U	200
87-68-3	Hexachlorobutadiene		U	200
98-82-8	Isopropylbenzene		U	200
99-87-6	4-Isopropyltoluene		U	200
75-09-2	Methylene chloride		U	200
90-12-0	1-Methylnaphthalene		U	200

(Continued on page 3.)

91-57-6	2-Methylnaphthalene		U	200
91-20-3	Naphthalene		U	200
103-65-1	n-Propylbenzene		U	200
100-42-5	Styrene		U	200
630-20-6	1,1,1,2-Tetrachloroethane		U	200
79-34-5	1,1,2,2-Tetrachloroethane		U	200
127-18-4	Tetrachloroethene		U	200
109-99-9	Tetrahydrofuran (THF)		U	1000
108-88-3	Toluene		U	200
87-61-5	1,2,3-Trichlorobenzene		U	200
120-82-1	1,2,4-Trichlorobenzene		U	200
71-55-6	1,1,1-Trichloroethane		U	200
79-00-5	1,1,2-Trichloroethane		U	200
79-01-6	Trichloroethene		U	200
75-69-4	Trichlorofluoromethane		U	200
96-18-4	1,2,3-Trichloropropane		U	200
95-63-6	1,2,4-Trimethylbenzene		U	200
108-67-8	1,3,5-Trimethylbenzene		U	200
75-01-4	Vinyl chloride		U	200
95-47-6	o-Xylene		U	200
N/A	p- & m-Xylene		U	200

* CONC = CONCENTRAION DETERMINED
  PQL = Practical Quantitation Limit (Approximately 10 times MDL)
* Q = Qualifier Definitions:
B - Indicates compound was detected in the Lab Blank as well as in the sample.
D - Indicates value taken from a secondary (diluted) sample analysis.
E - Indicates compound concentration exceeded the range of the standard curve.
J - Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
N - Indicates that more than one peak was used for quantitation.
U - Indicates compound was analyzed for, but not detected above the concentration listed (Quantitation Limit).

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants

(Continued on page 4.)

from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED	CONCENTRATION (PPB)
No Compounds Detected	

SURROGATE RECOVERIES:

SURROGATE	CONCENTRATION	% RECOVERY
Bromofluorobenzene	5000 ppb	95.0
2-Bromo-1-chloropropane	5000 ppb	93.0
m-Cl-Toluene	5000 ppb	106.8

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND	CONCENTRATION	% RECOVERY
Bromoform	10.0 ppb	78.0

Analyst: Patrick Basile
Patrick F. Basile
Analyst, Organic Chemistry

Reviewed By: R. Meyerhein
Richard F. Meyerhein 08/24/94
Supervisor, Organic Chemistry Section

ORGANIC CHEMISTRY ANALYTICAL REQUEST FORM

SCIENTIFIC LABORATORY DIVISION
700 CAMINO DE SALUD N.E., ALBUQUERQUE, NM 87106
Organic Chemistry Section - Telephone: (505) 841-2570

OR94 2374 B

SLD Request ID No. 022278-B

Date Received: 7-27-94

2 User Code #: 7 0 3 2 0	3 Request ID No.: (Place Form ID Sticker Here)	4 Priority Code #: 3 (If "1" or "2", call EID-SLD Coordinator)	
5 Facility Name: Giant Bloomfield Refinery	6 County: San Juan	7 City:	8 State: NM
9 Sample Location: FP-C			
10 Collected By: William Olson (First / Last)	On: 94/07/26 (Date: YY/MM/DD)	At: 14:15 hrs. (Time: 24 hr. clock 3:00 pm = 1500 hrs.)	
11 Codes: Submitter / WSS # / Organization	12 Latitude (DDMMSS) / Longitude (DDDMMSS)	2 Digit ID (if needed)	
13 Report To: Roger Anderson	14 Phone #: (505) 827-5812		
Address: New Mexico Oil Conservation Division, P. O. Box 2088	15 Sample Purpose: [X] Grab [ ] Composite ____ (Composite Time Period); [ ] Compliance [X] Check [ ] Monitoring [ ] Special; [ ] Flow Proportioned [ ] Equal Aliquot [X] Sample Split w/Permittee [ ] Chain of Custody		
City, State Zip: Santa Fe, New Mexico 87504-2088			

16 Field Data: pH: ____, Conductivity: ____ umhos @ ____ °C, Temperature: ____ °C, Chlorine Residual: ____ mg/l, Flow: ____

17 Sample Source:
[ ] -Stream [ ] -Well; Depth: ____
[ ] -Lake [ ] -Spring
[ ] -Drain [ ] -Distribution
[ ] -Pool [ ] -Point-of-Entry
[ ] -WWTP [X] -Other: former firewater pond

18 Field Notes/ Sample #:
soil from 1 foot depth
PID = 0 ppm

19 Sample Type: [ ] -Water, [X] -Soil, [ ] -Food, [ ] -Wastewater, [ ] -Other ____
This form accompanies a single sample consisting of:
____ - septum vial(s) (volume = ____)
____ - glass jugs (volume = ____)
1 - 8 oz jar (volume = ____)

20 Preservation:
[ ] - NP No Preservation; Sample stored at room temperature
[X] - P-Ice Sample stored in an ice bath (Not Frozen)
[ ] - P-TS Sample Preserved with Sodium Thiosulfate to remove chlorine residual
[ ] - P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml)
[ ] - Other ____

21 Analyses Requested: Please check the appropriate box(es) below to indicate the type of analytical screen(s) required. Whenever possible, list specific compounds suspected or required.

Volatile Screens:

[ ] - (753) Aliphatic Headspace (1-5 Carbons)
[X] - (754) Aromatic & Halogenated Purgeables (EPA 601 & 602)
[ ] - (765) Mass Spectrometer Purgeables (EPA 624)
[ ] - (766) SDWA Total Trihalomethanes (EPA 501.1)
[ ] - (774) SDWA VOC's I [8 Regulated +] (EPA 502.2)
[ ] - (775) SDWA VOC's II [EDB & DBCP] (EPA 504)

Other Specific Compounds or Classes:

[ ] - ( ) ____
[ ] - ( ) ____
[ ] - ( ) ____

Semivolatile Screens:

[ ] - (763) Acid Extractables
[ ] - (751) Aliphatic Hydrocarbons
[ ] - (755) Base/Neutral Extractables (EPA 625)
[ ] - (756) Base/Neutral/Acid Extractables (EPA 8270)
[ ] - (758) Herbicides, Chlorophenoxy Acid
[ ] - (759) Herbicides, Triazines
[ ] - (760) Organochlorine Pesticides
[ ] - (761) Organophosphate Pesticides
[ ] - (767) Polychlorinated Biphenyls (PCB's)
[ ] - (764) Polynuclear Aromatic Hydrocarbons
[ ] - (762) SDWA Pesticides & Herbicides

Remarks:

SLD 8912-OR Form New 12/89 This Form Will NOT Be Returned With Your Results. Please RETAIN A COPY!

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

September 6, 1994

Request ID No. 022276

ANALYTICAL REPORT
SLD Accession No. OR-94-2373

Distribution
( ) User 70320
(X) Submitter 260
(x) SLD Files

To: David Boyer
NM Oil Consv. Div.
State Land Office Bldg.
P.O. Box 2088
Santa Fe, NM 87504-2088

From: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, N.E.
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: **A soil sample submitted to this laboratory on July 27, 1994**

DEMOGRAPHIC DATA

COLLECTION		*LOCATION*
On: 26-Jul-94	*By:* Ols . . .	FP-NE
At: 13:25 hrs.	*In/Near:* San Juan County	

ANALYTICAL RESULTS: Aromatic & Halogenated Purgeable [EPA-601/2] Screen {754}

Parameter	Value	Note	PQL	Units
EPA 601/2 Volatiles (60)	0.00	N	200.00	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

PQL = Practical Quantitation Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified; T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.

Evidentiary Seals: Not Sealed [✓]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Soil Lab Sample ID: OR-94-2373
Sample wt/vol: 12.15 (g/mL) g SLD Batch No: 357
Level: (low/med) Low Date Received: 7/27/94
% Moisture: not dec. 6.8 dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 8/05/94
GPC Cleanup: (Y/N) No pH: Dilution Factor: 200
CONCENTRATION UNITS:
(ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Methods 601 & 602

(Continued on page 2.)

CAS NO.	COMPOUND	CONC.	Q	PQL
67-64-1	Acetone		U	1000
71-43-2	Benzene		U	200
108-86-1	Bromobenzene		U	200
74-97-5	Bromochloromethane		U	200
75-27-4	Bromodichloromethane		U	200
75-25-2	Bromoform		U	200
78-93-3	2-Butanone (MEK)		U	1000
104-51-8	n-Butylbenzene		U	200
135-98-8	sec-Butylbenzene		U	200
98-06-6	tert-Butylbenzene		U	200
1634-04-4	tert-Butyl methyl ether (MTBE)		U	1000
56-23-5	Carbon tetrachloride		U	200
108-90-7	Chlorobenzene		U	200
67-66-3	Chloroform		U	200
95-49-8	2-Chlorotoluene		U	200
106-43-4	4-Chlorotoluene		U	200
96-12-8	1,2-Dibromo-3-chloropropane		U	200
124-48-1	Dibromochloromethane		U	200
106-93-4	1,2-Dibromoethane		U	200
74-95-3	Dibromomethane		U	200
95-50-1	1,2-Dichlorobenzene		U	200
541-73-1	1,3-Dichlorobenzene		U	200
106-46-7	1,4-Dichlorobenzene		U	200
75-71-8	Dichlorodifluoromethane		U	200
75-34-3	1,1-Dichloroethane		U	200
107-06-2	1,2-Dichloroethane		U	200
75-35-4	1,1-Dichloroethene		U	200
156-59-4	cis-1,2-Dichloroethene		U	200
156-60-5	trans-1,2-Dichloroethene		U	200
78-87-5	1,2-Dichloropropane		U	200
142-28-9	1,3-Dichloropropane		U	200
590-20-7	2,2-Dichloropropane		U	200
563-58-6	1,1-Dichloropropene		U	200
1006-01-5	cis-1,3-Dichloropropene		U	200
1006-02-6	trans-1,3-Dichloropropene		U	200
100-41-4	Ethylbenzene		U	200
87-68-3	Hexachlorobutadiene		U	200
98-82-8	Isopropylbenzene		U	200
99-87-6	4-Isopropyltoluene		U	200
75-09-2	Methylene chloride		U	200
90-12-0	1-Methylnaphthalene		U	200

(Continued on page 3.)

91-57-6	2-Methylnaphthalene		U	200
91-20-3	Naphthalene		U	200
103-65-1	n-Propylbenzene		U	200
100-42-5	Styrene		U	200
630-20-6	1,1,1,2-Tetrachloroethane		U	200
79-34-5	1,1,2,2-Tetrachloroethane		U	200
127-18-4	Tetrachloroethene		U	200
109-99-9	Tetrahydrofuran (THF)		U	1000
108-88-3	Toluene		U	200
87-61-5	1,2,3-Trichlorobenzene		U	200
120-82-1	1,2,4-Trichlorobenzene		U	200
71-55-6	1,1,1-Trichloroethane		U	200
79-00-5	1,1,2-Trichloroethane		U	200
79-01-6	Trichloroethene		U	200
75-69-4	Trichlorofluoromethane		U	200
96-18-4	1,2,3-Trichloropropane		U	200
95-63-6	1,2,4-Trimethylbenzene		U	200
108-67-8	1,3,5-Trimethylbenzene		U	200
75-01-4	Vinyl chloride		U	200
95-47-6	o-Xylene		U	200
N/A	p- & m-Xylene		U	200

* CONC = CONCENTRAION DETERMINED
  PQL = Practical Quantitation Limit (Approximately 10 times MDL)
* Q = Qualifier Definitions:
B - Indicates compound was detected in the Lab Blank as well as in the sample.
D - Indicates value taken from a secondary (diluted) sample analysis.
E - Indicates compound concentration exceeded the range of the standard curve.
J - Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
N - Indicates that more than one peak was used for quantitation.
U - Indicates compound was analyzed for, but not detected above the concentration listed (Quantitation Limit).

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants

(Continued on page 4.)

from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED	CONCENTRATION (PPB)
No Compounds Detected	

SURROGATE RECOVERIES:

SURROGATE	CONCENTRATION	% RECOVERY
Bromofluorobenzene	5000 ppb	95.0
2-Bromo-1-chloropropane	5000 ppb	87.0
m-Cl-Toluene	5000 ppb	105.5

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND	CONCENTRATION	% RECOVERY
Bromoform	10.0 ppb	78.0

Analyst: [signature]
Patrick F. Basile
Analyst, Organic Chemistry

Reviewed By: [signature]
Richard F. Meyerhein 08/24/94
Supervisor, Organic Chemistry Section

ORGANIC CHEMISTRY ANALYTICAL REQUEST FORM

SCIENTIFIC LABORATORY DIVISION
700 CAMINO DE SALUD N.E., ALBUQUERQUE, NM 87106
Organic Chemistry Section - Telephone: (505) 841-2570

OR94 237 B | SLD N | Request ID No. 022276-B | Date Received: _____

2 User Code #: 7 0 3 2 0	3 Request ID No.: (Place Form ID Sticker Here)	4 Priority Code #: 3 (If "1" or "2", call EID-SLD Coordinator)	
5 Facility Name: Giant Bloomfield Refinery	6 County: San Juan	7 City:	8 State: NM
9 Sample Location: FP-NE			
10 Collected By: William Olson (First / Last)	On: 94/07/26 (Date: YY/MM/DD)	At: 13:25 hrs. (Time: 24 hr. clock, 3:00 pm = 1500 hrs.)	
11 Codes: Submitter / WSS # / Organization	12 Latitude (DDMMSS) / Longitude (DDDMMSS)	2 Digit ID (if needed)	
13 Report To: Roger Anderson	14 Phone #: (505) 827-5812		
Address: New Mexico Oil Conservation Division P. O. Box 2088	15 Sample Purpose: [ ] Compliance [X] Check [ ] Monitoring [ ] Special	Sampling Information: [X] Grab [ ] Composite (Composite Time Period) [ ] Flow Proportioned [ ] Equal Aliquot [X] Sample Split w/Permittee [ ] Chain of Custody	
City, State Zip: Santa Fe, New Mexico 87504-2088			

16 Field Data: pH: _____, Conductivity: _____ umhos @ _____ °C, Temperature: _____ °C, Chlorine Residual: _____ mg/l, Flow: _____

17 Sample Source:
- [ ] -Stream
- [ ] -Lake
- [ ] -Drain
- [ ] -Pool
- [ ] -WWTP
- [ ] -Well; Depth: _____
- [ ] -Spring
- [ ] -Distribution
- [ ] -Point-of-Entry
- [X] -Other: Farmers fire water pond

18 Field Notes/ Sample #:
Soil from 2 foot depth
PID = 0 ppm

19 Sample Type: [ ] -Water, [X] -Soil, [ ] -Food, [ ] -Wastewater, [ ] -Other _____
This form accompanies a single sample consisting of:
_____ - septum vial(s) (volume = _____)
_____ - glass jugs (volume = _____)
1 - glass jar (volume = _____)

20 Preservation:
- [ ] - NP — No Preservation; Sample stored at room temperature
- [X] - P-Ice — Sample stored in an ice bath (Not Frozen)
- [ ] - P-TS — Sample Preserved with Sodium Thiosulfate to remove chlorine residual
- [ ] - P-HCl — Sample Preserved with Hydrochloric Acid (2 drops/40 ml)
- [ ] - Other _____

21 Analyses Requested: Please check the appropriate box(es) below to indicate the type of analytical screen(s) required. Whenever possible, list specific compounds suspected or required.

