3R-83

Release Report/ General Correspondence

Date
September 2000

Conoco Inc.
3315 Bloomfield Highway
Farmington, New Mexico 87401

October 5, 2000

Mr. Denny G. Foust
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Re: Report - Sheen On Animas River, 105 Meadow View Drive,
Farmington, New Mexico

Dear Mr. Foust:

Attached, you will find a copy of a report prepared by On Site Technologies, Ltd. concerning the September 1, 2000 incident in the Animas River. According to our consultant's analyses, the sheen in the Animas River was not petroleum in origin. Tests failed to detect benzene, toluene, ethylbenzene, or xylenes. Tests for hydrocarbons indicated that hydrocarbons present in the river are from biological decomposition.

Should you have questions or require additional information please do not hesitate to call me at 505-324-5846.

Sincerely,

Merrion B Com #1
H-15-29N-13W

John E. Cofer
Environmental Coordinator – San Juan Basin

22

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE
TECHNOLOGIES, LTD.

COPY

LAB: (505) 325-1556
FAX: (505) 327-1496

September 25, 2000

Conoco, Inc.
Attn.: Mr. John Cofer
3315 Bloomfield Highway
Farmington, NM 87401

RE: Sheen on River Near B Com 1 Location

Dear Mr. Cofer:

Enclosed please find results of laboratory analytical testing of samples taken 9-1-00 as directed by Conoco, Inc. in response to a request from New Mexico Oil Conservation Division related to a citizen concern. Mr. Don Roquemore of 105 Meadow View Drive, in the mobile home park adjacent to the Farmington B Com 1, had telephoned NMOCD Aztec office and reported a sheen along the bank of the Animas River. He was concerned that the sheen and apparent petroleum presence might be related to the B Com 1 or associated pipelines.

David Cox and Cynthia Sluyter-Gray responded to the site, met with Mr. Roquemore, and were shown the area of concern on the river. An iridescent sheen was evident floating in several areas of slow flow. Attempts were made to sample the water for Total Petroleum Hydrocarbons, BTEX (Benzene, Toluene, Ethyl-benzene, and Xylene), and PAH. However, only enough water was recovered to analyze for BTEX. During that effort, significantly discolored soils were noted beneath a thin layer of river sediment. Samples were taken of the discolored soils. A "septic" odor was noted during the sampling.

As can be seen from the attached laboratory results, the water analysis was negative for BTEX compounds. To differentiate between hydrocarbons in the soils from a petroleum-related source and products of biological decomposition, the soils were tested for Diesel Range Organics (Method 8015B), Total Petroleum Hydrocarbons (Method 418.1), and Total Oil and Grease (Method 413.2). Positive results were obtained for both the Diesel Range and Total Recoverable Oil and Grease methods, indicating the minimal presence of hydrocarbon compounds in the larger chain molecules. However, the 418.1 method, specific for petroleum-type hydrocarbons with Benzene ring configurations, yielded results below detection limits, indicating that the hydrocarbon compounds present are from biological decomposition. Furthermore, the chromatogram produced by the 8015B Diesel Range Organics was compared to a typical diesel (petroleum-based) chromatogram, showing no correlation between the two.

All laboratory analytical results as well as the two chromatograms are attached to this letter. Please do not hesitate to contact either Dave Cox, Laboratory Manager, or myself, if further information or explanation is needed, or if we can be of service.

Respectfully submitted,

Cynthia A. Sluyter-Gray
On Site Technologies, Ltd.

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FAX: (505) 327-1496

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September 18, 2000

Cindy Gray
On Site Technologies Limited
612 E. Murray Drive
P.O. Box 2606
Farmington, NM 87499
TEL: (505) 325-5667
FAX (505) 327-1496

RE: 4-1754; 105 Meadow View Drive Order No.: 0009003

Dear Cindy Gray,

On Site Technologies, LTD. received 3 samples on 9/1/2000 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Aromatic Volatiles by GC/PID (SW8021B)
Diesel Range Organics (SW8015B)
Percent Moisture (D2216)
SOPREP SONICATION: TPH 418.1 (SW3550A)
Total Oil and Grease (E413.2)
TPH, T/R Soil (E418.1)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

David Cox

OFF: (505) 325-5667
FAX: (505) 327-1496

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TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

On Site Technologies, LTD.

Date: *18-Sep-00*

CLIENT: On Site Technologies Limited
Project: 4-1754; 105 Meadow View Drive
Lab Order: 0009003

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

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ANALYTICAL REPORT

Date: *18-Sep-00*

Client:	On Site Technologies Limited	**Client Sample Info:**	Behind 105 Meadow View Drive
Work Order:	0009003	**Client Sample ID:**	Bank of River; Aqueous Phase
Lab ID:	0009003-01A **Matrix:** AQUEOUS	**Collection Date:**	9/1/2000 4:15:00 PM
Project:	4-1754; 105 Meadow View Drive	**COC Record:**	10898

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	9/1/2000
Toluene	ND	0.5		µg/L	1	9/1/2000
Ethylbenzene	ND	0.5		µg/L	1	9/1/2000
m,p-Xylene	ND	1		µg/L	1	9/1/2000
o-Xylene	ND	0.5		µg/L	1	9/1/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *18-Sep-00*

Client:	On Site Technologies Limited	**Client Sample Info:**	Behind 105 Meadow View Drive
Work Order:	0009003	**Client Sample ID:**	Bank of River; Solid Phase
Lab ID:	0009003-02A **Matrix:** SOIL	**Collection Date:**	9/1/2000 4:20:00 PM
Project:	4-1754; 105 Meadow View Drive	**COC Record:**	10898

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
TOTAL OIL AND GREASE		**E413.2**				Analyst: **DM**
Oil & Grease, Total Recoverable	120	120		mg/Kg	1	9/8/2000
TPH, T/R SOIL		**E418.1**				Analyst: **DM**
Petroleum Hydrocarbons, T/R	ND	25		mg/Kg	1	9/8/2000
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **DM**
T/R Hydrocarbons: C10-C28	72	50		mg/Kg	2	9/5/2000
PERCENT MOISTURE		**D2216**				Analyst: **HR**
Percent Moisture	36	0.1		wt%	1	9/11/2000

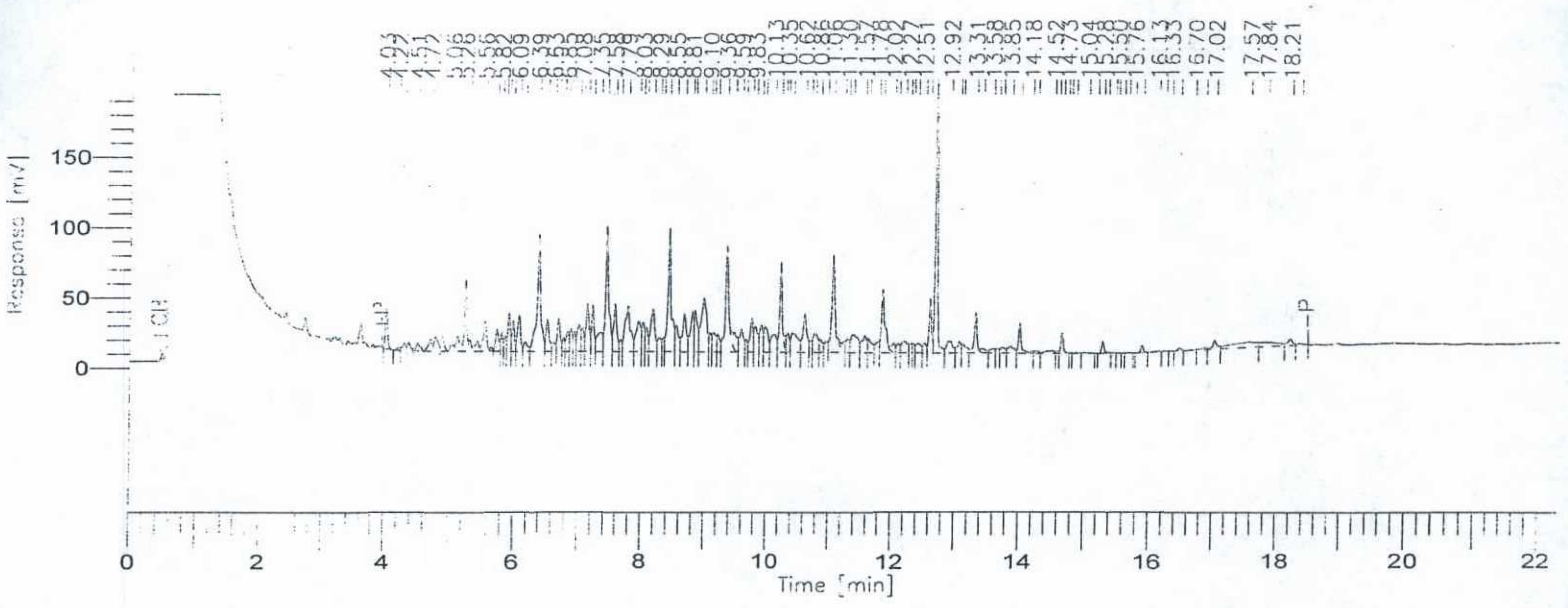
Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

Diesel Example

Software Version: 4.1<2F12>
Date: 9/5/00 11:36 AM
Sample Name : CCV CCV1 DRO_000823A
Data File : C:\TC4\DATA2\DCV10905.RAW Date: 9/5/00 11:13 AM
Sequence File: C:\TC4\8015DR2S.SEQ Cycle: 4 Channel : A
Instrument : AUTOSYSTEM Rack/Vial: 1792/0 Operator: manager
Sample Amount : 1.0000 Dilution Factor : 1.00



Diesel Range Organics (Diesel#2) - EPA 8015B C10-C28

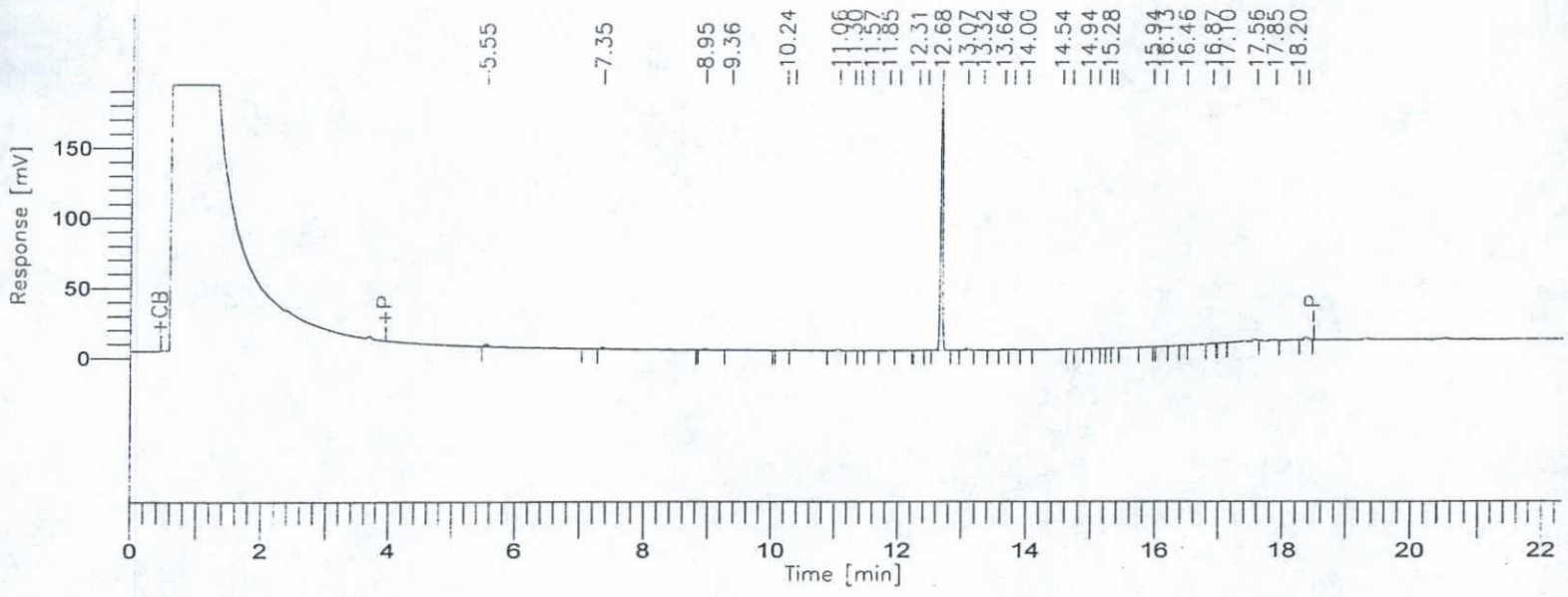
Test: 8015DR2_S

Time [min]	Area [µV·s]	Height [µV]	BL	Amount mg/L	Cal. Range	Component Name
11.218	8336849.04	2.20e+06		504.2815		C10-C28
	8336849.04	2.20e+06		504.2815		

-17.999 = 486.2835

Report stored in ASCII file: C:\TC4\DATA2\DCV10905.TX0

Software Version: 4.1<2F12>
Date: 9/7/00 11:31 AM
Sample Name : SAMP 0009003-02A D-1X
Data File : C:\TC4\DATA2\D3900302.RAW Date: 9/7/00 11:09 AM
Sequence File: C:\TC4\8015DR2S.SEQ Cycle: 53 Channel : A
Instrument : AUTOSYSTEM Rack/Vial: -6400/0 Operator: manager
Sample Amount : 1.0000 Dilution Factor : 1.00



Diesel Range Organics (Diesel#2) - EPA 8015B C10-C28

Test: 8015DR2_S

Time [min]	Area [µV·s]	Height [µV]	BL	Amount mg/L	Cal. Range	Component Name
11.218	607609.38	239816.28		54.8738		C10-C28
	607609.38	239816.28		54.8738		

$-16.8807 = 35.9931$

Report stored in ASCII file: C:\TC4\DATA2\D3900302.TX0

10898

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.
612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 9/1/00

Page: 1 of 1

Purchase Order No.:	Project No. 4-1754
SEND INVOICE TO Name	
Company	Dept.
Address	
City, State, Zip	

REPORT RESULTS TO	
Name	Title
Company	
Mailing Address	
City, State, Zip	
Telephone No.	Telefax No.

