

3R-401

Annual GW Report

DATE:
August 2005



COPY

RICHARDSON OPERATING COMPANY

5600 South Quebec Street, Suite 130B
Greenwood Village, CO 80111
(303) 830-8000 Fax (303) 830-8009

2006 SEP 25 PM 1 10

September 21, 2006

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

ATTN: Glenn von Gonten

RE: BOB AND BLANCHE #1 MONITORING PLAN

Dear Mr. von Gonten,

In response to your letter dated September 12, 2006 Richardson Operating Company (Richardson) has made the requested changes and a copy has been attached.

Please call me at 303-830-8000 if you have any questions.

Regards,

John A. Heinle
Land / Engineering

COPY

Bob and Blanche Monitoring Program:

Every 90 days Richardson Operating company will monitor the ten selected wells for Benzene, Toluene, Ethylbenzene, p,m-Xylene and o-Xylene. At the end of the 90 day period richardson will submit the results and after 8 quarters will submit a final site investigation report. The submittal deadlines are as follows:

| <u>Monitoring Period</u> | <u>Submittal Deadline</u> | <u>Document(s) Submitted</u> |
|--------------------------|---------------------------|---|
| 10/1/2006 - 12/31/2006 | 1/1/2007 | Progress Report 1 |
| 1/1/2007 - 3/31/2007 | 4/1/2007 | Progress Report 2 |
| 4/1/2007 - 6/30/2007 | 7/1/2007 | Progress Report 3 |
| 7/1/2007 - 9/30/2007 | 10/1/2007 | Progress Report 4 |
| 10/1/2007 - 12/31/2007 | 1/1/2008 | Progress Report 5 |
| 1/1/2008 - 3/31/2008 | 4/1/2008 | Progress Report 6 |
| 4/1/2008 - 6/30/2008 | 7/1/2008 | Progress Report 7 |
| 7/1/2008 - 9/30/2008 | 10/1/2008 | Progress Report 8 & Final Site Investigation Report |

Quality Assurance Plan

In order to assure the quality of the samples taken the following measures will be taken. The sample procedure will follow USEPA SW-846 protocol. Water levels will be measured prior to bailing each well. A minimum of three (3) well volumes will be removed from each well prior to sampling using a new disposable bailer. Conductivity, pH, and temperature will be measured and recorded. Samples will be collected into 40 ml VOA vials with Teflon closures, preserved with HgCl2, capped headspace free, labeled, and stored on ice in an ice chest. One trip blank per day shall be collected and analyzed for BTEX by USEPA method 8021B.

ENVIROTECH INC.

PRactical SOLUTIONS FOR A BETTER TOMORROW

3R0401

COPY

*Received via fax
① 8/25/2005*

**WORKPLAN TO DELINEATE THE
HORIZONTAL AND VERTICAL EXTENT
OF ANY GROUNDWATER AND SOIL
CONTAMINATION**

FOR

**Richardson Operating
BOB & BLANCHE NO. 1
576 COUNTY ROAD 6100
KIRTLAND, NEW MEXICO**

PATTY DAVIS

303 830 8000

5600 S. OMBRE
SFF 130

PROJECT #98094-007

August 2005

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

August 25, 2005

Project #98094-007

Mr. Tom Bergin
Richardson Operating
5600 S. Quebec St., Suite. 130B
Greenwood Village, Colorado 80111

Phone (303) 830-8000

**Re: WORKPLAN TO DELINEATE THE HORIZONTAL AND VERTICAL EXTENT OF
ANY GROUNDWATER AND SOIL CONTAMINATION
BOB AND BLANCHE NO. 1
KIRTLAND, NEW MEXICO**

Dear Mr. Bergin:

Enclosed, please find the *Workplan to Delineate Horizontal and Vertical Extent of any Groundwater and Soil Contamination* for the Bob and Blanche No. 1 located in Kirtland, New Mexico.

If you have any questions or need additional information, please do not hesitate to contact me at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH INC.



C. Jack Collins
Chief Environmental Scientist / Hydrogeologist
NMCES # 038
jcollins@envirotech-inc.com

Enclosure Work plan and (1) copy

Cc: Patty Davis – Richardson Operating

Client File No. 98094

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

August 25, 2005

Project #98094-007

Ms. Patty Davis
Richardson Operating
5600 S. Quebec St., Suite. 130B
Greenwood Village, Colorado 80111

Phone (303) 830-8000

**Re: WORKPLAN TO DELINEATE THE HORIZONTAL AND VERTICAL EXTENT OF
ANY GROUNDWATER AND SOIL CONTAMINATION
BOB AND BLANCHE NO. 1
KIRTLAND, NEW MEXICO**

Dear Ms. Davis:

Enclosed, please find the *Workplan to Delineate Horizontal and Vertical Extent of any Groundwater and Soil Contamination* for the Bob and Blanche No. 1 located in Kirtland, New Mexico.

If you have any questions or need additional information, please do not hesitate to contact me at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH INC.



C. Jack Collins
Chief Environmental Scientist / Hydrogeologist
NMCES # 038
jcollins@envirotech-inc.com

Enclosure Work plan and (1) copy

Cc: Tom Bergin – Richardson Operating

Client File No. 98094

**WORKPLAN TO DELINEATE THE HORIZONTAL AND VERTICAL
EXTENT OF ANY GROUNDWATER AND SOIL CONTAMINATION**

SITE NAME:

**BOB AND BLANCHE NO. 1
COUNTY ROAD 6100
KIRTLAND, NEW MEXICO**

SUBMITTED TO:

**Richardson Operating
5600 S. Quebec St., Suite. 130B
Greenwood Village, Colorado 80111
(303) 830-8000**

SUBMITTED BY:

**ENVIROTECH INC.
5796 U.S. HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0615**

PROJECT NO. 98094-007

AUGUST 25, 2005

WORKPLAN TO DELINEATE THE HORIZONTAL AND VERTICAL EXTENT OF ANY GROUNDWATER AND SOIL CONTAMINATION

Bob and Blanche No. 1

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 Figure 2, Site Map

Richardson Operating
 Bob and Blanche No. 1
 Project # 98094-007
 August 25, 2005
 Page 1

INTRODUCTION

Envirotech Inc. has been retained by Richardson Operating, the owner and responsible party of a well site known as Bob and Blanche No. 1, to prepare a work plan to delineate the horizontal and vertical extent of any groundwater and soil contamination at the above referenced site. In July 2005, a confirmed release of fluids occurred at the above referenced site. Envirotech, Inc. was contracted by Richardson Operating to provide spill response and remediation services. During the course of remediation activities, it was discovered that groundwater in the area may have been impacted with levels of benzene and xylene that are above New Mexico Groundwater Quality Standards. The site is located on County Road 6100 in Kirtland, New Mexico see *Figure 1, Vicinity Map*.

Due to the site location and depth to groundwater, the New Mexico Oil Conservation Division has requested an investigation of the area to delineate the horizontal and vertical extent of soil and/or any possible groundwater contamination. This work plan will meet that request.

PURPOSE AND SCOPE OF SERVICES

The purpose of this work plan is to provide the methodology for an investigation consisting of soil borings, monitor well installation, on-site investigation activities, laboratory analysis, and reporting of the on-site activities at the subject site. The following scope of services has been designed to meet this objective.

- 1) Initially five (5) soil borings will be completed to determine the horizontal extent of contamination on-site. All five (5) of these soil borings will be completed as monitor wells. Proposed monitor wells will be located down gradient, south and southwest, of the former release, and one (1) up gradient near the source area. In addition, four (4) existing shallow water wells near the site will be sampled with the monitor wells to provide additional information. Proposed monitor well locations (PMW-1 thru PMW-5) and water wells (WW-1 thru WW-4) are shown on *Figure 2, Site Map*. Final monitor well locations will be negotiated with the NMOCD. Additional step out monitor wells will be constructed as required to complete the investigation. UP GRADIENT TOO CLOSE TO RELEASE
- 2) A report documenting the results of on-site activities will be prepared and submitted to Richardson Operating and the NMOCD. SPECIFY DATE

WORKPLAN TO DELINEATE THE HORIZONTAL AND VERTICAL EXTENT OF ANY GROUNDWATER AND SOIL CONTAMINATION

The following task oriented work plan has been prepared to meet the requirements set forth by the NMOCD.

Task 1: Project Management

Sundry and diverse duties are associated with management, maintenance, and reporting. This includes project scheduling, conference with the NMOCD and Responsible Party, work plan development, cost estimating, field and laboratory data review, management of operation and maintenance, and review of all reports and specifications. Administrative and secretarial time is included for project file research and maintenance as well as project administrative duties.

Task 2: Soil Borings and Monitor Well Installation

- COMMENT*
- a. Initially, a total of five (5) soil borings will be completed to determine the horizontal and vertical extent of groundwater contamination underlying the site. Four (4) proposed monitor wells will be located down gradient, south and southwest, of the former release, and one (1) up gradient near the source area. Soil boring locations will need to be modified in the field so as to minimize the impact on the land owner's agricultural actives. This may result in some locations being moved to the edge of the field which may not be the optimal location, but should still achieve the same result. *① ALA*

Soil borings will be advanced to a minimum depth of approximately 5 feet below the air water interface using a hollow stem auger drill rig and will be continuously sampled using a split spoon sampler. All drilling and sampling tools will be thoroughly decontaminated between samples. Field personnel will conduct field screening continuously to evaluate, describe, and record lithology, hydrocarbon vapors, odor, and all other observations pertinent to the geology of the site. Any contamination detected during drilling activities will be noted. Proposed soil boring locations (PMW-1 thru PMW-5) are shown on *Figure 2*. Final soil boring locations will be negotiated with the NMOCD Environmental Officer and the landowner. If it is found that 5 monitor wells have not fully delineated the soil and any groundwater contamination, additional monitor wells may be required. If it is determined that seasonal variations in water levels are greater than 5 feet, additional monitor wells with longer screens may be required to account for these variations. *MAY REQUIRE ADDITIONAL WELLS SCREENED DEEPER. BUT EXCESSIVELY LONG SCREENS ARE NOT ACCEPTABLE.* ***

- COMMENT*
- b. A minimum of one (1) soil sample will be collected for laboratory analysis from immediately above the water level, or the highest visual or PID headspace reading or at every major change of lithology, or at the total depth of the soil boring if no contamination is encountered. The sample location and number of samples would be made in the field so as to best characterize the extent of the soil contamination. Samples to be analyzed for volatile organic constituents using EPA method 8021 (formerly EPA Method 8020) for BTEX and EPA method 8015 modified for TPH. All soil samples will be preserved on ice in a chilled, insulated cooler until delivered to the analyzing laboratory. All sample collection, screening, and preservation protocols will adhere to the 1993 OCD Soil and Water Sampling and Disposal Guidelines. Soil boring lithologic logs and monitor well completion logs will be prepared for each monitor well.

Richardson Operating
 Bob and Blanche No. 1
 Project # 98094-007
 August 1, 2005
 Page 3

- c. In order to determine where groundwater has been impacted, all five (5) soil borings will be completed across the air/water interface. Monitor wells will be constructed of 2-inch Schedule 40 PVC threaded flush joint casing with 0.010 slot screen. The screens will be gravel packed with #10-20 Colorado silica sand to one (1) foot above the screened interval, followed by two (2) feet of bentonite chips. Above ground steel well protector completions will be cemented in place at the surface. The screened interval will be placed to allow a minimum of five (5) feet of screen below and above the static water level. Monitor well Cuttings resulting from the soil borings will be drummed and removed for off-site disposal in accordance with all local, state, and federal statutes and regulations.

↳ DISPOSED BY AN ECO PERMITS FACILITY

Task 3: Monitor Well Development and Survey

Each monitor well will be surveyed to provide control for latitude, longitude, and U.S.G.S. elevation. Upon completion of the monitor wells, the top of casing elevations will be surveyed into the site benchmark in order to provide 0.01 foot vertical control and 0.1 foot horizontal control. The site benchmark will be established, identified, documented, and referenced to latitude, longitude, and the appropriate U.S.G.S. 7.5 minute topographic map. Each well casing will be permanently marked to indicate the point from which the depth to groundwater is determined. The survey will include all monitor wells.

The newly completed monitor wells will be developed by purging with a new disposable bailer or pump until the produced water is clear and the pH, conductivity, and temperature have stabilized pursuant to the most recent OCD Sampling and Disposal Guidelines. Within 48 hours of development the monitor wells will be sampled. Water generated from the development and sampling of these monitor wells will be disposed of at permitted disposal facility in accordance with the OCD Sampling and Disposal Guidelines.

Task 4: Groundwater Monitoring and Analysis

Water samples will be submitted to the laboratory for determination of VOCs analysis including benzene, toluene, ethylbenzene, and total xylenes (BTEX). The sample procedures will follow USEPA SW-846 protocol. Water levels will be measured prior to bailing each well. A minimum of three (3) well volumes will be removed from each well prior to sampling using a new disposable bailer. Conductivity, pH, and temperature will be measured and recorded. Samples will be collected into 40 ml VOA vials with Teflon closures, preserved with HgCl_2 , capped headspace free, labeled and stored on ice in an ice chest. Samples will be delivered to Envirotech Laboratory for analysis by USEPA Method 8021B, Major Cations and Anions, Heavy Metals by USEPA Method 6010, and Polynuclear Aromatic Hydrocarbons by EPA Method 8100.

On Pump.

↳ RCRA B
 +
 WQCC

COMMENT
 NEED
 DOLLARS

Richardson Operating
Bob and Blanche No. 1
Project # 98094-007
August 1, 2005
Page 4

✓ In addition, water from the four (4) existing water wells near the area of interest will be sampled and analyzed by the above methods following the protocol previously outlined in this section.

Purge water and development water will be disposed of at Envirotech's NMOCD Permitted Facility

Task 5: Report Preparation

✓ A report will be prepared upon completion of drilling, development, survey, and sampling activities. The report will address the methods and procedures, analytical results, survey calculations, and other information related to the on-site activities. The report will include geologic cross sections and iso-concentration maps of each contaminate of concern above WQCC Abatement Standards. One (1) copy of the report will be submitted to Richardson Operating and one (1) copy will be submitted to the NMOCD. The final ground water investigation report will be submitted to the NMOCD with 90 days of OCD's approval of the work plan. ✓ +

SANTA FE OFFICE + 1 COPY TO D3

Richardson Operating
Bob and Blanche No. 1
Project # 98094-007
August 1, 2005
Page 5

CLOSURE AND LIMITATIONS

The scope of Envirotech's services will be limited to project management, monitor well installation, sampling, laboratory analysis, and reporting at the Richardson's Bob and Blanche No. 1 on County Road 6100, Kirtland, New Mexico. All work will be performed in accordance with accepted practices in geotechnical, environmental and petroleum engineering, and hydrogeology.

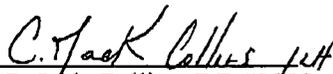
Envirotech will not perform work beyond the Scope of Services outlined herein without first obtaining approval from Richardson Operating.

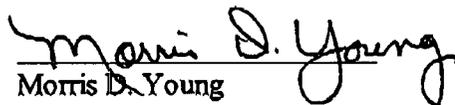
We appreciate the opportunity to be of service. For additional information or to schedule the services outlined in this work plan, please contact us at (505) 632-0615.

Sincerely,

ENVIROTECH INC.