Volatile Screens:

- [ ] - (753) Aliphatic Headspace (1-5 Carbons)
- [X] - (754) Aromatic & Halogenated Purgeables (EPA 601 & 602)
- [ ] - (765) Mass Spectrometer Purgeables (EPA 624)
- [ ] - (766) SDWA Total Trihalomethanes (EPA 501.1)
- [ ] - (774) SDWA VOC's I [8 Regulated +] (EPA 502.2)
- [ ] - (775) SDWA VOC's II [EDB & DBCP] (EPA 504)

Other Specific Compounds or Classes:

- [ ] - ( ) _____
- [ ] - ( ) _____
- [ ] - ( ) _____

Semivolatile Screens:

- [ ] - (763) Acid Extractables
- [ ] - (751) Aliphatic Hydrocarbons
- [ ] - (755) Base/Neutral Extractables (EPA 625)
- [ ] - (756) Base/Neutral/Acid Extractables (EPA 8270)
- [ ] - (758) Herbicides, Chlorophenoxy Acid
- [ ] - (759) Herbicides, Triazines
- [ ] - (760) Organochlorine Pesticides
- [ ] - (761) Organophosphate Pesticides
- [ ] - (767) Polychlorinated Biphenyls (PCB's)
- [ ] - (764) Polynuclear Aromatic Hydrocarbons
- [ ] - (762) SDWA Pesticides & Herbicides

Remarks:

SLD 8912-OR Form New 12/89 — This Form Will NOT Be Returned With Your Results. Please RETAIN A COPY!

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

September 6, 1994

Request ID No. 022277

ANALYTICAL REPORT
SLD Accession No. OR-94-2372

Distribution
( ) User 70320
(X) Submitter 260
(x) SLD Files

To: David Boyer
NM Oil Consv. Div.
State Land Office Bldg.
P.O. Box 2088
Santa Fe, NM 87504-2088

From: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, N.E.
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: **A soil sample submitted to this laboratory on July 27, 1994**

DEMOGRAPHIC DATA

COLLECTION
On: 26-Jul-94 *By:* Ols . . .
At: 13:50 hrs. *In/Near:* San Juan County

LOCATION
FP-NW

ANALYTICAL RESULTS: Aromatic & Halogenated Purgeable [EPA-601/2] Screen {754}

Parameter	Value	Note	PQL	Units
EPA 601/2 Volatiles (60)	0.00	N	200.00	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

PQL = Practical Quantitation Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified; T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.

Evidentiary Seals: Not Sealed [☑]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Soil Lab Sample ID: OR-94-2372
Sample wt/vol: 11.83 (g/mL) g SLD Batch No: 357
Level: (low/med) Low Date Received: 7/27/94
% Moisture: not dec. 5.3 dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 8/05/94
GPC Cleanup: (Y/N) No pH: Dilution Factor: 200
CONCENTRATION UNITS:
(ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Methods 601 & 602

(Continued on page 2.)

CAS NO.	COMPOUND	CONC.	Q	PQL
67-64-1	Acetone		U	1000
71-43-2	Benzene		U	200
108-86-1	Bromobenzene		U	200
74-97-5	Bromochloromethane		U	200
75-27-4	Bromodichloromethane		U	200
75-25-2	Bromoform		U	200
78-93-3	2-Butanone (MEK)		U	1000
104-51-8	n-Butylbenzene		U	200
135-98-8	sec-Butylbenzene		U	200
98-06-6	tert-Butylbenzene		U	200
1634-04-4	tert-Butyl methyl ether (MTBE)		U	1000
56-23-5	Carbon tetrachloride		U	200
108-90-7	Chlorobenzene		U	200
67-66-3	Chloroform		U	200
95-49-8	2-Chlorotoluene		U	200
106-43-4	4-Chlorotoluene		U	200
96-12-8	1,2-Dibromo-3-chloropropane		U	200
124-48-1	Dibromochloromethane		U	200
106-93-4	1,2-Dibromoethane		U	200
74-95-3	Dibromomethane		U	200
95-50-1	1,2-Dichlorobenzene		U	200
541-73-1	1,3-Dichlorobenzene		U	200
106-46-7	1,4-Dichlorobenzene		U	200
75-71-8	Dichlorodifluoromethane		U	200
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107-06-2	1,2-Dichloroethane		U	200
75-35-4	1,1-Dichloroethene		U	200
156-59-4	cis-1,2-Dichloroethene		U	200
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142-28-9	1,3-Dichloropropane		U	200
590-20-7	2,2-Dichloropropane		U	200
563-58-6	1,1-Dichloropropene		U	200
1006-01-5	cis-1,3-Dichloropropene		U	200
1006-02-6	trans-1,3-Dichloropropene		U	200
100-41-4	Ethylbenzene		U	200
87-68-3	Hexachlorobutadiene		U	200
98-82-8	Isopropylbenzene		U	200
99-87-6	4-Isopropyltoluene		U	200
75-09-2	Methylene chloride		U	200
90-12-0	1-Methylnaphthalene		U	200

(Continued on page 3.)

91-57-6	2-Methylnaphthalene		U	200
91-20-3	Naphthalene		U	200
103-65-1	n-Propylbenzene		U	200
100-42-5	Styrene		U	200
630-20-6	1,1,1,2-Tetrachloroethane		U	200
79-34-5	1,1,2,2-Tetrachloroethane		U	200
127-18-4	Tetrachloroethene		U	200
109-99-9	Tetrahydrofuran (THF)		U	1000
108-88-3	Toluene		U	200
87-61-5	1,2,3-Trichlorobenzene		U	200
120-82-1	1,2,4-Trichlorobenzene		U	200
71-55-6	1,1,1-Trichloroethane		U	200
79-00-5	1,1,2-Trichloroethane		U	200
79-01-6	Trichloroethene		U	200
75-69-4	Trichlorofluoromethane		U	200
96-18-4	1,2,3-Trichloropropane		U	200
95-63-6	1,2,4-Trimethylbenzene		U	200
108-67-8	1,3,5-Trimethylbenzene		U	200
75-01-4	Vinyl chloride		U	200
95-47-6	o-Xylene		U	200
N/A	p- & m-Xylene		U	200

* CONC = CONCENTRAION DETERMINED
  PQL = Practical Quantitation Limit (Approximately 10 times MDL)
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B - Indicates compound was detected in the Lab Blank as well as in the sample.
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QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants

(Continued on page 4.)

from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED	CONCENTRATION (PPB)
No Compounds Detected	

SURROGATE RECOVERIES:

SURROGATE	CONCENTRATION		% RECOVERY
Bromofluorobenzene	5000	ppb	95.0
2-Bromo-1-chloropropane	5000	ppb	93.0
m-Cl-Toluene	5000	ppb	114.0

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND	CONCENTRATION	% RECOVERY
Bromoform	10.0 ppb	78.0

Analyst: Patrick Basile
Patrick F. Basile
Analyst, Organic Chemistry

Reviewed By: Richard F. Meyerhein 08/24/94
Richard F. Meyerhein
Supervisor, Organic Chemistry Section

ORGANIC CHEMISTRY ANALYTICAL REQUEST FORM

SCIENTIFIC LABORATORY DIVISION
700 CAMINO DE SALUD N.E., ALBUQUERQUE, NM 87106
Organic Chemistry Section - Telephone: (505) 841-2570

OR94 237 B

SLD Request ID No. 022277-B

Date Received: _____

2 User Code #: 7 0 3 2 0	3 Request ID No.: (Place Form ID Sticker Here)	4 Priority Code #: 3 (If "1" or "2", call EID-SLD Coordinator)	
5 Facility Name: Giant Bloomfield Refinery	6 County: San Juan	7 City:	8 State: NM
9 Sample Location: FP-NW			
10 Collected By: William Olson (First / Last)	On: 94/07/26 (Date: YY/MM/DD)	At: 1350 hrs. (Time: 24 hr. clock, 3:00 pm = 1500 hrs.)	

11 Codes: Submitter ___ WSS # ___ Organization ___

12 Latitude (DDMMSS) ___ " Longitude (DDDMMSS) ___ " 2 Digit ID (If needed) ___

13 Report To: Roger Anderson
Address: New Mexico Oil Conservation Division
P. O. Box 2088
City, State Zip: Santa Fe, New Mexico 87504-2088

14 Phone #: (505) 827-5812

15 Sample Purpose:
- [ ] Compliance
- [x] Check
- [ ] Monitoring
- [ ] Special

Sampling Information:
- [x] Grab
- [ ] Composite _____ (Composite Time Period)
  - [ ] Flow Proportioned
  - [ ] Equal Aliquot
- [x] Sample Split w/Permittee
- [ ] Chain of Custody

16 Field Data: pH: _____, Conductivity: _____ umhos @ _____ °C, Temperature: _____ °C, Chlorine Residual: _____ mg/l, Flow: _____

17 Sample Source:
- [ ] Stream
- [ ] Lake
- [ ] Drain
- [ ] Pool
- [ ] WWTP
- [ ] Well; Depth: _____
- [ ] Spring
- [ ] Distribution
- [ ] Point-of-Entry
- [x] Other: farms fire water pond

18 Field Notes/ Sample #:
soil from 1 foot depth
PID = 0ppm

19 Sample Type: [ ] Water, [ ] Soil, [ ] Food, [ ] Wastewater, [ ] Other _____
This form accompanies a single sample consisting of:
_____ - septum vial(s) (volume = _____)
_____ - glass jugs (volume = _____)
1 - glass jar (volume = _____)

20 Preservation:
- [ ] NP — No Preservation; Sample stored at room temperature
- [x] P-Ice — Sample stored in an ice bath (Not Frozen)
- [ ] P-TS — Sample Preserved with Sodium Thiosulfate to remove chlorine residual
- [ ] P-HCl — Sample Preserved with Hydrochloric Acid (2 drops/40 ml)
- [ ] Other _____

21 Analyses Requested: Please check the appropriate box(es) below to indicate the type of analytical screen(s) required. Whenever possible, list specific compounds suspected or required.

Volatile Screens:

- [ ] (753) Aliphatic Headspace (1-5 Carbons)
- [x] (754) Aromatic & Halogenated Purgeables (EPA 601 & 602)
- [ ] (765) Mass Spectrometer Purgeables (EPA 624)
- [ ] (766) SDWA Total Trihalomethanes (EPA 501.1)
- [ ] (774) SDWA VOC's I [8 Regulated +] (EPA 502.2)
- [ ] (775) SDWA VOC's II [EDB & DBCP] (EPA 504)

Other Specific Compounds or Classes:

- [ ] ( ) _____
- [ ] ( ) _____
- [ ] ( ) _____

Semivolatile Screens:

- [ ] (763) Acid Extractables
- [ ] (751) Aliphatic Hydrocarbons
- [ ] (755) Base/Neutral Extractables (EPA 625)
- [ ] (756) Base/Neutral/Acid Extractables (EPA 8270)
- [ ] (758) Herbicides, Chlorophenoxy Acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks:

SLD 8912-OR Form New 12/89 This Form Will NOT Be Returned With Your Results. Please RETAIN A COPY!

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

September 6, 1994

Request ID No. 022275

ANALYTICAL REPORT
SLD Accession No. OR-94-2374

Distribution
( ) User 70320
(X) Submitter 260
(x) SLD Files

To: David Boyer
NM Oil Consv. Div.
State Land Office Bldg.
P.O. Box 2088
Santa Fe, NM 87504-2088

From: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, N.E.
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: **A soil sample submitted to this laboratory on July 27, 1994**

DEMOGRAPHIC DATA

COLLECTION		*LOCATION*
On: 26-Jul-94	*By:* Ols . . .	FP-SE
At: 11:50 hrs.	*In/Near:* San Juan County	

ANALYTICAL RESULTS: Aromatic & Halogenated Purgeable [EPA-601/2] Screen {754}

Parameter	Value	Note	PQL	Units
EPA 601/2 Volatiles (60)	0.00	N	200.00	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

PQL = Practical Quantitation Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified; T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.

Evidentiary Seals: Not Sealed [✓]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Soil Lab Sample ID: OR-94-2374
Sample wt/vol: 10.72 (g/mL) g SLD Batch No: 357
Level: (low/med) Low Date Received: 7/27/94
% Moisture: not dec. 0.5 dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 8/05/94
GPC Cleanup: (Y/N) No pH: Dilution Factor: 200
CONCENTRATION UNITS:
(ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Methods 601 & 602

(Continued on page 2.)

CAS NO.	COMPOUND	CONC.	Q	PQL
67-64-1	Acetone		U	1000
71-43-2	Benzene		U	200
108-86-1	Bromobenzene		U	200
74-97-5	Bromochloromethane		U	200
75-27-4	Bromodichloromethane		U	200
75-25-2	Bromoform		U	200
78-93-3	2-Butanone (MEK)		U	1000
104-51-8	n-Butylbenzene		U	200
135-98-8	sec-Butylbenzene		U	200
98-06-6	tert-Butylbenzene		U	200
1634-04-4	tert-Butyl methyl ether (MTBE)		U	1000
56-23-5	Carbon tetrachloride		U	200
108-90-7	Chlorobenzene		U	200
67-66-3	Chloroform		U	200
95-49-8	2-Chlorotoluene		U	200
106-43-4	4-Chlorotoluene		U	200
96-12-8	1,2-Dibromo-3-chloropropane		U	200
124-48-1	Dibromochloromethane		U	200
106-93-4	1,2-Dibromoethane		U	200
74-95-3	Dibromomethane		U	200
95-50-1	1,2-Dichlorobenzene		U	200
541-73-1	1,3-Dichlorobenzene		U	200
106-46-7	1,4-Dichlorobenzene		U	200
75-71-8	Dichlorodifluoromethane		U	200
75-34-3	1,1-Dichloroethane		U	200
107-06-2	1,2-Dichloroethane		U	200
75-35-4	1,1-Dichloroethene		U	200
156-59-4	cis-1,2-Dichloroethene		U	200
156-60-5	trans-1,2-Dichloroethene		U	200
78-87-5	1,2-Dichloropropane		U	200
142-28-9	1,3-Dichloropropane		U	200
590-20-7	2,2-Dichloropropane		U	200
563-58-6	1,1-Dichloropropene		U	200
1006-01-5	cis-1,3-Dichloropropene		U	200
1006-02-6	trans-1,3-Dichloropropene		U	200
100-41-4	Ethylbenzene		U	200
87-68-3	Hexachlorobutadiene		U	200
98-82-8	Isopropylbenzene		U	200
99-87-6	4-Isopropyltoluene		U	200
75-09-2	Methylene chloride		U	200
90-12-0	1-Methylnaphthalene		U	200

(Continued on page 3.)

91-57-6	2-Methylnaphthalene		U	200
91-20-3	Naphthalene		U	200
103-65-1	n-Propylbenzene		U	200
100-42-5	Styrene		U	200
630-20-6	1,1,1,2-Tetrachloroethane		U	200
79-34-5	1,1,2,2-Tetrachloroethane		U	200
127-18-4	Tetrachloroethene		U	200
109-99-9	Tetrahydrofuran (THF)		U	1000
108-88-3	Toluene		U	200
87-61-5	1,2,3-Trichlorobenzene		U	200
120-82-1	1,2,4-Trichlorobenzene		U	200
71-55-6	1,1,1-Trichloroethane		U	200
79-00-5	1,1,2-Trichloroethane		U	200
79-01-6	Trichloroethene		U	200
75-69-4	Trichlorofluoromethane		U	200
96-18-4	1,2,3-Trichloropropane		U	200
95-63-6	1,2,4-Trimethylbenzene		U	200
108-67-8	1,3,5-Trimethylbenzene		U	200
75-01-4	Vinyl chloride		U	200
95-47-6	o-Xylene		U	200
N/A	p- & m-Xylene		U	200

* CONC = CONCENTRAION DETERMINED
  PQL = Practical Quantitation Limit (Approximately 10 times MDL)
* Q = Qualifier Definitions:
B - Indicates compound was detected in the Lab Blank as well as in the sample.
D - Indicates value taken from a secondary (diluted) sample analysis.
E - Indicates compound concentration exceeded the range of the standard curve.
J - Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
N - Indicates that more than one peak was used for quantitation.
U - Indicates compound was analyzed for, but not detected above the concentration listed (Quantitation Limit).