PROJECT LOCATION: BEHIND 105 MEADOW VIEW DRIVE ANIMAS RIVER BANK

SAMPLER'S SIGNATURE:

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	PRES.	Number of Containers	BTEX	8015 DRO	413.1/418.1	E 160						LAB ID
AQUEOUS PHASE - BANK & RIVER	9/1/00	1615	AQ	Ice HCl	2	✓									009003-01A
SOLID PHASE - BANK & RIVER	9/1/00	1620	SOIL	cool 4°C	1		✓	✓	✓						-02A
TRIP BLANK	9/1/00	1530	AQ	cool 4°C HCl	1	✓									-03A

Relinquished by: [signature]	Date/Time 9/1/00 1620	Received by: David Martin	Date/Time 9/1/00 1630
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Method of Shipment:		Rush ☐ 24-48 Hours ☐ 10 Working Days ☐ By Date	

Authorized by: ______________ Date ______________
(Client Signature Must Accompany Request)

Special Instructions / Remarks:

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

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C. John Coy
SHEAR Specialist
Exploration, Production &
Natural Gas, North America

Conoco Inc.
3315 Bloomfield Hwy.
Farmington, NM 87401
Bus. (505) 324-5813
Fax (505) 324-5825

August 22, 1997

New Mexico Oil Conservation Division
Attn.: Mr. William C. Olson
2040 S. Pacheco
Santa Fe, New Mexico 87505

RE: NMOCD Letter Dated July 28, 1997 Regarding Conoco's Annual Pit Closure Summary and Ground Water Impacts

Dear Mr. Olson:

In response to and acknowledgement of the referenced letter, we offer the following item by item discussion and progress report.

1. General Conditions
   a. Ground water sampling conducted after August 10, 1997 will include analysis for cations/anions and RCRA metals from the well at the source on each location. If a sheen is noted, the water will also be analyzed for Polynuclear Aromatic Hydrocarbons (PAH). If the well at the source exhibits results above regulatory limits, additional wells at the location as well as future sampling events will be analyzed for those parameters. The results of these analyses will be included in subsequent annual reports.

   b. A comprehensive ground water remediation plan and long term ground water monitoring plan will be submitted to NMOCD as required by October 10, 1997.

   c. Future annual ground water reports will be submitted to NMOCD by March 1 of each year. Each site will be treated as a separate case and information presented will include:
      i. A summary of ground water remediation and monitoring activities for the prior calendar year.
      ii. A summary table of all past and present ground water quality analytical results with copies of laboratory analytical results for samples taken during the prior calendar year.
      iii. An updated site map showing the locations of relevant features (i.e. well head, pits, former pits, monitor wells, etc.)
      iv. A quarterly ground water potentiometric map.
      v. A geologic log and well completion diagram for each monitor well.

2. Status report of remedial actions for the Farmington Com #1, Farmington C Com #1, and Farmington B Com #1E; ground water remediation work plan for the Farmington B Com #1:

Conoco, Inc. has contracted with On Site Technologies Limited of Farmington, NM to determine a scope of work, solicit bids, procure and supervise a qualified excavation and hauling subcontractor to remove the impacted soils delineated in the April, 1997 Investigation Reports for each site. However, On Site has experienced considerable difficulty obtaining responses from contractors due to the intense level of activity in the San Juan Basin. Two bids have now been received and a contractor, Consolidated Constructors, selected based on both price and timely availability of equipment. Even so, due to prior commitments, that contractor cannot mobilize until after August 29, 1997. On Site plans to commence work on the Farmington C Com #1 and then the Farmington B Com #1E as soon as the contractor's schedule permits pending access permission from an adjacent landowner outside the C Com #1 location fence.

In addition to the difficulty of obtaining a contractor, we are aware that Merrion Oil, the current operator of these locations, has requested an extension until November, 1997 on the Farmington Com #1 based on a substantial risk to the public due to the proximity of the location to a City-owned public park and recreation area.

For the reasons given above, we request that an extension be granted for the soils remediation at the Farmington C Com #1, and Farmington B Com #1E until September 30, 1997 and at the Farmington Com #1 until the November date requested by Merrion Oil.

Furthermore, on the Farmington B Com #1 where the soil remediation has been completed, another ground water sample event is due in mid-September. We believe that the information from that event will be very helpful in developing an effective ground water remediation plan for the B Com #1. Additionally, the analyses specified in Item 1.a. have not been performed at this location and will be run on the September samples.

Regarding ground water remediation work plans, we request that extensions be granted for each site as noted below:

Farmington Com #1	November 30, 1997
Farmington C Com #1	October 10, 1997
Farmington B Com #1E	October 10, 1997
Farmington B Com #1	October 10, 1997

3. Status of the Sheperd & Kelsey #1E (Separator pit)

On August 19, 1997, On Site Technologies advanced four test holes, using a direct-punch probing system, in the area of the separator pit at the Shepard & Kelsey #1E for the purpose of determining the extent of ground water contamination. Soil samples were taken at the soil/water interface at approximately five feet below ground surface. Field headspace results for those samples ranged from 0.0 to 5.9 units. Cobbles were encountered at eight to ten feet below surface. Monitoring wells were installed in the two test holes with the highest headspace readings of 2.9 and 5.9 units. The wells were then developed and, the next day, sampled. The existing monitor well (MW 1) in the pit proper was also purged, tested for pH and conductivity, and sampled. MW 1 is being analyzed for BTEX, API Water suite, Total RCRA Metals, and Polynuclear Aromatic Hydrocarbons. Samples from MW 2 and MW 3, the new wells, are being analyzed for BTEX only as directed. A report delineating the extent of ground water contamination at this location will be prepared upon receipt of laboratory analytical results.

We hope that the information above meets with your approval and adequately addresses the requirements delineated in your letter of July 28, 1997. We will keep you and Mr. Denny Foust of your Aztec office advised of our progress on the Farmington locations. If you have any questions or need further information, please contact me at (505) 324-5813.

Sincerely,

C John Coy

C John Coy
Field SHEAR Specialist
CONOCO, Inc.

CJC/csg

xc: Neil Goates, Conoco, Inc.
Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office
Myke Lane, Cindy Gray, On Site Technologies

file: CONOCOCD.let

C. John Coy
SHEAR Specialist
Exploration, Production &
Natural Gas, North America

Conoco Inc.
3315 Bloomfield Hwy.
Farmington, NM 87401
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Fax (505) 324-5825

September 2, 1997

New Mexico Oil Conservation Division
Attn.: Mr. William C. Olson
2040 S. Pacheco
Santa Fe, New Mexico 87505

RE: Clarification of "Substantial Risk to the Public" at the Farmington Com #1

Dear Mr. Olson:

In our letter to you of August 22, 1997, in Item 2, we cited "substantial risk to the public" as a concern related to the remediation of the Farmington Com #1. Upon reflection and after communication with Mr. Denny Foust of the NMOCD Aztec office, we realized that term could be misinterpreted.

By way of clarification, the concern is that the heavy equipment and truck traffic associated with a remediation by excavation could pose a physical hazard to the general public who use the park and adjacent roadway. The usage of the park and pathways is especially heavy during the summer and early fall with considerably less traffic in late fall and early winter.

For that reason, in concurrence with Merrion Oil, the current operator, we have requested the extension for the soils remediation at the Farmington Com #1 location.

We hope that the information above meets with your approval. We will keep you and Mr. Denny Foust of your Aztec office advised of our progress on the Farmington locations. If you have any questions or need further information, please contact me at (505) 324-5813.

Sincerely,

C. John Coy

C John Coy
Field SHEAR Specialist
CONOCO, Inc.

CJC/csg

xc: Neil Goates, Conoco, Inc.
Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office
Myke Lane, Cindy Gray, On Site Technologies

file: CONCOM#1.let

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

May 1, 1997

Mr. Robert J. Bowie
City of Farmington
800 Municipal Drive
Farmington, NM 87401-1299

Re: Conoco Farmington B Com #1, H-15-29N-12W

Dear Mr. Bowie:

Enclosed you will find the information you requested.

In your letter you requested that we notify the City of Farmington of "such discoveries as they may relate to the City's oil and gas well permitting process." We will be glad to supply you with information which will help you to better serve the citizens of Farmington. Due to the nature of your authority with operators I would recommend that you consider asking the well operators directly for the specific information that you need rather than relying on us to act as a go-between and try to anticipate what specific information to forward to you. Without our knowing specifically what you need we could bury you with paper most of which you would never need.

You are welcome to come to our office and see what information the operator supplies to us concerning different aspects of their operations. All of the documents filed with this office are public information.

Sincerely,

Frank T. Chavez
District Supervisor

SE

UTAH | COLO.
ARIZ. | N.M.

CITY OF FARMINGTON
800 Municipal Drive
Farmington, NM 87401-2663
Fax (505) 599-1299

April 21, 1997

Mr. Frank Chavez
District Supervisor
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

RE: CONOCO FARMINGTON B, COM #1, H-15-29N-13W
LOCATED NE OF INTERSECTION OF MEADOW VIEW DRIVE & SOUTHSIDE RIVER ROAD

Dear Mr. Chavez:

I am writing in follow-up to our telephone conversation regarding the above referenced Conoco well site. As I mentioned, our office had contacted you in response to concerns raised by a resident of the adjacent mobile home park at a recent City Council meeting.

In this case the City recognizes that the Oil Conservation Division is the regulating authority on the contamination discovered in this case as it relates to the well site and will refer interested parties to your office. If possible, however, the City would like to be notified of such discoveries as they may relate to the City's oil and gas well permitting process.

Since the City organized an inspection of the subject well site on September 10, 1996, any background report or other similar information you may have dating back to the discovery of the contamination that you can send to me to add to our records would be appreciated. In addition, we would like a copy of the ground water remediation plan when it becomes available as well as to be notified of any significant changes to the status of the remediation. I understand at this point, based on the monitoring pipes at this location, your office is not aware of any spreading of the contamination to those points.

If we can be of any assistance on this or any other matter related to a well within the City, let us know. If you have any questions do not hesitate to contact me at (505) 599-1309.

Sincerely,

Robert J. Bowie, Administrator
Development Services Division

cc: Joe Schmitz, Community Development Director
Tom Aurnhammer, Fire Marshal

Midland Division
Exploration Production

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500
(915) 686-5400

Certified Mail
P 895 104 872

April 25, 1997

Mr. Denny Fouts
New Mexico Oil Conservation Commission
1000 Rio Brazos Rd.
Aztec, NM 87410

Dear Mr. Fouts:

Re: NMOCD letters P-471-215-177, P-471-215-178 and P-471-215-179

Reference NMOCD letters of February 18, 1997 (P-471-215-177 and P-471-215-178) directed to Conoco Inc. and NMOCD letter of February 18, 1997 (P-471-215-179) directed to Merrion Oil and Gas Corporation.

This letter is intended to update NMOCD on the progress made to date to evaluate the alleged environmental contamination identified in the subject NMOCD letters. Evaluation work was timely commenced at all sites under Conoco's supervision. Initial results are being documented and evaluated. Where appropriate, possible remediation plans are being considered. As you are aware, ownership of the sites have changed hands several times, and we are in the process of developing proposed plans consistent with the contractual obligations of the successive owners. As soon as reasonably possible, NMOCD will be advised of proposed remediation plans where appropriate, to resolve the environmental matters addressed in the subject NMOCD letters.

Regards,

Carl J. Coy

Carl J. Coy
Field SHEAR Specialist

cc: Merrion
Mesa
Bill Olson - NMOCD Santa Fe

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

Certified: P-471-215-177

February 18, 1997

Conoco Inc
Attn. John Coy
3315 Bloomfield Hwy
Farmington, NM 87401

RE: Remediation Required at the Conoco Inc., Farmington B Com #1, H-15-29N-12W, 30-045-08330, San Juan County, New Mexico.

Dear Mr. Coy:

Richardson Operating Company was trying to reach a settlement with the surface owner for an off-setting well location to the Farmington B Com #1 during the spring and summer of 1996. In the process Conoco, and the residents of the adjacent Meadow View Mobil Home Park, became involved in portions of the dispute. One of the results of this dispute was an open house sponsored by Conoco on the Farmington B Com #1 well site attended by City of Farmington Officials, John Andersen of Conoco, NMOCD District Supervisor Frank Chavez et al.

During this tour when Frank Chavez opened a valve on the cathodic protection well for the Farmington B Com #1, yellow hydrocarbon came to the surface. Upon returning to the office Mr. Chavez instructed Denny Foust, Environmental Geologist, to follow up on this finding with Conoco. John Andersen directed Denny Foust to work with John Coy investigating this matter. Verbal instructions to Mr. Coy were for Conoco to take immediate steps to evaluate the situation. This evaluation with Onsite Technologies as the environmental contractor started on October 31, 1996.

The contamination, which was found in proximity to residences and over a very shallow water table, was excavated as thoroughly as possible due to existing facilities and utility corridors. Excavation was at the direction of Denny Foust. Both Frank Chavez and Bill Olson, Division Hydrologist, were kept informed of the progress on this well. Currently Conoco is still trying to determine the full extent of groundwater contamination and any residual soil contamination which may affect the groundwater. Once the extent and gradient of the groundwater contamination has been determined, a proposal for remediating the groundwater to standards will be submitted to Bill Olson.

The contamination that was found on this well pad appears to have originated from a series of old pits, probably including work over and production pits. Some of the contamination is residual from a spill on March 20, 1992 which was not immediately addressed. Regulations and expectations have changed over the intervening years and practices from the 1992 clean up would not be acceptable today.

The current remedial work is required due to groundwater impact, proximity to residences and proximity to the Animas River.

Please feel free to contact Denny Foust or Frank Chavez at this office if you have questions.

Yours truly,

Denny G. Foust

Denny G. Foust
Environmental Geologist

XC: Cindy Gray-Onsite Technologies
Bill Olson-Santa Fe
Environmental File
DGF File
Connie Dinning-Merrion

Conoco Inc.

To Meadow View Mobil Home Park Residents

From C. John Coy

Date November 18, 1996

Subject Excavating Activities

We found what we believe to be contaminated soil surrounding the Farmington B Com #1 location. Since October 31, 1996, the entire location area has been assessed and delineated, the results indicate that there are three areas with some potential contamination.

Since the contamination is not extensive, Conoco plans to excavate these areas starting November 19, 1996. The contaminated soil will be hauled to a commercial landfill and will be replaced with clean soil.

We will attempt to complete this excavation process as quickly as possible and minimize any disturbances to your privacy. If you have any questions, please contact me at 324-5813.

Sincerely,

C. John Coy

C.John Coy
Field SHEAR Specialist
San Juan OU

ON SITE
TECHNOLOGIES, LTD.

November 6, 1996

Conoco, Inc., Mid-Continent Region
Attn.: Mr. John Coy
3314 Bloomfield Hwy.
Farmington, NM 87401

RE: Conoco Location Farmington B Com 1 Investigation Project 4-1325

Dear Mr. Coy:

The following interim report is intended to document events and activities with regards to a suspected hydrocarbon release at the above location and to inform interested parties of the current status of the investigation.

