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**GENERAL
CORRESPONDENCE**

YEAR(S):

1999-1998



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

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

January 7, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-274-520-585

Mr. B.D. Shaw
Amoco Production Company
200 Amoco Court
Farmington, New Mexico 87401

**RE: GROUND WATER CONTAMINATION
FLORANCE 44 AND FLORANCE 47X WELL SITES**

Dear Mr. Shaw:

The New Mexico Oil Conservation Division (OCD) has reviewed Amoco Production Company's (Amoco) August 4, 1998 correspondence titled "AMOCO PRODUCTION COMPANY FLORANCE Y 44 AND FLORANCE M 47X EARTHEN PITS" which was submitted on behalf of Amoco by their consultant Blagg Engineering, Inc. This documents contain the results of Amoco's pit closure activities at the Florance Y 44 and Florance M 47X well sites and requests closure of remedial actions.

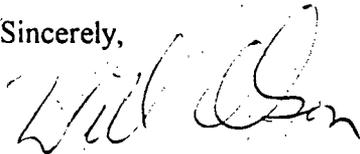
A review of recent PNM reports on these sites shows that ground water contamination upgradient of PNM's former dehydration pits appears to be a result of production disposal activities related to Amoco's operations. Due to the presence of ground water contamination downgradient of Amoco's operations at these sites, the above closure request is denied. The OCD requires that Amoco investigate and remediate soil and ground water contamination at and downgradient of Amoco's operations at these sites pursuant to Amoco's previously approved pit closure and ground water remediation plans.

The OCD requests that Amoco work together with PNM for overall remediation of site ground water and soils. Please refer to PNM reports on file at the OCD Aztec District Office for information on PNM's site investigations.

Mr. B. D. Shaw
January 7, 1999
Page 2

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Will Olson".

William C. Olson
Hydrologist
Environmental Bureau

xc: OCD Aztec District Office
 Bill Liess, BLM Farmington District Office
 Jeffery C. Blagg, Blagg Engineering, Inc.
 Maureen Gannon, PNM

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

August 4, 1998

AUG - 7 1998

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

Re: Amoco Production Company
Florance Y 44 and Florance M 47 X Earthen Pits

Dear Mr. Olson:

On behalf of Amoco Production Company, Blagg Engineering, Inc. (BEI) is responding to your correspondence dated July 15, 1998 with respect to the Florance Y 44, H Sec 31-T30N-R8W and the Florance M 47X, G Sec. 5-T30N-R9W. Public Service Company of New Mexico (PNM) has discovered subsurface contamination resulting from discharges to earthen dehydrator pits previously operated by PNM at these locations. At both sites Amoco Production Company has formerly conducted earthen pit reclamation activities on pits operated by Amoco. Attached, please find pit closure documentation for each site.

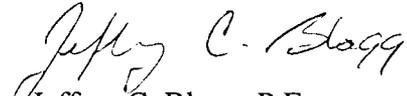
Based on review of the pit closure work conducted by Amoco at the Florance Y 44, a blow pit was remediated by excavation and landfarming in August, 1996. Closure of the pit is recommended due to sample results meeting closure standards. A separator pit remediated by excavation and landfarming in August, 1996 is recommended for closure due to a bedrock base and appropriate risk assessment procedures. No additional discharges to the environment have been conducted by Amoco at this site since the date of remediation. Therefore, it is the opinion of BEI that site contamination subsequently discovered by PNM is not the result of activities conducted by Amoco Production Company.

Amoco remediated a production tank pit at the Florance M 47X location in August, 1997. This pit meets closure standards appropriate to the area and closure of the pit by NMOCD is requested. However, Amoco may have conducted other prior (approved) discharges to the environment that have not been fully investigated. The effects of these other possible discharges will be investigated and a report will be made to your attention.

Please note that PNM has informed Amoco that PNM intends to pursue aggressive cost recovery procedures for remediation efforts that they conduct on pits owned and operated by PNM located on Amoco well sites. This cost recovery intention may interfere with your recommendation that Amoco work with PNM in remedial efforts at joint contamination sites.

Questions or comments concerning the this transmittal may be directed to Jeff Blagg of Blagg Engineering at (505)632-1199 or to Buddy Shaw with Amoco at (505)326-9200. We look forward to your review of our request for closure of the earthen pits at the subject well sites.

Respectfully submitted:
Blagg Engineering, Inc.


Jeffrey C. Blagg, P.E.
President

Attachments: Pit Closure Reports

cc: Denny Foust, NMOCD Aztec District Office
B.D. Shaw, Amoco San Juan Operations Center

Amoco/44y47x.xmt

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

80501

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

SF-078316

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

Amoco Production Company

3. Address and Telephone No.

200 Amoco Court, Farmington, N.M. 87401 Tel: (505) 326-9200

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

JW/4 NE/4, SEC. 5, T 30 N, R 9 W, N.M.P.M.