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants

(Continued on page 4.)

from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED	CONCENTRATION (PPB)
No Compounds Detected	

SURROGATE RECOVERIES:

SURROGATE	CONCENTRATION	% RECOVERY
Bromofluorobenzene	5000 ppb	94.0
2-Bromo-1-chloropropane	5000 ppb	88.0
m-Cl-Toluene	5000 ppb	97.6

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND	CONCENTRATION	% RECOVERY
Bromoform	10.0 ppb	78.0

Analyst: [signature]
Patrick F. Basile
Analyst, Organic Chemistry

Reviewed By: [signature]
Richard F. Meyerhein 08/24/94
Supervisor, Organic Chemistry Section

ORGANIC CHEMISTRY ANALYTICAL REQUEST FORM

SCIENTIFIC LABORATORY DIVISION
700 CAMINO DE SALUD N.E., ALBUQUERQUE, NM 87106
Organic Chemistry Section - Telephone: (505) 841-2570

OR94 237 B

SLD No: Request ID No. 022275-B

Date Received: _____

2 User Code #: 7 0 3 2 0	3 Request ID No.: (Place Form ID Sticker Here)	4 Priority Code #: 3 (If "1" or "2", call EID-SLD Coordinator)	
5 Facility Name: Giant Bloomfield Refinery	6 County: San Juan	7 City:	8 State: NM
9 Sample Location: FP-SE			
10 Collected By: William Olson	On: 94/07/26 (Date: YY/MM/DD)	At: 11:50 hrs. (Time: 24 hr. clock, 3:00 pm = 1500 hrs.)	
11 Codes: Submitter / WSS # / Organization	12 Latitude (DDMMSS) / Longitude (DDDMMSS)	2 Digit ID (If needed)	
13 Report To: Roger Anderson	14 Phone #: (505) 827-5812		
Address: New Mexico Oil Conservation Division, P. O. Box 2088	15 Sample Purpose: [ ] Compliance [X] Check [ ] Monitoring [ ] Special	Sampling Information: [X] Grab [ ] Composite _____ (Composite Time Period) [ ] Flow Proportioned [ ] Equal Aliquot [X] Sample Split w/Permittee [ ] Chain of Custody	
City, State Zip: Santa Fe, New Mexico 87504-2088			

16 Field Data: pH: _____, Conductivity: _____ umhos @ _____ °C, Temperature: _____ °C, Chlorine Residual: _____ mg/l, Flow: _____

17 Sample Source:
- [ ] -Stream
- [ ] -Lake
- [ ] -Drain
- [ ] -Pool
- [ ] -WWTP
- [ ] -Well; Depth: _____
- [ ] -Spring
- [ ] -Distribution
- [ ] -Point-of-Entry
- [X] -Other: former fire waterpond

18 Field Notes/ Sample #:
soil from 1 foot depth
PID = 0 ppm

19 Sample Type: [ ] -Water, [X] -Soil, [ ] -Food, [ ] -Wastewater, [ ] -Other _____
This form accompanies a single sample consisting of:
_____ - septum vial(s) (volume = _____)
_____ - glass jugs (volume = _____)
1 - glass jar (volume = _____)

20 Preservation:
- [ ] -NP No Preservation; Sample stored at room temperature
- [X] -P-Ice Sample stored in an ice bath (Not Frozen)
- [ ] -P-TS Sample Preserved with Sodium Thiosulfate to remove chlorine residual
- [ ] -P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml)
- [ ] -Other _____

21 Analyses Requested: Please check the appropriate box(es) below to indicate the type of analytical screen(s) required. Whenever possible, list specific compounds suspected or required.

Volatile Screens:

- [ ] - (753) Aliphatic Headspace (1-5 Carbons)
- [X] - (754) Aromatic & Halogenated Purgeables (EPA 601 & 602)
- [ ] - (765) Mass Spectrometer Purgeables (EPA 624)
- [ ] - (766) SDWA Total Trihalomethanes (EPA 501.1)
- [ ] - (774) SDWA VOC's I [8 Regulated +] (EPA 502.2)
- [ ] - (775) SDWA VOC's II [EDB & DBCP] (EPA 504)

Other Specific Compounds or Classes:

- [ ] - ( ) _____
- [ ] - ( ) _____
- [ ] - ( ) _____

Semivolatile Screens:

- [ ] - (763) Acid Extractables
- [ ] - (751) Aliphatic Hydrocarbons
- [ ] - (755) Base/Neutral Extractables (EPA 625)
- [ ] - (756) Base/Neutral/Acid Extractables (EPA 8270)
- [ ] - (758) Herbicides, Chlorophenoxy Acid
- [ ] - (759) Herbicides, Triazines
- [ ] - (760) Organochlorine Pesticides
- [ ] - (761) Organophosphate Pesticides
- [ ] - (767) Polychlorinated Biphenyls (PCB's)
- [ ] - (764) Polynuclear Aromatic Hydrocarbons
- [ ] - (762) SDWA Pesticides & Herbicides

Remarks:

SLD 8912-OR Form New 12/89 This Form Will NOT Be Returned With Your Results. Please RETAIN A COPY!

STATE OF NEW MEXICO DEPARTMENT OF HEALTH
SCIENTIFIC LABORATORY DIVISION
P.O. Box 4700 700 Camino de Salud, NE
Albuquerque, NM 87196-4700 [505]-841-2500
ORGANIC CHEMISTRY SECTION [505]-841-2570

September 6, 1994

Request ID No. 022274

ANALYTICAL REPORT
SLD Accession No. OR-94-2375

Distribution
( ) User 70320
(X) Submitter 260
(x) SLD Files

To: David Boyer
NM Oil Consv. Div.
State Land Office Bldg.
P.O. Box 2088
Santa Fe, NM 87504-2088

From: Organic Chemistry Section
Scientific Laboratory Div.
700 Camino de Salud, N.E.
P.O. Box 4700
Albuquerque, NM 87196-4700

Re: **A soil sample submitted to this laboratory on July 27, 1994**

DEMOGRAPHIC DATA

COLLECTION		*LOCATION*
On: 26-Jul-94	*By:* Ols . . .	FP-SW
At: 10:50 hrs.	*In/Near:* San Juan County	

ANALYTICAL RESULTS: Aromatic & Halogenated Purgeable [EPA-601/2] Screen {754}

Parameter	Value	Note	PQL	Units
EPA 601/2 Volatiles (60)	0.00	N	200.00	ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

PQL = Practical Quantitation Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified; T = Trace (<Detection Limit); U = Compound Identity Not Confirmed.

Evidentiary Seals: Not Sealed [✓]; Intact: No [ ], Yes [ ] & Broken By: _____ Date: _____

Laboratory Remarks:

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A
Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Soil Lab Sample ID: OR-94-2375
Sample wt/vol: 9.96 (g/mL) g SLD Batch No: 357
Level: (low/med) Low Date Received: 7/27/94
% Moisture: not dec. 4.9 dec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 8/05/94
GPC Cleanup: (Y/N) No pH: _____ Dilution Factor: 200
CONCENTRATION UNITS:
(ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Methods 601 & 602

(Continued on page 2.)

CAS NO.	COMPOUND	CONC.	Q	PQL
67-64-1	Acetone		U	1000
71-43-2	Benzene		U	200
108-86-1	Bromobenzene		U	200
74-97-5	Bromochloromethane		U	200
75-27-4	Bromodichloromethane		U	200
75-25-2	Bromoform		U	200
78-93-3	2-Butanone (MEK)		U	1000
104-51-8	n-Butylbenzene		U	200
135-98-8	sec-Butylbenzene		U	200
98-06-6	tert-Butylbenzene		U	200
1634-04-4	tert-Butyl methyl ether (MTBE)		U	1000
56-23-5	Carbon tetrachloride		U	200
108-90-7	Chlorobenzene		U	200
67-66-3	Chloroform		U	200
95-49-8	2-Chlorotoluene		U	200
106-43-4	4-Chlorotoluene		U	200
96-12-8	1,2-Dibromo-3-chloropropane		U	200
124-48-1	Dibromochloromethane		U	200
106-93-4	1,2-Dibromoethane		U	200
74-95-3	Dibromomethane		U	200
95-50-1	1,2-Dichlorobenzene		U	200
541-73-1	1,3-Dichlorobenzene		U	200
106-46-7	1,4-Dichlorobenzene		U	200
75-71-8	Dichlorodifluoromethane		U	200
75-34-3	1,1-Dichloroethane		U	200
107-06-2	1,2-Dichloroethane		U	200
75-35-4	1,1-Dichloroethene		U	200
156-59-4	cis-1,2-Dichloroethene		U	200
156-60-5	trans-1,2-Dichloroethene		U	200
78-87-5	1,2-Dichloropropane		U	200
142-28-9	1,3-Dichloropropane		U	200
590-20-7	2,2-Dichloropropane		U	200
563-58-6	1,1-Dichloropropene		U	200
1006-01-5	cis-1,3-Dichloropropene		U	200
1006-02-6	trans-1,3-Dichloropropene		U	200
100-41-4	Ethylbenzene		U	200
87-68-3	Hexachlorobutadiene		U	200
98-82-8	Isopropylbenzene		U	200
99-87-6	4-Isopropyltoluene		U	200
75-09-2	Methylene chloride		U	200
90-12-0	1-Methylnaphthalene		U	200

(Continued on page 3.)

91-57-6	2-Methylnaphthalene		U	200
91-20-3	Naphthalene		U	200
103-65-1	n-Propylbenzene		U	200
100-42-5	Styrene		U	200
630-20-6	1,1,1,2-Tetrachloroethane		U	200
79-34-5	1,1,2,2-Tetrachloroethane		U	200
127-18-4	Tetrachloroethene		U	200
109-99-9	Tetrahydrofuran (THF)		U	1000
108-88-3	Toluene		U	200
87-61-5	1,2,3-Trichlorobenzene		U	200
120-82-1	1,2,4-Trichlorobenzene		U	200
71-55-6	1,1,1-Trichloroethane		U	200
79-00-5	1,1,2-Trichloroethane		U	200
79-01-6	Trichloroethene		U	200
75-69-4	Trichlorofluoromethane		U	200
96-18-4	1,2,3-Trichloropropane		U	200
95-63-6	1,2,4-Trimethylbenzene		U	200
108-67-8	1,3,5-Trimethylbenzene		U	200
75-01-4	Vinyl chloride		U	200
95-47-6	o-Xylene		U	200
N/A	p- & m-Xylene		U	200

* CONC = CONCENTRAION DETERMINED
  PQL = Practical Quantitation Limit (Approximately 10 times MDL)
* Q = Qualifier Definitions:
B - Indicates compound was detected in the Lab Blank as well as in the sample.
D - Indicates value taken from a secondary (diluted) sample analysis.
E - Indicates compound concentration exceeded the range of the standard curve.
J - Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
N - Indicates that more than one peak was used for quantitation.
U - Indicates compound was analyzed for, but not detected above the concentration listed (Quantitation Limit).

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants

(Continued on page 4.)

from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED	CONCENTRATION (PPB)
No Compounds Detected	

SURROGATE RECOVERIES:

SURROGATE	CONCENTRATION		% RECOVERY
Bromofluorobenzene	5000	ppb	93.0
2-Bromo-1-chloropropane	5000	ppb	85.0
m-Cl-Toluene	5000	ppb	106.2

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND	CONCENTRATION	% RECOVERY
Bromoform	10.0 ppb	78.0

Analyst: Patrick F. Basile
Analyst, Organic Chemistry

Reviewed By: Richard F. Meyerhein 08/24/94
Supervisor, Organic Chemistry Section

ORGANIC CHEMISTRY ANALYTICAL REQUEST FORM

SCIENTIFIC LABORATORY DIVISION
700 CAMINO DE SALUD N.E., ALBUQUERQUE, NM 87106
Organic Chemistry Section - Telephone: (505) 841-2570

OR94 2375

SLD No Request ID No. 022274-B

Date Received:

2 User Code #: 70320	3 Request ID No.: Place Form ID Sticker Here	4 Priority Code #: 3 (If "1" or "2", call EID-SLD Coordinator)	
5 Facility Name: Giant Bloomfield Refinery	6 County: San Juan	7 City:	8 State: NM
9 Sample Location: EP-SW			
10 Collected By: William Olivion (First / Last)	On: 94/07/26 (Date: YY/MM/DD)	At: 1050 hrs. (Time: 24 hr. clock, 3:00 pm = 1500 hrs.)	
11 Codes: Submitter / WSS # / Organization	12 Latitude (DDMMSS) / Longitude (DDDMMSS)	2 Digit ID (If needed)	
13 Report To: Roger Anderson	14 Phone #: (505) 827-5812		
Address: New Mexico Oil Conservation Division, P. O. Box 2088			
City, State Zip: Santa Fe, New Mexico 87504-2088			

15 Sampling Information:
Sample Purpose: [ ] Compliance [X] Check [ ] Monitoring [ ] Special
[X] Grab [ ] Composite _____ (Composite Time Period) [ ] Flow Proportioned [ ] Equal Aliquot [X] Sample Split w/Permittee [ ] Chain of Custody

16 Field Data: pH: _____, Conductivity: _____ umhos @ _____ °C, Temperature: _____ °C, Chlorine Residual: _____ mg/l, Flow: _____

17 Sample Source:
[ ] -Stream [ ] -Well; Depth: _____
[ ] -Lake [ ] -Spring
[ ] -Drain [ ] -Distribution
[ ] -Pool [ ] -Point-of-Entry
[ ] -WWTP [X] -Other: former fire water pond

18 Field Notes/ Sample #:
Soil Sample from 1 foot depth
PID = 0 ppm

19 Sample Type: [ ] -Water, [X] -Soil, [ ] -Food, [ ] -Wastewater, [ ] -Other _____
This form accompanies a single sample consisting of:
_____ - septum vial(s) (volume = _____)
_____ - glass jugs (volume = _____)
1 - glass jar (volume = _____)

20 Preservation:
[ ] - NP No Preservation; Sample stored at room temperature
[X] - P-Ice Sample stored in an ice bath (Not Frozen)
[ ] - P-TS Sample Preserved with Sodium Thiosulfate to remove chlorine residual
[ ] - P-HCl Sample Preserved with Hydrochloric Acid (2 drops/40 ml)
[ ] - Other _____

21 Analyses Requested: Please check the appropriate box(es) below to indicate the type of analytical screen(s) required. Whenever possible, list specific compounds suspected or required.

Volatile Screens:

[ ] - (753) Aliphatic Headspace (1-5 Carbons)
[X] - (754) Aromatic & Halogenated Purgeables (EPA 601 & 602)
[ ] - (765) Mass Spectrometer Purgeables (EPA 624)
[ ] - (766) SDWA Total Trihalomethanes (EPA 501.1)
[ ] - (774) SDWA VOC's I [8 Regulated +] (EPA 502.2)
[ ] - (775) SDWA VOC's II [EDB & DBCP] (EPA 504)

Other Specific Compounds or Classes:

[ ] - ( ) _____
[ ] - ( ) _____
[ ] - ( ) _____

Semivolatile Screens:

[ ] - (763) Acid Extractables
[ ] - (751) Aliphatic Hydrocarbons
[ ] - (755) Base/Neutral Extractables (EPA 625)
[ ] - (756) Base/Neutral/Acid Extractables (EPA 8270)
[ ] - (758) Herbicides, Chlorophenoxy Acid
[ ] - (759) Herbicides, Triazines
[ ] - (760) Organochlorine Pesticides
[ ] - (761) Organophosphate Pesticides
[ ] - (767) Polychlorinated Biphenyls (PCB's)
[ ] - (764) Polynuclear Aromatic Hydrocarbons
[ ] - (762) SDWA Pesticides & Herbicides

Remarks:

SLD 8912-OR Form New 12/89 This Form Will NOT Be Returned With Your Results. Please RETAIN A COPY!

GIANT
INDUSTRIES, INC.

Crude Gathering Operations

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

October 27, 1994

Mr. William Olson
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

Dear Mr. Olson:

RE: FIREWATER POND SAMPLING

Enclosed is a report of the soil investigation performed in the former firewater pond area within the Giant Bloomfield Refinery. Please call me with any questions or comments.