Reviewed by:

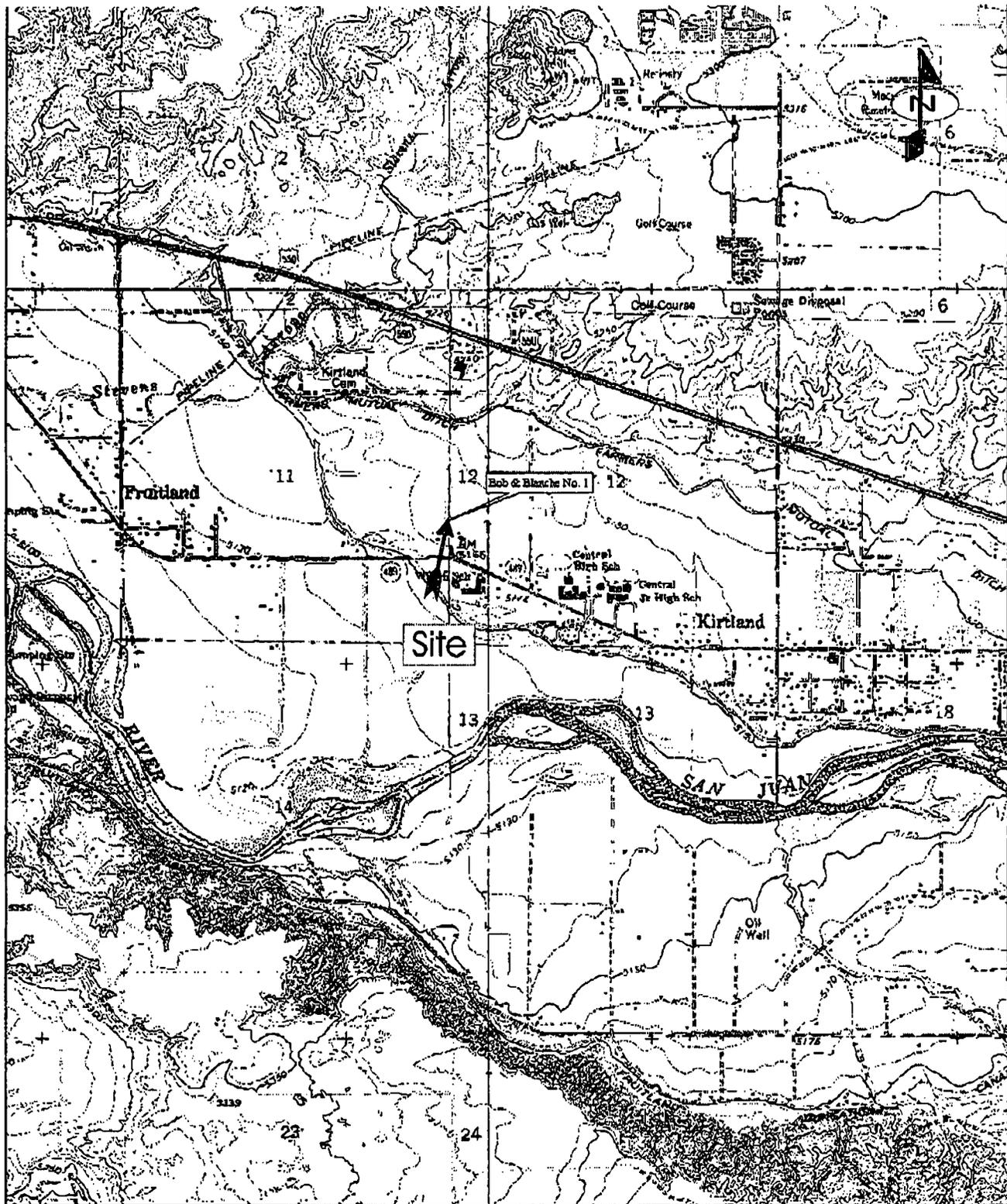

C. Jack Collins, PG #1822
Chief Environmental Scientist/Hydrogeologist
NMCES #038
jcollins@envirotech-inc.com


Morris D. Young
President
NMCES #098
myoung@envirotech-inc



FIGURES

FIGURE 1, VICINITY MAP
FIGURE 2, SITE MAP



2-D TopoQuad, Copyright © 1999 DeLorme Ypsomville, ME 04156 Source Data: USGS

750 ft Scale: 1:25,000 Datab: 17.0 Datum: NAD83

Bob & Blanche No. 1
 Richardson Operating
 Kirtland, New Mexico

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
 5796 U.S. HIGHWAY 64
 FARMINGTON, NEW MEXICO 87401
 PHONE (505) 632-0615

Vicinity Map

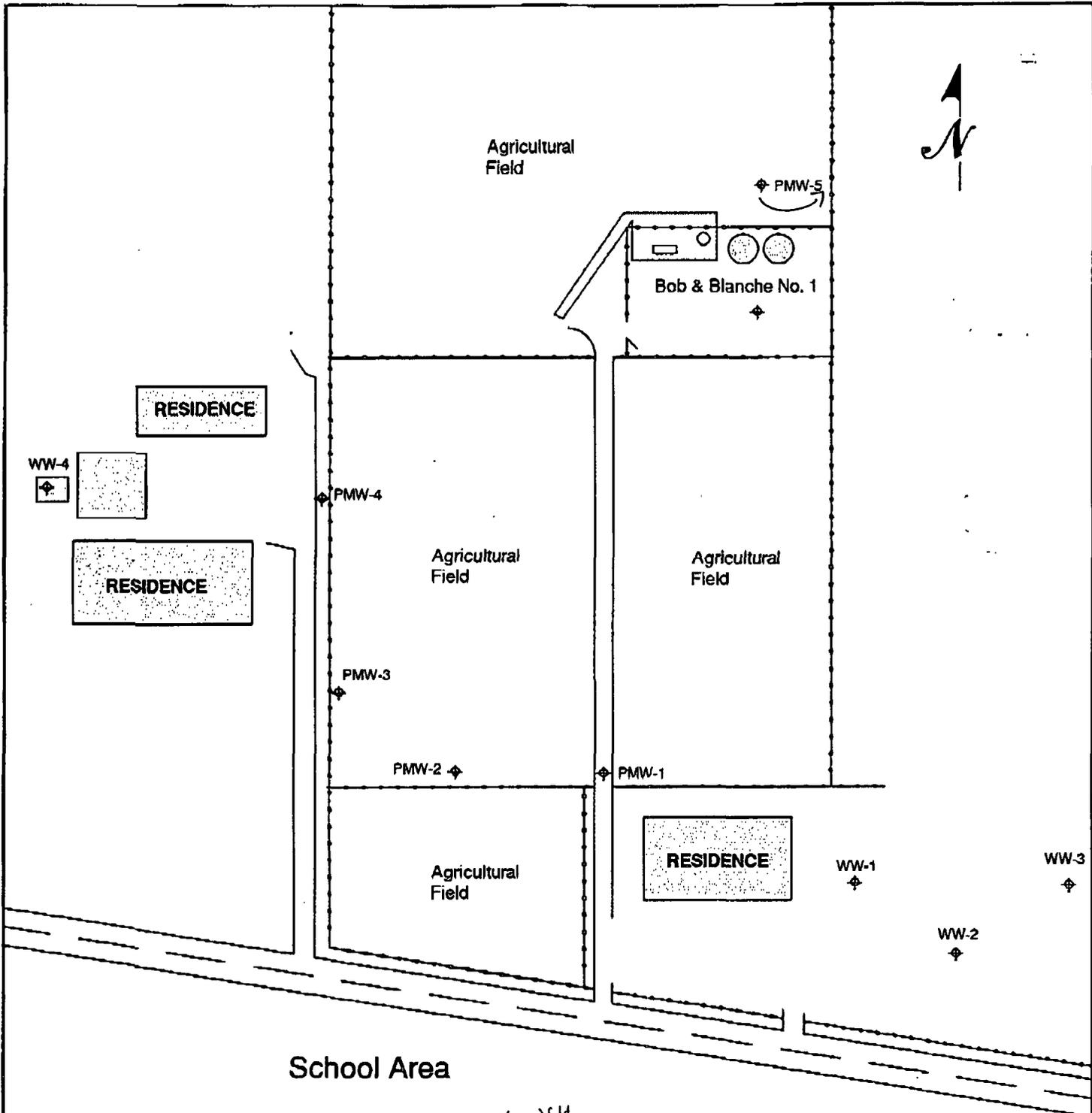
Figure 1

PROJECT No 98094-007

Date Drawn: 07/31/05

DRAWN BY:
DMY

PROJECT MANAGER:



BAR SCALE

$\frac{1 \text{ cm}}{67 \text{ FT}} \times \frac{1 \text{ inch}}{2.54 \text{ cm}}$
 $1 \text{ in} = 170$

| LEGEND | |
|---------|-----------------------|
| ◆ | Wellhead |
| ◆ WW-2 | Water Well |
| ◆ PMW-1 | Proposed Monitor Well |
| — | Spill Area |
| — | Fence |
| ○ | AST |

Richardson Operating
 Bob and Blanche No.1
 Proposed Monitor Wells

ENVIROTECH INC.

SITE MAP

REVISIONS
 BY XXX DATE XX/XX/XX
 BY XXX DATE XX/XX/XX

JOB/PROJECT #

ENVIRONMENTAL SCIENTISTS & ENGINEERS
 5796 U.S. HIGHWAY 84-3014
 FARMINGTON, NEW MEXICO 87401
 (505) 632-0815

DATE 07/31/05 DRAWN DMY
 SCALE 1cm = 67' APPROVED MDY

FIGURE
2

TRANSACTION REPORT

P. 01

AUG-25-2005 THU 02:52 PM

FOR:

RECEIVE

| DATE | START | SENDER | RX TIME | PAGES | TYPE | NOTE | M# | DP |
|--------|----------|--------|---------|-------|---------|------|----|----|
| AUG-25 | 02:49 PM | | 2'20" | 14 | RECEIVE | OK | | |

envirotech mem o/faxto: Glenn Van Gaten

company: _____

fax #: (505) 476-3462re: Richardson Operatingdate: 8-25-05pages: 14 (including cover page)project: 98094-007cc: Glenn Van Gaten, Patsy Davis, Tom Bergin

comments...

from the desk of... C. Jack Collins

envirotech inc.
5796 us highway 64
farmington, n. m. 87401
505 . 632 . 0615
505 . 632 . 1865 fax

this information is intended for the individual above and is confidential. if you have received this facsimile in error, please call the number listed above.

RECEIVED

OCT 07 2005



Oil Conservation Division
Environmental Bureau

RICHARDSON OPERATING COMPANY

5600 South Quebec Street, Suite 130B
Greenwood Village, CO 80111
(303) 830-8000 Fax (303) 830-8009

COPY

October 7, 2005

Mr. Glenn Von Gonten
Senior Hydrologist
New Mexico Energy, Minerals & Natural Resources
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Mr. Denny Foust
New Mexico Energy, Minerals & Natural Resources
OCD – Aztec District Office
1000 Rio Bravos Road
Aztec, NM 87410

RE: Stage 1 Abatement Plan for Richardson Operating Company & PETRO MEX
LLC

Gentlemen:

On behalf of Richardson Operating Company and PETRO MEX LLC please find the enclosed Stage 1 Abatement Plan.

Please do not hesitate to contact me if you have any questions or desire any additional information regarding this matter.

Sincerely,

RICHARDSON OPERATING COMPANY

John Heinle
Land Management / Engineering

RECEIVED

OCT 06 2005

Oil Conservation Division
Environmental Bureau
Project # 98094-009

October 4, 2005

Mr. Roger Anderson
Environmental Bureau Chief
NMOCD
1220 South St. Francis Dr.
Santa Fe, NM 87505

COPY

Phone (505) 476-3490

Re: **STAGE 1 ABATEMENT PLAN FOR THE
BOB AND BLANCHE NO. 1 SPILL 3R0401
KIRTLAND, NEW MEXICO**

Dear Mr. Anderson:

Enclosed, please find the *Stage 1 Abatement Plan for the Bob and Blanche No. 1* 3R0401 located in Kirtland, New Mexico. This plan complies with the NMOCD requirements for a Joint Abatement Plan per Rule 19 NMAC.

If you have any questions or need additional information, please do not hesitate to contact me at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH INC.

C. Jack Collins
Chief Environmental Scientist / Hydrogeologist
NMCES # 038
jcollins@envirotech-inc.com

Enclosure Stage 1 Abatement Plan

cc: Tom Bergin – Richardson Operating
Tim Foster – Landowner
Patty Davis – Richardson Operating
John Heinle – Richardson Operating
Jesus Villalobos – PETRO MEX LLC

Client File No. 98094

COPY

**Stage I Abatement Plan
Proposal**

FOR

**Richardson Operating
& Petro MEX LLC
BOB & BLANCHE NO. 1
576 COUNTY ROAD 6100
KIRTLAND, NEW MEXICO**

PROJECT #98094-009

October 2005

**STAGE 1 ABATEMENT PLAN
PROPOSAL**

SITE NAME:

**BOB AND BLANCHE NO. 1
COUNTY ROAD 6100
KIRTLAND, NEW MEXICO**

SUBMITTED TO:

**Mr. Roger Anderson
Environmental Bureau Chief
NMOCD
1220 South ST. Francis Dr.
Santa Fe, NM 87505**

SUBMITTED BY:

**Richardson Operating
5600 S. Quebec St., Suite 130B
Greenwood Village, Colorado 80111
(303) 830-8000
AND
PETRO MEX LLC
P.O. BOX 6724
FARMINGTON, NM 87499**

PREPARED BY:

**ENVIROTECH INC.
5796 U.S. HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0615**

PROJECT No. 98094-009

OCTOBER, 2005

**Stage 1 Abatement Plan
Bob and Blanche No. 1
SPILL 3R0401**

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| | |
|---------|------------------------|
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| | Figure 2, Site Map |

INTRODUCTION

Envirotech Inc. has been retained by Richardson Operating Company and Petro Mex LLC, the owners and responsible parties of a well site known as Bob and Blanche No. 1, to prepare a Stage 1 ~~Remediation~~ ^{Abatement} Plan to investigate any groundwater and soil contamination at the above referenced site. In July 2005, a confirmed release of fluids occurred at the above referenced site. Envirotech, Inc. was contracted by Richardson Operating to provide spill response and remediation services. During the course of remediation activities, water samples collected from the open excavation indicate that groundwater in the area may have been impacted with levels of benzene and xylene that are above New Mexico Groundwater Quality Standards. The site is located on County Road 6100 in Kirtland, New Mexico see *Figure 1, Vicinity Map*.

Due to the site location and depth to groundwater, the New Mexico Oil Conservation Division (NMOCD) has requested a Stage 1 Abatement Plan.

Abatement Plan Proposal

The purpose of this abatement plan is to provide the methodology for an investigation consisting of soil borings, monitor well installation, on-site investigation activities, site geology and hydrogeology, laboratory analysis, reporting of the on-site activities at the subject site, public notice and participation. The following scope of services has been designed to meet this objective.

- 1) Initially five (5) soil borings will be completed to determine site geology and hydrogeology, the horizontal and vertical extent of contamination on-site. All five (5) of these soil borings will be completed as monitor wells. Proposed monitor wells will be located down gradient, south and southwest, of the former release, and one (1) up gradient near the source area will be installed to establish background conditions. In addition, four (4) existing shallow water wells near the site will be sampled with the monitor wells to provide additional information. Proposed monitor well locations (PMW-1 thru PMW-5) and water wells (WW-1 thru WW-4) are shown on *Figure 2, Site Map*. Final monitor well locations will be negotiated with the NMOCD. Additional step out monitor wells will be constructed as required to complete the investigation.
- 2) An inventory of water wells inside and within one (1) mile from the perimeter of the contamination that exceeds state standards. As well as the location and number of wells actually or potentially impacted.
- 3) Monitoring stations and sampling schedule will be established. A quality assurance plan consistent with the sampling and analytical techniques will be utilized in order to meet the state water quality standards.
- 4) A schedule for all Stage 1 Abatement Plan activities, including quarterly progress reports and a detailed final site investigation report documenting the results of on-site activities, will be prepared and submitted to Richardson Operating, Petro Mex LLC and the NMOCD.

— MOVE
LOCATION

The following task oriented abatement plan has been prepared to meet the requirements set forth by the NMOCD.

Task 1: Project Management

Sundry and diverse duties are associated with management, maintenance, and reporting. This includes project scheduling, conference with the NMOCD and Responsible Party, work plan development, cost estimating, field and laboratory data review, management of operation and maintenance, and review of all reports and specifications. Administrative and secretarial time is included for project file research and maintenance as well as project administrative duties.

Task 2: Soil Borings and Monitor Well Installation

- a. Initially, a total of five (5) soil borings will be completed to determine the horizontal and vertical extent of groundwater contamination underlying the site. Four (4) proposed monitor wells will be located down gradient, south and southwest, of the former release, and one (1) up gradient near the source area. Soil boring locations will need to be modified in the field so as to minimize the impact on the land owner's agricultural actives. Soil borings will be advanced to a minimum depth of approximately 5 feet below the air water interface using a hollow stem auger drill rig and will be continuously sampled using a split spoon sampler. All drilling and sampling tools will be thoroughly decontaminated between samples. Field personnel will conduct field screening continuously to evaluate, describe, and record lithology, hydrocarbon vapors, odor, and all other observations pertinent to the geology of the site. Any contamination detected during drilling activities will be noted. Proposed soil boring locations (PMW-1 thru PMW-5) are shown on *Figure 2*. Final soil boring locations will be negotiated with the NMOCD Environmental Officer and the landowner. If it is found that five (5) monitor wells have not fully delineated the soil and any groundwater contamination, additional monitor wells may be required. If it is determined that seasonal variations in water levels are greater than five (5) feet, additional monitor wells with longer screens may be required to account for these variations.
- b. A minimum of one (1) soil sample will be collected for laboratory analysis from immediately above the water level, or the highest visual or PID headspace reading or at every major change of lithology, or at the total depth of the soil boring if no contamination is encountered. The sample location and number of samples will be determined in the field so as to best characterize the extent of the soil contamination. Samples will be analyzed for volatile organic constituents using EPA method 8021 (formally EPA Method 8020) for BTEX and EPA method 8015 modified for TPH. All soil samples will be preserved on ice in a chilled, insulated cooler until delivered to the analyzing laboratory. All sample collection, screening, and preservation protocols will adhere to the 1993 NMOCD Soil and Water Sampling and Disposal Guidelines. Soil

MOVE TO
LOC.

boring lithologic logs and monitor well completion logs will be prepared for each monitor well.