FIELD INVESTIGATIONS

On October 31, 1996, Ms. Cynthia Sluyter-Gray of On Site Technologies was contacted by Mr. John Coy of Conoco, Inc. to arrange sampling of groundwater through a vent pipe from the cathodic groundbed at the Farmington B Com 1 in response to complaints from area residents of hydrocarbon odors in the vicinity. Ms. Gray and Mr. Coy met at the location, opened the 1" vent pipe and attempted to bail the cathodic well and obtain a water sample. However, an obstruction in the pipe only allowed the use of 1/4" Teflon tubing to attempt sampling. Seven (7) feet of tubing were introduced into the vent pipe. The liquid recovered was identified by appearance and odor as a hydrocarbon product. Several additional attempts were made but no evidence of water was found. Mr. Coy had previous notified Mr. Denny Foust of New Mexico Oil Conservation Division, Aztec office. Mr. Foust arrived at the location and was informed of the status. A cursory soil vapor survey was performed in the general area near the cathodic grounding well vent pipe with positive results (20 to 25 units) within five feet of the vent and negative results elsewhere. A small flowing water ditch was noted adjacent to the site, located upgradient and down an embankment. A small surface water pond is also located nearby between the site and the ditch (see Site Sketch). Two water samples were taken from the pond to rule out migration of free product into the pond and the ditch. Samples were taken to the laboratory for analysis for Benzene, Toluene, Ethyl-Benzene, and Xylene (BTEX) by EPA Method 8020.

Ms. Gray and Mr. Michael Lane returned to the site later in the day with more 1/4" tubing and a water-finding paste to attempt to locate groundwater in the cathodic well. No color change was noted in the water-finding paste applied to seventeen (17) feet of tubing inserted in the vent pipe. Free product began at approximately two (2 feet) below the top of the vent pipe valve. A free product recovery attempt was scheduled for the next morning using an air driven intrinsically-safe pump and 1/4" Teflon tubing through the vent pipe. A backhoe was also scheduled for later in the morning for exploratory excavation in the area of the cathodic well. Mr. Coy notified New Mexico

PO Box 2606
Farmington, NM
505-325-5667 FAX: 505-327-1496

OneCall to mark utilities, lines, and pipelines in the area on an emergency basis. Mr. Foust was also apprised of the plan.

As scheduled, on November 1, 1996, Ms. Gray and Mr. Lane set up the air-powered free product recovery system with 1/4" Teflon tubing in the vent pipe and ultimately recovered approximately five (5) gallons of product and one to two gallons of water. Further efforts at recovery through the vent pipe were unsuccessful.

Line spotters for Public Service Co., City of Farmington Water and Sewer, and Farmington Electric Utility arrived on site and confirmed locations of lines and pipelines with none noted as on location. A crew from L & R Oilfield Service arrived with a backhoe as scheduled by Mr. Coy. A brief safety meeting was held by Mr. Coy. The cathodic protection line and the power line to the location equipment were located and marked. The power to the rectifier and the location were then locked out and tagged out by Mr. Coy. Two initial test pits were excavated with one (TP1) immediately adjacent to the cathodic well and the other (TP2) to the site south of the rectifier and power pole.

In TP1, stained soils were encountered at approximately three to four feet below surface grade with groundwater at approximately six feet below grade. The excavation was continued to an approximate depth of eight feet. Free product was noted seeping into the excavation from the sidewall next to the cathodic well. Several unsuccessful attempts were made to recover the product collecting in the excavation. A ten (10) foot long piece of five (5) inch diameter PVC pipe with cut slots was then placed in the excavation during backfilling to serve as a product recovery well should sufficient product be collected.

A second test pit (TP2) was excavated at a lower surface elevation approximately five (5) feet south of the rectifier and power pole. Stained soils were encountered at approximately two to three feet below surface with groundwater at approximately three to four feet. No free product was seen but a sheen was noted on the water collecting in the test pit prior to backfilling.

In consultation with Mr. Coy, Mr. Foust, and On Site personnel, it was agreed that the soil plume should be delineated with a direct-punch Geoprobe sampling unit and basic groundwater data obtained prior to initiating any further cleanup efforts. The probe was scheduled for Monday, November 4. Laboratory results were also received indicating that the pond water samples taken the previous day were below detection limits for all BTEX constituents (see attached laboratory reports).

On November 4, using the Geoprobe, seven test holes were advanced as noted on the attached Site Sketch and apparent Contamination Map. Temporary water sampling points (MW1, MW2, and MW3) were placed in Test Holes 1, 2, and 6 respectively. Soil samples were taken from each Test Hole within a two-foot interval encompassing the level at which groundwater was encountered. Soil samples were submitted to the laboratory for analysis by methods 8015 Modified (Total Petroleum Hydrocarbons) and 8020 (Benzene, Toluene, Ethyl-benzene, and Xylene) as required for closure under NMOCD regulations. Water levels were measured in the temporary water sampling

points. Groundwater samples were taken from MW1, MW2, and MW3 after well development to temperature stabilization. Samples were preserved with Hydrochloric Acid and transported to the laboratory for analysis by method 8020 (BTEX) with the primary constituent of concern being Benzene. Analytical results are noted by Test Hole (TH) and water sampling point (MW) on the Contamination Map attached. The detailed laboratory reports are also attached.

PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS

Based upon an engineering plane survey conducted on November 6, depth to groundwater measurements taken November 5, and visual observations, a Site Sketch has been constructed noting locations of test holes, water sampling points, significant site features, and an estimated groundwater slope. Using that information and factoring in the results of laboratory analyses, a sketch indicating the estimated extent of significant soil contamination as well as an approximated free product plume has also been developed.

In view of limited records of an historic spill in 1992, it appears that the free product present may be residual from that spill which has been trapped in the area of the cathodic well by the clayey soils in the area. During sampling, even the cobbles at or near the water table were noted to be contained in a clay to sandy clay matrix which tends to limit the migration of hydrocarbons. Furthermore, where hydrocarbons were found in the soil and water samples, it is evident that the more volatile compounds have either degraded or evaporated, indicating that the remaining product is aged and not a recent spill.

While there is an evident impact to groundwater in the area of the cathodic well, the limited and preliminary groundwater sampling and analyses do not indicate a significant or widespread groundwater impact outside the immediate area at this time.

Due to the proximity of the site to a residential area, surface water ditches, and shallow depth to groundwater, we recommend that the operator carefully excavate contaminated soils immediately surrounding the cathodic well and south and west toward Test Hole 6 (MW 3) until closure levels of <100 parts per million TPH, < 50 ppm BTEX, and <10 ppm Benzene are reached in the soils. Care should be taken to disturb the soils at groundwater as little as possible to avoid mixing and spreading hydrocarbons into the water. Where free product is present, it should be removed either by skimming or by the application of an absorbent such as dehydrated peat moss. Excavated contaminated material should be stockpiled in a plastic-lined bermed area until off-site disposal can be arranged.

In conclusion, further investigation and monitoring of other areas of the location may be appropriate due to the site history. However, the remediation and mitigation of the immediate problem regarding the contamination in the area of the cathodic well should be addressed first.

immediate problem regarding the contamination in the area of the cathodic well should be addressed first.

If there are any questions regarding this status report, please contact either Cindy Gray or Myke Lane at On Site Technologies, (505) 325-5667.

Respectfully submitted,

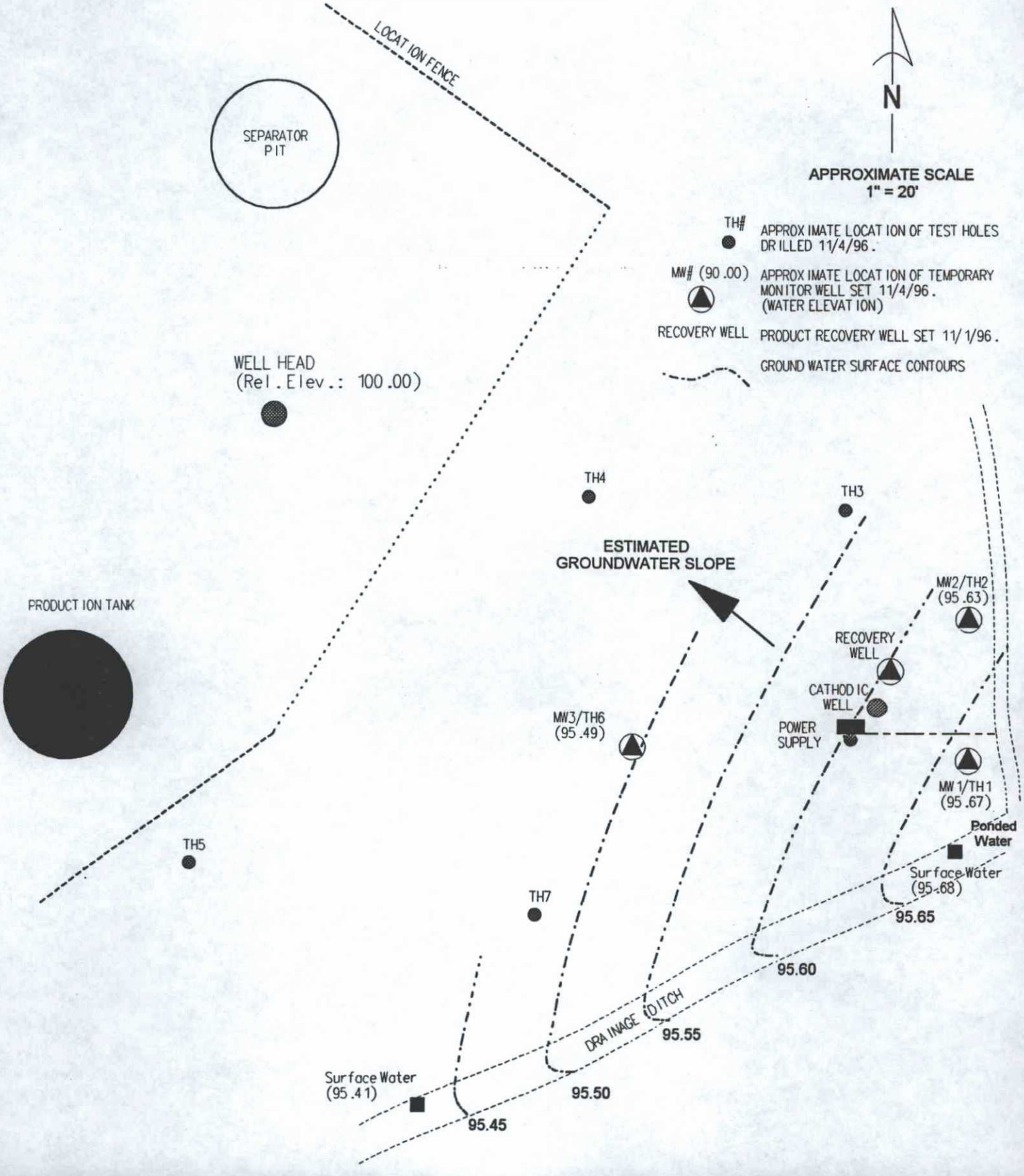
Cynthia A. Sluyter-Gray
Project Manager, On Site Technologies, Ltd.

attachments: Site Sketch
Estimated Contamination Map
Laboratory Analytical Results

cc: Mr. Neil Goates, Conoco, Inc.
Mr. Roger Anderson, NMOCD
Mr. Denny Foust, NMOCD

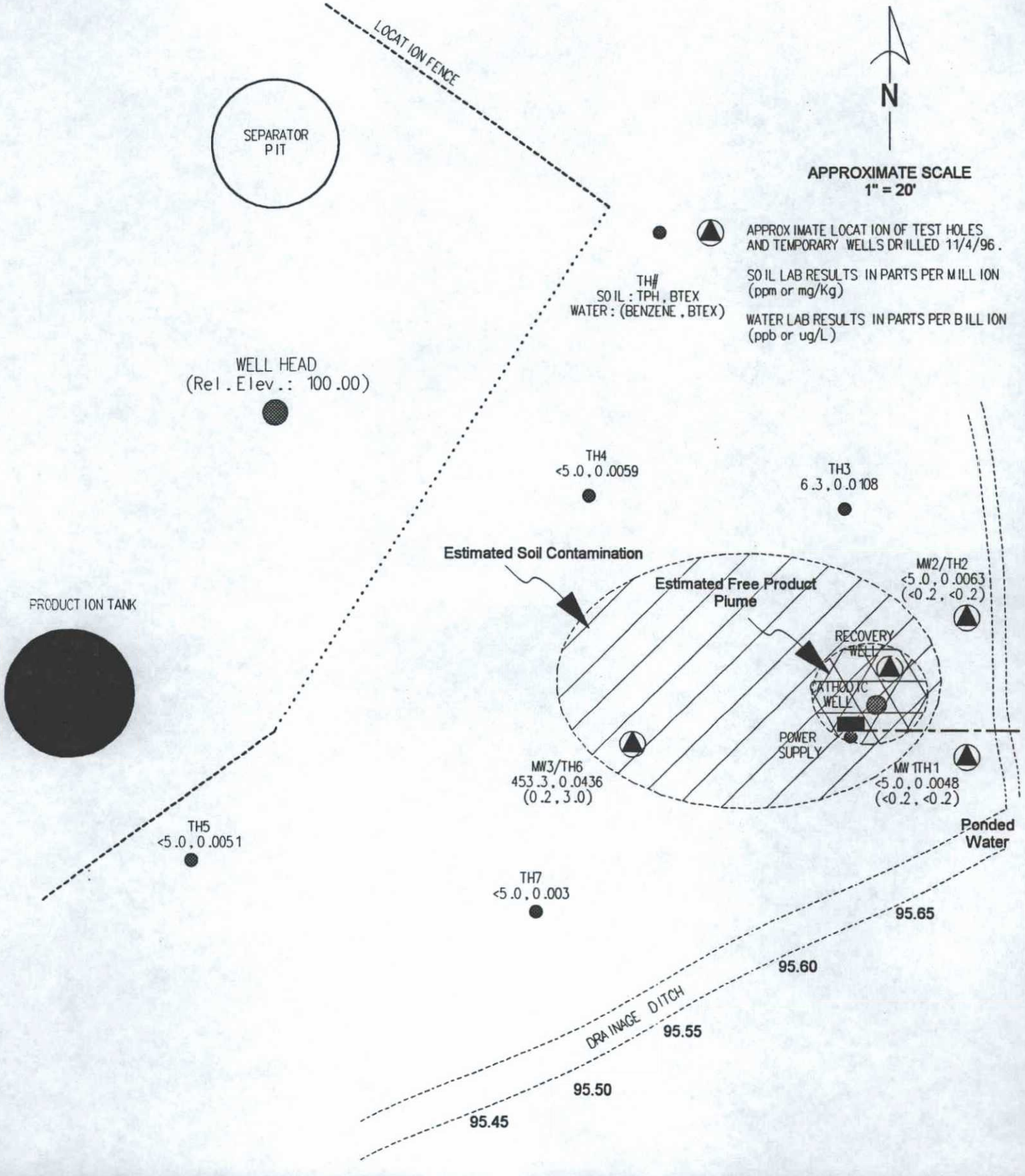
file: 41325-2doc

CONOCO, INC. FARMINGTON B COM. #1 SAN JUAN CO., NM	SITE SKETCH	ON SITE TECHNOLOGIES, LTD. P.O. BOX 2606, FARMINGTON, NM 87499 (505) 325-5667
PROJECT: SITE ASSESSMENT	DRWN: NOV. 6, 1996	
PROJECT NO: 4-1325	DRWN BY: MKL	
SHEET: 1	REVISED:	