Sincerely,

Timothy A. Kinney
Project Manager
Bloomfield Remediation Project

/dm

Enclosure — ~~See~~ ea firewater pond soil analysis file

cc w/enc.: Stephanie Odell-BLM
Maura Hanning-NMED
Herbert Gorrod-EPA

cc w/o enc.: Carl Shook-Giant
Kim Bullerdick-Giant
Martin Nee-Burlington

BURLINGTON
ENVIRONMENTAL

October 27, 1994
Project 12641

Mr. Timothy Kinney
Manager, Crude Gathering Operations
Giant Industries Arizona, Inc.
5764 Highway 64
Farmington, New Mexico 87401

Dear Mr. Kinney:

Subject: Soil Sampling and Analysis at Giant Industries Arizona, Inc.' s Former Firewater Storage Pond, San Juan County, New Mexico.

During July and August 1994, Burlington Environmental Inc. (Burlington) initiated a soil sampling and analysis program for the former firewater storage pond (firewater pond) at Giant Industries Arizona, Inc's. (Giant's) former Giant Bloomfield Refinery. The site is located in San Juan County, New Mexico in the southwest corner of Section 22, Township 29 North, Range 12 West, as shown in Figure 1. The firewater pond was used to stockpile water for emergency purposes at the refinery. The project was designed and initiated to investigate the possible presence of low concentrations of volatile organic compounds reported by the Bureau of Land Management (BLM) from soil sampling conducted on March 21, 1990. In addition to soil sampling, one groundwater sample was collected from the existing groundwater Monitoring Well GBR-18 located downgradient of the firewater pond.

The investigation at the firewater pond included:

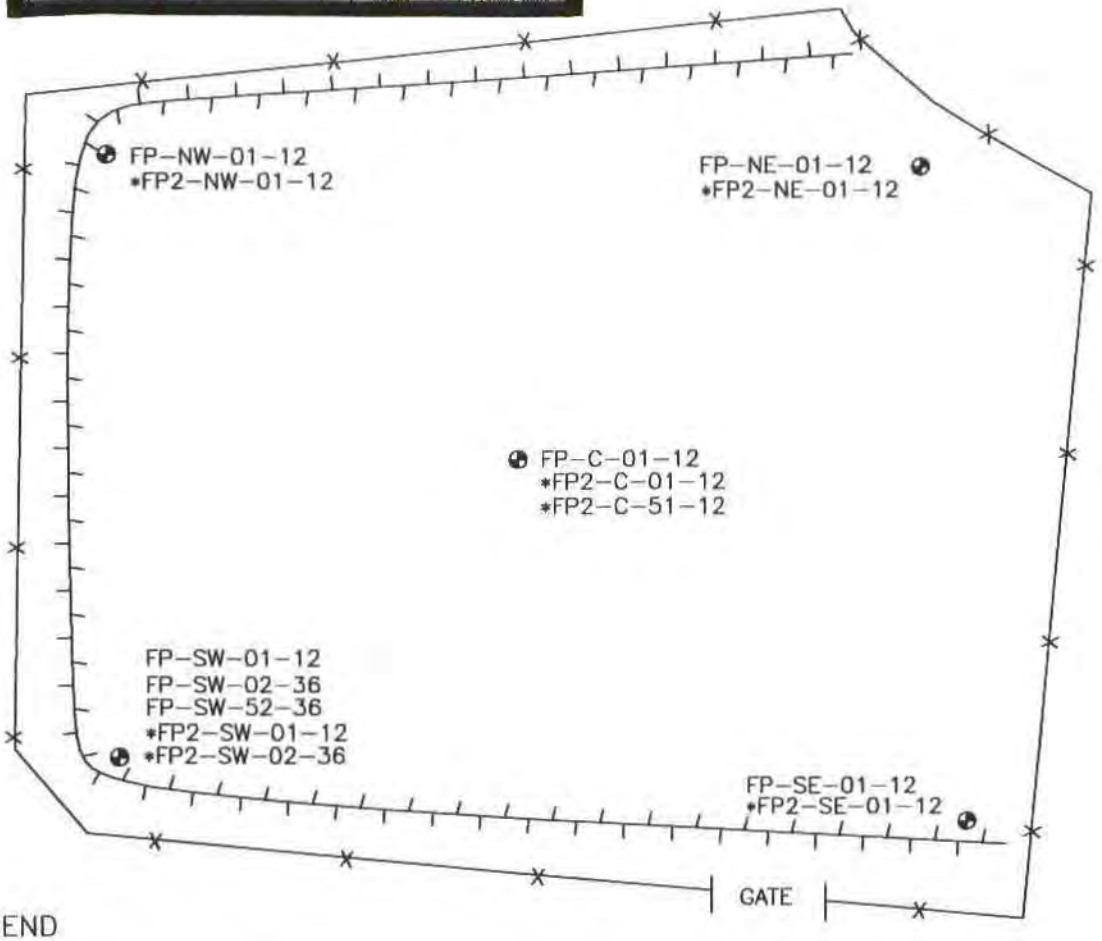
- hand augering and collection of soil samples;
- on-site field screening with a photoionization detector (PID); and
- soil and groundwater sample collection and submission for laboratory analysis.

METHODOLOGY

Two individual sampling events were performed at the former firewater pond during this investigation. The first sampling event took place on July 26, 1994, and included collecting six soil samples. Samples were collected at approximately 12 inches below ground surface (bgs) from each corner and from the center of the former pond, similar to locations sampled by the BLM. One additional sample was collected at approximately 36 inches bgs from the southwest corner where the BLM's sampling indicated highest concentrations of organic compounds in the soil. In addition, one duplicate sample was collected from the southwest corner at a depth of approximately 36 inches bgs. A rinsate sample was collected from the hand-auger bucket and sampling bowl. The investigation of the firewater pond began with the southwest corner and progressed counter clockwise to the northwest corner with the center location being sampled last.

Burlington Environmental Inc.
4000 Monroe Road • Farmington, NM 87401
Phone 505/326-2262 • FAX 505/326-2388

SAN JUAN COUNTY



LEGEND

FENCE LINE

BERM

FP-SW-01-12 APPROXIMATE SAMPLING LOCATION AND NUMBER

* Resample locations. All resample locations were collected within 1'-2' of original sample location.

N

COL 12641A-001

BURLINGTON ENVIRONMENTAL
- A Phillips Environmental Company -

TITLE:
Giant Industries Arizona, Inc.
Former Fire Water Storage Pond
Giant Bloomfield Refinery

DWN: JEN	DES.:
CHKD:	APPD:
DATE: 10/12/94	REV.:

PROJECT NO.: 12641
GIANT FIRE WATER POND
SAN JUAN COUNTY, NM

Figure 1

Following receipt of the initial laboratory reports it was evident that the laboratory did not follow the required protocol for EPA Methods 8010/8020. Therefore, the analyses were canceled and a new round of sampling was initiated.

On August 29, 1994, each sample location was resampled using the same techniques as used during the July 26 sampling event. All resample locations were approximately 2 feet from the original sample point with the exception of the duplicate, which was collected from the 1-foot depth interval at the center location of the firewater pond.

The following methods were used at all of the hand augering locations at the firewater pond. Soil borings were completed using a 3-inch inside diameter stainless-steel hand-auger bucket with one 5-foot extension. The hand auger was advanced by rotating the bucket clockwise while applying downward pressure. Each hand-auger bucket was decontaminated between sampling events with an Alconox™ wash followed by a potable water rinse and a final distilled water rinse. Each soil boring was advanced to the sampling depth with one hand-auger bucket and sampled with another, previously decontaminated bucket. The soil sample was then transferred into a precleaned stainless-steel bowl and then immediately transferred to the laboratory sample container. The sample container was then sealed, labeled and preserved on ice for transport to the laboratory.

During the initial sampling event, once the soil had been placed in the sample container, additional soil from the sample point was collected in a 1-gallon sealable plastic bag for field screening for volatile compounds with an HNU PI 101 PID. After placing the material in the 1-gallon sealable bag, it was allowed to heat to a minimum of 80 degrees Fahrenheit before the concentration of volatile constituents was measured. Headspace field screening techniques were not used during the second sampling event as no volatile compounds we detected during the first sampling event.

Each soil sample collected during each sampling event was express shipped on ice under strict Chain-of-Custody procedures to Analytical Technologies, Inc. (ATI) in Albuquerque, New Mexico as requested by Giant. The samples collected from the first sampling event were analyzed for volatile aromatic and halogenated hydrocarbons by US Environmental Protection Agency (EPA) Methods 8010/8020 and for sulfate by U.S. EPA Method 375.2. The soil samples collected during the second sampling event were analyzed for volatile organic compounds by EPA Method 8240 which provides mass spectrometry confirmation of any analytes indicated by gas chromatography analyses. Level 4 Quality Assurance/Quality Control (QA/QC) documentation was requested of the laboratory.

The groundwater from Monitoring Well GBR-18 was purged until dry using a disposable bailer. The groundwater sample was collected using a precleaned disposable bailer after one bail-down due to poor recovery. The groundwater sample was stored on ice during transport to ATI's laboratory . ATI analyzed the groundwater sample for volatile organic compounds by EPA Methods 8010 and 8020. Strict chain-of-custody procedures and sample documentation were followed during transport to the laboratory.

RESULTS

The results from field headspace screening performed during the first sampling event showed no ionizable constituents detected in any of the samples screened.

The soil analysis from the initial sampling event was conducted using gas chromatography techniques (EPA Methods 8010/8020). Preliminary results from these samples showed no target analytes detected in any samples except for FP-C-01-12, which was collected at 12 inches bgs in the center of the fire water pond. The target analytes detected at this location are shown below.

Analytes	Sample Result (mg/kg)	Detection Limit (mg/kg)
Tetrachloroethene	0.027	0.025
Toluene	0.028	0.025
Trichlorofluoromethane	0.028	0.010
Total Xylenes	0.028	0.025

mg/kg - milligrams per kilogram

Because the preliminary results showed organic compounds very close to laboratory detection limits, and because the laboratory did not follow the required protocol for EPA Methods 8010 and 8020, resampling and subsequent analyses of soil samples were completed using more quantitative gas chromatography and mass spectrometry techniques (EPA Method 8240). The analytical results from the second round of sampling indicate that no target analytes were detected at the method detection limits.

No target compounds were detected in the groundwater sample collected from Monitoring Well GBR-18. Detection limits met data quality objectives for the initial groundwater sample. Laboratory reports for analysis of the sample from GBR-18 are attached. In the laboratory report and on the chain-of-custody documentation the reference to GBR-18 was incorrectly recorded as HBR-18.

The concentrations of sulfate detected in the soil samples from the first round of sampling are shown below. Samples for sulfate analysis were not collected during the second sampling event.

Sample ID	Sample Result (mg/kg)
FP-C-01-12	450
FP-NW-01-12	520
FP-SW-52-36	240
FP-SW-02-36	130
FP-NE-01-12	970
FP-SE-01-12	1400
FP-SW-01-12	810

mg/kg - milligrams per kilogram

Laboratory reports, including the Level 4 QA/QC, are enclosed herein.

CONCLUSIONS AND RECOMMENDATIONS

Giant has not been privileged to review the BLM laboratory reports or laboratory QA/QC data. Giant does not know which methods were used for laboratory analysis of their samples or the field techniques used to collect the samples.

The results from the first round of sampling for this project are questionable because the laboratory did not follow the required EPA protocol. Further, the presence of the organic compounds detected in those analyses were not confirmed using mass spectrometry during analysis in the second sampling event.

The lack of detectable organic compounds found in the soil and downgradient Monitoring Well GBR-18 samples indicates that the former firewater storage pond is not a source of organic compounds in the soil or groundwater.

Based upon the available data, Burlington does not recommend further action at the firewater storage pond.

If you have any questions or require additional information please do not hesitate to contact me at (505) 326-2262.

Respectfully Submitted,

BURLINGTON ENVIRONMENTAL INC.

Martin J. Nee, P.G.
Project Manager

MJN/STP/br/257wb

GIANT INDUSTRIES, INC.

23733 North Scottsdale Road
Scottsdale, Arizona 85255

P.O. Box 12999
Scottsdale, Arizona 85267

602
585-8888

CERTIFIED MAIL/RETURN RECEIPT REQUESTED

August 1, 1994

Mr. Michael Pool
District Manager
Farmington District Office
Bureau of Land Management
Department of the Interior
1235 La Plata Highway
Farmington, NM 87401

Dear Mr. Pool:

As you know, Giant Industries Arizona, Inc. ("Giant") has been notified by the New Mexico Oil Conservation Division ("OCD") that a recent draft of the Bureau of Land Management's ("BLM's") remedial investigation ("RI") report on the Lee Acres Landfill contained a summary of soil samples analyzed by Roy F. Weston, Inc. ("Weston"). The soil samples were taken from Giant's fire water pond in March of 1990. Giant is very concerned about the use of any such data summary in the RI, as Giant's records do not demonstrate that the raw data collected by Weston were ever provided to Giant, as was contractually required.

In order to ensure that Giant has all data that should have been provided to it by BLM, Giant hereby requests that it be provided with all raw data and reports generated by BLM from soil and water sampling, and water level measurement, on Giant's property. The May 20, 1994 property access agreement between Giant and BLM specifically requires that such information be provided to Giant.

In view of Giant's understanding that an RI may be issued for public comment in the near future, Giant requests that the information specified in this letter be provided as expeditiously as possible.

Sincerely,

Kim H. Bullerdick

Kim H. Bullerdick
Corporate Counsel

KHB/hc
cc: Berg Keshian
Tim Kinney
Bill Olsen

[weston.ltr]

25 YEARS GIANT

GIANT
INDUSTRIES, INC.

23733 North Scottsdale Road
Scottsdale, Arizona 85255

P.O. Box 12999
Scottsdale, Arizona 85267

602
585-8888

CERTIFIED MAIL/RETURN RECEIPT REQUESTED

August 1, 1994

Mr. Berg Keshian, Jr.
Roy F. Weston, Inc.
6501 Americas Parkway, NE, Suite 800
Albuquerque, NM 87108

Dear Mr. Keshian:

As you know, Giant Industries Arizona, Inc. ("Giant") has been notified by the New Mexico Oil Conservation Division ("OCD") that a recent draft of the Bureau of Land Management's ("BLM's") remedial investigation ("RI") report on the Lee Acres Landfill contained a summary of soil samples analyzed by Roy F. Weston, Inc. ("Weston"). The soil samples were taken from Giant's fire water pond in March of 1990. Giant is very concerned about the use of any such data summary, as Giant's records do not demonstrate that the raw data collected by Weston were ever provided to Giant, as was contractually required.

In order to ensure that Giant has all data that should have been provided to it by Weston, Giant hereby requests that it be provided with all raw data and reports generated from soil and water sampling, and water level measurement, on Giant's property. The following agreements between Giant and Weston specifically require that such information be provided to Giant: (1) April 30, 1993 Agreement with Weston, as amended on April 30, 1993; and (2) February 1991 Agreement with Weston, as amended on April 30, 1993.

In view of Giant's understanding that an RI may be issued for public comment in the near future, Giant requests that the information specified in this letter be provided as expeditiously as possible.

Sincerely,

Kim H. Bullerdick
Corporate Counsel

KHB/hc
cc: Tim Kinney
Bill Olsen
Mike Pool

[weston.ltr]

25 YEARS
GIANT

GIANT
INDUSTRIES, INC.

Crude Gathering Operations

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

July 11, 1994

VIA FAX AND CERTIFIED MAIL

Mr. Herbert M. Gorrod
(6H-EO)
U. S. Environmental Protection Agency
1445 Ross Avenue
Dallas, TX 75202-2733

Dear Mr. Gorrod:

RE: Lee Acres Landfill

I am sorry that I have been unable to reach you by telephone. I was calling to inform you that the New Mexico Oil Conservation Division ("OCD") has notified Giant that OCD has been provided with a draft RI/FS prepared by the Bureau of Land Management ("BLM"). The draft RI/FS contains a summary of soil sampling conducted by Roy F. Weston ("Weston") on Giant's property. The data pertains to an area known as the fire water pond. Giant is very concerned about the reference to such data in the RI/FS. By contract, Weston is obligated to provide Giant with all data obtained by Weston on Giant's property. Giant, however, has no record of ever receiving any of the fire pond information. Indeed, although Giant has not had an opportunity to fully review its records at this point, it is my recollection that Giant was either told that sampling of the fire water pond had disclosed no contamination or contamination at levels under detection limits.