- c. In order to determine where groundwater has been impacted, all five (5) soil borings will be completed across the air/water interface. Monitor wells will be constructed of 2-inch Schedule 40 PVC threaded flush joint casing with 0.010 slot screen. The screens will be gravel packed with #10-20 Colorado silica sand to one (1) foot above the screened interval, followed by two (2) feet of bentonite chips. Above ground steel well protector completions will be cemented in place at the surface. The screened interval will be placed to allow a minimum of five (5) feet of screen ~~below and~~ above the static water level. Monitor well Cuttings resulting from the soil borings will be drummed and removed for off-site disposal in accordance with all local, state, and federal statutes and regulations.

15'
Bentonite

15'
AS per
OCG
Cuttings

↳ Disposal @ OCG Approved Facility

Task 3: Monitor Well Development and Survey

Each monitor well will be surveyed to provide control for latitude, longitude, and U.S.G.S. elevation. Upon completion of the monitor wells, the top of casing elevations will be surveyed into the site benchmark in order to provide 0.01 foot vertical control and 0.1 foot horizontal control. The site benchmark will be established, identified, documented; and referenced to latitude, longitude, and the appropriate U.S.G.S. 7.5 minute topographic map. Each well casing will be permanently marked to indicate the point from which the depth to groundwater is determined. The survey will include all monitor wells.



The newly completed monitor wells will be developed by purging with a new disposable bailer or pump until the produced water is clear and the pH, conductivity, and temperature have stabilized pursuant to the most recent NMOCD Sampling and Disposal Guidelines. Within 48 hours of development the monitor wells will be sampled. Water generated from the development and sampling of these monitor wells will be disposed of at permitted disposal facility in accordance with the NMOCD Sampling and Disposal Guidelines.



Task 4: Groundwater Monitoring and Analysis

Water samples will be submitted to the laboratory for determination of VOCs analysis including benzene, toluene, ethylbenzene, and total xylenes (BTEX). The sample procedures will follow USEPA SW-846 protocol. Water levels will be measured prior to bailing each well. A minimum of three (3) well volumes will be removed from each well prior to sampling using a new disposable bailer. Conductivity, pH, and temperature will be measured and recorded. Samples will be collected into 40 ml VOA vials with Teflon closures, preserved with HgCl₂, capped headspace free, labeled and stored on ice in an ice chest. Samples will be delivered to Envirotech Laboratory for analysis by USEPA Method 8021B, Major Cations and Anions, Heavy Metals by USEPA Method 6010, and Polynuclear Aromatic Hydrocarbons by EPA Method 8100.

In addition, water from the four (4) existing water wells near the area of interest will be sampled and analyzed by the above methods following the protocol previously outlined in this section. ✓

Purge water and development water will be disposed of at Envirotech's NMOCD Permitted Facility ✓

Task 5: Report Preparation

A detailed final site investigation report will be prepared upon completion of drilling, development, survey, and sampling activities. The report will address the methods and procedures, analytical results, survey calculations, and other information related to the on-site activities. The report will include geologic cross sections and iso-concentration maps of each contaminate of concern above WQCC Abatement Standards. One (1) copy of the report will be submitted to Richardson Operating, one (1) copy will be submitted to Petro Mex LLC, one (1) copy will be submitted to the landowner, and one (1) copy will be submitted to the NMOCD. ✓

Task 6: Public Notice

Following approval of the Stage 1 Abatement Plan proposal, written notice in a format approved by the NMOCD to the following persons within one (1) mile of the contaminated area will be made:

- a.) surface owners of record
- b.) county commissioners
- c.) city officials of Fruitland and Kirtland
- d.) other persons who have requested notification
- e.) the New Mexico trustee for natural resources and any local, state or federal agency as identified by the NMOCD
- f.) The president of the Navajo Nation

In addition, within fifteen days following approval by the NMOCD, public notice will be made in a format approved by the NMOCD, in the local and general circulation state newspaper of the Stage 1 Abatement Plan.

CLOSURE AND LIMITATIONS

The scope of Envirotech's services will be limited to project management, monitor well installation, sampling, laboratory analysis, and reporting at the Richardson's Bob and Blanche No. 1 on County Road 6100, Kirtland, New Mexico. All work will be performed in accordance with accepted practices in geotechnical, environmental and petroleum engineering, and hydrogeology.

Envirotech will not perform work beyond the Scope of Services outlined herein without first obtaining approval from Richardson Operating and PETRO MEX LLC.

--- We appreciate the opportunity to be of service. For additional information or to schedule the services outlined in this work plan, please contact us at (505) 632-0615. -----

Sincerely,

ENVIROTECH INC.

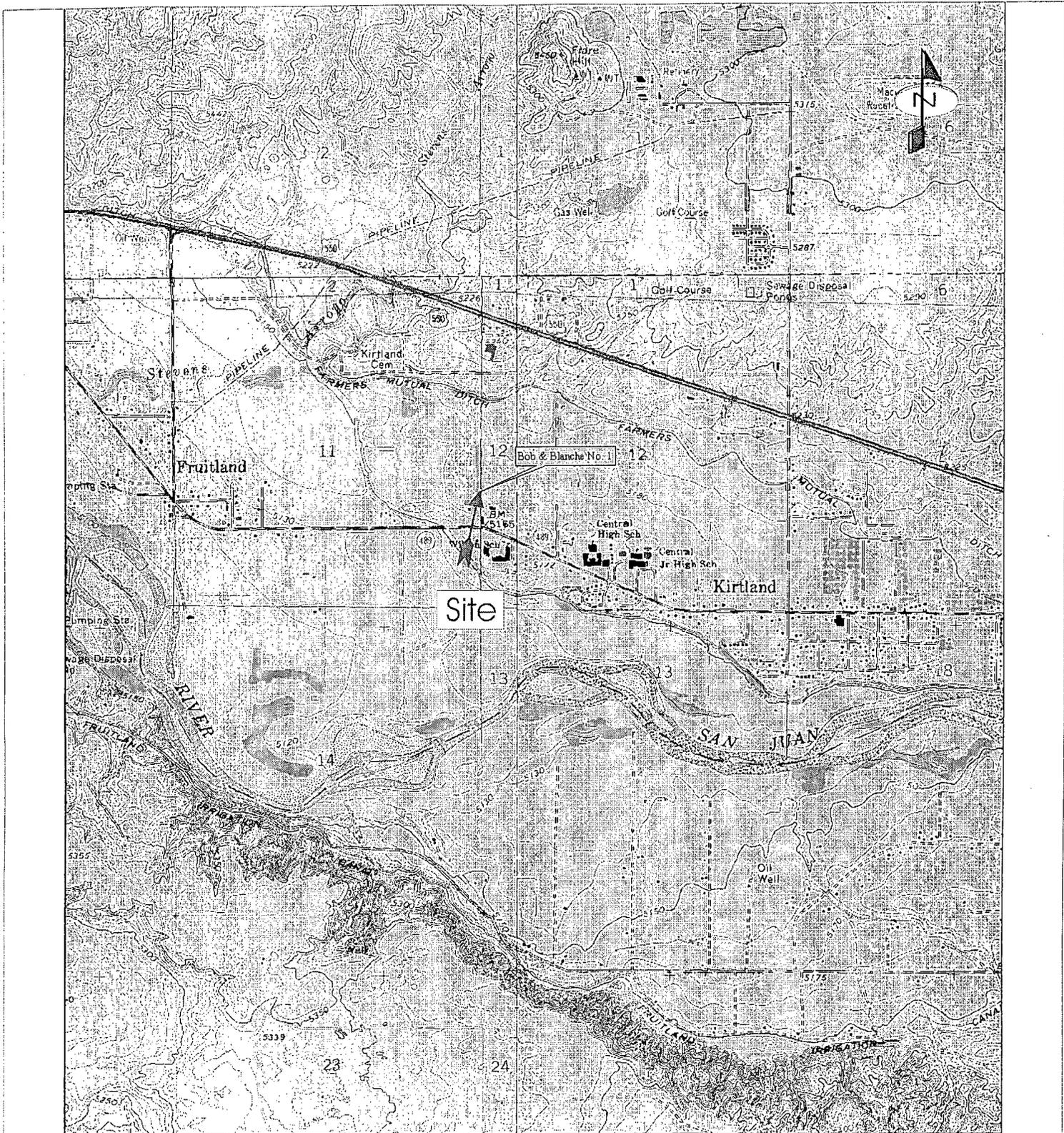
Reviewed by:

C. Jack Collins, PG #1822
Chief Environmental Scientist/Hydrogeologist
NMCES #038
jcollins@envirotech-inc.com

Morris D. Young
President
NMCES #098
myoung@envirotech-inc

FIGURES

FIGURE 1, VICINITY MAP
FIGURE 2, SITE MAP



3-D TopoQuads Copyright © 1999 DeLorme, Varanah, ME 04096. Source Data: USGS 750 ft Scale: 1:25,000 Detail: 13-0 Datum: NAD83

Bob & Blanche No. 1
Richardson Operating
Kirtland, New Mexico

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
PHONE (505) 632-0615

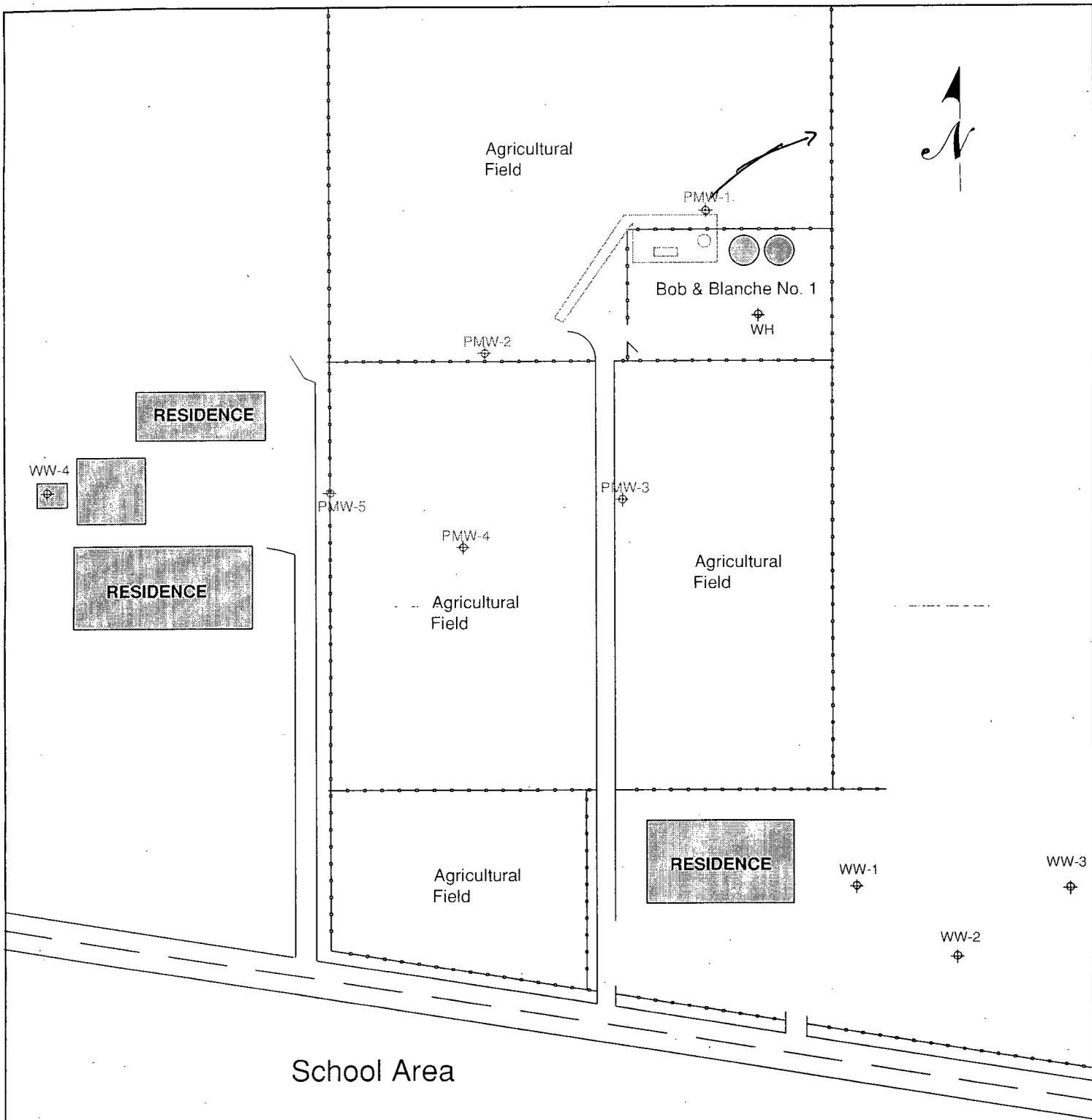
Vicinity Map

Figure 1

PROJECT No 98094-007 Date Drawn: 07/31/05

DRAWN BY:
DMY

PROJECT MANAGER:



| LEGEND | |
|---------|-----------------------|
| ⊕ | Wellhead |
| ⊕ WW-2 | Water Well |
| ⊕ PMW-1 | Proposed Monitor Well |
| --- | Spill Area |
| - - - | Fence |
| ⊙ | AST |

Richardson Operating and Petro Mex LLC
 Bob and Blanche #1 Spil 3R0401
 Stage 1 Abatement Proposal

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
 5796 U.S. HIGHWAY 64-3014
 FARMINGTON, NEW MEXICO 87401
 (505) 632-0615

SITE MAP

| | |
|--|---------------------|
| REVISIONS BY <u>CJC</u> DATE <u>09/26/05</u> BY _____ DATE _____ | Project # 98094-009 |
|--|---------------------|

| | | |
|------------------------|---------------------|----------|
| DATE <u>07/31/05</u> | DRAWN <u>DMY</u> | FIGURE |
| SCALE <u>1cm = 67'</u> | APPROVED <u>MDY</u> | <u>2</u> |



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

October 19, 2005

COPY

Ms. Patty Davis
Richardson Operation Company
5600 South Quebec
Suite 130B
Denver, CO 80111

Mr. Jesus Villalobos
President
PETRO MEX LLC
P.O. Box 6724
Farmington, NM 87499

**RE: REVISED NOTICE OF PUBLICATION
STAGE 1 ABATEMENT PLAN PROPOSAL
AP040**

Dear Ms. Davis and Villalobos:

The New Mexico Oil Conservation Division (OCD) is sending you a revised Notice of Publication in response to comments made by John Heinle on October 19, 2005. The revised Notice of Publication specifies that Mr. Patty Davis rather than Mr. John Heinle should be contacted with questions. The revised Notice of Publication now specifies that both Richardson Operating and PETRO MEX "...will: make public notice and provide for public participation; investigate the ground water contamination at the site by advancing soil borings, installing monitor wells, monitoring and analyzing ground water; determine the geology and hydrogeology of the site; and, submit an investigation report."

If you have any questions, please call me at 505-476-3488.

Sincerely,

Glenn von Gonten
Senior Hydrologist

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 Oil Conservation Division Regulations, the following Stage 1 Abatement Plan Proposal has been submitted to the Director of the Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

Patty Davis, Richardson Operating Company, Telephone (303) 830-8000, 5600 South Quebec, Suite 130B Denver, CO 80111, and Mr. Jesus Villalobos, President, PETRO MEX LLC (PETRO MEX), Telephone (505) 330-2467, P.O. Box 6724, Farmington, NM 87499, have jointly submitted a Stage 1 Abatement Plan Proposal to investigate ground water contamination released during a spill of oil, sediment, and produced water on June 18, 2005, at the Richardson Operating Company - Bob and Blanche No. 1 tank battery site, located in Unit L, Section 12, Township 29 North, Range 15 West, San Juan County, New Mexico. Richardson Operating was the operator of record at the time that the spill occurred and began the soil and ground water investigation and remediation. Richardson Operating removed approximately 1192 cubic yards of contaminated soil and 160 barrels of contaminated ground water from the site. Richardson Operating determined that the ground water at the site has been contaminated by benzene and xylenes at concentrations that exceed the New Mexico Water Quality Control Commission standards (see 20.6.2.3103(A) NMAC). PETRO MEX is the current operator of the site. Both parties jointly submitted a change of operator form that makes the operator change from Richardson Operating to PETRO MEX retroactive to June 8, 2005, a date that precedes the spill. Therefore, both Richardson Operating and PETRO MEX are responsible parties for the site. The Stage 1 Abatement Plan Proposal specifies that Richardson Operating and PETRO MEX will: make public notice and provide for public participation; investigate the ground water contamination at the site by advancing soil borings, installing monitor wells, monitoring and analyzing ground water; determine the geology and hydrogeology of the site; and, submit an investigation report.