CONOCO, INC. FARMINGTON B COM. #1 SAN JUAN CO., NM	ESTIMATED CONTAMINATION MAP	ON SITE TECHNOLOGIES, LTD. P.O. BOX 2606, FARMINGTON, NM 87499 (505) 325-5667
PROJECT: SITE ASSESSMENT	DRWN: NOV. 6, 1996	
PROJECT NO: 4-1325	DRWN BY: MKL	
SHEET: 2	REVISED:	

o:\4132552.CAD, MKL, 11/06/96



OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	John Coy	Date:	1-Nov-96
Company:	Conoco, Inc. cc: Cindy Gray	COC No.:	6164
Address:	3315 Bloomfield Hwy.	Sample No.	12722
City, State:	Farmington, NM 87401	Job No.	2-1000

Project Name:	Pond Adjacent to Conoco Farmington B Com 1				
Project Location:	4-1303-B				
Sampled by:	CG	Date:	31-Oct-96	Time:	10:50
Analyzed by:	DC	Date:	1-Nov-96		
Sample Matrix:	Liquid				

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	<0.2	ug/L		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by:
Date: 11/1/96

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	1-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6164*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12721*
City, State:	*Farmington, NM 87401*	*Job No.*	*2-1000*

Project Name:	***Pond Adjacent to Conoco Farmington B Com 1***				
Project Location:	***4-1303-A***				
Sampled by:	CG	Date:	31-Oct-96	Time:	10:45
Analyzed by:	DC	Date:	1-Nov-96		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	<0.2	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: _____

Date: 11/1/96

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 1-Nov-96

Internal QC No.: 0515-QC
Surrogate QC No.: 0516-QC
Reference Standard QC No.: 0417-QC

Method Blank

Parameter	*Result*	*Unit of Measure*
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	*Unit of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Benzene	ppb	20.0	19.7	2	15%
Toluene	ppb	20.0	19.8	1	15%
Ethylbenzene	ppb	20.0	19.9	0	15%
m,p-Xylene	ppb	40.0	39.4	2	15%
o-Xylene	ppb	20.0	19.8	1	15%

Matrix Spike

Parameter	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Benzene	92	101	(39-150)	6	20%
Toluene	92	101	(46-148)	6	20%
Ethylbenzene	95	105	(32-160)	7	20%
m,p-Xylene	88	98	(35-145)	7	20%
o-Xylene	92	102	(35-145)	7	20%

Surrogate Recoveries

Laboratory Identification	*S1 Percent Recovered*	*S2 Percent Recovered*	*Laboratory Identification*	*S1 Percent Recovered*	*S2 Percent Recovered*
Limit Percent Recovered	(70-130)		*Limit Percent Recovered*	(70-130)	
12721-6164	97				
12722-6164	97				

S1: Flourobenzene

6164

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 10-31-96

Page 1 of 1

Purchase Order No.: | Job No. #-1303 4-1325

SEND INVOICE TO
Name: Conoco
Company: c/o Cindy Gray | Dept.
Address:
City, State, Zip:

REPORT RESULTS TO
Name: John Coy | Title:
Company: Conoco | cc: Cindy Gray
Mailing Address:
City, State, Zip:
Telephone No. | Telefax No.

Sampling Location: Pond adjacent to Conoco Farmington B Com 1

Sampler: CA Sloat-Ly

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	8020 BTEX	LAB ID
4-1303-A	10/31	10:45	H_2O	None	1	✓	17721-1104
4-1303-B	10/31	10:50	H_2O	None	1	✓	17722-1104

ANALYSIS REQUESTED

Relinquished by: CA Sloat-Ly	Date/Time 10/31 11:25	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: John Coy by CA Sloat-Ly Date 10-31-96
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn:	John Coy	Date:	5-Nov-96
Company:	Conoco, Inc. cc: Cindy Gray	COC No.:	6172
Address:	3315 Bloomfield Hwy.	Sample No.	12741
City, State:	Farmington, NM 87401	Job No.	4-1325

Project Name:	Conoco - Farmington B Com 1				
Project Location:	Test Hole #1; 7'-9' bsg				
Sampled by:	CG	Date:	4-Nov-96	Time:	8:20
Analyzed by:	DC/HR	Date:	5-Nov-96		
Sample Matrix:	Soil				

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
TOTAL	<5.0	mg/kg		

Quality Assurance Report

GRO QC No.: 0493-STD

DRO QC No.: 0489-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,410	4.5	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	97	2.8	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	111	92	(70-130)	13	20%
Diesel Range (C10-C28)	90	95	(70-130)	4	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by:

Date: 11/5/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12741*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #1; 7'-9' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	8:20
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/kg	0.2	ug/kg
Toluene	3.0	ug/kg	0.2	ug/kg
Ethylbenzene	<0.2	ug/kg	0.2	ug/kg
m,p-Xylene	1.8	ug/kg	0.2	ug/kg
o-Xylene	<0.2	ug/kg	0.2	ug/kg
TOTAL	4.8	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: [signature]
Date: 11/6/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn:	John Coy	Date:	5-Nov-96
Company:	Conoco, Inc. cc: Cindy Gray	COC No.:	6172
Address:	3315 Bloomfield Hwy.	Sample No.	12742
City, State:	Farmington, NM 87401	Job No.	4-1325

Project Name:	Conoco - Farmington B Com 1				
Project Location:	Test Hole #2; 8'-10' bsg				
Sampled by:	CG	Date:	4-Nov-96	Time:	8:50
Analyzed by:	DC/HR	Date:	5-Nov-96		
Sample Matrix:	Soil				

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
TOTAL	<5.0	mg/kg		

Quality Assurance Report

GRO QC No.: 0493-STD
DRO QC No.: 0489-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,410	4.5	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	97	2.8	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	111	92	(70-130)	13	20%
Diesel Range (C10-C28)	90	95	(70-130)	4	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by:
Date: 11/5/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12742*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #2; 8'-10' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	8:50
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	0.4	ug/kg	0.2	ug/kg
Toluene	0.7	ug/kg	0.2	ug/kg
Ethylbenzene	1.6	ug/kg	0.2	ug/kg
m,p-Xylene	1.4	ug/kg	0.2	ug/kg
o-Xylene	2.3	ug/kg	0.2	ug/kg
TOTAL	6.3	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/6/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn:	John Coy	Date:	5-Nov-96
Company:	Conoco, Inc. cc: Cindy Gray	COC No.:	6172
Address:	3315 Bloomfield Hwy.	Sample No.	12743
City, State:	Farmington, NM 87401	Job No.	4-1325

Project Name:	Conoco - Farmington B Com 1				
Project Location:	Test Hole #3; 6'-7.5' bsg				
Sampled by:	CG	Date:	4-Nov-96	Time:	9:20
Analyzed by:	DC/HR	Date:	5-Nov-96		
Sample Matrix:	Soil				

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	66.3	mg/kg	5.0	mg/kg
TOTAL	66.3	mg/kg		

Quality Assurance Report

GRO QC No.: 0493-STD
DRO QC No.: 0489-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,410	4.5	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	97	2.8	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	111	92	(70-130)	13	20%
Diesel Range (C10-C28)	90	95	(70-130)	4	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by:
Date: 11/5/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12743*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #3; 6'-7.5' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	9:20
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/kg	0.2	ug/kg
Toluene	1.4	ug/kg	0.2	ug/kg
Ethylbenzene	1.5	ug/kg	0.2	ug/kg
m,p-Xylene	3.3	ug/kg	0.2	ug/kg
o-Xylene	4.6	ug/kg	0.2	ug/kg
TOTAL	10.8	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/6/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn:	John Coy	Date:	5-Nov-96
Company:	Conoco, Inc. cc: Cindy Gray	COC No.:	6172
Address:	3315 Bloomfield Hwy.	Sample No.	12744
City, State:	Farmington, NM 87401	Job No.	4-1325

Project Name:	Conoco - Farmington B Com 1				
Project Location:	Test Hole #4; 3'-5' bsg				
Sampled by:	CG	Date:	4-Nov-96	Time:	9:40
Analyzed by:	DC/HR	Date:	5-Nov-96		
Sample Matrix:	Soil				

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
TOTAL	<5.0	mg/kg		

Quality Assurance Report

GRO QC No.: 0493-STD
DRO QC No.: 0489-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,410	4.5	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	97	2.8	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	111	92	(70-130)	13	20%
Diesel Range (C10-C28)	90	95	(70-130)	4	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by:
Date: 11/5/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12744*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #4; 3'-5' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	9:40
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/kg	0.2	ug/kg
Toluene	3.3	ug/kg	0.2	ug/kg
Ethylbenzene	<0.2	ug/kg	0.2	ug/kg
m,p-Xylene	1.2	ug/kg	0.2	ug/kg
o-Xylene	1.4	ug/kg	0.2	ug/kg
TOTAL	5.9	ug/kg		

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/6/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn:	*John Coy*	Date:	5-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12745*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #5; 3'-5' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	10:10
Analyzed by:	DC/HR	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
TOTAL	<5.0	mg/kg		

Quality Assurance Report

GRO QC No.: *0493-STD*
DRO QC No.: *0489-STD*

Calibration Check

Parameter	*Method Blank*	*Unit of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,410	4.5	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	97	2.8	15%

Matrix Spike

Parameter	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Gasoline Range (C5-C9)	111	92	(70-130)	13	20%
Diesel Range (C10-C28)	90	95	(70-130)	4	20%

Method *- SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by:
Date: 11/5/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12745*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #5; 3'-5' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	10:10
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	0.5	ug/kg	0.2	ug/kg
Toluene	0.9	ug/kg	0.2	ug/kg
Ethylbenzene	0.6	ug/kg	0.2	ug/kg
m,p-Xylene	1.8	ug/kg	0.2	ug/kg
o-Xylene	1.3	ug/kg	0.2	ug/kg
TOTAL	5.1	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/6/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn:	*John Coy*	Date:	5-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12746*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #6; 3'-5' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	10:50
Analyzed by:	DC/HR	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	453.3	mg/kg	5.0	mg/kg
TOTAL	453.3	mg/kg		

Quality Assurance Report

GRO QC No.: *0493-STD*
DRO QC No.: *0489-STD*

Calibration Check

Parameter	*Method Blank*	*Unit of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,410	4.5	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	97	2.8	15%

Matrix Spike

Parameter	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Gasoline Range (C5-C9)	111	92	(70-130)	13	20%
Diesel Range (C10-C28)	90	95	(70-130)	4	20%

Method *- SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by:
Date: 11/5/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12746*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #6; 3'-5' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	10:50
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	1.6	ug/kg	0.2	ug/kg
Toluene	4.2	ug/kg	0.2	ug/kg
Ethylbenzene	3.4	ug/kg	0.2	ug/kg
m,p-Xylene	19.6	ug/kg	0.2	ug/kg
o-Xylene	14.8	ug/kg	0.2	ug/kg
TOTAL	43.6	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/6/96

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn:	*John Coy*	Date:	5-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12747*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #7; 5'-7' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	11:30
Analyzed by:	DC/HR	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
TOTAL	<5.0	mg/kg		

Quality Assurance Report

GRO QC No.: *0493-STD*
DRO QC No.: *0489-STD*

Calibration Check

Parameter	*Method Blank*	*Unit of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,410	4.5	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	97	2.8	15%

Matrix Spike

Parameter	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Gasoline Range (C5-C9)	111	92	(70-130)	13	20%
Diesel Range (C10-C28)	90	95	(70-130)	4	20%

Method *- SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by:
Date: 11/5/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6172*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12747*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Test Hole #7; 5'-7' bsg***				
Sampled by:	CG	Date:	4-Nov-96	Time:	11:30
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	ug/kg	0.2	ug/kg
Toluene	1.6	ug/kg	0.2	ug/kg
Ethylbenzene	<0.2	ug/kg	0.2	ug/kg
m,p-Xylene	0.6	ug/kg	0.2	ug/kg
o-Xylene	0.4	ug/kg	0.2	ug/kg
TOTAL	2.6	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/6/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 5-Nov-96

Internal QC No.: 0515-QC
Surrogate QC No.: 0516-QC
Reference Standard QC No.: 0417-QC

Method Blank

Analyte	*Result*	*Units of Measure*
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Analyte	*Units of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Benzene	ppb	20.0	19.9	0	15%
Toluene	ppb	20.0	20.9	4	15%
Ethylbenzene	ppb	20.0	21.0	5	15%
m,p-Xylene	ppb	40.0	41.3	3	15%
o-Xylene	ppb	20.0	20.8	4	15%

Matrix Spike

Analyte	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Benzene	100	102	(39-150)	1	20%
Toluene	100	108	(46-148)	5	20%
Ethylbenzene	102	103	(32-160)	1	20%
m,p-Xylene	102	103	(35-145)	1	20%
o-Xylene	108	102	(35-145)	4	20%

Surrogate Recoveries

Laboratory Identification	*S1 Percent Recovered*	*S2 Percent Recovered*	*Laboratory Identification*	*S1 Percent Recovered*	*S2 Percent Recovered*
Limit Percent Recovery	(70-130)		*Limit Percent Recovery*	(70-130)	
S1: Flourobenzene			*S1: Flourobenzene*		
12741-6172	94				
12742-6172	91				
12743-6172	94				
12744-6172	95				
12745-6172	95				
12746-6172	84				
12747-6172	95				

DC

CHAIN OF CUSTODY RECORD

6172

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 11-4-96

Page 1 of 1

Purchase Order No.: | Job No. 4-1325

SEND INVOICE TO
Name: Conoco c/o Cindy Gray
Company: | Dept.:
Address:
City, State, Zip:

REPORT RESULTS TO
Name: John Coy | Title:
Company: Conoco cc: Cindy Gray
Mailing Address:
City, State, Zip:
Telephone No.: | Telefax No.:

Sampling Location: Farmington B Com 1

Sampler: C. A Sutter-Gray

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	B,T,E 8015 M	8020	LAB ID
Test Hole #1 7'-9' bsg	11/4	0820	Soil	Cool	1	✓	✓	17241-17247
" " #2 8'-10' bsg	"	0850	"	"	1	✓	✓	17242
" " #3 6'-2.5' bsg	"	0920	"	"	1	✓	✓	17243
" " #4 3'-5' bsg	"	0940	"	"	1	✓	✓	17244
" " #5 3'-5' bsg	"	1010	"	"	1	✓	✓	17245
" " #6 3'-5' bsg	"	1050	"	"	1	✓	✓	17246
" " #7 5'-7' bsg	"	1130	"	"	1	✓	✓	17247

ANALYSIS REQUESTED

Relinquished by: C A Sutter-Gray	Date/Time 11/4/96 1340	Received by:	Date/Time 11/4/96 1340
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: C A Sutter-Gray Date 11/4/96
(Client Signature Must Accompany Request)

Rush | 24-48 Hours | 10 Working Days | Special Instructions:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

CHAIN OF CUSTODY RECORD

6172

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 11-4-96

Page 1 of 1

Purchase Order No.:	Job No. 4-1325		
SEND INVOICE TO: Name	Conoco c/o Cindy Gray	REPORT RESULTS TO: Name	John Coy — Title
Company	Dept.	Company	Conoco — cc: Cindy Gray
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.