Giant is extremely concerned about the use of data obtained from Giant's property in the draft RI/FS that has never been provided to Giant for examination and review. Giant would appreciate the opportunity to review the raw fire water pond data summarized in the draft RI/FS before submission of the RI/FS for public comment. Further, Giant would appreciate receiving a copy of the entire draft RI/FS prior to the public comment period for purposes of determining whether it utilizes any other data obtained from Giant's property that was not provided to Giant.

Please contact me at your earliest convenience regarding this matter.

Sincerely,

Timothy A. Kinney /dm

Timothy A. Kinney
Project Manager

/dm

cc Stephanie Odell
Berg Keshian, Jr.
Bill Olson

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

DRUG FREE

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

July 13, 1994

POST OFFICE BOX 2088
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SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-111-334-144

Mr. Timothy A. Kinney
Giant Industries, Inc.
5763 U.S. Highway 64
Farmington, New Mexico 87401

RE: FORMER FIRE WATER POND
GIANT BLOOMFIELD REFINERY

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has reviewed Giant's July 6, 1994 "WORKPLAN FOR SOIL INVESTIGATION AT THE FORMER FIRE WATER STORAGE POND GIANT BLOOMFIELD REFINERY". This document contains Giant's proposal for investigating the potential of the Giant Bloomfield Refinery fire water pond to be a source of ground water contamination.

The above referenced work plan **is approved with the following conditions:**

1. Giant will submit a report containing the results of the investigation to OCD by September 9, 1994.

2. Giant will notify the OCD at least 72 hours in advance of all scheduled activities such that the OCD may have the opportunity to witness the events and/or split samples.

Please be advised that OCD approval does not relieve Giant of liability if the investigation fails to completely define the extent of contamination related to Giant's activities. In addition, OCD approval does not relieve Giant of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Maura Hanning, NMED Superfund Program
Herbert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington Office

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GIANT
INDUSTRIES, INC.

Crude Gathering Operations

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

July 8, 1994

Mr. William Olson
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Bill:

RE: FORMER FIRE WATER POND
GIANT BLOOMFIELD REFINERY

In accordance with your letter dated June 23, 1994, Giant Industries Arizona, Inc. submits the attached workplan for your review and approval.

Please call me at (505) 632-4001 with any questions which may arise.

Sincerely,

Timothy A. Kinney
General Manager
Giant Crude Gathering Operations

/dm

Attachment

cc Carl Shook-Giant
Kim Bullerdick-Giant
Martin Nee-Burlington Environmental
Denny Foust-OCD
Valda Terauds-H+GCL
Stephanie Odell-BLM
Maura Hanning-EID
Chris Shuey-SWRIC
Herbert Gorrod-EPA
Jim Durrett-SJC

Workplan for Soil Investigation
at the
Former Fire Water Storage Pond
Giant Bloomfield Refinery

Giant Industries, Inc.
5764 U. S. Highway 64
Farmington, NM 87401
(505) 632-8006

Workplan for Soil Investigation
at the
Former Fire Water Storage Pond
Giant Bloomfield Refinery

July 6, 1994

Giant Industries Arizona, Inc. ("Giant") has reviewed the New Mexico Oil Conservation Division's ("NMOCD") letter requesting an investigation at the former fire water storage pond and the accompanying data collected by the NMOCD as part of their review of Giant's Discharge Plan application. We have also reviewed the data presented by the Bureau of Land Management ("BLM") as part of their Lee Acres Superfund investigation. The NMOCD's pond water analysis showed no signs of aromatic or halogenated hydrocarbons in the water. The BLM's soil analytical results indicate low parts-per-billion concentrations of both aromatic and halogenated hydrocarbons in the soil. Giant has not had the opportunity to review the laboratory quality control /quality assurance ("QA/QC") reports or any description of field methods or laboratory methods used to collect and produce the BLM data.

Giant will investigate the possible presence of hydrocarbons in the former fire water storage pond reported by the BLM's consultant Roy F. Weston. This will be done by the collection and subsequent laboratory analysis of additional soil samples. Soil samples will be collected using a hand auger and Shelby tubes. All of the sampling tools will be thoroughly decontaminated prior to sample collection. Soil samples will be collected at approximately the same five locations sampled by Weston. The sample locations will be based on the site map provided by the NMOCD.

Five soil samples will be collected from the interval of six inches to one foot beneath ground surface. One sample will be collected from a depth of two and one-half to three feet beneath ground surface where the BLM results were highest, at the southwest corner of the former pond. Soil samples will be analyzed for volatile and semi-volatile organic hydrocarbons using USEPA Methods 8010 and 8020 and for sulfate using USEPA Method 300. One duplicate and one rinsate sample will be submitted to the laboratory for QA/QC purposes. Samples will be shipped on ice to Analytical Technologies Inc. located in Albuquerque, New Mexico following strict chain of custody procedures. All sampling activities will be conducted in accordance with USEPA protocols. The results of the investigation will be described in a report and presented to the NMOCD.

GIANT
INDUSTRIES, INC.

Crude Gathering Operations

5764 US Highway 64
Farmington, New Mexico
87401

505
632-8024
632-8006

July 8, 1994

Mr. William Olson
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Bill:

RE: FORMER FIRE WATER POND
GIANT BLOOMFIELD REFINERY

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Please call me at (505) 632-4001 with any questions which may arise.

Sincerely,

Timothy A. Kinney
General Manager
Giant Crude Gathering Operations

/dm

Attachment

cc Carl Shook-Giant
Kim Bullerdick-Giant
Martin Nee-Burlington Environmental
Denny Foust-OCD
Valda Terauds-H+GCL
Stephanie Odell-BLM
Maura Hanning-EID
Chris Shuey-SWRIC
Herbert Gorrod-EPA
Jim Durrett-SJC

Workplan for Soil Investigation at the Former Fire Water Storage Pond Giant Bloomfield Refinery

Giant Industries, Inc.
5764 U. S. Highway 64
Farmington, NM 87401
(505) 632-8006

Workplan for Soil Investigation
at the
Former Fire Water Storage Pond
Giant Bloomfield Refinery

July 6, 1994

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

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

June 23, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P-111-334-137

Mr. Timothy A. Kinney
Giant Refining Co.
P.O. Box 256
Farmington, New Mexico 87499

RE: FORMER FIRE WATER POND
GIANT BLOOMFIELD REFINERY
SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has currently been reviewing a recent draft of the Bureau of Land Management's (BLM) remedial investigation (RI) report on the Lee Acres Landfill Superfund Site. Upon a review of the report there are some questions raised regarding the potential of the fire water pond at the Giant Bloomfield Refinery to be a source of ground water contamination.

The OCD obtained water samples from the fire water pond on July 8, 1986 when the pond was actively in use. These samples were taken as part of the OCD's review of Giant's discharge plan application (GW-40) for remedial activities at the Giant Bloomfield Refinery. The OCD's analytical results of these samples showed that no aromatic or halogenated volatile organics were present in the fire water pond (Enclosed).

The BLM's RI activities at the Lee Acres Landfill in 1990, after the pond was dried out, included the sampling of soils from the bottom of the fire water pond by BLM's consultant Roy F. Weston, Inc. Enclosed you will find a copy of a map from the RI report showing Weston's sample locations and a copy of Weston's analytical results of the soil sampling. Weston's laboratory analysis of these samples identified the presence of volatile and halogenated aromatic organics in the soils from the bottom of the fire pit.

Because of the discrepancies in the data between different sampling events, the OCD requires that Giant submit a work plan for the investigation of potential contaminant migration from the former fire water pond at the Giant Bloomfield Refinery. The work plan will be submitted to the OCD by July 8, 1994.

If you have any questions, please contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

Enclosures

xc: OCD Aztec District Office
Maura Hanning, NMED Superfund Program
Herbert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington Office

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GIANT
REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

May 9, 1994

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Mr. Olson:

Enclosed you will find the quarterly report for Giant Refining Company's Bloomfield Refinery for the first quarter of 1994.

Please contact me if you have any questions.

Sincerely,

Tim Kinney

Tim Kinney
Remediation Project Manager

/dm

Enclosure

cc w/enc.: Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
Stephanie Odell-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Valda Terauds-H+GCL
Jim Durrett-SJC
Herbert Gorrod-EPA
Denny Foust-OCD

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
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BRUCE KING
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CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

May 16, 1994

Ms. Stephanie Odell
U.S. Bureau Of Land Management
Farmington District Office
1235 N. La Plata Hwy.
Farmington, New Mexico 87401

RE: RAW WATER POND
GIANT BLOOMFIELD REFINERY
SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Odell,

Recently you requested any information the New Mexico Oil Conservation Division (OCD) might have about the use of the former raw water ponds at the Giant Refining Company's inactive Bloomfield Refinery in San Juan County, New Mexico.

Upon a review of the OCD's ground water investigation and discharge plan files, the following information is available:

1. The OCD requested information from Giant about the use of unlined surface impoundments at the refinery on March 24, 1986. Giant Refinery's April 11, 1986 response stated that the raw water ponds "have always been fresh water impoundments for use as refinery raw water and potable water supply". In subsequent meetings, Giant has stated to the OCD that the raw water ponds contained fresh water from the San Juan River and that, in addition to use as a fresh water source for the refinery, the water was also used as a fresh water source for the nearby San Juan Downs horse racing facility.

2. The OCD obtained water samples from the raw water pond adjacent to monitor well GBR-18 on June 5, 1986. The samples were analyzed for major cations and anions and heavy metals. The laboratory analytical results showed the water to be within the New Mexico Water Quality Control Commission drinking water standards. Enclosed you will find a copy of these analyses.

3. The OCD obtained additional water samples from the raw water pond adjacent to monitor well GBR-18 on July 8, 1986. The samples were analyzed for aromatic and halogenated purgeable organics (EPA Method 601/602). The laboratory analytical results showed the raw water pond contained no detectable aromatic or halogenated purgeable organics. Enclosed you will find a copy of these analyses.

To date, the information available to OCD has indicated that the raw water ponds stored fresh water for use at the refinery and nearby horse race track. If you have any information that the pond has been used for any other purposes or has contained any other types of fluids, the OCD requests that the BLM supply the OCD with that information.

If you have any questions, please contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

Enclosures

xc: OCD Aztec District Office
Maura Hanning, NMED Superfund Program
Herbert M. Gorrod, EPA Region VI
Timothy Kinney, Giant Refining Co.

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (5[redacted]41-2555

874
2

GENERAL WATER CHEMISTRY
[redacted]NITROGEN ANALYSIS

DATE RECEIVED 6 10 86	LAB NO. WC-2511	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 860605	SITE INFORMATION ►	Sample location: RAW WATER POND	
Collection TIME 1510		Collection site description: GIANT BLOOMFIELD REFINERY	
Collected by — Person/Agency: Boyer /OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type: GRAB
pH (00400): 7	Conductivity (Uncorrected): 350 µmho	Water Temp. (00010): 26 °C	Conductivity at 25°C (00094): µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☐ Other:		
☐ Other:		
☐ Other:		

F, NA		Units	Date analyzed
☒ Calcium (00915)	36	mg/l	6 11
☒ Magnesium (00925)	9.76	mg/l	"
☒ Sodium (00930)	16.1	mg/l	"
☒ Potassium (00935)	1.95	mg/l	"
☒ Bicarbonate (00440)	103	mg/l	6/13
☒ Chloride (00940)	8	mg/l	6/17
☒ Sulfate (00945)	86	mg/l	6/19
☒ Total filterable residue (dissolved) (70300)	253	mg/l	6/13
☒ Other: CO_3	0		6/13

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	7 10 86	

Laboratory remarks

FOR OCD USE -- Date Owner Notified _____ Phone or Letter? _____ Initals _____

90

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

HEAVY METALS
~~GENERAL WATER CHEMISTRY~~ and NITROGEN ANALYSIS

DATE RECEIVED 7 | 16 | 86	LAB NO. HM-1358	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 36|06|05	SITE INFORM-ATION ►	Sample location RAW WATER POND	
Collection TIME 1510		Collection site description GIANT BLOOMFIELD REFINERY	
Collected by — Person/Agency Boyer /OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400) 7	Conductivity (Uncorrected) 350 µmho	Water Temp. (00010) 26 °C	Conductivity at 25°C (00094) µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☐ **NA:** No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

~~UF, NA~~	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP		
~~☒ AS~~		
☐ Other:		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4

☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst	Date Reported	Reviewed by
	7 | 23 | 86	Jim Ridley

Laboratory remarks

FOR OCD USE -- Date Owner Notified _____ Phone or Letter? _____ Initals _____

Lab Number: #M 1358

Date Submitted: 7/16/86

By: Boyer

Sample Code: Raw Water Pond

Date Analyzed: 7/18/86

Reviewed By: Jim Hanley

Date Reported: 7/23/86

Element	ICAP VALUE(MG/L)	AA VALUE(MG/L)
Aluminum	<0.1	
Barium	<0.1	
Berylium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	39.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	<0.1	
Lead	<0.1	
Magnesium	8.2	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	0.6	
Silver	<0.1	
Strontium	0.5	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		
Selenium		
Mercury		

86-0814-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

WPU

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 814 - A - B
DATE REC. 7-11-86
PRIORITY

PHONE(S): 827-5812
USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer
CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 0 7 0 8 1 0 4 0 R C A

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: _____

COUNTY: SAN JUAN; CITY: BLOOMFIELD CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 2 9 N + 1 2 W + 2 7 + 1 1 1 1 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [ ] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: _____

FIELD DATA:

pH=_____; Conductivity=_____umho/cm at _____°C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ _____/_____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____-_____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

GIANT REFINERY, BLOOMFIELD - RAW WATER POND

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): R. C. Anderson Method of Shipment to the Lab:_____

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from _____ to _____

at (location) _____ on ____/____/____ - ____:____ and that

the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [ ] No [ ]

Signatures _____ _____

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 814

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☐ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
aromatic purgeables	ND		
halogenated purgeables	ND		
* DETECTION LIMIT *	* 5 ppb	+ DETECTION LIMIT +	+ 1 ppb

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT

T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)

[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: _____

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes ☐ No ☒. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 15 July 16 July 96 Analyst's signature: K Finney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: R Meyerhen

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

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

January 27, 1994

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-162

Mr. Herbert M. Gorrod (6H-EO)
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202-2733

Re: Request for Information dated 12/27/93
Lee Acres Landfill
Farmington, New Mexico

Dear Mr. Gorrod:

The Energy, Minerals and Natural Resources Department, Oil Conservation Division has been supplied a copy of the December 27, 1993 "Request for Information Pursuant to Section 104 of CERCLA and Section 3007 of RCRA, for Lee Acres Landfill, Farmington, New Mexico". The document is addressed to and the information is requested of the "New Mexico Environment Department, Oil Conservation Division". Please be advised that no such agency exists in the State of New Mexico.

Please clarify the New Mexico agency(s), if any, that you are requesting information of. If you have any questions please contact me at the above address or at (505) 827-5812.

Sincerely:

Roger C. Anderson
Environmental Bureau Chief
Oil Conservation Division
Energy, Minerals and Natural Resources Department

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated Jan 4, 1994

or cash received on Jan 7, 1994 in the amount of $ 690.00

from Giant Crude Gathering Operations

for Giant Bloomfield Refinery (Facility Name) GW-40 (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: Kathy Brown Date: Jan 7, 1994

Received in ASD by: Sandra Vigil Date: 1-7-94

Filing Fee ___ New Facility ___ Renewal X

Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY _____

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ___

[redacted]

GIANT CRUDE GATHERING OPERATIONS
P. O. BOX 256 505-632-3306
FARMINGTON, NM 87499

95-106/1022

Jan. 4, 19 94

PAY TO THE ORDER OF NMED-Water Quality Management Fund $ 690.00

Six hundred ninety and 00/100---------- DOLLARS

FirstBank
P.O. Box 630 (505) 325-1971
Farmington, New Mexico 87499-0630

FOR RFE #9834

Deanna Miller

[redacted]

GIANT REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

January 4, 1994

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

RE: DISCHARGE PLAN GW-40

Enclosed please find a check in the amount of $690.00 to cover the discharge plan renewal fee for Giant's Bloomfield Refinery.