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 Stage 1 Abatement Plan Proposal may be viewed at the above address or at the Oil Conservation Division Aztec District Office, 1000 Rio Brazos Road, Aztec, New Mexico 87410, Telephone (505) 334-6178, between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on the proposed Stage 1 Abatement Plan Proposal, the Director of the Oil Conservation Division shall allow at least 30 days from the date of publication of this notice for the submittal of written comments.

RECEIVED
AP040

OCT 07 2005



Oil Conservation Division
Environmental Bureau

RICHARDSON OPERATING COMPANY

5600 South Quebec Street, Suite 130B
Greenwood Village, CO 80111
(303) 830-8000 Fax (303) 830-8009

COPY

October 7, 2005

L-12-29N15W

Mr. Glenn Von Gonten
Senior Hydrologist
New Mexico Energy, Minerals & Natural Resources
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Mr. Denny Foust
New Mexico Energy, Minerals & Natural Resources
OCD - Aztec District Office
1000 Rio Bravos Road
Aztec, NM 87410

RE: Stage 1 Abatement Plan for Richardson Operating Company & PETRO MEX
LLC

Gentlemen:

On behalf of Richardson Operating Company and PETRO MEX LLC please find the enclosed Stage 1 Abatement Plan.

Please do not hesitate to contact me if you have any questions or desire any additional information regarding this matter.

Sincerely,

RICHARDSON OPERATING COMPANY

John Heinle
Land Management / Engineering

RECEIVED

OCT 06 2005

Oil Conservation Division
Environmental Bureau
Project # 98094-009

October 4, 2005

Mr. Roger Anderson
Environmental Bureau Chief
NMOCD
1220 South St. Francis Dr.
Santa Fe, NM 87505

Phone (505) 476-3490

Re: **STAGE 1 ABATEMENT PLAN FOR THE
BOB AND BLANCHE NO. 1 SPILL 3R0401
KIRTLAND, NEW MEXICO**

Dear Mr. Anderson:

Enclosed, please find the *Stage 1 Abatement Plan for the Bob and Blanche No. 1* 3R0401 located in Kirtland, New Mexico. This plan complies with the NMOCD requirements for a Joint Abatement Plan per Rule 19 NMAC.

If you have any questions or need additional information, please do not hesitate to contact me at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH INC.

C. Jack Collins
Chief Environmental Scientist / Hydrogeologist
NMCES # 038
jcollins@envirotech-inc.com

Enclosure Stage 1 Abatement Plan

cc: Tom Bergin – Richardson Operating
Tim Foster – Landowner
Patty Davis – Richardson Operating
John Heinle – Richardson Operating
Jesus Villalobos – PETRO MEX LLC

Client File No. 98094

**Stage I Abatement Plan
Proposal**

FOR

**Richardson Operating
& Petro MEX LLC
BOB & BLANCHE NO. 1
576 COUNTY ROAD 6100
KIRTLAND, NEW MEXICO**

PROJECT #98094-009

October 2005

**STAGE 1 ABATEMENT PLAN
PROPOSAL**

SITE NAME:

**BOB AND BLANCHE NO. 1
COUNTY ROAD 6100
KIRTLAND, NEW MEXICO.**

SUBMITTED TO:

**Mr. Roger Anderson
Environmental Bureau Chief
NMOCD
1220 South ST. Francis Dr.
Santa Fe, NM 87505**

SUBMITTED BY:

**Richardson Operating
5600 S. Quebec St., Suite. 130B
Greenwood Village, Colorado 80111
(303) 830-8000
AND
PETRO MEX LLC
P.O. BOX 6724
FARMINGTON, NM 87499**

PREPARED BY:

**ENVIROTECH INC.
5796 U.S. HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0615**

PROJECT No. 98094-009

OCTOBER, 2005

**Stage 1 Abatement Plan
Bob and Blanche No. 1
SPILL 3R0401**

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Introduction..... 1

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Figures Figure 1, Vicinity Map
 Figure 2, Site Map

INTRODUCTION

Envirotech Inc. has been retained by Richardson Operating Company and Petro Mex LLC, the owners and responsible parties of a well site known as Bob and Blanche No. 1, to prepare a Stage 1 Remediation Plan to investigate any groundwater and soil contamination at the above referenced site. In July 2005, a confirmed release of fluids occurred at the above referenced site. Envirotech, Inc. was contracted by Richardson Operating to provide spill response and remediation services. During the course of remediation activities, water samples collected from the open excavation indicate that groundwater in the area may have been impacted with levels of benzene and xylene that are above New Mexico Groundwater Quality Standards. The site is located on County Road 6100 in Kirtland, New Mexico see *Figure 1, Vicinity Map*.

Due to the site location and depth to groundwater, the New Mexico Oil Conservation Division (NMOCD) has requested a Stage 1 Abatement Plan.

Abatement Plan Proposal

The purpose of this abatement plan is to provide the methodology for an investigation consisting of soil borings, monitor well installation, on-site investigation activities, site geology and hydrogeology, laboratory analysis, reporting of the on-site activities at the subject site, public notice and participation. The following scope of services has been designed to meet this objective.

- 1) Initially five (5) soil borings will be completed to determine site geology and hydrogeology, the horizontal and vertical extent of contamination on-site. All five (5) of these soil borings will be completed as monitor wells. Proposed monitor wells will be located down gradient, south and southwest, of the former release, and one (1) up gradient near the source area will be installed to establish background conditions. In addition, four (4) existing shallow water wells near the site will be sampled with the monitor wells to provide additional information. Proposed monitor well locations (PMW-1 thru PMW-5) and water wells (WW-1 thru WW-4) are shown on *Figure 2, Site Map*. Final monitor well locations will be negotiated with the NMOCD. Additional step out monitor wells will be constructed as required to complete the investigation.
- 2) An inventory of water wells inside and within one (1) mile from the perimeter of the contamination that exceeds state standards. As well as the location and number of wells actually or potentially impacted.
- 3) Monitoring stations and sampling schedule will be established. A quality assurance plan consistent with the sampling and analytical techniques will be utilized in order to meet the state water quality standards.
- 4) A schedule for all Stage 1 Abatement Plan activities, including quarterly progress reports and a detailed final site investigation report documenting the results of on-site activities, will be prepared and submitted to Richardson Operating, Petro Mex LLC and the NMOCD.

The following task oriented abatement plan has been prepared to meet the requirements set forth by the NMOCD.

Task 1: Project Management

Sundry and diverse duties are associated with management, maintenance, and reporting. This includes project scheduling, conference with the NMOCD and Responsible Party, work plan development, cost estimating, field and laboratory data review, management of operation and maintenance, and review of all reports and specifications. Administrative and secretarial time is included for project file research and maintenance as well as project administrative duties.

Task 2: Soil Borings and Monitor Well Installation

a. Initially, a total of five (5) soil borings will be completed to determine the horizontal and vertical extent of groundwater contamination underlying the site. Four (4) proposed monitor wells will be located down gradient, south and southwest, of the former release, and one (1) up gradient near the source area. Soil boring locations will need to be modified in the field so as to minimize the impact on the land owner's agricultural actives. Soil borings will be advanced to a minimum depth of approximately 5 feet below the air water interface using a hollow stem auger drill rig and will be continuously sampled using a split spoon sampler. All drilling and sampling tools will be thoroughly decontaminated between samples. Field personnel will conduct field screening continuously to evaluate, describe, and record lithology, hydrocarbon vapors, odor, and all other observations pertinent to the geology of the site. Any contamination detected during drilling activities will be noted. Proposed soil boring locations (PMW-1 thru PMW-5) are shown on *Figure 2*. Final soil boring locations will be negotiated with the NMOCD Environmental Officer and the landowner. If it is found that five (5) monitor wells have not fully delineated the soil and any groundwater contamination, additional monitor wells may be required. If it is determined that seasonal variations in water levels are greater than five (5) feet, additional monitor wells with longer screens may be required to account for these variations.

10'
Screens,
5' Above /
5' Below

b. A minimum of one (1) soil sample will be collected for laboratory analysis from immediately above the water level, or the highest visual or PID headspace reading or at every major change of lithology, or at the total depth of the soil boring if no contamination is encountered. The sample location and number of samples will be determined in the field so as to best characterize the extent of the soil contamination. Samples will be analyzed for volatile organic constituents using EPA method 8021 (formally EPA Method 8020) for BTEX and EPA method 8015 modified for TPH. All soil samples will be preserved on ice in a chilled, insulated cooler until delivered to the analyzing laboratory. All sample collection, screening, and preservation protocols will adhere to the 1993 NMOCD Soil and Water Sampling and Disposal Guidelines. Soil

FROM EARL
5/17

P BTEX
• TPH
• Gen Chem
• Rent B
+ WQCC
• WQCC
WQCC

Per
TASK 4

boring lithologic logs and monitor well completion logs will be prepared for each monitor well.

- c. In order to determine where groundwater has been impacted, all five (5) soil borings will be completed across the air/water interface. Monitor wells will be constructed of 2-inch Schedule 40 PVC threaded flush joint casing with 0.010 slot screen. The screens will be gravel packed with #10-20 Colorado silica sand to one (1) foot above the screened interval, followed by two (2) feet of bentonite chips. Above ground steel well protector completions will be cemented in place at the surface. The screened interval will be placed to allow a minimum of five (5) feet of screen below and above the static water level. Monitor well Cuttings resulting from the soil borings will be drummed and removed for off-site disposal in accordance with all local, state, and federal statutes and regulations. ✓

at NMOCD approved facility
Task 3: Monitor Well Development and Survey

Each monitor well will be surveyed to provide control for latitude, longitude, and U.S.G.S. elevation. Upon completion of the monitor wells, the top of casing elevations will be surveyed into the site benchmark in order to provide 0.01 foot vertical control and 0.1 foot horizontal control. The site benchmark will be established, identified, documented, and referenced to latitude, longitude, and the appropriate U.S.G.S. 7.5 minute topographic map. Each well casing will be permanently marked to indicate the point from which the depth to groundwater is determined. The survey will include all monitor wells.

The newly completed monitor wells will be developed by purging with a new disposable bailer or pump until the produced water is clear and the pH, conductivity, and temperature have stabilized pursuant to the most recent NMOCD Sampling and Disposal Guidelines. Within 48 hours of development the monitor wells will be sampled. Water generated from the development and sampling of these monitor wells will be disposed of at permitted disposal facility in accordance with the NMOCD Sampling and Disposal Guidelines.

Task 4: Groundwater Monitoring and Analysis

Water samples will be submitted to the laboratory for determination of VOCs analysis including benzene, toluene, ethylbenzene, and total xylenes (BTEX). The sample procedures will follow USEPA SW-846 protocol. Water levels will be measured prior to bailing each well. A minimum of three (3) well volumes will be removed from each well prior to sampling using a new disposable bailer. Conductivity, pH, and temperature will be measured and recorded. Samples will be collected into 40 ml VOA vials with Teflon closures, preserved with HgCl₂, capped headspace free, labeled and stored on ice in an ice chest. Samples will be delivered to Envirotech Laboratory for analysis by USEPA Method 8021B, Major Cations and Anions, Heavy Metals by USEPA Method 6010, and Polynuclear Aromatic Hydrocarbons by EPA Method 8100. *On Pump.*
WCC

In addition, water from the four (4) existing water wells near the area of interest will be sampled and analyzed by the above methods following the protocol previously outlined in this section.

Purge water and development water will be disposed of at Envirotech's NMOCD Permitted Facility

Task 5: Report Preparation

A detailed final site investigation report will be prepared upon completion of drilling, development, survey, and sampling activities. The report will address the methods and procedures, analytical results, survey calculations, and other information related to the on-site activities. The report will include geologic cross sections and iso-concentration maps of each contaminate of concern above WQCC Abatement Standards. One (1) copy of the report will be submitted to Richardson Operating, one (1) copy will be submitted to Petro Mex LLC, one (1) copy will be submitted to the landowner, and one (1) copy will be submitted to the NMOCD. *← D3 office*

Task 6: Public Notice

Following approval of the Stage 1 Abatement Plan proposal, written notice in a format approved by the NMOCD to the following persons within one (1) mile of the contaminated area will be made:

- a.) surface owners of record
- b.) county commissioners
- c.) city officials of Fruitland and Kirtland
- d.) other persons who have requested notification
- e.) the New Mexico trustee for natural resources and any local, state or federal agency as identified by the NMOCD
- f.) The president of the Navajo Nation

In addition, within fifteen days following approval by the NMOCD, public notice will be made in a format approved by the NMOCD, in the local and general circulation state newspaper of the Stage 1 Abatement Plan.

CLOSURE AND LIMITATIONS

The scope of Envirotech's services will be limited to project management, monitor well installation, sampling, laboratory analysis, and reporting at the Richardson's Bob and Blanche No. 1 on County Road 6100, Kirtland, New Mexico. All work will be performed in accordance with accepted practices in geotechnical, environmental and petroleum engineering, and hydrogeology.

Envirotech will not perform work beyond the Scope of Services outlined herein without first obtaining approval from Richardson Operating and PETRO MEX LLC.

We appreciate the opportunity to be of service. For additional information or to schedule the services outlined in this work plan, please contact us at (505) 632-0615.

Sincerely,

ENVIROTECH INC.

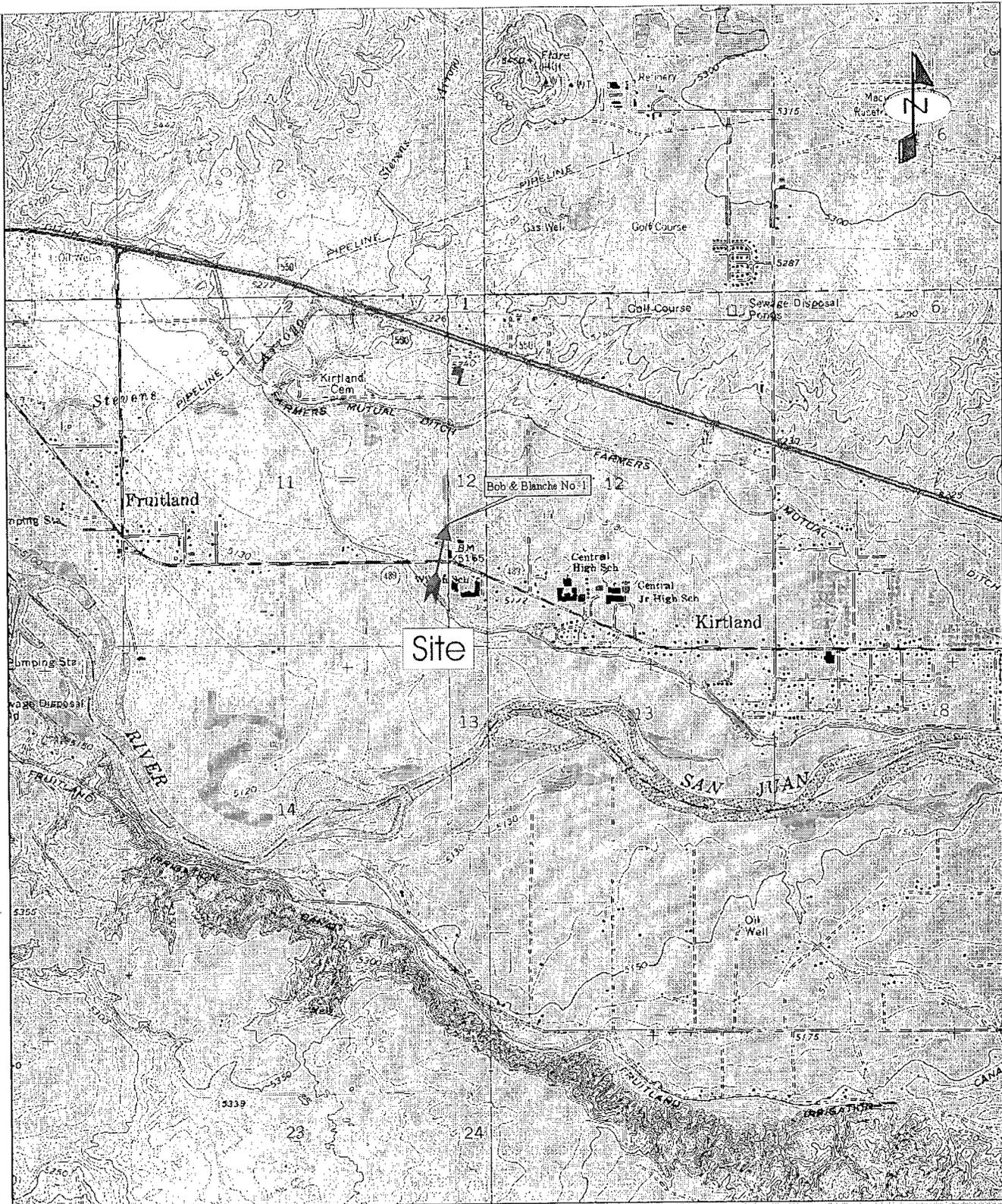
Reviewed by:

C. Jack Collins, PG #1822
Chief Environmental Scientist/Hydrogeologist
NMCES #038
jcollins@envirotech-inc.com

Morris D. Young
President
NMCES #098
myoung@envirotech-inc

FIGURES

FIGURE 1, VICINITY MAP
FIGURE 2, SITE MAP



3-D TopoQuint Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 750 ft Scale: 1:25,000 Detail: 13-0 Datum: NAD27

Bob & Blanche No. 1
Richardson Operating
Kirtland, New Mexico

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS

5796 U.S. HIGHWAY 54
FARMINGTON, NEW MEXICO 87401

PHONE (505) 632-0615

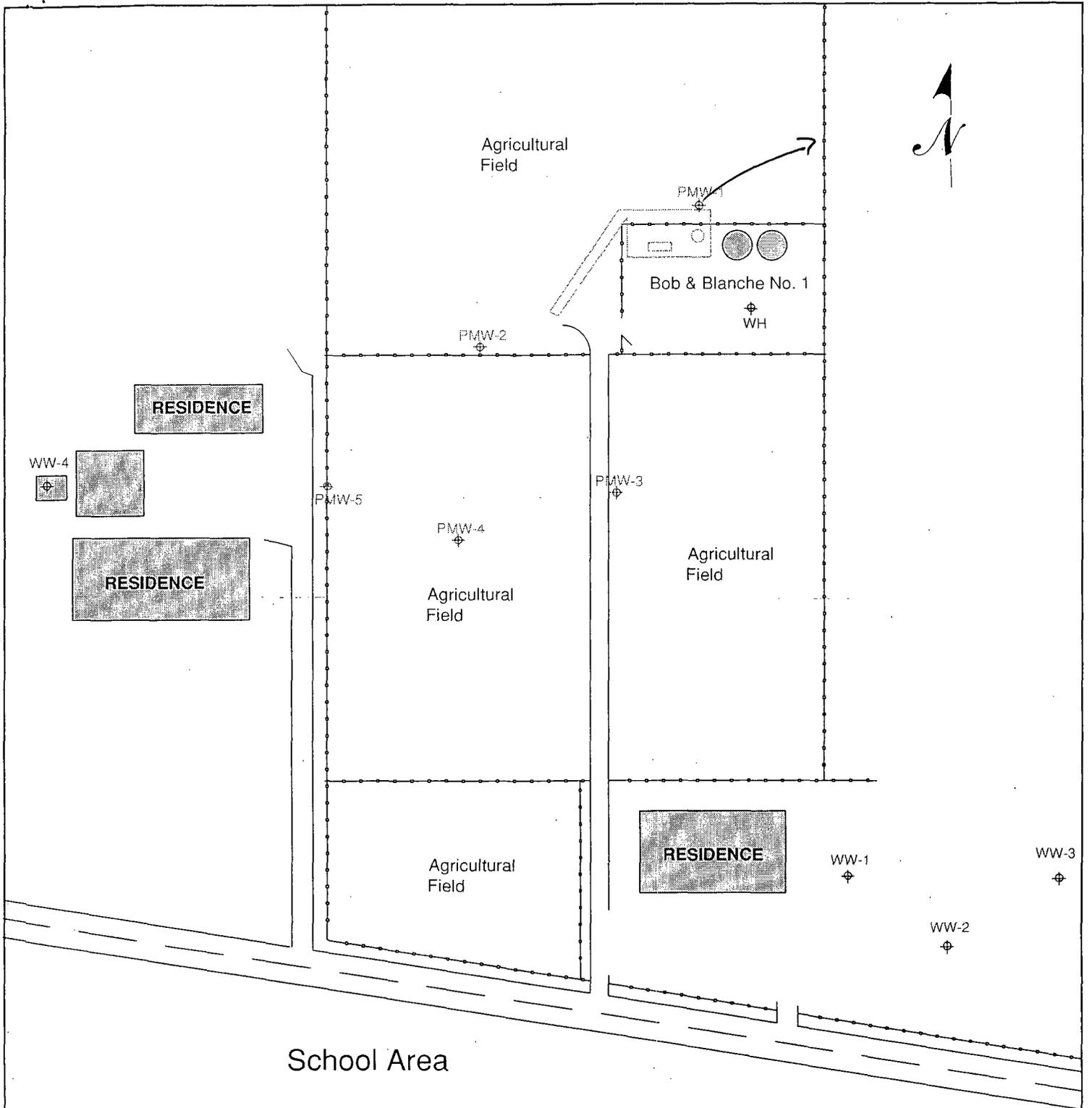
Vicinity Map

Figure 1

DRAWN BY:
DMY

PROJECT MANAGER:

PROJECT No 98094-007 Date Drawn: 07/31/05



LEGEND

- ⊕ Wellhead
- ⊕ WW-2 Water Well
- ⊕ PMW-1 Proposed Monitor Well
- Spill Area
- Fence
- AST

SITE MAP

Richardson Operating and Petro Mex LLC
 Bob and Blanche #1 Spill 3R0401
 Stage 1 Abatement Proposal

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
 5796 U.S. HIGHWAY 64-3014
 FARMINGTON, NEW MEXICO 87401
 (505) 632-0615

Project # 98094-009

REVISIONS

BY CJC DATE 09/26/05
 BY _____ DATE _____

DATE 07/31/05

DRAWN DMY

FIGURE

SCALE 1cm = 67'

APPROVED MDY

2



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

September 7, 2005

COPY

**CERTIFIED MAIL
RETURN RECEIPT NO: 7923 4634**

Mr. David B. Richardson
President
Richardson Operation Company
5600 South Quebec
Suite 130B
Denver, CO 80111

Mr. Jesus Villalobos
President
PETRO MEX LLC
P.O. Box 6724
Farmington, NM 87499

**RE: REQUIREMENT TO SUBMIT STAGE 1 ABATEMENT PLAN FOR THE
BOB AND BLANCHE No. 1 SPILL
3R0401**

Dear Mr. Richardson and Mr. Villalobos:

The OCD hereby requires the Richardson Operating Company (Richardson) and Petro Mex LLC (Petro Mex) to jointly submit a Stage 1 Abatement Plan in accordance with OCD's Rule 19 (19.15.1.19 NMAC) by no later than October 7, 2005. The State 1 abatement plan proposal must be submitted to the OCD Santa Fe Office with a copy provided to the OCD Hobbs District Office. The Stage 1 Abatement Plan may be based on Richardson's previously approved ground water investigation work plan (*Workplan to Delineate The Horizontal and Vertical Extent Of Any Groundwater and Soil Contamination*) dated August 25, 2005, but must meet of all the requirements specified in Rule 19 (19.15.1.19 NMAC), including, but not limited to the public notice and participation requirements in Subsection G of 19.15.1.19 NMAC.

The OCD is requiring a joint submittal because it appears that both Richardson and Petro Mex are responsible parties. Richardson was the operator of record with the OCD at the time that the spill occurred, and began the soil and ground water investigation and remediation. Petro Mex is the current operator of the site and the change of operator form submitted by the parties makes

the operator change from Richardson to Petro Mex retroactive to June 8, 2005, a date that precedes the spill.

If you have any questions, please call Glenn von Gonten at (505) 476-3488.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

xc: Denny Foust, OCD Aztec District Office



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO: 7923 4672

COPY

October 18, 2005

Mr. John Heinle
Richardson Operation Company
5600 South Quebec
Suite 130B
Denver, CO 80111

Mr. Jesus Villalobos
President
PETRO MEX LLC
P.O. Box 6724
Farmington, NM 87499

**RE: STAGE 1 ABATEMENT PLAN PROPOSAL
BOB AND BLANCHE NO. 1 SPILL
UNIT L, SECTION 12, TOWNSHIP 29 NORTH, RANGE 15 WEST
SAN JUAN COUNTY, NEW MEXICO
AP040**

Dear Mr. Heinle and Villalobos:

The New Mexico Oil Conservation Division (OCD) has reviewed the *Stage I Abatement Plan Proposal* jointly submitted by Richardson Operating (Richardson) and PETRO MEX LLC (PETRO MEX), dated October 4, 2005. Richardson and PETRO MEX submitted this work plan proposal in response to OCD's letter of August 29, 2005. The Richardson and PETRO MEX Stage 1 proposed investigation workplan specifies how these two responsible persons will investigate the contamination released from a spill of oil, sediment, and produced water at the Bob and Blanche No. 1 tank battery, located in Unit L, Section 12, Township 29 North, Range 15 West, San Juan County, New Mexico.

In accordance with OCD Rule 19G.(2), OCD has determined that the Stage 1 Abatement Plan Proposal is administratively complete. Before OCD can complete a technical review of the Stage 1 Abatement Plan Proposal, Richardson and PETRO MEX shall:

1. Jointly issue the enclosed Stage 1 notice of publication in the Santa Fe New Mexican and the Farmington Daily Times by October 30, 2005, pursuant to OCD Rule 19.G.(2).

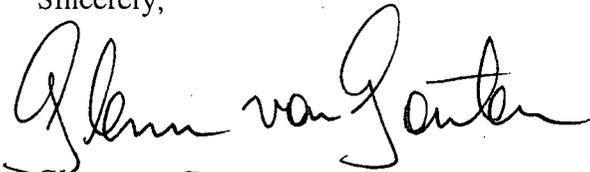
2. Issue written notice of the Stage 1 proposal pursuant to OCD Rule 19.G.(1), prior to issuing public notice. A listing of "*those persons, as identified by the Director, who have requested notification*" pursuant to OCD Rule 19.G(1)(d) can be found at:

"http://www.emnrd.state.nm.us/ocd/bureaus/Environmental/Discharge_Permits/WQCC%20Mailing%20List.doc."

3. Provide OCD with proof of publication and proof of written notice by November 4, 2005.

If you have any questions, please call me at 505-476-3488.

Sincerely,

A handwritten signature in cursive script that reads "Glenn von Gonten". The signature is written in black ink and is positioned above the printed name and title.

Glenn von Gonten
Senior Hydrologist

xc: Denny Foust, OCD Aztec District Office
Jack Collins, Envirotech Inc.

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 Oil Conservation Division Regulations, the following Stage 1 Abatement Plan Proposal has been submitted to the Director of the Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

John Heinle, Richardson Operating Company, Telephone (303) 830-8000, 5600 South Quebec, Suite 130B Denver, CO 80111, and Mr. Jesus Villalobos, President, PETRO MEX LLC (PETRO MEX), Telephone (505) 330-2467, P.O. Box 6724, Farmington, NM 87499, have jointly submitted a Stage 1 Abatement Plan Proposal to investigate ground water contamination released during a spill of oil, sediment, and produced water on June 18, 2005 at the Richardson Operating Company - Bob and Blanche No. 1 tank battery site, located in Unit L, Section 12, Township 29 North, Range 15 West, San Juan County, New Mexico. Richardson Operating was the operator of record at the time that the spill occurred and began the soil and ground water investigation and remediation. Richardson Operating removed approximately 1192 cubic yards of contaminated soil and 160 barrels of contaminated ground water from the site. Richardson Operating determined that the ground water at the site has been contaminated by benzene and xylenes at concentrations that exceed the New Mexico Water Quality Control Commission standards (see 20.6.2.3103(A) NMAC). PETRO MEX is the current operator of the site. Both parties jointly submitted a change of operator form that makes the operator change from Richardson Operating to PETRO MEX retroactive to June 8, 2005, a date that precedes the spill. Therefore, both Richardson Operating and PETRO MEX are responsible parties for the site. The Stage 1 Abatement Plan Proposal specifies that Richardson will: make public notice and provide for public participation; investigate the ground water contamination at the site by advancing soil borings, installing monitor wells, monitoring and analyzing ground water; determine the geology and hydrogeology of the site; and, submit an investigation report.

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 Stage 1 Abatement Plan Proposal may be viewed at the above address or at the Oil Conservation Division Aztec District Office, 1000 Rio Brazos Road, Aztec, New Mexico 87410, Telephone (505) 334-6178, between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on the proposed Stage 1 Abatement Plan Proposal, the Director of the Oil Conservation Division shall allow at least 30 days from the date of publication of this notice for the submittal of written comments.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO: 7923 4665

COPY

October 18, 2005

Mr. John Heinle
Richardson Operation Company
5600 South Quebec
Suite 130B
Denver, CO 80111

Mr. Jesus Villalobos
President
PETRO MEX LLC
P.O. Box 6724
Farmington, NM 87499

**RE: STAGE 1 ABATEMENT PLAN PROPOSAL
BOB AND BLANCHE NO. 1 SPILL
UNIT L, SECTION 12, TOWNSHIP 29 NORTH, RANGE 15 WEST
SAN JUAN COUNTY, NEW MEXICO
AP040**

Dear Mr. Heinle and Villalobos:

The New Mexico Oil Conservation Division (OCD) has reviewed the *Stage I Abatement Plan Proposal* jointly submitted by Richardson Operating (Richardson) and PETRO MEX LLC (PETRO MEX), dated October 4, 2005. Richardson and PETRO MEX submitted this work plan proposal in response to OCD's letter of August 29, 2005. The Richardson and PETRO MEX Stage 1 proposed investigation workplan specifies how these two responsible persons will investigate the contamination released from a spill of oil, sediment, and produced water at the Bob and Blanche No. 1 tank battery, located in Unit L, Section 12, Township 29 North, Range 15 West, San Juan County, New Mexico.

In accordance with OCD Rule 19G.(2), OCD has determined that the Stage 1 Abatement Plan Proposal is administratively complete. Before OCD can complete a technical review of the Stage 1 Abatement Plan Proposal, Richardson and PETRO MEX shall:

1. Jointly issue the enclosed Stage 1 notice of publication in the Santa Fe New Mexican and the Farmington Daily Times by October 30, 2005, pursuant to OCD Rule 19.G.(2).

2. Issue written notice of the Stage 1 proposal pursuant to OCD Rule 19.G.(1), prior to issuing public notice. A listing of "*those persons, as identified by the Director, who have requested notification*" pursuant to OCD Rule 19.G(1)(d) can be found at:

"http://www.emnrd.state.nm.us/ocd/bureaus/Environmental/Discharge_Permits/WQCC%20Mailing%20List.doc."

3. Provide OCD with proof of publication and proof of written notice by November 4, 2005.

If you have any questions, please call me at 505-476-3488.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn von Gonten". The signature is fluid and cursive, with the first name "Glenn" being the most prominent.

Glenn von Gonten
Senior Hydrologist

xc: Denny Foust, OCD Aztec District Office
Jack Collins, Envirotech Inc.

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 Oil Conservation Division Regulations, the following Stage 1 Abatement Plan Proposal has been submitted to the Director of the Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

John Heinle, Richardson Operating Company, Telephone (303) 830-8000, 5600 South Quebec, Suite 130B Denver, CO 80111, and Mr. Jesus Villalobos, President, PETRO MEX LLC (PETRO MEX), Telephone (505) 330-2467, P.O. Box 6724, Farmington, NM 87499, have jointly submitted a Stage 1 Abatement Plan Proposal to investigate ground water contamination released during a spill of oil, sediment, and produced water on June 18, 2005 at the Richardson Operating Company - Bob and Blanche No. 1 tank battery site, located in Unit L, Section 12, Township 29 North, Range 15 West, San Juan County, New Mexico. Richardson Operating was the operator of record at the time that the spill occurred and began the soil and ground water investigation and remediation. Richardson Operating removed approximately 1192 cubic yards of contaminated soil and 160 barrels of contaminated ground water from the site. Richardson Operating determined that the ground water at the site has been contaminated by benzene and xylenes at concentrations that exceed the New Mexico Water Quality Control Commission standards (see 20.6.2.3103(A) NMAC). PETRO MEX is the current operator of the site. Both parties jointly submitted a change of operator form that makes the operator change from Richardson Operating to PETRO MEX retroactive to June 8, 2005, a date that precedes the spill. Therefore, both Richardson Operating and PETRO MEX are responsible parties for the site. The Stage 1 Abatement Plan Proposal specifies that Richardson will: make public notice and provide for public participation; investigate the ground water contamination at the site by advancing soil borings, installing monitor wells, monitoring and analyzing ground water; determine the geology and hydrogeology of the site; and, submit an investigation report.