Sampling Location: Farmington B Com 1

Sampler: C. A Snyder-Gray

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	ANALYSIS REQUESTED: B, G 8015 M	8020	LAB ID
Test Hole #1 7'-9' bsg	11/4	0820	Soil	Cool	1	✓	✓	17741-17747
" " #2 8'-10' bsg	"	0850	"	"	1	✓	✓	17742
" " #3 6'-2.5' bsg	"	0920	"	"	1	✓	✓	17743
" " #4 3'-5' bsg	"	0940	"	"	1	✓	✓	17744
" " #5 3'-5' bsg	"	1010	"	"	1	✓	✓	17745
" " #6 3'-5' bsg	"	1050	"	"	1	✓	✓	17746
" " #7 5'-7' bsg	"	1130	"	"	1	✓	✓	17747

Relinquished by: C A Snyder-Gray	Date/Time 11/4/96 1340	Received by:	Date/Time 11/4/96 1340
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: C A Snyder-Gray Date 11/4/96
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6173*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12751*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Monitor Well #1***				
Sampled by:	CG	Date:	4-Nov-96	Time:	15:40
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	<0.2	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/6/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6173*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12752*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Monitor Well #2***				
Sampled by:	CG	Date:	4-Nov-96	Time:	15:55
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	<0.2	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/6/96

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*John Coy*	Date:	6-Nov-96
Company:	*Conoco, Inc. cc: Cindy Gray*	*COC No.:*	*6173*
Address:	*3315 Bloomfield Hwy.*	*Sample No.*	*12753*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1325*

Project Name:	***Conoco - Farmington B Com 1***				
Project Location:	***Monitor Well #3***				
Sampled by:	CG	Date:	4-Nov-96	Time:	16:10
Analyzed by:	DC	Date:	5-Nov-96		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	0.2	ug/L	0.2	ug/L
Toluene	1.5	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	0.9	ug/L	0.2	ug/L
o-Xylene	0.4	ug/L	0.2	ug/L
TOTAL	3.0	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/6/96

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 5-Nov-96

Internal QC No.: 0515-QC
Surrogate QC No.: 0516-QC
Reference Standard QC No.: 0417-QC

Method Blank

Parameter	*Result*	*Unit of Measure*
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	*Unit of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Benzene	ppb	20.0	19.9	0	15%
Toluene	ppb	20.0	20.9	4	15%
Ethylbenzene	ppb	20.0	21.0	5	15%
m,p-Xylene	ppb	40.0	41.3	3	15%
o-Xylene	ppb	20.0	20.8	4	15%

Matrix Spike

Parameter	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Benzene	100	102	(39-150)	1	20%
Toluene	100	108	(46-148)	5	20%
Ethylbenzene	102	103	(32-160)	1	20%
m,p-Xylene	102	103	(35-145)	1	20%
o-Xylene	108	102	(35-145)	4	20%

Surrogate Recoveries

Laboratory Identification	*S1 Percent Recovered*	*S2 Percent Recovered*	*Laboratory Identification*	*S1 Percent Recovered*	*S2 Percent Recovered*
Limit Percent Recovered	(70-130)		*Limit Percent Recovered*	(70-130)	
12751-6173	96				
12752-6173	96				
12753-6173	93				

S1: Flourobenzene

DC

6173

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 11-4-96

Page 1 of 1

Purchase Order No.:

Job No. 4-1325

SEND INVOICE TO
- Name
- Company Conoco
- Dept.
- Address
- City, State, Zip

REPORT RESULTS TO
- Name Clay Grant
- Title
- Company
- Mailing Address
- City, State, Zip
- Telephone No.
- Telefax No.

Sampling Location: Farmington B-Com #1

Sampler: CG

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	BTEX 8020	LAB ID
Monitor Well #1	11-4	1540	H_2O	HCL	2	✓	[illegible]
" " #2	"	1555	"	"	2	✓	[illegible]
" " #3	"	1610	"	"	1	✓	[illegible]

Relinquished by: [signature] Date/Time 11-4-96 / 1145 Received by: Date/Time

Relinquished by: Date/Time Received by: Date/Time

Relinquished by: Date/Time Received by: Date/Time

Method of Shipment:

Authorized by: [signature] Date 11-4-96
(Client Signature Must Accompany Request)

Rush | 24-48 Hours | 10 Working Days | Special Instructions:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

CHAIN OF CUSTODY RECORD

6173

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 11-4-96

Page 1 of 1

Purchase Order No.:	Job No. 4-1325		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name Cindy Grant	Title
Company Conoco	Dept.	Company	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.

Sampling Location: FARMINGTON B-COM #1

Sampler: CG

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	BTEX 8020	LAB ID
Monitor Well #1	11-4	1540	H_2O	HCL	2	X	
" " #2	"	1555	"	"	2	X	
" " #3	"	1610	"	"	1	X	

Relinquished by: Kenneth Rauch	Date/Time 11-4-96 / 1145	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: Kenneth Rauch Date 11-4-96
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

Interoffice Communication

To Meadow View Mobil Home Park Residents

From John Andersen

Date October 11, 1996

Subject **Residents Meeting**

As you are aware, Conoco owns and operates the gas well and gathering system located next to Meadow View Mobil Home Park. The Farmington B Com #1 well was drilled in the mid 1960's, and a gathering system was installed to transport the gas shortly thereafter. Conoco acquired the properties in 1991, and has operated since that time. Conoco has been operating other properties in the San Juan Basin for nearly 50 years.

Since acquiring the property, Conoco has installed several safety devices along the system, and implemented a pipeline operating and maintenance plan. An example of some of the plan's requirements are to patrol the system and perform leak surveys routinely. We comply with all requirements and have a safe and sound operation. We pride ourselves on safety and truly believe that it is a key element in running a successful business.

Conoco would like to extend an invitation to all Meadow View Mobil Home Park residents to meet at the Farmington B Com #1 well location on October 19, 1996 at 9:00 am. Conoco personnel will meet you at the well location entrance, guide you through the facility, and explain the operation and safety systems.

An important goal for Conoco is to be a good neighbor. We hope to understand your concerns, answer any questions you might have, and leave with a mutual understanding, as good neighbors would. We would like to thank you in advance for your time.

Sincerely,

John Andersen
Sr. Production Foreman
San Juan Operations

OCD DISTRICT III
SUPPLEMENTAL INFORMATION

APRIL 20, 1992

RE: Conoco Farmington B Com #1, H-15-29N-13W, Unreported Oil Spill

On March 19, 1992, this Dakota gas producer was placed on compression for the first time, lowering the back pressure on the well to essentially zero from approximately 300 psi. The production tank was gauged on the 19th showing four feet of remaining volume or approximately 56 barrels. Production from this well varied from 2 to 17 barrels per day of hydrocarbons. The well apparently surged and unloaded drowning the separator which allowed all produced fluids to be dumped to the tank. The tank was overflowing when discovered by L. C. Bob Williams, Production Operator for Conoco, about 4:00 PM on Friday March 20, 1992. Mr. Williams immediate superior Randy K. Thille, Head Production Operator for Conoco, arrived on the location and noted the spill. Mr. Williams then went on days off and the contract pumper for the Farmington B Com #1 returned from days off, Steve Randolf of Specialty Services. Mr. Thille was on location and had seen the spill according to Mr. Williams. On Saturday March 21, 1992, Giant hauled 118 barrels of oil and a vacuum truck was called out by the HPO. Approximately eight barrels of oil were recovered from the fire walls and placed in the production tank. Fifty-six barrels of water were hauled to Hicks Disposal Well by C J Water Haulers. The production tank at Farmington B Com #1 was steam cleaned on March 23, 1992. On April 6, 1992 a crew headed by Ray Tolson from Property Management and Consulting cleaned up oil within the firewalls using a backhoe and hauled off three to six yards of contaminated material. With no authorized disposal site, Property Management hauled the material back to the wellsite on April 7, 1992, attempting to remediate the material on site. Subsequent odors caused Grace Morris of the Meadows Trailer Court (327-6929) to report the spill to Conoco and the Environmental Department. ED notified Charles Gholson on April 7, 1992, and Charles made a subsequent inspection April 7, in the PM. Denny Foust first visited the site at 8:00 AM on April 8, 1992. The area within the firewalls, approximately 25' X 50' was saturated through the gravel, some oil had bled through the firewalls and there was oil staining on most of the remaining location . Dan McCoy and Denny Foust agreed the material from within the firewalls was to be removed to Envirotech, the separator pit had 2" of oil to be vacuumed, the tank was to be emptied and inspected and the separator was to be moved. Ernie Busch observed these operations. About 300 yds of contaminated material were taken to Envirotech's landfarm. The oil was treated at another location before being sold under verbal authorization from Charles Gholson (see C-126). Conoco has subsequently reset the production tank and separator with maximum safety in mind. The spill was probably a mixture of oil and water and was at least 2" deep within the firewalls or a minimum of 35 barrels. Due to the close proximity of the separator burner to the firewalls we are extremely lucky no fire was ignited due to vapors from the spilled oil.

Denny G. Foust
Environmental Geologist

Oklahoma City Division

April 13, 1992

Conoco Inc.
3817 Northwest Expressway
Oklahoma City, OK 73112-1400
(405) 948-3100

REVISED

Mr. Denny G. Foust
Deputy Oil & Gas Inspector
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Mr. Foust:

Attached you will find Conoco's Internal Investigation and Spill Report concerning the Farmington B Com #1 well. As you are now aware there were extenuating circumstances as to why we did not report this incident in our usual prompt manner.

Upon discovering the leak the operator erred greatly in not handling the situation in the prescribed Conoco manner or fashion. In lieu of notifying his supervisor and the state, as it has been drilled to him and everyone countless times, he attempted to clean up the location himself. This grave misconduct on his part and the absence of following Conoco policy has resulted in his termination.

We deeply regret this incident, but most of all the manner in which this former employee elected to handle it. When we are aware of an incident we take immediate and correct steps in notification and clean up. We hope that the state realizes our continuous effort towards being the leader in **Environmental** and **Safety** standards. We are hopeful that this incident has not lessened your perception of our commitment.

It is our intention, of course, to clean up this location to the state's satisfaction as well as the landowner. This process has already begun. In doing so we have discovered a large portion of the contamination on this location was there prior to our ownership of this property.

We are available to provide you with any additional information or assistance.

Carl N. Martin
Production Superintendent
405-948-3230

CNM\156.WPD\mel

Attachment

cc: Mr. William Olson, NMOCD
Mr. Frank Balke, Conoco
Mr. Mike Swenson, Conoco
Mr. Dan McCoy, Conoco

Interoffice Communication

TO: J.R. Hopkins, V.P. and General Manager - Houston

FROM: F.B. Balke, Division Manager - OKC

DATE: April 14, 1992

SUBJECT: **Level III Accidental Discharge - Investigation Report**

Attached is the incident investigation report related to a Level III oil discharge that occurred on Friday, March 20, 1992. During the investigation it was discovered that the incident occurred one week prior to the date initially reported.

Due to the circumstances surrounding the incident, the Head Production Operator for the lease has been terminated.

Frank Balke
Division Manager

MAP/I2-4-10.WPD/jm

Interoffice Communication

TO: M.T. Swenson and F.B. Balke

FROM: M.A. Phillips and C.N. Martin

DATE: April 14, 1992

SUBJECT: **Level III Accidental Discharge - Investigation Report**

A level III accidental discharge occurred on Friday, March 20, 1992[1], on the Farmington B Com 1 lease, San Juan County, New Mexico. In excess of 10 barrels of oil was discharged outside of a tank dike and onto the adjacent location after the oil tank overflowed.

The surface has been impacted both inside and outside of the dike, and oil that soaked into the soil beneath the tank may have impacted the underlying groundwater.

BACKGROUND

Farmington B Com 1 is tied to the Pioneer 5 gathering system, and following the recent installation of a compressor on the Pioneer system, the separator pressure had been lowered significantly. As a result of lower pressure, flow from the well has increased. The fluid production was erratic during March and varied from as little as 2 barrels per day to 17 barrels per day according to tank gauges. The oil and gas production had been regularly monitored for a number of days, since the storage was limited to one 210 barrel oil tank. The tank was usually allowed to fill in order to have a "full load" before the tank truck arrived.

On Thursday, March 19, the production rate appeared to be stable and the tank gauge indicated that there was sufficient remaining tank volume (4' = 56 bbls) available to contain the overnight flow, as well as for some additional days, before a tank truck needed to be scheduled. However, the well apparently unloaded and surged, upsetting the separator and allowing the produced water to be dumped with the oil to the oil tank causing the tank to fill and overflow sometime during Friday, March 20.

Unfortunately, there was a serious failure in the proper reporting of this incident and the facts have become obscured; however, the matter has been investigated and appears to have transpired as described in the following paragraphs.

SEQUENCE OF EVENTS

On Friday, March 20, Farmington Electric Utility augered into our Pioneer 5 lateral line, nicking the pipe. They notified Conoco personnel, including the Head Production Operator (HPO), who inspected the damaged line. It was decided to shut-in the line, depressure it, and repair it Saturday. The HPO called the Conoco, Farmington office shortly after 4:00 p.m. to initiate the shut-in of the pipeline. Since the assigned operator of the B Com 1 well was off duty, an operator not assigned to the lease was asked to visit the well, and begin shutting in production from it and all other wells along the Pioneer lateral.

(1) After reviewing contractor invoices and oil run tickets, it is concluded that the incident occurred one week prior to the date initially reported.