Sincerely,

Deanna Miller

Deanna Miller
Office Manager

/dm

Enclosure

GIANT
REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

December 21, 1993

Mr. Roger Anderson
Environmental Bureau Chief
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504

Dear Mr. Anderson:

RE: Discharge Plan GW-40
Giant Bloomfield Refinery

Pursuant to our telephone conversation of December 20, 1993, Giant is submitting the following revision to Figure #13 of the Discharge Plan renewal application.

Sincerely,

Tim Kinney
Refinery Remediation
Project Manager

/dm

Enclosure

cc Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
Valda Terauds-H+GCL
Stephanie Odell-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Herbert Gorrod-EPA
Jim Durrett-SJC
Denny Foust-OCD

FIGURE #13

GIANT BLOOMFIELD REFINERY
SAMPLE MATRIX

Location	Monthly	Quarterly	Semi Annually	Annual
Stripper Influent		601 602 GWC	601 602 GWC	601 602 GWC
System Effluent		601 602 GWC PAH	601 602 GWC PAH	601 602 GWC Metals PAH
GRW-3				601 602 GWC PAH
GRW-6				601 602 GWC PAH
GRW-13				601 602 GWC PAH
GBR-15			601 602	601 602 GWC
GBR-17			601 602	601 602 GWC PAH
GBR-24D			601 602 PAH	601 602 GWC PAH

GIANT BLOOMFIELD REFINERY
SAMPLE MATRIX

Location	Monthly	Quarterly	Semi Annually	Annual
GBR-30			601 602	601 602 GWC PAH
GBR-31		601 602	601 602	601 602 GWC PAH
SHS-3			601 602	601 602 GWC
SHS-4			601 602	601 602 GWC
SHS-6				601 602 GWC
SHS-10		601 602	601 602	601 602 GWC
SHS-12		601 602	601 602	601 602 GWC
SHS-13		601 602	601 602	601 602 GWC
SHS-14				601 602 GWC

GIANT BLOOMFIELD REFINERY
SAMPLE MATRIX

Location	Monthly	Quarterly	Semi Annually	Annual
SHS-15			601 602	601 602 GWC
SHS-16		601 602	601 602	601 602 GWC
SHS-17		601 602	601 602	601 602 GWC
SHS-7				601 602 GWC
SHS-9				601 602 GWC
SHS-18				601 602 GWC
GBR-51				601 602 GWC
GBR-52				601 602 GWC
GBR-32			601 602 GWC Metals	601 602 GWC Metals

GIANT BLOOMFIELD REFINERY
SAMPLE MATRIX

Location	Monthly	Quarterly	Semi Annually	Annual
GBR-48			601 602 GWC Metals	601 602 GWC Metals
GBR-49			601 602 GWC Metals	601 602 GWC Metals
GBR-50			601 602 GWC Metals	601 602 GWC Metals

Notes

All wells will have water and free product elevations determined on a monthly basis.

Wells exhibiting free product will not be sampled.

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal | Time 1600 | Date 12/29/93

Originating Party	Other Parties
Bill Olson - Environmental Bureau	Tim Kinney - Giant Industries 632-3306

Subject

Giant Bloomfield Refinery Discharge Plan

Discussion

Discussed OCD recommendations for sampling of effluent and MW's at Refinery
Rest of DP looks OK

Conclusions or Agreements

He will resubmit figure #13 "Sample Matrix" as replacement for sampling schedule containing the changes as discussed

Distribution R/L

Signed Bill Olson

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Ecological Services
Suite D, 3530 Pan American Highway, NE
Albuquerque, New Mexico 87107

November 26, 1993

Permit# GW94005

Mr. William J. Lemay
Director, State of New Mexico
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Lemay:

This responds to the notice of publication received by the U.S. Fish and Wildlife Service (Service) on November 4, 1993, regarding the Oil Conservation Division (OCD) discharge plan applications submitted by Giant Industries and Amoco Production Company, on fish, shellfish, and wildlife resources in New Mexico.

The Service has the following comments on the issuance of the following discharge permits.

> GW-40 Giant Industries Arizona, Inc., Giant Bloomfield Refinery located in the NW 1/4 of section 27, T29N, R12W, and the SW 1/4 of section 22, T29N, R12W, San Juan County, New Mexico. Approximately 32,877 gallons per day of groundwater will be processed through a treatment system to remove contaminants prior to reinjection into an infiltration gallery.
>
> GW-157 Amoco Production Company, Gallegos Canyon Unit Com F#162 located in the NE 1/4, SW 1/4 of section 36, T29N, R12W, San Juan County, New Mexico. Approximately 4,320 gallons per day of groundwater will be processed through a treatment system to remove contaminants prior to reinjection into an infiltration gallery.

The Service recommends that the location of the infiltration gallery be situated to avoid gradients that could lead to non-point source runoff into a surface water of New Mexico. A berm with a height of at least 12 inches above the level of the gallery should be constructed around the perimeter of the field. The Service recommends a clay and caliche mixture for construction of the berm. This material is relatively inexpensive and an excellent barrier to water runoff. The berm should also be constructed and compacted in such a fashion that its integrity will remain intact and should be inspected on a regular basis to insure there is no overflow.

If you have any questions concerning our comments, please contact Mary Orms at (505) 883-7877.

Sincerely,

for Jennifer Fowler-Propst
State Supervisor

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Regional Administrator, U.S. Environmental Protection Agency, Dallas, Texas

AFFIDAVIT OF PUBLICATION

No. 32505

STATE OF NEW MEXICO,
County of San Juan:

C.J. SALAZAR being duly sworn, says: "That she is the CLASSIFIED MANAGER of The Farmington Daily Times, a daily newspaper of general circulation published in English in Farmington, said county and state, and that the hereto attached LEGAL NOTICE

was published in a regular and entire issue of the said Farmington Daily Times, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for ONE consecutive (days) (/////) on the same day as follows:

First Publication WEDNESDAY, NOVEMBER 10, 1993

Second Publication

Third Publication

Fourth Publication

and the cost of publication was $ 68.65

C.J. Salazar

On Nov 17, 1993 C.J. Salazar appeared before me, whom I know personally to be the person who signed the above document.

Jimmy Beck

Notary Public, San Juan County, New Mexico

My Comm expires: April 2, 1996

COPY OF PUBLICATI

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 (WQCC) Regulations, the following discharge plan application and discharge plan renewal application have been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(GW-40) - Giant Industries Arizona, Inc., Timothy Kinney, Project Manager, P.O. Box 256, Farmington, New Mexico 87499, has submitted an application to renew a discharge plan application for their inactive Giant Bloomfield Refinery located in the NW 1/4 of Section 27, Township 29 North, Range 12 West, and the SW 1/4 of Section 22, Township 29 North, Range 12 West NMPM, San Juan County, New Mexico. The application addresses discharges to ground water associated with the remediation of petroleum contaminated ground water. Approximately 32,877 gallons per day of ground water with a total dissolved solids concentration of approximately 2500 mg/l is processed through a treatment system to remove contaminants to below WQCC ground water standards prior to reinection in an infiltration gallery. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 25 to 45 feet with a total dissolved solids concentration of approximately 2500 to 5000 mg/l. The discharge plan addresses system operation and monitoring and how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-157) - Amoco Production Company, Buddy Shaw, Environmental Coordinator, San Juan Operations Center, 200 Amoco Court, Farmington, New Mexico 87401, has submitted a discharge plan application for the Gallegos Canyon Unit Com F#162 located in the NE 1/4, SW 1/4 of Section 36, Township 29 North, Range 12 West San Juan County, New Mexico. The application addresses discharges to ground water associated with the remediation of petroleum contaminated ground water. Approximately 4320 gallons per day of contaminated ground water is proposed to be processed through a treatment system to remove contaminants to below WQCC ground water standards prior to reinjection in an infiltration gallery. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 20 feet with a total dissolved solids concentration of approximately 444 mg/l. The discharge plan addresses system operation and monitoring and how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan applications may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the Director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico on this 2nd day of November, 1993.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY, Director

SEAL

Legal No. 32505 published in the Farmington Daily Times, Farmington, New Mexico Wednesday, November 10, 1993.

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, the following discharge plan application and discharge plan renewal application have been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

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(GW-157) - Amoco Production Company, Buddy Shaw, Environmental Coordinator, San Juan Operations Center, 200 Amoco Court, Farmington, New Mexico 87401, has submitted a discharge plan application for the Gallegos Canyon Unit Com F#162 located in the NE 1/4, SW 1/4 of Section 36, Township 29 North, Range 12 West San Juan County, New Mexico. The application addresses discharges to ground water associated with the remediation of petroleum contaminated ground water. Approximately 4320 gallons per day of contaminated ground water is proposed to be processed through a treatment system to remove contaminants to below WQCC ground water standards prior to reinjection in an infiltration gallery. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 20 feet with a total dissolved solids concentration of approximately 444 mg/l. The discharge plan addresses system operation and monitoring and how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of the publication of this notice during which comments may be submitted to him a public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 2nd day of November, 1993.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
William J. LeMay
Director

Journal: November 17, 1993

STATE OF NEW MEXICO
County of Bernalillo ss

Paul D. Campbell being duly sworn declares and says that he is National Advertising manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 1 times, the first publication being on the 17 day of Nov, 1993, and the subsequent consecutive publications on _____, 1993

Paul D. Campbell

Bernadette Cata

Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 17 day of Nov 1993.

12-18-93

PRICE $47.61

Statement to come at end of month.

CLA-22-A (R-1/93) ACCOUNT NUMBER C 76184

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

New Mexico DRUG FREE It's a State of Mind!

BRUCE KING
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

November 3 1993

ALBUQUEQUE JOURNAL
717 Silver Southwest
Albuquerque, New Mexico 87102

RE: NOTICE OF PUBLICATION

ATTN: ADVERTISING MANAGER

Dear Sir/Madam:

Please publish the attached notice one time immediately on receipt of this request. Please proofread carefully, as any error in a land description or in a key word or phrase can invalidate the entire notice.

Immediately upon completion of publication, please send the following to this office:

1. Publisher's affidavit in duplicate.
2. Statement of cost (also in duplicate.)
2. CERTIFIED invoices for prompt payment.

We should have these immediately after publication in order that the legal notice will be available for the hearing which it advertises, and also so that there will be no delay in your receiving payment.

Please publish the notice no later than November 10, 1993.

Sincerely,

Sally Leichtle
Sally E. Leichtle
Administrative Secretary

Attachment

PS Form **3800**, June 1991

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to Albq Journal
Street and No.
P.O., State and ZIP Code
Postage $
Certified Fee
Special Delivery Fee
Restricted Delivery Fee
Return Receipt Showing to Whom & Date Delivered
Return Receipt Showing to Whom, Date, and Addressee's Address
TOTAL Postage & Fees $
Postmark or Date

P 111 334 247

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

New Mexico DRUG FREE It's a State of Mind!

BRUCE KING
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

November 3 1993

FARMINGTON DAILY TIMES
P. O. Box 450
Farmington, New Mexico 87401

RE: NOTICE OF PUBLICATION

ATTN: ADVERTISING MANAGER

Dear Sir/Madam:

Please publish the attached notice one time immediately on receipt of this request. Please proofread carefully, as any error in a land description or in a key word or phrase can invalidate the entire notice.

Immediately upon completion of publication, please send the following to this office:

1. Publisher's affidavit in duplicate.
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Please publish the notice no later than November 10, 1993.

Sincerely,

Sally Leichtle

Sally E. Leichtle
Administrative Secretary

Attachment

PS Form **3800**, June 1991

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to

Street and No.

P.O., State and ZIP Code

Postage $

Certified Fee

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing to Whom & Date Delivered

Return Receipt Showing to Whom, Date, and Addressee's Address

TOTAL Postage & Fees $

Postmark or Date

P 176 113 208

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 (WQCC) Regulations, the following discharge plan application and discharge plan renewal application have been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(GW-40) - Giant Industries Arizona, Inc., Timothy Kinney, Project Manager, P.O. Box 256, Farmington, New Mexico 87499, has submitted an application to renew a discharge plan application for their inactive Giant Bloomfield Refinery located in the NW 1/4 of Section 27, Township 29 North, Range 12 West, and the SW 1/4 of Section 22, Township 29 North, Range 12 West NMPM, San Juan County, New Mexico. The application addresses discharges to ground water associated with the remediation of petroleum contaminated ground water. Approximately 32,877 gallons per day of ground water with a total dissolved solids concentration of approximately 2500 mg/l is processed through a treatment system to remove contaminants to below WQCC ground water standards prior to reinjection in an infiltration gallery. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 25 to 45 feet with a total dissolved solids concentration of approximately 2500 to 5000 mg/l. The discharge plan addresses system operation and monitoring and how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-157) - Amoco Production Company, Buddy Shaw, Environmental Coordinator, San Juan Operations Center, 200 Amoco Court, Farmington, New Mexico 87401, has submitted a discharge plan application for the Gallegos Canyon Unit Com F#162 located in the NE 1/4, SW 1/4 of Section 36, Township 29 North, Range 12 West San Juan County, New Mexico. The application addresses discharges to ground water associated with the remediation of petroleum contaminated ground water. Approximately 4320 gallons per day of contaminated ground water is proposed to be processed through a treatment system to remove contaminants to below WQCC ground water standards prior to reinjection in an infiltration gallery. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 20 feet with a total dissolved solids concentration of approximately 444 mg/l. The discharge plan addresses system operation and monitoring and how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address

given above. The discharge plan applications may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the Director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 2nd day of November, 1993.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

WILLIAM J. LEMAY, Director

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 11/2/93,

or cash received on 11/5/93 in the amount of $ 50.00

from Giant Crude Gathering Operations

for Giant Bloomfield Oil Refinery (Facility Name) GW-340 (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: Kathy Brown Date: 11/2/93

Received in ASD by: Angie Allen Date: 11/3/93

Filing Fee X New Facility ____ Renewal ____

Modification ____ Other _____ (specify)

Remediation

Organization Code 521.07 Applicable FY 94

To be deposited in the Water Quality Management Fund.

Full Payment ____ or Annual Increment ____

[redacted]

GIANT CRUDE GATHERING OPERATIONS
P. O. BOX 256 505-632-3306
FARMINGTON, NM 87499

95-106/1022

PAY TO THE ORDER OF Water Quality Management Fund November 2, 19 93 $ 50.00

Fifty and no/100---------- DOLLARS

FirstBank
P.O. Box 630 (505) 325-1971
Farmington, New Mexico 87499-0630

FOR RFE #9834 filing fee Deanna Miller

[redacted]

CINIZA PIPE LINE CO.

P.O. Box 1887
Bloomfield, New Mexico
87413

505
632-8006

November 2, 1993

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Mr. Olson:

RE: GIANT'S BLOOMFIELD REFINERY
DISCHARGE PLAN

Enclosed is a check in the amount of $50.00 to cover the filing fee for the above-referenced Discharge Plan.

Sincerely,

Deanna Miller

Deanna Miller
Office Manager

/dm

Enclosure

GIANT
REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

October 26, 1993

Mr. Roger Anderson
Environmental Bureau Chief
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504

Dear Mr. Anderson:

RE: Discharge Plan GW-40
Giant Bloomfield Refinery

Pursuant to your letter of March 3, 1993, Giant is submitting the following discharge plan renewal for your approval.

Please call me with any questions that may arise.

Sincerely,

Tim Kinney
Refinery Remediation
Project Manager

/dm

Enclosure

cc Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
Valda Terauds-H+GCL
Stephanie Odell-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Herbert Gorrod-EPA
Jim Durrett-SJC
Denny Foust-OCD

GIANT REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

October 22, 1993

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Mr. Olson:

Enclosed you will find the quarterly report for Giant Refining Company's Bloomfield Refinery for the third quarter of 1993.