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 Stage 1 Abatement Plan Proposal may be viewed at the above address or at the Oil Conservation Division Aztec District Office, 1000 Rio Brazos Road, Aztec, New Mexico 87410, Telephone (505) 334-6178, between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on the proposed Stage 1 Abatement Plan Proposal, the Director of the Oil Conservation Division shall allow at least 30 days from the date of publication of this notice for the submittal of written comments.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

August 29, 2005

COPY

CERTIFIED MAIL

RETURN RECEIPT NO: 7923 4610

Ms. Patty Davis
Richardson Operation Company
5600 South Quebec
Suite 130B
Denver, CO 80111

**RE: WORKPLAN TO DELINEATE THE HORIZONTAL AND VERTICAL EXTENT
OF ANY GROUNDWATER AND SOIL CONTAMINATION
BOB AND BLANCHE No. 1 SPILL
3R0401**

Dear Ms. Davis:

The New Mexico Oil Conservation Division (OCD) has received a revised ground water investigation work plan (*Workplan to Delineate The Horizontal and Vertical Extent Of Any Groundwater and Soil Contamination*) via fax on August 25, 2005, from the Richardson Operating Company (Richardson) for the investigation of the Bob and Blanche No. 1 spill. Richardson submitted this revised ground water investigation work plan in response to OCD's letter of August 16, 2005.

Richardson's work plan is approved with the following conditions:

1. All wastes generated must be disposed of at an OCD approved facility or in an OCD approved manner.
2. Richardson must also submit a copy of its final report to the OCD Aztec Office.

3. Richardson must install its upgradient monitor well at a location farther east from the location that it has proposed (along the fence line) to ensure that it is sufficiently upgradient of any possible mounding beneath the release site.
4. Because the monitor wells will be installed on or adjacent to active agricultural fields, Richardson should install bollards around its monitor wells for protection.
5. OCD must review and approve any additional monitor wells. If appropriate, OCD may require Richardson to install nested monitor wells rather than monitor wells that have excessive screen lengths.
6. Richardson must include photos documenting the installation of its monitor wells with its final report.
7. Richardson has not proposed a presumptive remediation program to be implemented concurrently with its ground water investigation as suggested by OCD, nor has it proposed additional contingent soil borings and monitor wells if this phase of its ground water investigation fails to completely delineate the release. Therefore, Richardson must propose a remediation program and additional monitor wells in its final report and be prepared to immediately implement interim measures in addition to conducting additional investigation if OCD determines that such actions are appropriate.



If you have any questions, please call me at (505) 476-3488.

Sincerely,

Glenn von Gonten
Senior Hydrologist

xc: Denny Foust, OCD Aztec District Office
Jack Collins, Envirotech Inc.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

August 16, 2005

COPY

CERTIFIED MAIL
RETURN RECEIPT NO: 7923 4597

Mr. Ryan Bruner
Richardson Operation Company
5600 South Quebec Street, Suite 130B
Greenwood Village, CO 80111

**RE: INITIAL GROUNDWATER SITE INVESTIGATION PLAN
BOB AND BLANCHE #1 SPILL
3R0401**

Dear Mr. Bruner:

The New Mexico Oil Conservation Division (OCD) has received an initial groundwater site investigation plan (*Minimum Site Assessment Work Plan*) dated August 3, 2005, from the Richardson Operating Company (Richardson) regarding the Bob and Blanche No. 1 spill. Richardson submitted this ground water investigation work plan in response to OCD's letter of July 26, 2005. OCD required Richardson to submit "...a detailed ground water investigation work plan in accordance with OCD's 1993 guidance..." However, Richardson submitted a "*Minimum Site Assessment Work Plan*", prepared in accordance with the New Mexico Environment Department's Petroleum Storage Tank Bureau guidance.

OCD feels that it is very important that Richardson begin its ground water investigation as soon as possible, but because Richardson has not followed OCD's guidance as directed, the work plan must be revised before OCD can approve it. Richardson must submit a revised detailed ground water investigation work plan in accordance with OCD's 1993 guidance by August 26, 2005. Richardson's revised work plan must address the following issues.

1. Richardson must follow OCD's 1993 Guidelines. Richardson must delete all irrelevant references to NMED's guidance and "Minimum Site Assessment."

2. Richardson must revise its proposed work plan in accordance with OCD's 1993 guidance to specify that it will delineate both the horizontal and vertical extent of any ground water and soil contamination.
3. Richardson must revise its proposed work plan in accordance with OCD's 1993 guidance to specify that all monitor wells will be constructed with fifteen (15) feet of well screen, with at least five (5) feet of the well screen above the water table to accommodate seasonal fluctuations in the static water table. If Richardson can document large seasonal fluctuations in the static water table, then it may wish to install monitor wells with longer well screens, but will need to modify its sampling and analysis procedures so that unacceptable dilution of the ground water does not occur during well sampling. If Richardson chooses to install monitor wells with 15 feet of screen and the water table fluctuates so that the water level drops below the base of the screened interval, then it must install additional monitor wells. Richardson must specifically address this contingency in its revised work plan.
4. Richardson's proposed location for its background monitor well is immediately adjacent to the spill site. Because of the possibility that mounding may occur beneath the release site, OCD recommends that Richardson site its background monitor well further to the north.
5. Richardson must revise its proposed work plan to specify that it will collect and analyze soil samples at least every 10 feet, at every major change in lithology, and at the vadose zone - water table interface.
6. Richardson must revise its proposed work plan in accordance with OCD's 1993 guidance to specify that it will analyze the soil samples for BTEX, TPH, volatile organic compounds (VOCs), and general chemistry, including chlorides.
7. Richardson must revise its proposed work plan in accordance with OCD's letter of July 26, 2005, to specify that it will delineate the full extent of the hydrocarbon plume to concentrations less than the WQCC Abatement Standards (20.6.2.3103 NMAC) using an appropriate number of isoconcentration maps and cross sections. Richardson must include these displays in its investigation report.
8. Richardson must revise its proposed work plan in accordance with OCD's letter of July 26, 2005, to propose additional contingent soil borings and monitor wells if this phase of its ground water investigation fails to completely delineate the release. Richardson must copy OCD's Aztec district office on all correspondence, work plans, reports, *etc.*
9. Richardson must revise its proposed work plan to specify that it will dispose of all development and purge water appropriately at an OCD approved facility.
10. Richardson must revise its proposed work plan to specify that it will submit a final ground water investigation report to OCD within 90 days of its receipt of OCD's approval of its work plan.

OCD will require Richardson to remediate any ground water contamination to meet WQCC standards. Therefore, it may be more cost effective for Richardson to implement a presumptive remediation program to be implemented concurrently with its ground water investigation.

If you have any questions, please call me at (505) 476-3488.

Sincerely,

Glenn von Gonten
Senior Hydrologist

xc: Denny Foust, OCD Aztec District Office



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

August 2, 2005

COPY

CERTIFIED MAIL
RETURN RECEIPT NO: 7923 4573

Mr. Ryan Bruner
Richardson Operation Company
5600 South Quebec Street, Suite 130B
Greenwood Village, CO 80111

RE: BOB AND BLANCHE #1 SPILL

Dear Mr. Bruner:

The New Mexico Oil Conservation Division (OCD) has received a letter dated July 28, 2005, from the Richardson Operating Company (Richardson) regarding the Bob and Blanche No. 1 spill. However, Richardson still has not provided all of the details that OCD requires. Richardson must also document the source of the oil, sediment, and produced water. It is not clear from either the Envirotech report, C-141, or your letter of July 28, 2005, whether the released fluids were associated with the Bob & Blanche No. 1 or from off-site. Richardson must provide the additional information by August 5, 2005. Failure to submit the required additional information will result in the issuance of a Notice of Violation.

If you have any questions, please call me at (505) 476-3490.

Sincerely,

Roger Anderson
Environmental Bureau Chief

xc: Denny Foust, OCD Aztec District Office



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

July 26, 2005

COPY

CERTIFIED MAIL
RETURN RECEIPT NO: 7923 4528

Mr. Ryan Bruner
Richardson Operation Company
5600 South Quebec Street, Suite 130B
Greenwood Village, CO 80111

**RE: SPILL CLEANUP REPORT
RICHARDSON OPERATING COMPANY
BOB AND BLANCHE NO. 1**

Dear Mr. Bruner:

The New Mexico Oil Conservation Division (OCD) has received an OCD Form C-141 and *Spill Cleanup Report* for the Richardson Operating Company (Richardson) Bob and Blanche No. 1 submitted on July 25, 2005. However, Richardson has not addressed OCD's other requirements for the submission of a ground water investigation and remediation work plan and a written explanation of the events that led to the release. During my conversation with Ms. Patty Davis on July 22, 2005, I pointed out that Richardson was required to provide verbal and written notice to both OCD's Aztec district office and to the Environmental Bureau Chief. I informed Ms. Davis that Richardson must submit an OCD Form C-141 with a written explanation of the events that led to the release. I also informed Ms. Davis that, because the release had already impacted ground water, Richardson must immediately submit a ground water investigation work plan. I suggested that Mr. Glenn von Gonten of my staff should be contacted if Richardson had any questions about what was required.

Richardson has not submitted the required ground water investigation work plan and did not even address this requirement in its July 25, 2005 submittal. OCD hereby requires Richardson to submit a detailed ground water investigation work plan in accordance with OCD's 1993 guidance by August 5, 2005. Richardson must submit a ground water investigation plan to install a sufficient number of soil borings and monitoring wells to delineate the extent of the

ground water contamination. Richardson should be prepared to install as many monitoring wells as needed to delineate the full extent of the hydrocarbon plume to concentrations less than the WQCC Abatement Standards (20.6.2.3103 NMAC) using an appropriate number of isoconcentration maps and cross sections. Richardson must also propose additional contingent soil borings and monitor wells if this phase of its ground water investigation fails to completely delineate the release. After it has completely delineated the release, OCD will determine whether to require additional action from Richardson. Richardson may also propose a presumptive remediation program to be implemented concurrently with its ground water investigation. Richardson must also provide OCD with a written explanation of the events that led to the release and why it did not submit the required OCD Form C-141 by August 1, 2005.

If you have any questions, please call me at (505) 476-3490.

Sincerely,

Roger Anderson
Environmental Bureau Chief

xc: Denny Foust, OCD Aztec District Office
Glenn von Gonten, OCD Environmental Bureau



RECEIVED

3R0401

RICHARDSON OPERATING COMPANY

AUG - 4 2005

5600 South Quebec Street, Suite 130B
Greenwood Village, CO 80111
(303) 830-8000 Fax (303) 830-8009

Oil Conservation Division
Environmental Bureau

8/3/2005

Roger Anderson
Environmental Bureau
State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

COPY

RE: Bob and Blanche #1 Spill

Mr. Anderson,

Richardson Operating Company contacted EnviroTech after discovery of the spill, on June 18th 2005, and retained their services to perform remediation of the site. Remediation began on June 21st and work was completed on June 29th at a cost of over \$80,000 to Richardson Operating Company. We feel that this work is sufficient for the remediation of the site, however we will install groundwater monitoring wells and test for any further contamination. ①

Enclosed is the initial groundwater site investigation plan prepared for Richardson Operating Company by EnviroTech. We have been working with David Young (505-632-0615) at EnviroTech to comply with your requests. After your review and approval of the plan, we will begin work as soon as possible. Please let us know if any changes need to be made to the plan. We will be glad to pass along any additional requirements or concerns on to EnviroTech.

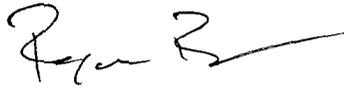
In regards to your letter of Aug. 2, 2005 concerning the source of the released fluid, our field personnel inadvertently moved the fluids from the tanks on two plugged and abandoned locations to the tanks on the Bob & Blanche site. As a result of vandalism, the spill occurred at the site with all of the stored fluids. The Bob & Blanche had approximately 20bbl of fluid in the tanks before the fluid transfers. All fluid was BS&W and produced water. According to our field manager, Tom Bergin, fluid was removed from the following locations in the approximate volumes. *

Kirtland #5 - 30-045-24304 - 110bbbls

Fruitland #1 - 30-045-24972 - 70bbbls

If there is any other way I can be of help to you, or anything else you require please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan Bruner", with a long horizontal flourish extending to the right.

Ryan Bruner
Geologist
Richardson Operating Company
rbruner@richardsonoil.com

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

August 1, 2005

Mr. Ryan Bruner
Richardson Operating
5600 S. Quebec St., Suite. 130B
Greenwood Village, Colorado 80111

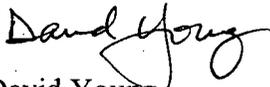
Re: **MINIMUM SITE ASSESSMENT
WORK PLAN
BOB AND BLANCHE NO. 1
KIRTLAND, NEW MEXICO**

Dear Mr. Bruner:

Enclosed, please find the *Minimum Site Assessment Work plan* for the Bob and Blanche No. 1 located in Kirtland, New Mexico.

If you have any questions or need additional information, please do not hesitate to contact me at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH INC.



David Young
Sr. Environmental Technician
dyoung@envirotech-inc.com

Enclosure Work plan and (1) copy

Cc: Client File No. 98094

DMY:F:\Projects\non-PST\Richardson\B & B 1\Phase 1\MSAworkplan.doc

RECEIVED

3R0401

AUG - 4 2005

Oil Conservation Division
Environmental Bureau

Phone (303) 830-8000

RECEIVED

AUG - 4 2005

Oil Conservation Division
Environmental Bureau

30-045-24743

**MINIMUM SITE ASSESSMENT
WORKPLAN**

SITE NAME:

**BOB AND BLANCHE NO. 1
COUNTY ROAD 6100
KIRTLAND, NEW MEXICO**

SUBMITTED TO:

**Mr. Ryan Bruner
Richardson Operating
5600 S. Quebec St., Suite. 130B
Greenwood Village, Colorado 80111
(303) 830-8000**

SUBMITTED BY:

**ENVIROTECH INC.
5796 U.S. HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0615**

PROJECT NO. 98094-007

AUGUST 1, 2005

**MINIMUM SITE ASSESSMENT
WORKPLAN
Bob and Blanche No. 1**

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INTRODUCTION

Envirotech Inc. has been retained by Richardson Operating, the owner and responsible party of a well site known as Bob and Blanche No. 1, to prepare a work plan for a Minimum Site Assessment at the above referenced site. In July 2005, a confirmed release of fluids occurred at the above referenced site. Envirotech, Inc. was contracted by the responsible party to provide spill response and remediation services. During the course of remediation activities, it was discovered that groundwater in the area had been impacted and was contaminated with levels of benzene and xylene that do not meet New Mexico Groundwater Quality standards. The site is located on County Road 6100 in Kirtland, New Mexico see Figure 1, Vicinity Map. (1)

Due to the site location and depth to groundwater, the New Mexico Oil Conservation Division has requested a MSA of the area to delineate the horizontal extent of groundwater contamination. This work plan will meet that request. (2)

PURPOSE AND SCOPE OF SERVICES

The purpose of this work plan is to provide the methodology and cost information for a MSA consisting of soil borings, monitor well installation, on-site investigation activities, laboratory analysis, and reporting of the on-site activities at the subject site. The following scope of services has been designed to meet this objective.

- 1) A total of five (5) soil borings will be completed to determine the horizontal extent of contamination on-site. All five (5) of these soil borings will be completed as monitor wells. Proposed monitor wells will be located down gradient, south and southwest, of the former release, and one (1) up gradient near the source area. In addition, four (4) existing shallow water wells near the site will be sampled with the monitor wells to provide additional information. Proposed monitor well locations (PMW-1 thru PMW-5) and water wells (WW-1 thru WW-4) are shown on Figure 2, Site Map. Final monitor well locations will be negotiated with the NMOCD. (3)
- 2) A report documenting the results of on-site activities will be prepared and submitted to Richardson Operating and the NMOCD.

WORKPLAN FOR MINIMUM SITE ASSESSMENT

The following task oriented work plan has been prepared to meet the requirements set forth by the NMOCD.