Upon arriving at the Farmington B Com 1 well, the operator noticed the oil tank overflowing and he immediately shut-in the well. The HPO arrived on location within a few minutes. The operator reported the overflow to the HPO and the HPO acknowledged that he would take care of the situation. Together they continued to shut-in the other wells on the lateral. The operator went home shortly thereafter. Since the B Com 1 lease was not his assigned area, the operator did not return. Further, since the HPO for the lease had acknowledged the spill, the operator made no further reports.

On Saturday, March 21, the HPO called a vacuum truck to remove approximately 6 to 8 barrels of oil from within the dike and approximately 56 barrels of water from within the oil tank. He also called a tank truck and had a partial load of oil removed from the tank. (The date of these activities fixes the incident date to Friday, March 20.)

On Monday morning, March 23, the HPO called a steam cleaner to clean the outside of the oil tank. Nothing more was done until Thursday, March 26, when a shovel was used to excavate a hole inside the dike to drain oil, and approximately one barrel of oil was removed.

From Thursday, March 26 through Sunday, April 5, nothing more was done. The site was left in this condition and the HPO made no reports of this situation.

On Monday, April 6, the HPO contacted Property Management Service (PMS) and arranged for a backhoe to work at the well site to remove contaminated soil. Three to four yards of oil soaked dirt was loaded on a dump box and transported to PMS's yard, where it remained overnight. On Tuesday, April 7, PMS contacted the HPO and said they needed to move the dirt to some other place, at which time it was moved back to the well site and spread on location.

Also, on the morning of Tuesday, April 7, the Sr. Production Foreman for the area received a phone call from a nearby resident complaining of a "strong oil odor" coming from our well location. The foreman agreed to investigate the site, and upon arrival noticed the strong odor and discovered the source to be the oil contaminated soil that had been spread on the location. It was evident that there had been an oil spill. While at the location, the landowner arrived and they discussed the situation. The Sr. Foreman acknowledged that the situation had not been handled properly, and assured him that it would be reported to State officials and cleanup efforts would be initiated. The Foreman also attempted to contact the local resident, but was unsuccessful.

When the Sr. Foreman called the NMOCD District Inspector, he was informed that the local resident had already reported the incident earlier that morning, and that the Inspector had just returned after visiting the site. After some discussion, the Foreman and Inspector agreed to meet at the site on the following morning.

SITE ASSESSMENT AND CLEAN-UP

On Wednesday, April 8, the NMOCD District Inspector visited the site with the Sr. Foreman to assess the damage and to agree on the method of cleanup. Together they concluded that the volume of oil discharged was likely greater than 10 barrels.

The subsequent cleanup consisted of excavating, removal and disposal of the contaminated soil from within the dike and adjacent location. Under the direction of the State Inspector, three strategically placed holes were dug into the groundwater to sample for contamination. Water samples revealed that some new oil may have entered the groundwater beneath the tank; however, the excavation has also uncovered old contamination that occurred prior to Conoco, and perhaps the original drilling pit. The State Inspector approved the method of extracting and testing the groundwater until oil levels were at a level below 100 ppm.

Water extraction and sampling will continue with the ongoing observation of the state Inspector. We plan to cooperate with the State Officials until cleanup is acceptable to the State and the matter is resolved.

CONCLUSION

Due to the deliberate improper action, poor judgement, and negligence, the HPO has been terminated.

The results of this incident investigation will be reviewed with all personnel where it will be emphasized that the disciplinary action was not as a result of the spill itself, but rather because of a failure to promptly and accurately report the incident.

The failure to report resulted in a considerably longer response time and likely caused increased environmental damage, more extensive remediation and higher cost. We received an unfavorable response from the landowner and both Conoco and the State received a complaint from a nearby resident. In addition, Conoco's otherwise good environmental reputation was damaged in the eyes of the NMOCD Officials, with whom we are working diligently to promote Conoco's remediation techniques for the San Juan area.

M. A. Phillips

Michael A. Phillips
SHERT Manager

Carl N. Martin

Carl N. Martin
Production Superintendent

Merl Kempton
326-4741

MAP/l-4-14.WPD/jm

conoco Conoco Inc.

Record of Accidental Discharge of Crude Oil or Hazardous Substances

1. Department: Production	Division: OKC	Lease: Farmington B Com 1	Field:	2. Date and Time Initial Report Received: 3/20/92 4:30 pm
3. Person Reporting Discharge: L.C. Bob Williams, Production Operator		Person Receiving Report: Randy K. Thille, Head Production Operator		
4. Discharge Discovered By: L.C. Bob Williams, Production Operator				Date and Time Discovered: 3/20/92 4:30 pm
Witnesses: Randy K. Thille, Head Production Operator				
5. How Did Company Learn of Discharge: Employee observation				
6. Date and Time Discharge Began: 3/20/92 Unknown		Date and Time Discharge Ended: 3/20/92 4:30 pm		7. Person in Charge of Site: Lynn Gordon 4/7/92
8. Discharge Site	Sec.: 15	Twnshp.: 29 N S: XX ☐	Range: 13 E W: ☐ XX	County: San Juan / State: N.M.
_____ ft. N S E W: ☐ ☐ ☐ ☐	Well No.: Farmington B	Tank Battery No.: Com 1	Well Type: Gas	Indian or Federal Land Name or No.: N/A

9. Type of Equipment or Operation Involved — Flowline from Well No. _____ — Injection Line to Well No. _____
Other: 210 bbl oil tank receiving fluid from separator.

10. Specific Source of Discharge
Pipe _____ in. ☐ Buried ☐ Coated
☐ Steel ☐ Plastic ☐ Surface Internal—☐ CMT ☐ PI ☐ Fbg.
☐ Fiberglass ☐ Transite ☐ Bare External _____
Leak: ☐ Body ☐ Cplng. ☐ Weld

11. Names and Volumes of Substances Involved: Estimate greater than 10 bbl.
Bbls. Oil _____ Bbls. Water _____ ☐ Fresh ☐ Salt
Volume Entering Water: 0

12. Nature and Extent of Area Affected by Discharge: Dirt & gravel within bermed area around tank ≈45'x50'.

13. Water Courses Reached
☒ None Name _____ ☐ River ☐ Lake ☐ Dry ☐ Running ☐ Creek ☐ Pond ☐ Intermittent

14. How Was Discharge Stopped?
Well was shut in.

15. Possible Reason for Discharge
☐ Corrosion ☐ Age
☐ External ☐ Fatigue
☐ Internal ☐ Mechanical

15a. Action Taken to Prevent Recurrence: Operating practices modified.

16. Operating Conditions at Time of Discharge
☐ Injection Well ☐ Pumping Well XX Flowing Well
_____ BWPD at _____ PSI BOPD 2 BWPD 3 Line PSI 120

17. Remedial Action—Picked Up
BO 6-8 BW 0
Date Started 3/21/92 Time Completed 10:00 am

18. General Weather Conditions at Time of Discharge: Good

19. Third Parties Involved in Area Before or After Discharge: Clean up crews.

20. Federal, State, and Local Agencies Notified, and/or / 21. Non-Company On-Site Investigators

Agency	Person Notified	Date/Time Notified	Method Used	Person Notifying
NMOCD	Charles Gholson	4/7/92 3:00 pm		

22. Assistance Required, Contractors Used, Costs — Contractors

Backhoe	$ _____	Welder	$ _____
Vac. Truck	$ _____	Roustabout	$ _____
Tank Truck	$ _____	Company Labor	$ _____
Bulldozer	$ _____	Other	$ _____

Total Cost $ _____

Signature and Title: Dan McCoy Sr. Foreman — Date and Location: 4-7-92 3pm

13-340 BAX4, 8-79

1276

PROPERTY MANAGEMENT
& CONSULTING, INC.

1155 DOWELL, P.O. BOX 2596
FARMINGTON, NEW MEXICO

PHONE # (505) 325-5220 FAX # (505) 325-6090

DATE: 1/15/92

TO: N.M.O.C.D

ATTN: DENNY FOUST

FROM: ROSS LANKFORD

RE: DAILY TIME SHEET

SEE ATTACHED

PLEASE LET US KNOW IF ANY PAGES WERE NOT TRANSMITTED

PROPERTY MANAGEMENT & CONSULTING, INC.

DAILY TIME SHEET

Date 4-7-92

Name Ray Tucker, Jeff Sweet

Working for PMCI

Location 4d

Equipment used

RECEIVED
APR 1 5 1992
OIL CON. D
DIST. 3

Hours worked 7 to 3 Total 7 ✓
1 hr lunch

Remarks washed #307 + #503 at Bubble City, went to off again tire and bought grill + headlight bezel for #503 installed, painted expanded metal (dumped dump box for [illegible] Hamdy *) washed Dehy truck, #514, #519, + #103 in 4d w/steamer →

R.	1 hrs	189
	6 hrs	189
J.S.	7 hrs	189

(14)

Hold

PROPERTY MANAGEMENT & CONSULTING, INC.

DAILY TIME SHEET

Date 4/6/92

Name Ray Tolson, Shawn Daniels,

Working for Conoco -173

Location Farmington Comm. B #1

Equipment used trk #105, backhoe #402, dump bin

Hours worked 4:00 pm to 6:00 p.m Total 2 hrs

Remarks cleaned up oil around tank

(4)

INVOICE

FLINT F-125
REV. 1-90

FLINT Engineering & Construction Co.

2440 South Yukon Avenue Tulsa, Oklahoma 74107-2729

REMIT TO:
POST OFFICE BOX 3155
TULSA, OKLAHOMA 74101-3155

WHEN REMITTING PLEASE REFER TO THIS INVOICE NO

Customer Conoco INVOICE NO.

Address San Juan County, NM Date 3-21-92

Lease ____ Well No. ____ Customer P. O. No. ____ Contractor Job No. K26N26

FROM:	TO:	HOURS	WORK PERFORMED
6 00	12 00	6	Dug up 4" line Cut out Damaged pipe and Replaced line and Backfilled Ditch

Pioneer 5 Lateral line

EMPLOYEES TIME	HOURS	RATE	AMOUNT	
Dick Hagman S	6	28.00	168	/
Kevin Ambrose F	6	21.00	126	/
Cliff Morgan OP	6	19.75	118	50
Calvin Cayadito L	6	14.00	84	/
Leroy Hayes TD	6	19.75	118	50
Lavern Johnson L	6	14.00	84	/
Andy Riffle L	6	14.00	84	/
Reg Johnson W	6	33.00	198	/
Leroy Wright WH	6	14.00	84	/
TOTAL			1065	/

EQUIPMENT	UNIT NO.	HOURS	RATE	AMOUNT	
4X4	3455	6	16.00	96	/
4X4	3253	6	16.00	96	/
4X4	3196	6	16.00	96	/
R Cliff Morgan	PU	6	16.00	96	/
15 Ton	2268	2	48.00	96	/
Trailer	5092	2	14.00	28	/
Trailer		4	10.00	21	/
Backhoe RE11499		5	22.00	110	/
Air Compressor		2	14.00	28	/
TOTAL				670	/

RECEIVED
APR 24 1992
OIL CON. DIV
DIST. 3

TOTAL INVOICE AMOUNT	1735.00

MATERIALS BOUGHT OUT OR SUBSISTENCE ALLOWANCE

Air saw 2
Will rebill

TAL

APPROVED Calvin Halloway FOR CUSTOMER

APPROVED Kevin Ambrose FOR CONTRACTOR

VSM TICKET NUMBER 117921

Property Management & Consulting
Dehydration Services
PO Box 2596, Farmington, NM 87401
Office (505) 325-5220

234

FIELD TICKET

Company: Conoco Production. Date: 6 April 92.

Location name: Farmington B Com 1. Sec___ Twn___ Rng___.

Description of job; Clean oil spill

Work performed; SAME

Chemicals: _____ @ $_____ p/gal. _____gals. $_____.
_____ _____ _____ _____.
_____ _____ _____ _____.

Filters: dehydrator ____, filter pod ____, cost _____.

Tests: dew point ____. PH ____. gas analysis ___. H20_____.

Equipment:

Service truck & driver	$35.p/hr.	total hrs ____.	$_____.
Dehy technician	$26.p/hr.	____.	_____.
Laborer	$17.p/hr.	____.	_____.
Steamer	$25.p/hr.	____.	_____.
Filtration unit	$25.p/hr.	____.	_____.
Pick up truck	$17.p/hr.	____.	_____.
Air compressor	$30.p/day		_____.
Generator	$30.p/day		_____.
Tests	$50. each		_____.

Miscellaneous; TRUCK, BACKHOE, FLOAT CREW $96 per HR. 3.5 HRS.

Authorized by: Randy Thille

total 336.00.
tax 19.53.
Grand total 355.53.

Thank you.