Please contact me if you have any questions.

Sincerely,

Tim Kinney
dm

Tim Kinney
Remediation Project Manager

/dm

Enclosure

ccw/enc: Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
Stephanie Odell-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Valda Terauds-GCL
Jim Durrett-SJC
Herbert Gorrod-EPA
Denny Foust-OCD

GIANT REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

August 3, 1993

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Mr. Olson:

Enclosed you will find the quarterly report for Giant Refining Company's Bloomfield Refinery for the second quarter of 1993.

Please contact me if you have any questions.

Sincerely,

Tim Kinney /dm

Tim Kinney
Remediation Project Manager

/dm

Enclosure

ccw/enc: Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
Stephanie Odell-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Valda Terauds-GCL
Jim Durrett-SJC
Monica Chapa-EPA

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

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

September 21, 1993

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-388

Mr. Timothy A. Kinney
Giant Refining Co.
P.O. Box 256
Farmington, New Mexico 87499

RE: CARBON ADSORPTION SYSTEM
GIANT BLOOMFIELD REFINERY
BLOOMFIELD, NEW MEXICO

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has reviewed the Giant Refining Company's September 13, 1993 "CARBON ADSORPTION SYSTEM INSTALLATION DETAILS" for the Giant Bloomfield Refinery near Bloomfield, New Mexico. This document contains Giant's proposal to install a carbon adsorption unit to remove polynuclear aromatic hydrocarbons from the air stripper effluent prior to reinjection as requested in OCD's June 28, 1993 correspondence.

The above referenced proposal **is approved with the following conditions:**

1. Giant will obtain OCD approval for the disposal of any wastes generated from the cleaning or reactivation of the carbon adsorption system prior to initiation of the work.

2. Giant will provide OCD with a copy of the hydrotesting results of the piping system upon completion of the tests.

3. Giant will include the results of the proposed water quality sampling modifications in future quarterly reports.

Please be advised that OCD approval does not relieve Giant of liability should operation of this system result in actual pollution of surface water, ground water or the environment. In addition, OCD approval does not relieve Giant of responsibility for

compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist

xc: OCD Aztec District Office
Dale Doremus, NMED Superfund Program
Hubert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington District Office

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

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

September 20, 1993

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-387

Mr. Timothy A. Kinney
Giant Refining Co.
P.O. Box 256
Farmington, New Mexico 87499

RE: BIOREMEDIATION PILOT PROJECT
GIANT BLOOMFIELD REFINERY
BLOOMFIELD, NEW MEXICO

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has reviewed the Giant Refining Company's August 23, 1993 "TECHNICAL PROPOSAL FOR BIOREMEDIATION PILOT PROJECT". This document contains Giant's proposal to promote bioremediation of dissolved phase petroleum hydrocarbons in ground water at the Giant Bloomfield Refinery near Bloomfield, New Mexico.

The above referenced proposal **is approved with the following conditions:**

1. Giant will include water quality sampling results which are proposed for monitor wells GBR-6, GBR-20 and GBR-41 in future quarterly monitoring reports.

2. Giant will provide OCD with an evaluation of the effectiveness of the enhanced bioremediation system by December 1, 1994.

3. OCD approval for this pilot project will terminate on December 31, 1994. If Giant wishes to continue to employ these techniques after December 31, 1994, the system must be incorporated into the discharge plan for the facility.

Please be advised that OCD approval does not relieve Giant of liability should operation of this system result in additional pollution of surface water, ground water or the environment. In addition, OCD approval does not relieve Giant of responsibility for

compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist

xc: OCD Aztec District Office
Dale Doremus, NMED Superfund Program
Hubert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington District Office

GIANT
REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

September 14, 1993

Mr. William C. Olson
Hydrogeologist
Environmental Bureau
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Mr. Olson:

RE: Giant's Bloomfield Refinery

Giant Industries Arizona, Inc. ("Giant") is in receipt of your letters to Mr. Herbert Gorrod dated June 28, 1993 and September 3, 1993. These letters contain certain statements regarding substances that the Oil Conservation Division ("OCD") believes have emanated from Giant's Bloomfield Refinery. Giant wants to make certain that the letters are not misconstrued. In particular, Giant does not want recipients of your letters to assume that they express Giant's position on these matters. Should you receive any questions about this issue, please represent that the opinions expressed are only those of OCD.

Sincerely,

Timothy A. Kinney
Remediation Project Manager

/dm

cc Herbert Gorrod, EPA
OCD Aztec Office
Dale Doremus, NMED
Stephanie Odell, BLM Farmington District

GIANT
REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

September 13, 1993

Mr. Bill Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Bill:

SUBJECT: Carbon Adsorption System Installation Details

Enclosed are drawings numbered 1075 and 1076 outlining piping and installation of the carbon adsorption system in the refinery. The system will allow us to discharge carbon filtered water to either of the existing infiltration galleries. Also, after successful installation of the filter, water will only be air stripped once, since final polishing of the air stripper effluent can be readily accomplished by the carbon unit. Utilizing the carbon unit in place of a second air stripping event should result in a cost benefit from reduced utility, chemical, and maintenance items, possibly offsetting a portion of the cost of carbon use, while actually resulting in an improved system effluent quality. In addition, provisions for nutrient injection for the bioremediation project are being installed in conjunction with this project. Details of this are noted on drawing 1075.

All underground piping is schedule 40 PVC; aboveground piping is schedule 80 PVC. All unfiltered water piping is equipped for hydrotesting. Hydrotesting will be performed at 100 psi prior to system startup.

Giant proposes to sample for BTEX and PAH components twice monthly for the first two months of operation. Thereafter, sampling would be done on a monthly basis for BTEX and a quarterly basis for PAH.

This project is well underway. Major components have been ordered and the installation of piping is nearly complete. We expect delivery of the filter unit in mid October. Completion of the project is scheduled for November 1, 1993.

Please call me at 632-8006 with questions and comments.

Sincerely,

Timothy A. Kinney
Bloomfield Refinery
Remediation Manager

/dm

cc Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
Valda Terauds-Giant
Stephanie Odell-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Hubert Gorrod-EPA
Jim Durrett-SJC

Northern Infiltration Gallery

Air Stripper Effluent To Carbon Filtration

Tank 102

Tank 101

Air Injector

Air Stripper

To The Offsite Area

Filtered Water To Southern Infiltration Gallery

Filtered Water To Northern Infiltration Gallery

Air Line

Old Fire Pump House

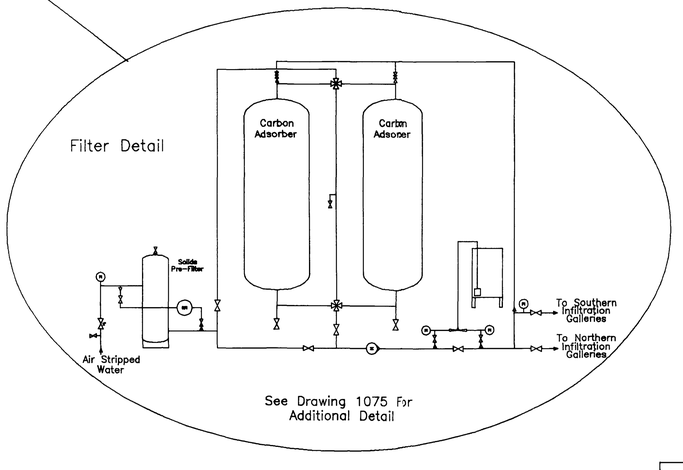
Old Dispatch Office

Electrical Conduit

Air Injector

Southern Infiltration Gallery

Filter Detail



See Drawing 1075 For Additional Detail

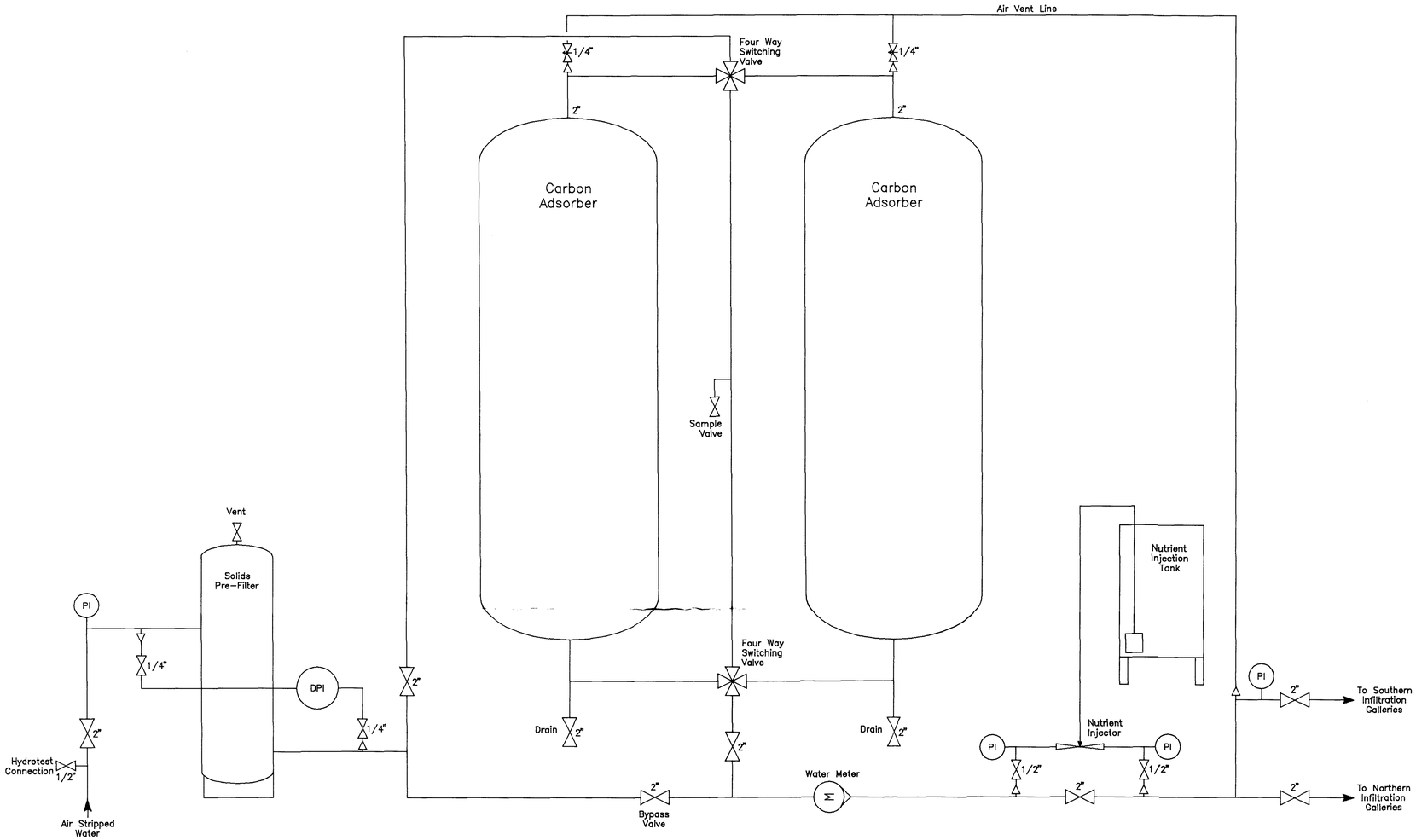
------ Existing Piping

——— New Piping

GIANT

Carbon Adsorption Refinery Piping Modification

1076	Date: 8/25/93	By: Tim Kinney	Rev: 0



GIANT

Carbon Adsorption and Nutrient Injection Flow Diagram

1075	Date: 9/25/93	By: Tim Kinney	Rev: 0

GIANT REFINING CO.
P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

August 23, 1993

Mr. William Olson
Hydrogeologist
Environmental Bureau
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Mr. Olson:

RE: REMEDIATION PILOT PROJECT PROPOSAL

Giant Refining Company is pleased to present the enclosed Technical Proposal for Bioremediation Pilot Project. If you have any questions or comments, please feel free to call me.

Sincerely,

Tim Kinney

Tim Kinney
Refinery Remediation Manager

/dm

Enclosure

cc: Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
Valda Terauds-H+GCL
Stephanie Odell-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Herbert Gorrod-EPA
Jim Durrett-SJC

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

August 18, 1993

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-375

Mr. Timothy A. Kinney
Giant Refining Co.
P.O. Box 256
Farmington, New Mexico 87499

RE: VAPOR EXTRACTION PILOT PROJECT
GIANT BLOOMFIELD REFINERY
BLOOMFIELD, NEW MEXICO

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has reviewed the Giant Refining Company's August 12, 1993 "GIANT BLOOMFIELD REFINERY VAPOR EXTRACTION PILOT PROJECT". This correspondence contains Giant's proposal to test the feasibility of using existing monitor wells to remove contaminants from the unsaturated zone using standard vapor extraction techniques.

The above referenced proposal is hereby approved with the following condition:

1. Giant will determine the initial concentrations of contaminants being extracted in the vapor phase upon initiation of the project.

Please be advised that OCD approval does relieve Giant of responsibility for compliance with any other federal, state or local laws and/or regulations.

The OCD looks forward to reviewing the results of this project. If you have any questions please, contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist

xc: OCD Aztec District Office
Dale Doremus, NMED Superfund Program
Hubert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington District Office

GIANT
REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

August 12, 1993

Mr. Bill Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Bill:

RE: GIANT BLOOMFIELD REFINERY
VAPOR EXTRACTION PILOT PROJECT

As we discussed on the phone today, Giant proposes to initiate a vapor extraction pilot project in the diesel spill area of the refinery.

Giant proposes to connect four monitoring wells, GBR-33, GBR-34, GBR-35, and GBR-22, via a network of PVC pipe to a fractional horsepower vacuum blower and begin extracting vapor under a vacuum of approximately 5" WC. The purpose of the project is to determine the vapor extraction rate at nominal vacuum pressure, and approximate the hydrocarbon type and concentration in the effluent after three weeks of operation. From this information, we hope to be able to determine the feasibility and effectiveness of a larger scale vapor extraction project in the refinery.

With OCD approval, Giant intends to initiate the extraction on August 23, 1993, sample the effluent three weeks later and report the findings by the middle of October, 1993.

We are looking forward to your response. Please call if additional information is required.

Sincerely,

Tim Kinney
Refinery Remediation
Project Manager

/dm

cc Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
Stephanie Odell-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Valda Terauds-GCL
Jim Durrett-SJC
Herbert Gorrod-EPA

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

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

MEMORANDUM

TO: William J. Lemay, Director

FROM: William C. Olson, Geologist IV

THROUGH: Roger C. Anderson, Environmental Bureau Chief

DATE: August 5, 1993

RE: **BRIEF HISTORY OF LEE ACRES LANDFILL SUPERFUND SITE AND GIANT BLOOMFIELD REFINERY SAN JUAN COUNTY, NEW MEXICO**

The Giant Bloomfield Refinery was operated from 1973 to 1982 for the refining of crude oil produced in the San Juan Basin. Operation of the refinery resulted in ground water contamination from petroleum product losses from leaks and spills, disposal of petroleum wastes in unlined pits and use of an unlined pit for igniting petroleum products for firefighting training exercises.

The Lee Acres Landfill is located along an arroyo upgradient of the Giant Bloomfield Refinery on Bureau of Land Management (BLM) property between Bloomfield and Farmington, New Mexico. The property was leased to San Juan County for use as a county landfill from 1962 to 1986. Solid wastes were disposed in trenches at the facility throughout the life of the landfill. A series of lagoons were constructed at the facility in the late 1970's and were used for the disposal of a variety of liquid wastes until 1985. OCD sampling of the lagoons in January and February 1985 showed the liquids in the impoundments to contain a variety of chlorinated solvents, petroleum constituents, heavy metals and salts. In April 1985 a breach in the dike of the lagoons released the liquid wastes to an adjacent arroyo which flows across the refinery and the Lee Acres Subdivision. This release also caused a gaseous release from the northernmost lagoon resulting in an emergency situation requiring immediate treatment and closure of the lagoons. After closure of the lagoons, sampling of residential wells by the New Mexico Environment Department (NMED) and OCD identified contaminated ground water in private water wells in the Lee Acres Subdivision downgradient of both the Lee Acres Landfill and Giant Bloomfield Refinery.