Task 1: Project Management

Sundry and diverse duties are associated with management, maintenance, and reporting. This includes project scheduling, conference with the NMOCD and Responsible Party, work plan development, cost estimating, field and laboratory data review, management of operation and maintenance, and review of all reports and specifications. Administrative and secretarial time is included for project file research and maintenance as well as project administrative duties.

Task 2: Soil Borings and Monitor Well Installation

- a. A total of five (5) soil borings will be completed to determine the horizontal extent of groundwater contamination underlying the site. Four (4) proposed monitor wells will be located down gradient, south and southwest, of the former release, and one (1) up gradient near the source area. Soil borings will be advanced to a depth of approximately 11 feet using a hollow stem auger drill rig and will be continuously sampled using a split spoon sampler. All drilling and sampling tools will be thoroughly decontaminated between samples. Field personnel will conduct field screening continuously to evaluate, describe, and record lithology, hydrocarbon vapors, odor, and all other observations pertinent to the geology of the site. Any contamination detected during drilling activities will be noted. Proposed soil boring locations (PMW-1 thru PMW-5) are shown on Figure 2. Final soil boring locations will be negotiated with the NMOCD Environmental Officer. (4)
(5)
- b. In order to determine where groundwater has been impacted, all five (5) soil borings will be completed across the air/water interface. Monitor wells will be constructed of 2-inch Schedule 40 PVC threaded flush joint casing with 0.010 slot screen. The screens will be gravel packed with #10-20 Colorado silica sand to one (1) foot above the screened interval, followed by two (2) feet of bentonite chips. Above ground steel well protector completions will be cemented in place at the surface. The screened interval will be placed to allow a minimum of ~~five (5)~~ ^{even 5'} feet of screen below the static water level. Monitor well completions will meet or exceed the NMED Standard Monitor Well Design included in the. Cuttings resulting from the soil borings will be drummed and removed for off-site disposal in accordance with all local, state, and federal statutes and regulations. (6)
WINDU
PUBA
- c. One (1) soil samples will be collected for laboratory analysis from immediately above the water level or at the total depth of the soil boring. Samples to be analyzed for volatile constituents will be extracted in the field using the methanol extraction procedure outlined in the most recent NMED Soil and Water Sampling and Disposal protocols (revised August 2003). All soil samples will be preserved on ice in a chilled, insulated cooler until delivered to the analyzing laboratory. All sample collection, screening, and preservation protocols will adhere to the most recent NMED Soil and Water Sampling and Disposal Guidelines. Soil samples will be submitted to the laboratory for determination of volatile organic compounds (VOCs) analysis per USEPA (7)

Method 8260. Soil boring logs and monitor well completion logs will be completed in the field.

Task 3: Monitor Well Development and Survey

Each monitor well will be surveyed to provide control for latitude, longitude, and U.S.G.S. elevation. Upon completion of the monitor wells, the top of casing elevations will be surveyed into the site benchmark in order to provide 0.01 foot vertical control and 0.1 foot horizontal control. The site benchmark will be established, identified, documented, and referenced to latitude, longitude, and the appropriate U.S.G.S. 7.5 minute topographic map. Each well casing will be permanently marked to indicate the point from which the depth to groundwater is determined. The survey will include all monitor wells.

The newly completed monitor wells will be developed by purging with a new disposable bailer or pump until the produced water is clear and the pH, conductivity, and temperature have stabilized pursuant to the most recent NMED Sampling and Disposal Guidelines. Within 48 hours of development the monitor wells will be sampled. Water generated from the development and sampling of these monitor wells will be disposed of in accordance with the NMED Sampling and Disposal Guidelines.

Task 4: Groundwater Monitoring and Analysis

Water samples will be submitted to the laboratory for determination of VOCs analysis including benzene, toluene, ethylbenzene, and total xylenes (BTEX). The sample procedures will follow USEPA SW-846 protocol. Water levels will be measured prior to bailing each well. A minimum of three (3) well volumes will be removed from each well prior to sampling using a new disposable bailer. Conductivity, pH, and temperature will be measured and recorded. Samples will be collected into 40 ml VOA vials with Teflon closures, preserved with HgCl_2 , capped headspace free, labeled and stored on ice in an ice chest. Samples will be delivered to Envirotech Laboratory for analysis by USEPA Method 8260B.

In addition, water from the four (4) existing water wells near the area of interest will be sampled and analyzed by USEPA Method 8260B following the protocol previously outlined in this section.

Task 5: Report Preparation

A report will be prepared upon completion of drilling, development, survey, and sampling activities. The report will address the methods and procedures, analytical results, survey calculations, and other information related to the on-site activities. One (1) copy of the report will be submitted to Richardson Operating and one (1) copy will be submitted to the NMOCD. Administrative and secretarial time is included for report preparation assistance. *as per 7/26/2005 ltr.*

COST SUMMARY

A Cost Summary Spreadsheet is included in *Appendix B* for each task outlined above. Summarized in *Table 1* is the cost estimate associated with each of these tasks:

**Table 1
 Minimum Site Assessment
 Cost Detail Summary**

| TASK | DESCRIPTION | COST ESTIMATE |
|-----------------|---|---------------|
| Task 1 | Project Management | \$875.45 |
| Task 2 | Soil Borings and Monitor Well Installation | \$7,985.15 |
| Task 3 & Task 4 | Monitor Well Development & Survey and Groundwater Monitoring & Analysis | \$2,085.50 |
| Task 5 | Report Preparation | \$836.50 |
| | Subtotal | \$11,782.60 |
| | NMGRT 6.1875% | \$729.05 |
| | Total | \$12,511.65 |

FIXED FEE BASIS

Envirotech proposes to complete the MSA on a fixed fee basis according to the following schedule:

Total Cost.....\$12,511.65

CLOSURE AND LIMITATIONS

The scope of Envirotech's services will be limited to project management, monitor well installation, sampling, laboratory analysis, and reporting at the Richardson Bob and Blanche No. 1 on County Road 6100, Kirtland, New Mexico. All work will be performed in accordance with accepted practices in geotechnical, environmental and petroleum engineering, and hydrogeology.

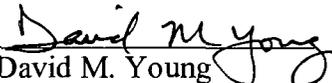
Envirotech will not perform work beyond the Scope of Services outlined herein without first obtaining approval from the Responsible Party.

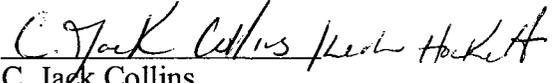
We appreciate the opportunity to be of service. For additional information or to schedule the services outlined in this work plan, please contact us at (505) 632-0615.

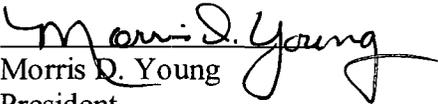
Sincerely,

ENVIROTECH INC.

Reviewed by:


David M. Young
Sr. Environmental Technician
dyoung@envirotech-inc.com


C. Jack Collins
Chief Environmental Scientist/Hydrogeologist
NMCES #038
jcollins@envirotech-inc.com


Morris D. Young
President
NMCES #098
myoung@envirotech-inc.com

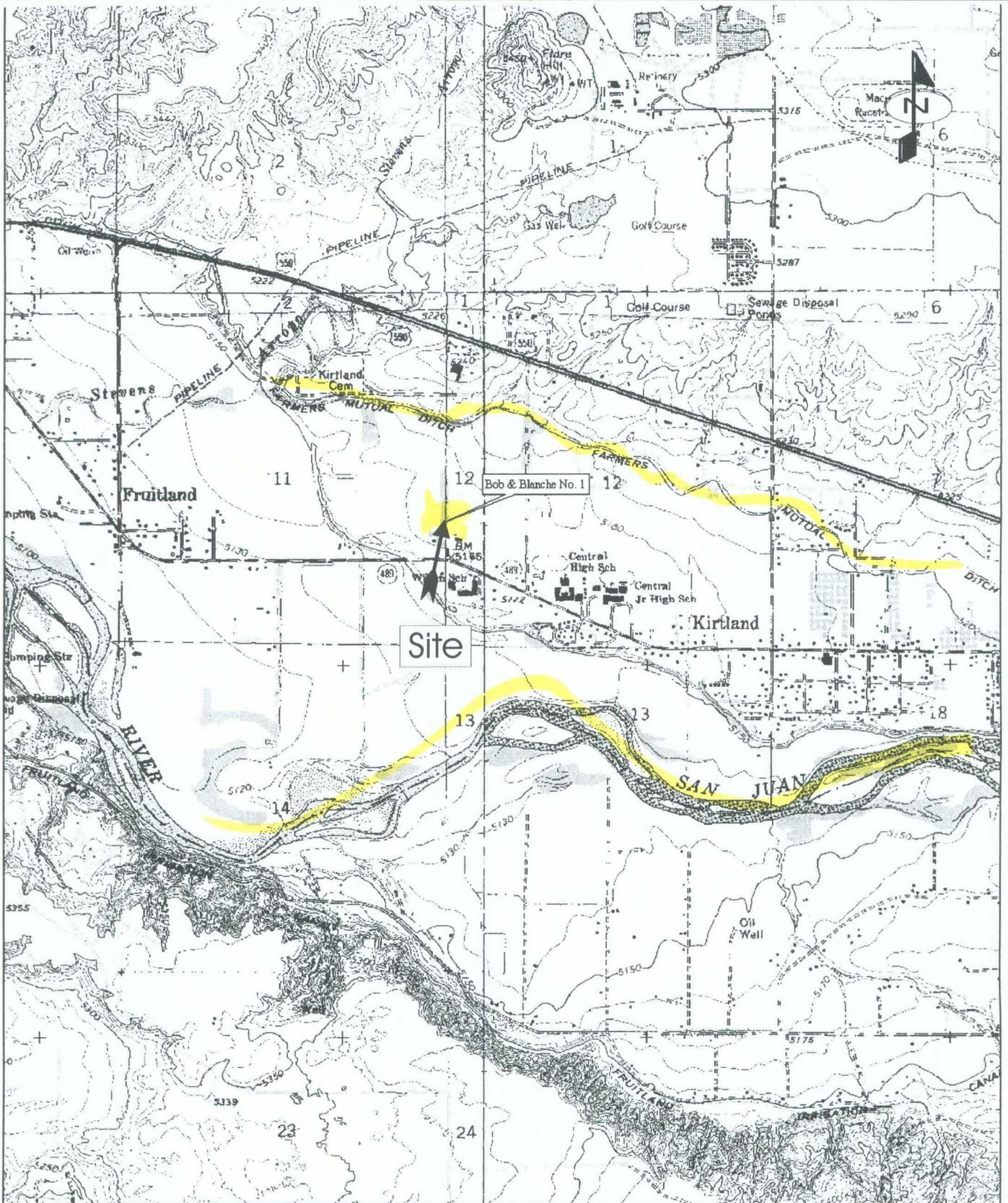
FIGURES

FIGURE 1, VICINITY MAP

FIGURE 2, SITE MAP

FIGURES

FIGURE 1, VICINITY MAP
FIGURE 2, SITE MAP



3-D TopoQuads Copyright © 1999 DeLorme, Yorktown, ME 04096 Source Data: USGS 750 ft Scale: 1:25,000 Detail: 13-0 Datum: NAD27

Bob & Blanche No. 1
Richardson Operating
Kirtland, New Mexico

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64
FARMINGTON, NEW MEXICO 87401

PHONE (505) 632-0615

Vicinity Map

Figure 1

DRAWN BY:
DMY

PROJECT MANAGER:

PROJECT No 98094-XXX

Date Drawn: 07/31/05



Agricultural Field

PMW-5

Bob & Blanche No. 1

RESIDENCE

WW-4

RESIDENCE

PMW-4

Agricultural Field

Agricultural Field

PMW-3

PMW-2

PMW-1

Agricultural Field

RESIDENCE

WW-1

WW-3

WW-2

School Area

LEGEND

- ⊕ Wellhead
- ⊕ WW-2 Water Well
- ⊕ PMW-1 Proposed Monitor Well
- Spill Area
- Fence
- AST

SITE MAP

Richardson Operating
Bob and Blanche No.1
Proposed Monitor Wells

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64-3014
FARMINGTON, NEW MEXICO 87401
(505) 632-0615

REVISIONS
BY XXX DATE XX/XX/XX
BY XXX DATE XX/XX/XX

JOB/PROJECT #

| | | |
|-----------------|--------------|----------|
| DATE 07/31/05 | DRAWN DMY | FIGURE 2 |
| SCALE 1cm = 67' | APPROVED MDY | |

APPENDIX
COST SUMMARY SPREADSHEET

| Description | RATE/UNIT | Project Management | | Installation of Five (5) 10' Monitor Wells | Groundwater Monitoring Event, One (1) | Reporting | TOTAL UNIT | TOTAL COST |
|------------------------------------|-----------|--------------------|---------------|--|---------------------------------------|-----------------|------------|--------------------|
| 1- Services | | | | | | | | |
| Principal | \$137.50 | 0.5 | | | | 1.0 | 1.5 | \$206.25 |
| Senior Scientist/Engineer | \$104.50 | 1.0 | | | | 1.0 | 2.0 | \$209.00 |
| Project Scientist / Engineer | \$82.50 | 2.0 | | | | 4.0 | 6.0 | \$495.00 |
| Staff Scientist / Engineer | \$66.00 | 4.0 | | 32.0 | 8.0 | | 44.0 | \$2,904.00 |
| Draftsperson | \$51.75 | 1.0 | | | | | 1.0 | \$51.75 |
| Administrator | \$63.25 | 2.0 | | | | 2.0 | 4.0 | \$253.00 |
| Secretarial | \$34.50 | 2.0 | | | | 4.0 | 6.0 | \$207.00 |
| Total Labor | | | | | | | | \$4,326.00 |
| 2- Expenses | | | | | | | | |
| Env. Support Vehicle | \$70.50 | | | 3.0 | | | 3.0 | \$211.50 |
| Env. Support Truck / mile | \$0.34 | | | 120.0 | | | 120.0 | \$40.80 |
| Drill Rig / w Helper / hour | \$140.40 | | | 16.0 | | | 16.0 | \$2,246.40 |
| Drill Rig Move / Demobe / hour | \$105.84 | | | 3.0 | | | 3.0 | \$317.52 |
| Support Truck / w Trailer / day | \$90.50 | | | 3.0 | | | 3.0 | \$271.50 |
| Support Truck / w Trailer / mile | \$0.34 | | | 120.0 | | | 120.0 | \$40.80 |
| Power Washer / day | \$125.00 | | | 2.0 | | | 2.0 | \$250.00 |
| Per diem / day | \$75.00 | | | | | | 0.0 | \$0.00 |
| Silica Sand 50# Sack | \$10.69 | | | 12.0 | | | 12.0 | \$128.28 |
| Bentonite Chips 50# Sack | \$10.23 | | | 5.0 | | | 5.0 | \$51.15 |
| Bentonite Gel 50# Sack | \$10.05 | | | 1.0 | | | 1.0 | \$10.05 |
| Portland Cement 94# Sack | \$14.19 | | | 10.0 | | | 10.0 | \$141.90 |
| Redi-Mix Concrete 50# Sack | \$7.05 | | | 10.0 | | | 10.0 | \$70.50 |
| 2" SCHED 40 PVC casing / 5' jt. | \$12.22 | | | 5.0 | | | 5.0 | \$61.10 |
| 2" SCHED 40 PVC Screen / 5' jt. | \$19.53 | | | 5.0 | | | 5.0 | \$97.65 |
| 2" SCHED 40 PVC End Cap | \$8.22 | | | 5.0 | | | 5.0 | \$41.10 |
| 2" Locking Well Plug / each | \$19.13 | | | 5.0 | | | 5.0 | \$95.65 |
| Well Protector 4' & Guardrails | \$113.85 | | | 5.0 | | | 5.0 | \$569.25 |
| Carbide Teeth / Conical | \$22.00 | | | 6.0 | | | 6.0 | \$132.00 |
| Barrel / each | \$50.00 | | | 2.0 | | | 2.0 | \$100.00 |
| Disposal Charge / bbl | \$18.00 | | | 2.0 | | | 2.0 | \$36.00 |
| Disposable Bailers / each | \$8.75 | | | | 9.0 | | 9.0 | \$78.75 |
| Miscellaneous Field Supplies / day | \$20.00 | | | 2.0 | 1.0 | | 3.0 | \$60.00 |
| Copies / each | \$0.05 | 25.0 | | | | | 25.0 | \$1.25 |
| Report Prep. | \$12.50 | 1.0 | | | | | 1.0 | \$12.50 |
| Shipping Charge / each | \$5.20 | 1.0 | | | | | 1.0 | \$5.20 |
| Phone | \$0.20 | 10.0 | | | | | 10.0 | \$2.00 |
| Fax | \$1.00 | 5.0 | | | | | 5.0 | \$5.00 |
| Total Expenses | | | | | | | | \$5,077.85 |
| 3- Laboratory Analysis | | | | | | | | |
| Water | | | | | | | | |
| USEPA Method 504.1 EDB | \$90.00 | | | | | | 0.0 | \$0.00 |
| USEPA Method 8021 BTEX | \$90.00 | | | | | | 0.0 | \$0.00 |
| EPA Method 8260B VOC | \$145.00 | | | | 9.0 | | 9.0 | \$1,305.00 |
| USEPA Method 8100 VOCs | \$200.00 | | | | | | 0.0 | \$0.00 |
| Soil | | | | | | | | |
| EPA Method 8260B VOC | \$145.00 | | | 5.0 | | | 5.0 | \$725.00 |
| | | | | | | | | \$2,030.00 |
| 4- Equipment Rental | | | | | | | | |
| Interface Probe / day | \$75.00 | | | | 1.0 | | 1.0 | \$75.00 |
| Survey Equipment / hour | \$11.25 | | | | 3.0 | | 3.0 | \$33.75 |
| OVM / day | \$65.00 | | | 3.0 | | | 3.0 | \$195.00 |
| Water Test Kit (pH, Cond, Temp) | \$45.00 | | | | 1.0 | | 1.0 | \$45.00 |
| Total Equipment Rental | | | | | | | | \$348.75 |
| SUBTOTAL | | \$875.45 | \$0.00 | \$7,985.15 | \$2,085.50 | \$836.50 | | \$11,782.60 |
| NMGRT 6.1875% | | \$54.17 | \$0.00 | \$494.08 | \$129.04 | \$51.76 | | \$729.05 |
| TOTAL | | \$929.62 | \$0.00 | \$8,479.23 | \$2,214.54 | \$888.26 | | \$12,511.65 |

\$9,408.85 \$10,184.55 775,6996875 \$2,327.10 \$12,511.65



RICHARDSON OPERATING COMPANY

5600 South Quebec Street, Suite 130B
Greenwood Village, CO 80111
(303) 830-8000 Fax (303) 830-8009

COPY

RECEIVED
3R0401

JUL 28 2005

**Oil Conservation Division
Environmental Bureau**

Roger Anderson
Environmental Bureau
State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE: Bob and Blanche #1 Spill

Mr. Anderson,

In response to your letter of July 26, 2005, unfortunately I was not aware that you required a detailed groundwater investigation plan, the information regarding the cause of the spill and an explanation as to why Richardson Operating Company had not submitted a C-141. Hopefully I can supply you with the information you need in this letter.