C. & J. TRUCKING CO.

"Water Hauling"

P. O. BOX 1246 • PHONE: 325-7770 • 24-HOUR SERVICE

OFFICE and TRUCK YARD: 3600 BLOOMFIELD HIGHWAY

FARMINGTON, NEW MEXICO 87499

№ 66428

CUSTOMER Conoco LOCATION Farmington bloom #1

TRUCK NO. 1124 1125 DRIVER Billy Boonds DATE 3-23-92

RIG WATER ☐ FRAC WATER ☐ OIL ☐ PITS ☐ OTHER fresh water 700 gal

FROM Shop TO Farmington b com #1

	[redacted] HAULED gal	STARTING TIME	STOP TIME	STANDBY HRS.	HAUL HRS.	RECEIVED BY
1. Road Time Out	700	Starting Time 7:00 A.M. (P.M.)	Stop Time A.M. P.M.			
2. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
3. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
4. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
5. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
6. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
7. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
8. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			1 Load F/W @ 7.50
9. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
10. Road Time In	XXXX XXXX	Starting Time A.M. P.M.	Stop Time 8:45 (A.M.) P.M.			
TOTAL [redacted] gal.	350		TOTAL HRS.		1 3/4	@ 50.00 = 87.50

ROAD CONDITIONS: CLEAR ☐ ICE ☐ SNOWING ☐ RAINING ☐ MUD ☐ CHAINS REQUIRED ☐

REMARKS: Used 350 gal of water. No Soap No solvent on Request

DIVERSION POINT: 1. _____ 2. _____ 3. _____

SIGNED: Billy Boonds DRIVER

san juan repr Form 30-4
san juan repr Form 30-4

RECEIVED
APR 24 1992
OIL CON. DIV.
DIST. 3

C. & J. TRUCKING CO.

"Water Hauling"

P. O. BOX 1246 • PHONE: 325-7770 • 24-HOUR SERVICE

OFFICE and TRUCK YARD: 3600 BLOOMFIELD HIGHWAY

FARMINGTON, NEW MEXICO 87499

№ 62822

CUSTOMER Conoco LOCATION Farmington B-Com #1

TRUCK NO. 180 DRIVER Jackie Hales DATE 3-26-92

RIG WATER ☐ FRAC WATER ☐ OIL ☐ PITS ☐ OTHER Clean up oil

FROM Burlington TO Hicks

BBLS. HAULED		STARTING TIME		STOP TIME		STANDBY HRS.	HAUL HRS.	RECEIVED BY
1. Road Time Out	81	Starting Time 6:00	A.M. (P.M.)	Stop Time 6:45	A.M. (P.M.)		3/4	
2. BBLS. Hauled		Starting Time	A.M. P.M.	Stop Time	A.M. P.M.			
3. BBLS. Hauled		Starting Time	A.M. P.M.	Stop Time	A.M. P.M.			
4. BBLS. Hauled		Starting Time	A.M. P.M.	Stop Time	A.M. P.M.			
5. BBLS. Hauled		Starting Time	A.M. P.M.	Stop Time	A.M. P.M.			
6. BBLS. Hauled		Starting Time	A.M. P.M.	Stop Time	A.M. P.M.			
7. BBLS. Hauled		Starting Time	A.M. P.M.	Stop Time	A.M. P.M.			
8. BBLS. Hauled		Starting Time	A.M. P.M.	Stop Time	A.M. P.M.			
9. BBLS. Hauled		Starting Time	A.M. P.M.	Stop Time	A.M. P.M.			
10. Road Time In	XXXX XXXX	Starting Time	A.M. P.M.	Stop Time	A.M. P.M.			
TOTAL BBLS.	1			TOTAL HRS.			3/4 @ 42.702	31.88

ROAD CONDITIONS: CLEAR ☐ ICE ☐ SNOWING ☐ RAINING ☐ MUD ☐ CHAINS REQUIRED ☐

REMARKS: No Hicks charge

DIVERSION POINT: 1. _____ 2. _____ 3. _____

SIGNED: Butch Cox for Thelma

DRIVER

san juan repr Form 30-4

RECEIVED
APR 24 1992
OIL CON. DIV
DIST. 3

RECEIVED
APR 6 1992
FARMINGTON

Appv: Carl J Ley

Date: 4/9/92 Cost: _____

AFE: _____ Fea: 22-5520

Environmental: 100 %

Invoices must have original field or delivery ticket attached.

Ken Phillips

GIANT

REFINING CO.

LEASE RUN TICKET

FLAMMABLE COMBUSTIBLE MATERIAL UN-1267

MO. DAY YEAR: 03 21 92

RUN TICKET NO.: 13-3609

OPERATOR: Conoco, Inc

LEASE NAME: Farmington B-Com

WELL NO.: #1

LEASE OR TANK LOCATION

UNIT H SEC 15 TWP 29N RGE 13W

COUNTY San Juan STATE N.Mex

FED. OR STATE LEASE NO.	GIANT LEASE NO.
—	

TANK SIZE	TANK HEIGHT	TANK NO.
210 BB2	15 FT. 0 IN.	GI-2549

GAU	FT.	IN.	¼ IN.	GAUGE	OIL LEVEL FT.	OIL LEVEL IN. ¼ IN.	TEMP.
HGT. OF CONNECTION	1	0	0/4	1st	9	9 0/4	50
BTM. B.S. & W. LEVEL							
1st	0	0	0/4	2nd	1	3 2/4	54
2nd	0	0	0/4	OBS. GRAVITY 47.1		TEMPERATURE 74	

CALCULATIONS

B.S. & W.	TRUE GRAVITY	ESTIMATED BBLS.
1.0		118

POWER FURNISHED BY PL CO. ☐ OTHER ☒

SEAL OFF NO. GI-124014 Time 10:30 AM

SEAL ON NO. GI 118081 Time 11:00 AM

OIL MOVED BY	TRUCK NO.	TURNED ON
Giant	123/306	GAUGER: Butt Crahere
TO RECEIVING POINT		OWNER WITNESS: Randy K Thill
Bisti station		SHUT OFF — GAUGER: Butt Crahere
		OWNER WITNESS: R. K. Thill

TANK No.

C&S - 3' H_2O 8:00 AM 3/21/92
Steam clean tk 3/23/92
Pull pothole 3/26/92

PMS - 4/6 - fill Berm w/ fresh dirt
4/7 Return dump box to loc.

RECEIVED
APR 24 1992
OIL CON. DIV
DIST. 3

C. & J. TRUCKING CO.

"Water Hauling"

P. O. BOX 1246 • PHONE: 325-7770 • 24-HOUR SERVICE

OFFICE and TRUCK YARD: 3600 BLOOMFIELD HIGHWAY

FARMINGTON, NEW MEXICO 87499

№ 66105

CUSTOMER Conoco LOCATION Farmington Com B-1

TRUCK NO. 182 DRIVER Chris Archuleta DATE 3-21-92

RIG WATER ☐ FRAC WATER ☐ OIL ☐ PITS ☐ OTHER Produced Water

FROM Farmington Com B-1 TO Hick's Disposal

BBLS. HAULED		STARTING TIME	STOP TIME	STANDBY HRS.	HAUL HRS.	RECEIVED BY
1. Road Time Out		Starting Time 8:00 A.M. (P.M.)	Stop Time A.M. P.M.			
2. BBLS. Hauled	75	Starting Time A.M. P.M.	Stop Time A.M. P.M.			
3. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
4. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
5. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
6. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
7. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
8. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
9. BBLS. Hauled		Starting Time A.M. P.M.	Stop Time A.M. P.M.			
10. Road Time In	XXXX XXXX	Starting Time A.M. P.M.	Stop Time 11:00 (A.M.) P.M.			
TOTAL BBLS.	75		3 TOTAL HRS.		3 @	42.50 127.50

ROAD CONDITIONS: CLEAR ☑ ICE ☐ SNOWING ☐ RAINING ☐ MUD ☐ CHAINS REQUIRED ☐

REMARKS: Slow Loading (not to get oil) Disposal 65.00

DIVERSION POINT: 1. _____ 2. _____ 3. _____

SIGNED: Chris Archuleta
DRIVER

san juan repr Form 30-4

RECEIVED
APR 24 1992
OIL CON. DIV.
DIST. 3

conoco

REQUEST FOR FACSIMILE TRANSMISSION

4/13/92

Date

To:	Denny G Foust	
Location:	Aztec, N.M	Dept.:
FAX No.:	505-334-6170	Tel.:

From:	CARL N. MARTIN	
Location:	EPNG/NA, ROOM 354, OKC	Dept.: PRODUCTION
FAX No.:	(405) 948-3145	Tel.: 948-3230

6 + Cover

No. Pages + Cover

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APR 15 1992
OIL CON. DIV
DIST. 3

MESSAGE:

FORMS\FAX.WPD/mgl

CONOCO

Oklahoma City Division

Conoco Inc.
3817 Northwest Expressway
Oklahoma City, OK 73112-1400
(405) 948-3100

April 13, 1992

REVISED

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APR 15 1992
OIL CON. DIV.
DIST. 3

Mr. Denny G. Foust
Deputy Oil & Gas Inspector
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Mr. Foust:

Attached you will find Conoco's Internal Investigation and Spill Report concerning the Farmington B Com #1 well. As you are now aware there were extenuating circumstances as to why we did not report this incident in our usual prompt manner.

Upon discovering the leak the operator erred greatly in not handling the situation in the prescribed Conoco manner or fashion. In lieu of notifying his supervisor and the state, as it has been drilled to him and everyone countless times, he attempted to clean up the location himself. This grave misconduct on his part and the absence of following Conoco policy has resulted in his termination.

We deeply regret this incident, but most of all the manner in which this former employee elected to handle it. When we are aware of an incident we take immediate and correct steps in notification and clean up. We hope that the state realizes our continuous effort towards being the leader in Environmental and Safety standards. We are hopeful that this incident has not lessened your perception of our commitment.

It is our intention, of course, to clean up this location to the state's satisfaction as well as the landowner. This process has already begun. In doing so we have discovered a large portion of the contamination on this location was there prior to our ownership of this property.

We are available to provide you with any additional information or assistance.

Carl N. Martin
Production Superintendent
405-948-3230

CNM\156 WPD\mel

Attachment

cc: Mr. William Olson, NMOCD
Mr. Frank Balke, Conoco
Mr. Mike Swenson, Conoco
Mr. Dan McCoy, Conoco

conoco

Interoffice Communication

TO: J.R. Hopkins, V.P. and General Manager - Houston

FROM: F.B. Balke, Division Manager - OKC

DATE: April 14, 1992

SUBJECT: Level III Accidental Discharge - Investigation Report

Attached is the incident investigation report related to a Level III oil discharge that occurred on Friday, March 20, 1992. During the investigation it was discovered that the incident occurred one week prior to the date initially reported.

Due to the circumstances surrounding the incident, the Head Production Operator for the lease has been terminated.

Frank Balke
Division Manager

MAP/2 + 10 WPD/jm

conoco

Interoffice Communication

TO: M.T. Swenson and F.B. Balke

FROM: M.A. Phillips and C.N. Martin

DATE: April 14, 1992

SUBJECT: Level III Accidental Discharge - Investigation Report

A level III accidental discharge occurred on Friday, March 20, 1992[1], on the Farmington B Com 1 lease, San Juan County, New Mexico. In excess of 10 barrels of oil was discharged outside of a tank dike and onto the adjacent location after the oil tank overflowed.

The surface has been impacted both inside and outside of the dike, and oil that soaked into the soil beneath the tank may have impacted the underlying groundwater.

BACKGROUND

Farmington B Com 1 is tied to the Pioneer 5 gathering system, and following the recent installation of a compressor on the Pioneer system, the separator pressure had been lowered significantly. As a result of lower pressure, flow from the well has increased. The fluid production was erratic during March and varied from as little as 2 barrels per day to 17 barrels per day according to tank gauges. The oil and gas production had been regularly monitored for a number of days, since the storage was limited to one 210 barrel oil tank. The tank was usually allowed to fill in order to have a "full load" before the tank truck arrived.

On Thursday, March 19, the production rate appeared to be stable and the tank gauge indicated that there was sufficient remaining tank volume (4' = 56 bbls) available to contain the overnight flow, as well as for some additional days, before a tank truck needed to be scheduled. However, the well apparently unloaded and surged, upsetting the separator and allowing the produced water to be dumped with the oil to the oil tank causing the tank to fill and overflow sometime during Friday, March 20.

Unfortunately, there was a serious failure in the proper reporting of this incident and the facts have become obscured; however, the matter has been investigated and appears to have transpired as described in the following paragraphs.

SEQUENCE OF EVENTS

On Friday, March 20, Farmington Electric Utility augered into our Pioneer 5 lateral line, nicking the pipe. They notified Conoco personnel, including the Head Production Operator (HPO), who inspected the damaged line. It was decided to shut-in the line, depressure it, and repair it Saturday. The HPO called the Conoco, Farmington office shortly after 4:00 p.m. to initiate the shut-in of the pipeline. Since the assigned operator of the B Com 1 well was off duty, an operator not assigned to the lease was asked to visit the well, and begin shutting in production from it and all other wells along the Pioneer lateral.

[1] After reviewing contractor invoices and oil run tickets, it is concluded that the incident occurred one week prior to the date initially reported.

Upon arriving at the Farmington B Com 1 well, the operator noticed the oil tank overflowing and he immediately shut in the well. The HPO arrived on location within a few minutes. The operator reported the overflow to the HPO and the HPO acknowledged that he would take care of the situation. Together they continued to shut in the other wells on the lateral. The operator went home shortly thereafter. Since the B Com 1 lease was not his assigned area, the operator did not return. Further, since the HPO for the lease had acknowledged the spill, the operator made no further reports.

On Saturday, March 21, the HPO called a vacuum truck to remove approximately 6 to 8 barrels of oil from within the dike and approximately 56 barrels of water from within the oil tank. He also called a tank truck and had a partial load of oil removed from the tank. (The date of these activities fixes the incident date to Friday, March 20.)

On Monday morning, March 23, the HPO called a steam cleaner to clean the outside of the oil tank. Nothing more was done until Thursday, March 26, when a shovel was used to excavate a hole inside the dike to drain oil, and approximately one barrel of oil was removed.

From Thursday, March 26 through Sunday, April 5, nothing more was done. The site was left in this condition and the HPO made no reports of this situation.

On Monday, April 6, the HPO contacted Property Management [redacted] (PMS) and arranged for a backhoe to work at the well site to remove contaminated soil. Three to four yards of oil soaked dirt was loaded on a dump box and transported to PMS's yard, where it remained overnight. On Tuesday, April 7, PMS contacted the HPO and said they needed to move the dirt to some other place, at which time it was moved back to the well site and spread on location.

Also, on the morning of Tuesday, April 7, the Sr. Production Foreman for the area received a phone call from a nearby resident complaining of a "strong oil odor" coming from our well location. The foreman agreed to investigate the site, and upon arrival noticed the strong odor and discovered the source to be the oil contaminated soil that had been spread on the location. It was evident that there had been an oil spill. While at the location, the landowner arrived and they discussed the situation. The Sr. Foreman acknowledged that the situation had not been handled properly, and assured him that it would be reported to State officials and cleanup efforts would be initiated. The Foreman also attempted to contact the local resident, but was unsuccessful.

When the Sr. Foreman called the NMOCD District Inspector, he was informed that the local resident had already reported the incident earlier that morning, and that the Inspector had just returned after visiting the site. After some discussion, the Foreman and Inspector agreed to meet at the site on the following morning.

SITE ASSESSMENT AND CLEAN-UP

On Wednesday, April 8, the NMOCD District Inspector visited the site with the Sr. Foreman to assess the damage and to agree on the method of cleanup. Together they concluded that the volume of oil discharged was likely greater than 10 barrels.

The subsequent cleanup consisted of excavating, removal and disposal of the contaminated soil from within the dike and adjacent location. Under the direction of the State Inspector, three strategically placed holes were dug into the groundwater to sample for contamination. Water samples revealed that some new oil may have entered the groundwater beneath the tank, however, the excavation has also uncovered old contamination that occurred prior to Conoco, and perhaps the original drilling pit. The State Inspector approved the method of extracting and testing the groundwater until oil levels were at a level below 100 ppm.

Water extraction and sampling will continue with the ongoing observation of the state Inspector. We plan to cooperate with the State Officials until cleanup is acceptable to the State and the matter is resolved.

CONCLUSION

Due to the deliberate improper action, poor judgement, and negligence, the HPO has been terminated.

The results of this incident investigation will be reviewed with all personnel where it will be emphasized that the disciplinary action was not as a result of the spill itself, but rather because of a failure to promptly and accurately report the incident.

The failure to report resulted in a considerably longer response time and likely caused increased environmental damage, more extensive remediation and higher cost. We received an unfavorable response from the landowner and both Conoco and the State received a complaint from a nearby resident. In addition, Conoco's otherwise good environmental reputation was damaged in the eyes of the NMOCD Officials, with whom we are working diligently to promote Conoco's remediation techniques for the San Juan area.