Subsequently the OCD required Giant to perform a ground water investigation related to their refinery activities and the NMED required BLM to investigate contaminated ground water downgradient of the landfill. The investigations have defined two separate plumes of contaminated ground water which become commingled across the refinery and into the Lee Acres Subdivision.

One ground water contaminant plume originates from the Giant Bloomfield refinery and extends south of the refinery into the Lee Acres subdivision. Ground water contaminants contained in the refinery plume include free phase and dissolved petroleum products. The dissolved phase constituents related to the refinery are benzene, toluene, ethylbenzene, xylene, napthalene and 1,2 dichloroethane (a leaded gasoline additive). Giant Refining Co. initiated a recovery system for free phase products in ground water at the southern property boundary in early 1987. The recovery system was expanded in successive years to include a comprehensive ground water remediation and monitoring system in the refinery and in the Lee Acres Subdivision.

The second ground water contaminant plume originates from the Lee Acres Landfill located upgradient of the refinery. The landfill's dissolved phase plume extends downgradient of the landfill onto the northern refinery property, commingles with petroleum contaminants across the west-central side of the refinery and continues into the Lee Acres Subdivision. Ground water contaminants contained in the landfill plume include dissolved phase chlorinated solvents, salts and metals. The dissolved phase constituents related to the landfill are 1,1 Dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, 1,1,1-trichlorothane, trichloroethene, total dissolved solids, chloride and manganese. Due to the potential risks of these contaminants, the landfill was listed by EPA as a Superfund Site in 1990. The BLM investigation is still ongoing and a final report on the investigation is expected by early 1994. No remediation of contaminated ground water from the landfill has been initiated to date.

GIANT REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

July 23,1993

Mr. William C. Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
Post Office Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Olson:

RE: Your Letter of 6/28/93 Regarding Air Stripper Effluent

Giant Industries Arizona, Inc. (Giant) has received your letter of June 28, 1993 regarding air stripper effluent at our Bloomfield Refinery.

Giant proposes to add a carbon absorption unit to the existing remediation system in the refinery to address concerns about excessive PAH levels in the air stripper effluent. Plans are currently being developed, and Giant expects to complete the installation by November 1, 1993. As details are developed, they will be submitted for OCD review and approval.

If questions arise, please contact me at 632-8006.

Sincerely,

Timothy A. Kinney
Bloomfield Refinery
Remediation Manager

/dm

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

June 28, 1993

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Herbert M. Gorrod, RPM
United States Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

RE: EPA COMMENTS ON GIANT BLOOMFIELD REFINERY BLOOMFIELD, NEW MEXICO

Dear Mr. Gorrod:

The New Mexico Oil Conservation Division (OCD) has reviewed your April 28, 1993 "LEE ACRES LANDFILL SUPERFUND SITE COMMENTS ON GIANT BLOOMFIELD REFINERY QUARTERLY REPORT, 1993". This correspondence requested information from OCD regarding EPA's review of Giant's first quarter 1993 report on water quality monitoring of ground water remedial activities at the Giant Bloomfield Refinery.

The responses below correspond to the question numbering sequence used in the above referenced letter:

1. Air Stripper Effluent

   a. The trace levels of halocarbons observed in the effluent, but not in the influent, are near the laboratory detection limits and are within the range of error for either the sampling technique or the analysis method. These chlorinated organics are commonly found at low levels in refinery ground water during monitor well sampling and are related to both Giant's and Lee Acres Landfill disposal practices. While the concentrations of these constituents are well below New Mexico Water Quality Control Commission (WQCC) ground water standards, the OCD has notified Giant of this discrepancy.

   b. The OCD is confused as to which aromatic constituents in the air stripper effluent exceed "Drinking Water Quality Standards". OCD's review of the data in the first quarter 1993 report does not reveal any aromatics that exceed either state or federal drinking water quality standards.

   c. The concentrations of polycyclic aromatic hydrocarbons (PAH) in the air stripper effluent is in excess of WQCC ground water standards. The OCD has notified Giant of this and requested that Giant implement additional remedial measures to ensure that the air stripper effluent does not exceed WQCC standards.

2. The presence of 1,2 Dichloroethane (1,2 DCA) in recovery well GRW-13 and monitor wells GBR-15 and GBR-24D has been observed since their installation in 1986. The concentrations observed in GBR-15 and GBR-24D are above the WQCC 1,2 DCA standard of 10 parts per billion and are a part of the OCD approved site remediation plan.

   Giant's June 1987 "SOIL AND GROUND WATER INVESTIGATIONS AND REMEDIAL ACTION PLAN" lists the contaminants in this area as resulting from two separate underground diesel pipeline breaks in the mid 1980's. However, 1,2 DCA is a leaded gasoline additive not present in diesel fuel. The OCD has assumed that 1,2 DCA in this area is a result of historic leaks and spills at the fuel loading racks adjacent to these wells. The OCD has commonly observed this type of contamination at fuel loading racks at other sites.

3. The OCD does not believe that the chlorinated organics in the area of Giant monitor well SHS-13 are an unusual occurrence or a result of either residential dumping or spills at this location. The sinuous nature of the buried braided channels underlying the Lee Acres subdivision makes the exact path of contaminant migration in the subdivision difficult to predict.

   The 1,2 DCA and toluene found in SHS-13 are related to migration of leaded gasoline contaminants from the refinery property.

   The remaining chlorinated organics, including but not limited to, Trichlorethene, 1,1,1 Trichloroethane, 1,1 Dichloroethane and 1,2 Dichloroethene are related to disposal activities at the Lee Acres Landfill. These contaminants have either been documented in wastes at the landfill or can be traced directly to the landfill through the monitor well network installed by both the Bureau of Land Management and Giant Refining.

If you have any questions, regarding the above information please do not hesitate to contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec Office
Dale Doremus, NMED
Tim Kinney, Giant Refining Co.
Stephanie Odell, BLM Farmington District

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

DRUG FREE

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

June 28, 1993

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-348

Mr. Timothy A. Kinney
Giant Refining Co.
P.O. Box 256
Farmington, New Mexico 87499

RE: AIR STRIPPER EFFLUENT
GIANT BLOOMFIELD REFINERY
BLOOMFIELD, NEW MEXICO

Dear Mr. Kinney:

The New Mexico Oil Conservation Division (OCD) has recently reviewed the Giant Refining Company "QUARTERLY DATA REPORT, GIANT BLOOMFIELD REFINERY, FIRST QUARTER 1993" which was submitted to OCD on April 13, 1993.

The OCD's review of the January 1993 laboratory analytical data for the air stripper effluent shows that the concentration of polycyclic aromatic hydrocarbons (PAH), total napthalene plus monomethylnapthalene, is in excess of the New Mexico Water Quality Control Commission (WQCC) ground water standard for this constituent.

Therefore, the OCD requests that Giant submit a plan to OCD by July 30, 1993 to remediate PAH's in the air stripper effluent to below the WQCC ground water standard prior to it's discharge.

If you have any questions please, contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist

xc: OCD Aztec District Office
Dale Doremus, NMED Superfund Program
Hubert M. Gorrod, EPA Region VI
Stephanie Odell, BLM Farmington District Office

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

APR 28 1993

William Olsen, Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P.O. Box 2088
Santa Fe, NM 87504-2088

RE: Lee Acre Landfill Superfund Site
Comments on Giant Bloomfield Refinery
Quarterly Report, 1993

Dear Bill:

I have reviewed the 1st Quarterly Report for 1993 on the Giant Bloomfield Refinery and have several comments that may require some action:

1. The stripper does not seem to be effective. The effluent has:
   a. Halocarbons that do not appear in the influent are recorded in the effluent.
   b. Aromatics exceed Drinking Water Quality Standards on occasions.
   c. PAHs in the effluent seem abnormally high; however, there is no PAH analyses for the influent stream for comparison.

2. There is a concentration of 1,2-Dichloroethane (1,2-DCA) in the area of wells GRW-13, GBR-15, GBR-24D. Do these concentrations, up to 23.6 ppb, exceed New Mexico standards? The location of the 1,2-DCA pocket is odd, because it is up-gradient, at least side-gradient, from a majority of the old refinery. Is there an explanation for this occurrence?

3. SHS-13 shows unusual concentrations of VOCs, a maximum of 12.0 ppb of 1,2-DCA plus minor amounts of others. This well is separated from the plant by several Non-Detect wells. Since SHS-13 borders the road into the sub-division, is it a possible dump site for the residents or is it a spill site ?

Hopefully, we can discuss these questions at a later date.

Sincerely,

Herbert M. Gorrod, RPM
Lee Acres Landfill Superfund Site
(214) 655-6779

cc. Dale Doremus, NMED
Stephanie Odell, BLM

GIANT
REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

April 8, 1993

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Mr. Olson:

Enclosed you will find the quarterly report for Giant Refining Company's Bloomfield Refinery for the first quarter of 1993.

Please contact me if you have any questions.

Sincerely,

Tim Kinney
Remediation Project Manager

/dm

Enclosure

ccw/enc: Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
William Murphy-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Valda Terauds-GCL
Jim Durrett-SJC
Monica Chapa-EPA

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

March 3, 1993

CERTIFIED MAIL
RETURN RECEIPT NO.P-111-334-305

Mr. Timothy Kinney
Giant Refining Co.
P.O. Box 256
Farmington, New Mexico 87499

RE: Discharge Plan GW-40
Giant Bloomfield Refinery
Bloomfield, New Mexico

Dear Mr. Kinney:

On December 9, 1988, the groundwater discharge plan , GW-40 for the Giant Bloomfield Refinery located in the Sections 22 and 27, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico, was approved by the Director of the Oil Conservation Division (OCD). This discharge plan was required and submitted pursuant to Water Quality Control Commission (WQCC) regulations and was approved for a period of five years. The approval will expire on December 9, 1993.

If your facility continues to have potential or actual effluent or leachate discharges and you wish to continue operations, you must renew your discharge plan. The OCD is reviewing discharge plan submittals and renewals carefully and the review time can extend for several months. Please indicate whether you have made, or intend to make, any changes in your discharge system, and if so, please include these modifications in your application for renewal.

Note that the completed and signed application form must be submitted with your discharge plan renewal request.

If you no longer have any actual or potential discharges please notify this office. If you have any questions, please do not hesitate to contact me at (505) 827-5812.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/WCO.cee

xc: OCD Aztec Office

Bloomfield Refining Company
A Gary Energy Corporation Subsidiary

OIL CONSERVATION DIVISION
RECEIVED
'93 FEB 10 AM 8 09

February 4, 1993

Mr. Charles Gholson
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Mr. Roger Anderson
New Mexico OCD
Land Office Building
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

RECEIVED
FEB 5 1993
OIL CON. DIV.
DIST. 3

Dear Sirs:

Attached is a subsequent notification of a spill that occurred at Bloomfield Refining Company on February 4, 1993. Approximately 45 barrels of reformate was spilled inside a tank dike. The spilled material was immediately recovered by vacuum truck.

Please call me if you need additional information.

Sincerely,

Chris Hawley
Environmental Manager

CH/jm

Enclosure

cc: Dave Roderick
Joe Warr
John Goodrich
Chad King

NEW MEXICO OIL CONSERVATION COMMISSION

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND BLOWOUTS

NAME OF OPERATOR Bloomfield Refining Company					ADDRESS P. O. Box 159, Bloomfield, New Mexico 87413		
REPORT OF	FIRE	BREAK	SPILL X	LEAK	BLOWOUT	OTHER*	
TYPE OF FACILITY	DRLG WELL	PROD WELL	TANK BTTY	PIPE LINE	GASO PLNT	OIL RFY X	OTHER*
NAME OF FACILITY Bloomfield Refining Company							
LOCATION OF FACILITY (QUARTER/QUARTER SECTION OR FOOTAGE DESCRIPTION)					SEC. 27	TWP. T29N	RGE. R11W	COUNTY San Juan
DISTANCE AND DIRECTION FROM NEAREST TOWN OR PROMINENT LANDMARK Immediately south of Bloomfield, New Mexico							
DATE AND HOUR OF OCCURENCE 2/4/93, 6:30 a.m.					DATE AND HOUR OF DISCOVERY 2/4/93, 6:45 a.m.		
WAS IMMEDIATE NOTICE GIVEN?	YES X	NO	NOT REQUIRED		IF YES, TO WHOM Frank Chavez		
BY WHOM Chris Hawley					DATE AND HOUR 2/4/93, 1:30 p.m.		
TYPE OF FLUID LOST Reformate					QUANTITY OF SPILL 45 bbls	QUANTITY RECOVERED 43 bbls	LOSS 2 bbls
DID ANY FLUIDS REACH A WATERCOURSE?	YES	NO X	QUANTITY				

IF YES, DESCRIBE FULLY**

RECEIVED
FEB 5 1993
OIL CON. DIV.
DIST. 3

DESCRIBE CAUSE OF PROBLEM AND REMEDIAL ACTION TAKEN**

Operator error, overran tank #5.

DESCRIBE AREA AFFECTED AND CLEANUP ACTION TAKEN**

Filled water draw sump (12 bbls), rest contained inside tank dike. Called out vacuum truck to recover spill. Most of loss by evaporation.

DESCRIPTION OF AREA	FARMING	GRAZING	URBAN	OTHER* Industrial			
SURFACE CONDITIONS	SANDY	SANDY LOAM X	CLAY	ROCKY	WET X	DRY	SNOW

DESCRIBE GENERAL CONDITIONS PREVAILING (TEMPERATURE, PRECIPITATION, ETC.)**

Clear, still, about 25°F.

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

SIGNED [signature] TITLE Environmental Manager DATE 2/4/93

*SPECIFY **ATTACH ADDITIONAL SHEETS IF NECESSARY

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 1/8/93,

or cash received on 1/25/93 in the amount of $ 1955.00

from Bloomfield Refining Company

for Bloomfield Refinery (Facility Name) GW-1 (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: Kathy Brown Date: 1/25/93

Received in ASD by: Shirley C Montoya Date: 1/25/93

Filing Fee ____ New Facility ____ Renewal X

Modification ____ Other _____ (specify)

Organization Code 521.07 Applicable FY 93

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ____

Bloomfield Refining Company
A Gary-Williams Energy Corporation Subsidiary

Republic Plaza
370 17th Street, Suite 5300
Denver, Colorado 80202
(303) 628-3800

FIRST BANK
EAST GRAND FORKS
EAST GRAND FORKS, MINNESOTA 56721
75-1592/912

CHECK NUMBER [redacted]

DATE ISSUED	AMOUNT
1/08/93	$***1,955.00

PAY$****1,955.00 **********

THIS CHECK VOID UNLESS CASHED WITHIN 120 DAYS OF ISSUE DATE

GENERAL ACCOUNT

TO THE ORDER OF

NMED-WATER QUALITY MANAGEMENT
NM ENERGY,MINERALS & NATURAL
RESOURCES DEPT.
OIL CONSERVATION DIVISION
P.O. BOX 2088
SANTA FE, NM 87504 [redacted]

Two Signatures Required if $25,000 or More
Special Signatures Required if $100,000 or More

GIANT REFINING CO.

P.O. Box 256
Farmington, New Mexico
87499

505
632-3306

January 5, 1993

Mr. William Olson
Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
P. O. Box 2088
Santa Fe, NM 87504-2088

Dear Mr. Olson:

Enclosed you will find the quarterly report for Giant Refining Company's Bloomfield Refinery for the fourth quarter of 1992.

Please contact me if you have any questions.

Sincerely,

Tim Kinney
Remediation Project Manager

/dm

Enclosure

ccw/enc: Carl Shook-Giant
Kim Bullerdick-Giant
Debbie Smith-Giant
William Murphy-BLM
Dale Doremus-EID
Chris Shuey-SWRIC
Martin Nee-GCL
Jim Durrett-SJC
Monica Chapa-EPA