I am currently working on creating a plan for the investigation of the possible groundwater contamination. I have contacted two environmental companies, who would do the majority of the work, to assist me with the plan, as this is not my area of expertise. EnviroTech would not be able to begin any work for at least two weeks. I am trying to find another company, which may be able to install the monitoring wells faster. I have also contacted Glenn Von Gonton, at your office, for any additional requirements and to be certain that the plan will meet with your satisfaction. The groundwater investigation plan will be submitted by your August 5, 2005 deadline.

The spill occurred sometime during the day on June 18, 2005. The landowner contacted our Farmington office after discovering the spill. Our field personnel inspected the site at approximately 3:00pm and found that a valve on one of the tanks was opened, causing the tank to drain into the below grade storage tank. The below grade tank overflowed and created the spill. The landowner had used the well pad for storage of agricultural equipment and left the gate unlocked, allowing anyone access to the site and the tanks. Upon discovery of the spill our field personnel contacted our WY field manager, Tom Bergin (our former NM field manager). Tom then contacted the landowner to decide what was needed to clean up this spill. It was then determined that the best course of action would be to contract EnviroTech to perform the remediation.

Unfortunately, we did not submit a C-141 immediately. We informed the NMOCD Aztec office right away, however we were not aware that your office needed to be contacted as well. I realize that ignorance of the rules is no excuse and I apologize for the tardiness of our report.

I hope that this letter is able to answer your requests. As I said we are working with environmental companies to prepare a groundwater investigation plan. We will submit this plan for your approval as soon as possible. If there is anything else you require please call me. I hope that we can work together to remediate any possible environmental impact as quickly as possible.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan Bruner", with a long horizontal flourish extending to the right.

Ryan Bruner
Geologist
Richardson Operating Company
rbruner@richardsonoil.com



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

RECEIVED

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

AUG 23 2004

OIL CONSERVATION
DIVISION

NOTICE OF VIOLATION (3-04-13)

August 20, 2004

CERTIFIED MAIL

RETURN RECEIPT NO: 7002 2410 0006 6464 0899

Mr. David Richardson
Richardson Operating Company
4601 DTC BLVD STE 470
Denver, CO 80237-2558

RE: Violation of Oil Conservation Division Rules
Rule 710. A. (19 NMAC 15.9.710. A)
Rule 709. C. (19 NMAC 15.9.709. C)

Dear Mr. Richardson:

On August 2, 2004, New Mexico Oil Conservation Division (OCD) Deputy Inspector Bruce Martin found that Harpole Construction Company (Harpole) was disposing of produced water on roads and locations operated by Richardson Operating Company (Richardson).

An OCD investigation found the following:

1. At the direction of Richardson personnel Mike Folk and Tom Bergin, Harpole removed eight (8) sixty (60) barrel loads of produced water from the Richardson NV Navajo #27 well site and disposed of those loads on several different Richardson leases, locations, and roads.
2. A check of the "H2O Daily Log" for Harpole's water truck for July 31, 2004, and August 2, 2004, shows a total of eight loads of produced water transported by Harpole.
3. A review of OCD records showed that Harpole did not hold a valid C-133, Authorization to Move Produced Water, before August 5, 2004.
4. The discharge of produced water occurred six (6) times on July 31, 2004, and two (2) times on August 2, 2004.
5. Tom Bergin of Richardson has confirmed on an initial Form C-141 report that produced water was disposed of on six well sites in Sections 26, 35, and 36, all in Township 29 North, Range 14 West.
6. OCD Rule 709.C. reads, "No owner or operator shall permit produced water to be removed from its leases or field facilities by motor vehicle except by a person possessing an approved form C-133."
7. Harpole Construction did not possess a C-133 at this time.

Page 2
Richardson Operating
August 20, 2004

8. OCD Rule 710.A. reads in pertinent part, " No person, including any transporter, may dispose of produced water on the surface of the ground . . ."
9. Eight loads of produced water were disposed of on six locations and access roads at the direction of Richardson personnel.
10. On August 6, 2002, an NOV was issued to Richardson for violation of OCD Rules 710.A. and 710.C.

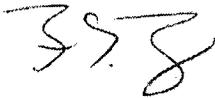
Richardson's repeated misconduct warrants the assessment of civil penalties pursuant to NMSA 70-2-31.A. for the violations of OCD Rules described above. NMSA 1978, Section 70-2-31.A. authorizes the assessment of civil penalties of up to one thousand dollars (\$1,000) per day per violation for any knowing or willful violation of any provision of the Oil and Gas Act or of any rule adopted pursuant to the Act.

Because the rule violations at issue were serious and occurred on multiple occasions, the Aztec District office of the Division believes a penalty of four thousand dollars (\$4,000) and a definite commitment to future corrective action are essential. This penalty is based on two violations of Rule 710.A. and two violations of Rule 709.C. Unless the matter can be satisfactorily resolved at an administrative conference, we will request a compliance hearing before an OCD Hearing Examiner, where we will recommend issuance of a formal order requiring compliance with OCD Rules, a civil penalty, and corrective action. Please note that because each of the two rules was actually violated on more than two occasions, if this matter goes to hearing the OCD may seek a penalty greater than the \$4,000 penalty proposed in this notice.

Please contact this office within ten (10) days to schedule an administrative conference to discuss this matter. OCD legal counsel may be present by telephone for this conference and you may bring legal counsel if you desire.

If you have any questions, please contact me at (505) 334-6178 ext 11.

Sincerely,



Frank T. Chavez
District Supervisor
ftchavez@state.nm.us

FTC/mk

Cc: Roger Anderson
Gail McQuesten

From Operator: RICHARDSON OPERATING CO, 19219
To Operator: PETRO MEX LLC, 236452
Wells Selected for Transfer, Permit 15079
Permit Status: APPROVED

OCD District: Aztec

| Property | Well Name | Lease Type | ULSTR | OCD Unit | API | Well Type | Pool ID | Pool Name | Last Prod/Inj | Addl Bond |
|----------|------------------|------------|--------------|----------|--------------|-----------|---------|----------------|---------------|-----------|
| 301640 | BOB BLANCHE #001 | P | L-12-29N-15W | L | 30-045-24743 | O | 11880 | CHA CHA GALLUP | 12/04 | |
| 301641 | DOROTHY #001 | P | I-11-29N-15W | I | 30-045-24262 | O | 11880 | CHA CHA GALLUP | 12/04 | |
| 301642 | FRUITLAND #001 | P | I-3 -29N-15W | I | 30-045-24972 | O | | | 11/01 | |
| 301643 | KIRTLAND #001 | P | A-13-29N-15W | A | 30-045-23470 | G | | | 07/02 | |
| | KIRTLAND #002 | P | B-13-29N-15W | B | 30-045-23677 | O | | | 08/01 | |
| | KIRTLAND #004 | P | 5-18-29N-14W | E | 30-045-23716 | O | | | 12/04 | |
| | KIRTLAND #005 | P | J-12-29N-15W | J | 30-045-24304 | O | | | 12/04 | |
| | KIRTLAND #006 | P | C-13-29N-15W | C | 30-045-24448 | O | | | 07/02 | |
| | KIRTLAND #007 | P | D-13-29N-15W | D | 30-045-24466 | G | | | 04/99 | |
| | KIRTLAND #008 | P | O-11-29N-15W | O | 30-045-25028 | G | | | 04/99 | |
| | KIRTLAND #009 | P | K-12-29N-15W | K | 30-045-25029 | G | | | 06/99 | |
| | KIRTLAND #010 | P | 4-7 -29N-14W | M | 30-045-25027 | O | | | 12/04 | |
| | KIRTLAND #011 | P | 3-18-29N-14W | C | 30-045-25306 | O | | | 01/99 | |
| 301644 | KIRTLAND 14 #001 | P | A-14-29N-15W | A | 30-045-25922 | O | 11880 | CHA CHA GALLUP | 12/04 | |
| 301645 | KIRTLAND 18 #001 | P | 1-18-29N-14W | A | 30-045-26203 | O | 11880 | CHA CHA GALLUP | 12/04 | |
| | KIRTLAND 18 #003 | P | 2-18-29N-14W | B | 30-045-23736 | O | | | 06/02 | |
| 301646 | MOORE #001 | P | E-12-29N-15W | E | 30-045-24742 | O | | | 06/02 | |
| 301647 | TRS-EVI #001 | P | H-11-29N-15W | H | 30-045-24633 | O | 11880 | CHA CHA GALLUP | 12/04 | |

District III
1000 Rio Brazos Rd., Aztec, NM
87410

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

Form C-104A
Permit 15219

15079

Change of Operator

Previous Operator Information

New Operator Information

OGRID: 19219
Name: RICHARDSON OPERATING CO
Address: 3100 La Plata Highway
Address:
City, State, Zip: Farmington, NM 87401

Effective Date: 06 08 2005
OGRID: 236452
Name: PETRO MEX LLC
Address: PO Box 6724
Address:
City, State, Zip: Farmington, NM 87499

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information on this form and the certified list of wells is true to the best of my knowledge and belief.

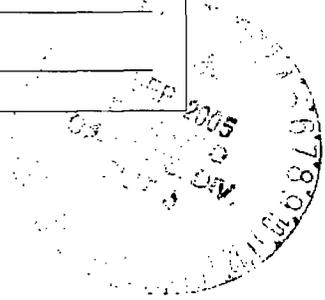
Previous Operator

New Operator

Signature: [Signature]
Printed Name: Tom Bergin
Title: OPS Mgr
Date: 9-1-05 Phone: 307-330-7999

Signature: [Signature]
Printed Name: Jesus Villalobos
Title: President
Date: 9-1-05 Phone: (505) 632-5948

NMOCD Approval
Electronic Signature: Charlie Perrin, District III
Date: September 01, 2005



From Operator: RICHARDSON OPERATING CO, 19219
To Operator: LANCE OIL & GAS COMPANY, INC., 229938
Wells Selected for Transfer, Permit 10430
Permit Status: APPROVED

OCD District: Aztec

| Property | Well Name | Lease Type | ULSTR | OCD Unit | API | Well Type | Pool ID | Pool Name | Last Prod/Inj |
|----------|-------------------|------------|--------------|----------|--------------|-----------|---------|----------------------------------|---------------|
| 301440 | NV NAVAJO 28 #002 | N | C-28-29N-14W | C | 30-045-31038 | G | 71629 | BASIN FRUITLAND COAL (GAS) | |
| | NV NAVAJO 28 #002 | N | C-28-29N-14W | C | 30-045-31038 | G | 79680 | KUTZ PICTURED CLIFFS, WEST (GAS) | |

District III
1000 Rio Brazos Rd., Aztec, NM
87410

State of New Mexico
Energy, Minerals and Natural Resources

Form C-104A
Permit 10430

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

Change of Operator

Previous Operator Information

New Operator Information

OGRID: 19219
Name: RICHARDSON OPERATING CO
Address: 3100 La Plata Highway
Address:
City, State, Zip: Farmington, NM 87401

Effective Date: 10/01/2004
OGRID: 229938
Name: LANCE OIL & GAS COMPANY, INC.
Address: 1099 18th Street
Address: Suite 1200
City, State, Zip: Denver, CO 80202

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information on this form and the certified list of wells is true to the best of my knowledge and belief.

Previous Operator

New Operator

Signature: David B. Richardson
Printed Name: David B Richardson
Title: President
Date: 4-27-05 Phone: 303 830-8000

Signature: Mary S Mondragon
Printed Name: Mary S. Mondragon
Title: Production Supervisor
Date: 5-2-05 Phone: 303 450-3527

NMOCD Approval
Electronic Signature: Charlie Perrin, District III
Date: May 16, 2005

From Operator: RICHARDSON OPERATING CO, 19219
To Operator: BURLINGTON RESOURCES OIL & GAS COMPANY LP, 14538
Wells Selected for Transfer, Permit 13022
Permit Status: APPROVED

OCD District: Aztec

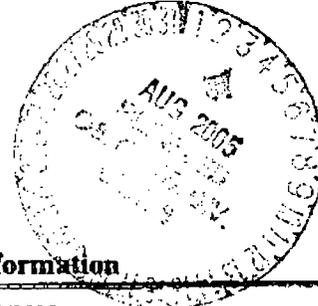
| Property | Well Name | Lease Type | ULSTR | OCD Unit | API | Well Type | Pool ID | Pool Name | Last Prod/Inj |
|----------|--------------------|------------|--------------|----------|--------------|-----------|---------|----------------------------|---------------|
| 301626 | FEDERAL 23-17 #001 | F | G-17-28N-08W | G | 30-045-28471 | G | 71629 | BASIN FRUITLAND COAL (GAS) | 06/05 |
| | FEDERAL 23-17 #002 | F | D-17-28N-08W | D | 30-045-31980 | G | 71629 | BASIN FRUITLAND COAL (GAS) | |

District III
1000 Rio Brazos Rd., Aztec, NM
87410

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

Form C-104A
Permit 13022

Change of Operator



Previous Operator Information

New Operator Information

OGRID: 19219
Name: RICHARDSON OPERATING CO
Address: 3100 L. Plata Highway
Address:
City, State, Zip: Farmington, NM 87401

Effective Date: 06/01/2005
OGRID: 14538
Name: BURLINGTON RESOURCES OIL & GAS COMPANY LP
Address: PO Box 4289
Address:
City, State, Zip: Farmington, NM 87499

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information on this form and the certified list of wells is true to the best of my knowledge and belief.

Previous Operator

New Operator

Signature: *Patti L. Davis*
Printed Name: Patti L. Davis
Title: Vice President
Date: 7-6-05 Phone: 303-830-8000

Signature: *Patsy Clugston*
Printed Name: Patsy Clugston
Title: Sr. Regulatory Specialist
Date: 7/5/05 Phone: 505-326-9518

NMOCB Approval

Electronic Signature: Charlie Perrin, District III
Date: August 09, 2005

Fax

To: Mr. Ryan Bruner
Richardson Operating Company

Fax: 303-830-8009

Pages: 3, including this cover sheet.

Date: July 26, 2005

RE: Richardson Operating Bob & Blanch No. 1 spill.

If you have any questions, please call me at 505-476-3488.



Glenn von Gonten

Glenn von Gonten
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TRANSACTION REPORT

P. 01

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