M. A. Phillips

Michael A. Phillips
SHERT Manager

Carl N. Martin

Carl N. Martin
Production Superintendent

conoco

Conoco Inc.

Record of Accidental Discharge of Crude Oil or Hazardous Substances

1. Department	Division	Lease	Field	2. Date and Time Initial Report Received
Production	OKC	Farmington B Com 1		3/20/92 4:30 pm

3. Person Reporting Discharge	Person Receiving Report
L.C. Bob Williams, Production Operator	Randy K. Thille, Head Production Operator

4. Discharge Discovered By	Date and Time Discovered
L.C. Bob Williams, Production Operator	3/20/92 4:30 pm

Witnesses
Randy K. Thille, Head Production Operator

5. How Did Company Learn of Discharge
Employee observation

6. Date and Time Discharge Began	Date and Time Discharge Ended	7. Person in Charge of Site
3/20/92 Unknown	3/20/92 4:30 pm	Lynn Gordon 4/7/92

8. Discharge Site	Sec.	Township	N S	Range	E W	County	State
	15	29	XX ☐	13	☐ ☐	San Juan	N.M.

N S E W	Well No.	Tank Battery No.	Well Type	Indian or Federal Land Name or No.
ft ☐ ☐ ☐ ☐	Farmington B	Com 1	Gas	N/A

9. Type of Equipment or Operation Involved — Flowline from Well No. ____ — Injection Line to Well No. ____
Other
210 bbl oil tank receiving fluid from separator.

10. Specific Source of Discharge
Pipe ____ in. ☐ Buried ☐ Coated
☐ Steel ☐ Plastic ☐ Surface Internal—☐ CMT ☐ PI ☐ Fbg.
☐ Fiberglass ☐ Transite ☐ Bare External ____
Leak ☐ Body ☐ Cplng ☐ Weld

11. Names and Volumes of Substances Involved
Estimate greater than 10 bbl.
Bbls. Oil ____ Bbls. Water ____ ☐ Fresh ☐ Salt
Volume Entering Water: 0

12. Nature and Extent of Area Affected by Discharge
Dirt & gravel within bermed area around tank ≈45'x50'.

13. Water Courses Reached
☒ None Name ____
☐ River ☐ Lake ☐ Dry ☐ Running ☐ Creek ☐ Pond ☐ Intermittent

14. How Was Discharge Stopped?
Well was shut in.

15. Possible Reason for Discharge
☐ Corrosion ☐ Age
☐ External ☐ Fatigue
☐ Internal ☐ Mechanical

15a. Action Taken to Prevent Recurrence
Operating practices modified.

16. Operating Conditions at Time of Discharge
☐ Injection Well ☐ Pumping Well XX Flowing Well
____ BWPD at ____ PSI | BOPD 2 | BWPD 3 | Line PSI 120

17. Remedial Action Picked Up
BO 6-8 | BW 0
Date 3/21/92 | Time completed 10:00 am

18. General Weather Conditions at Time of Discharge
Good

19. Third Parties Involved in Area Before or After Discharge
Clean up crews.

20. Federal, State, and Local Agencies Notified and/or

Agency	Person Notified	Date/Time Notified
NMOCD	Charles Gholson	4/7/92 3:00 pm

21. Non-Company On-Site Investigators

Method Used	Person Notified

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OIL CON. DIV.
DIST. 3

22. Assistance Required, Contractors Used, Costs

Contractors

Backhoe	$ ____	Welder	$ ____
Vac. Truck	$ ____	Roustabout	$ ____
Tank Truck	$ ____	Company Labor	$ ____
Bulldozer	$ ____	Other	$ ____

Total Cost $ ____

Signature and Title: Lynn McCoy Sr. Foreman
Date and Location: 4-7-92 3pm

13-340 BAX4, 8-79

Carl N. Martin

conoco

Date 4/13/92

To Mr. Denny Foust
Mr. William Olson

I will send each of you a signed copy of our Internal Investigation and Spill Report upon our Division Manager's return 4/15/92

C.N. Martin

Oklahoma City Division

April 13, 1992

Conoco Inc.
3817 Northwest Expressway
Oklahoma City, OK 73112-1400
(405) 948-3100

Mr. Denny G. Foust
Deputy Oil & Gas Inspector
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Mr. Foust:

Attached you will find Conoco's Internal Investigation and Spill Report concerning the Farmington B Com #1 well. As you are aware there were extenuating circumstances as to why we did not report this incident in our usual prompt manner.

Upon discovering the leak the operator erred greatly in not handling the situation in the prescribed Conoco manner or fashion. In lieu of notifying his supervisor and the state, as it has been drilled to him and everyone countless times, he attempted to clean up the location himself. This grave misconduct on his part and the absence of following Conoco policy has resulted in his termination.

We deeply regret this incident, but most of all the manner in which this former employee elected to handle it. When we are aware of an incident we take immediate and correct steps in notification and clean up. We hope that the state realizes our continuous effort towards being the leader in **Environmental** and **Safety** standards. We are hopeful that this incident has not lessened your perception of our commitment.

It is our intention, of course, to clean up this location to the state's satisfaction as well as the landowner. This process has already begun. In doing so we have discovered a large portion of the contamination on this location was there prior to our ownership of this property.

We are available to provide you with any additional information or assistance.

C. N. Martin

Carl N. Martin
Production Superintendent
405-948-3230

CNM\156.WPD\mel

Attachment

cc: Mr. William Olson, NMOCD
Mr. Frank Balke, Conoco
Mr. Mike Swenson, Conoco
Mr. Dan McCoy, Conoco

Interoffice Communication

TO: J.R. Hopkins, V.P. and General Manager - Houston

FROM: F.B. Balke, Division Manager - OKC

DATE: April 13, 1992

SUBJECT: **Level III Accidental Discharge**

A level III accidental discharge occurred on Friday, March 20, 1992[1], on the Farmington B Com 1 lease, San Juan County, New Mexico. In excess of 10 barrels of oil was discharged outside of a tank dike and onto the adjacent location after the oil tank overflowed.

The surface has been impacted both inside and outside of the dike, and oil that soaked into the soil beneath the tank may have impacted the underlying groundwater.

Farmington B Com 1 is tied to the Pioneer 5 gathering system, and following the recent installation of a compressor on the Pioneer system, the separator pressure had been lowered significantly. As a result of lower pressure, flow from the well has increased. The fluid production is erratic and during March varied from as little as 2 barrels per day to 17 barrels per day according to tank gauges. The oil and gas production had been regularly monitored for a number of days, since the storage was limited to one 210 barrel oil tank. The tank was usually allowed to fill in order to have a "full load" before the tank truck arrived.

On Thursday, March 19, the production rate appeared to be stable and the tank gauge indicated that there was sufficient remaining tank volume (4' = 56 bbls) available to contain the overnight flow, as well as for some additional days, before a tank truck needed to be scheduled. However, the well apparently unloaded and surged, upsetting the separator and allowing the produced water to be dumped with the oil to the oil tank causing the tank to fill and overflow sometime during Friday, March 20.

Unfortunately, there was a serious failure in the proper reporting of this incident and the facts have become obscured; however, the matter has been investigated and appears to have transpired as described in the following paragraphs.

On Friday, March 20, Farmington Electric Utility augered into our Pioneer 5 lateral line, nicking the pipe. They notified Conoco personnel, including the Head Production Operator (HPO), who inspected the damaged line. It was decided to shut-in the line, depressure it, and repair it Saturday. The HPO called the Conoco, Farmington office shortly after 4:00 p.m. to initiate the shut-in of the pipeline. Since the assigned operator of the B Com 1 well was off duty, an operator not assigned to the lease was asked to visit the well, and begin shutting in production from it and all other wells along the Pioneer lateral.

Upon arriving at the Farmington B Com 1 well, the operator noticed the oil tank overflowing and he immediately shut-in the well. The HPO arrived on location within a few minutes. The operator reported the overflow to the HPO and the HPO acknowledged that he would take

[1] After reviewing contractor invoices and oil run tickets, it is concluded that the incident occurred one week prior to the date initially reported.

care of the situation. Together they continued to shut-in the other wells on the lateral. The operator went home shortly thereafter. Since the B Com 1 lease was not his assigned area, the operator did not return. Further, since the HPO had acknowledged the spill, the operator made no further reports.

On Saturday, March 21, the HPO called a vacuum truck to remove approximately 6 to 8 barrels of oil from within the dike and approximately 56 barrels of water from within the oil tank. He also called a tank truck and had a partial load of oil removed from the tank. (The dates of these activities fixes the incident date to Friday, March 20.)

On Monday morning, March 23, the HPO called a steam cleaner to clean the outside of the oil tank. Nothing more was done until Thursday, March 26, when a shovel was used to excavate a hole inside the dike to drain oil, and approximately one barrel of oil was removed.

From Thursday, March 26 through Sunday, April 5, nothing more was done. The site was left in this condition and the HPO made no reports of this situation.

On Monday, April 6, the HPO contacted Property Management Service (PMS) and arranged for a backhoe to work at the well site to remove contaminated soil. Three to four yards of oil soaked dirt was loaded on a dump box and transported to PMS's yard, where it remained overnight. On Tuesday, April 7, PMS contacted the HPO and said they needed to move the dirt to some other place, at which time it was moved back to the well site and spread on location.

Also, on the morning of Tuesday, April 7, the Sr. Production Foreman for the area received a phone call from a nearby resident complaining of a "strong oil odor" coming from our well location. The foreman agreed to investigate the site, and upon arrival noticed the strong odor and discovered the source to be the oil contaminated soil that had been spread on the location. It was evident that there had been an oil spill. While at the location, the landowner arrived and they discussed the situation. The Sr. Foreman acknowledged that the situation had not been handled properly, and assured him that it would be reported to State officials and cleanup efforts would be initiated. The Foreman also attempted to contact the local resident, but was unsuccessful.

When the Sr. Foreman called the NMOCD District Inspector, he was informed that the local resident had already reported the incident earlier that morning, and that the Inspector had just returned after visiting the site. After some discussion, the Foreman and Inspector agreed to meet at the site on the following morning.

On Wednesday, April 8, the NMOCD District Inspector visited the site with the Sr. Foreman to assess the damage and to agree on the method of cleanup. Together they concluded that the volume of oil discharged was likely greater than 10 barrels.

The subsequent cleanup consisted of excavating, removal and disposal of the contaminated soil from within the dike and adjacent location. Under the direction of the State Inspector, three strategically placed holes were dug into the groundwater to sample for contamination. Water samples revealed that some new oil may have entered the groundwater beneath the tank; however, the excavation has also uncovered old contamination that occurred prior to

Conoco, and perhaps the original drilling pit. The State Inspector approved the method of extracting and testing the groundwater until oil levels were at a level below 100 ppm.

Water extraction and sampling will continue with the ongoing observation of the state Inspector. We plan to cooperate with the State Officials until cleanup is acceptable to the State and the matter is resolved.

Due to the deliberate improper action, poor judgement, and willful negligence of the HPO, appropriate disciplinary action has been taken.

Frank Balke
Division Manager

cc: M.T. Swenson, C.N. Martin, M.A. Phillips

Conoco Inc.

Record of Accidental Discharge of Crude Oil or Hazardous Substances

1. Department: Production	Division: OKC	Lease: Farmington B Com 1	Field:	2. Date and Time Initial Report Received: 3/20/92 4:30 pm
3. Person Reporting Discharge: L.C. Bob Williams, Production Operator		Person Receiving Report: Randy K. Thille, Head Production Operator	
4. Discharge Discovered By: L.C. Bob Williams, Production Operator			Date and Time Discovered: 3/20/92 4:30 pm
Witnesses: Randy K. Thille, Head Production Operator			
5. How Did Company Learn of Discharge: Employee observation			
6. Date and Time Discharge Began: 3/20/92 Unknown	Date and Time Discharge Ended: 3/20/92 4:30 pm		7. Person in Charge of Site: Lynn Gordon 4/7/92

8. Discharge Site	Sec.	Twnshp.	N S	Range	E W	County	State
	15	29	XX ☐	13	☐ XX	San Juan	N.M.

ft. N S E W	Well No.	Tank Battery No.	Well Type	Indian or Federal Land Name or No.
____ ft. ☐ ☐ ☐ ☐	Farmington B	Com 1	Gas	N/A

9. Type of Equipment or Operation Involved — Flowline from Well No. _____ Injection Line to Well No. _____

Other: 210 bbl oil tank receiving fluid from separator.

10. Specific Source of Discharge

Pipe _____ in. ☐ Buried ☐ Coated

☐ Steel ☐ Plastic ☐ Surface Internal—☐ CMT ☐ PI ☐ Fbg.

☐ Fiberglass ☐ Transite ☐ Bare External _____

Leak: ☐ Body ☐ Cplng. ☐ Weld

11. Names and Volumes of Substances Involved: Estimate greater than 10 bbl.

Bbls. Oil _____ Bbls. Water _____ ☐ Fresh ☐ Salt

Volume Entering Water: 0

12. Nature and Extent of Area Affected by Discharge: Dirt & gravel within bermed area around tank ≈45'x50'.

13. Water Courses Reached

☒ None Name _____ ☐ River ☐ Lake ☐ Dry ☐ Running ☐ Creek ☐ Pond ☐ Intermittent

14. How Was Discharge Stopped?

Well was shut in.

15. Possible Reason for Discharge

☐ Corrosion ☐ Age

☐ External ☐ Fatigue

☐ Internal ☐ Mechanical

15a. Action Taken to Prevent Recurrence: Operating practices modified.

16. Operating Conditions at Time of Discharge

☐ Injection Well ☐ Pumping Well XX Flowing Well

_____ BWPD at _____ PSI BOPD 2 BWPD 3 Line PSI 120

17. Remedial Action—Picked Up

BO 6-8 BW 0

Date Started 3/21/92 Time Completed 10:00 am

18. General Weather Conditions at Time of Discharge: Good

19. Third Parties Involved in Area Before or After Discharge: Clean up crews.

20. Federal, State, and Local Agencies Notified, and/or — 21. Non-Company On-Site Investigators

Agency	Person Notified	Date/Time Notified	Method Used	Person Notifying
NMOCD	Charles Gholson	4/7/92 3:00 pm		

22. Assistance Required, Contractors Used, Costs — Contractors

Backhoe	$	Welder	$
Vac. Truck	$	Roustabout	$
Tank Truck	$	Company Labor	$
Bulldozer	$	Other	$

Total Cost $ _____

Signature and Title: Dan McCoy Sr. Foreman — Date and Location: 4-7-92 3pm

13-340 BAX4, 8-79

1276