8. Well Name and No.

FLORANCE M #47X

9. API Well No.

3004511914

10. Field and Pool, or Exploratory Area

MESA VERDE / ACTURED CLIFF

11. County or Parish, State

SAN JUAN, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

Notice of Intent
 Subsequent Report
 Final Abandonment Notice

TYPE OF ACTION

Abandonment
 Recompletion
 Plugging Back
 Casing Repair
 Altering Casing
 Other Pit closure
 Change of Plans
 New Construction
 Non-Routine Fracturing
 Water Shut-Off
 Conversion to Injection
 Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Pit closure verification - see attached documentation.

① PRODUCTION TANK PIT - ABANDONED, CLOSED.

14. I hereby certify that the foregoing is true and correct

Signed

D. Shaw

Title

Enviro. Coordinator

Date

8/5/97

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd. Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

80501

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company Telephone: (505) - 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: FLORANCE M # 47X
Well Name

Location: Unit or Qtr/Qtr Sec 6 Sec 5 T30N R9W County SAN JUAN

Pit Type: Separator ___ Dehydrator ___ Other PRODUCTION TANK

Land Type: BLM , State ___ , Fee ___ , Other ___

Pit Location: Pit dimensions: length 17', width 17', depth 9'
(Attach diagram)

Reference: wellhead , other ___

Footage from reference: 70'

Direction from reference: 53 Degrees East North
of
___ West South ___

Depth To Ground Water: Less than 50 feet (20 points)
(Vertical distance from 50 feet to 99 feet (10 points)
contaminants to seasonal Greater than 100 feet (0 Points) 10
high water elevation of
ground water)

Wellhead Protection Area: Yes (20 points) 0
(Less than 200 feet from a private No (0 points)
domestic water source, or; less than
1000 feet from all other water sources)

Distance To Surface Water: Less than 200 feet (20 points)
(Horizontal distance to perennial 200 feet to 1000 feet (10 points)
lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points) 0
irrigation canals and ditches)

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: _____ Date Completed: 8/5/97

Remediation Method: Excavation Approx. cubic yards 70
(Check all appropriate sections) Landfarmed Insitu Bioremediation _____

Other _____

Remediation Location: Onsite Offsite _____
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: _____

Excavation

Ground Water Encountered: No Yes _____ Depth _____

Final Pit: Sample location see Attached Documents

Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)
Sample depth 11'
Sample date 8/4/97 Sample time 1145

Sample Results

Benzene (ppm) _____
Total BTEX (ppm) _____
Field headspace (ppm) 2.3
TPH 60 ppm

Ground Water Sample: Yes _____ No (If yes, attach sample results)

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

DATE 8/5/97

SIGNATURE B. Shaw

PRINTED NAME AND TITLE

Buddy D. Shaw
ENVIRONMENTAL COORDINATOR

| | | |
|----------------------|--|---|
| CLIENT: <u>AMOCO</u> | BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 | LOCATION NO: <u>80501</u> C.O.C. NO: <u>5105</u> |
|----------------------|--|---|

FIELD REPORT: CLOSURE VERIFICATION PAGE No: 1 of 1

| | |
|--|-------------------------------------|
| LOCATION: NAME: <u>FLORANCE M</u> WELL #: <u>47X</u> PIT: <u>PROD.</u> | DATE STARTED: <u>8/4/97</u> |
| QUAD/UNIT: <u>G</u> SEC: <u>5</u> TWP: <u>30N</u> RNG: <u>9W</u> PM: <u>Nm</u> CNTY: <u>ST</u> ST: <u>NM</u> | DATE FINISHED: _____ |
| QTR/FOOTAGE: <u>SW/4</u> <u>NEL/4</u> CONTRACTOR: <u>P+S</u> | ENVIRONMENTAL SPECIALIST: <u>NV</u> |

EXCAVATION APPROX. 17 FT. x 17 FT. x 9 FT. DEEP. CUBIC YARDAGE: 70

DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARMED

LAND USE: RANGE LEASE: 5F-078316 FORMATION: MU/PC

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 70 FT. N53E FROM WELLHEAD.

DEPTH TO GROUNDWATER: <100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

NMDCD RANKING SCORE: 10 NMDCD TPH CLOSURE STD: 1000 PPM

SOIL AND EXCAVATION DESCRIPTION:

| |
|--|
| CHECK ONE: |
| <input type="checkbox"/> PIT ABANDONED |
| <input checked="" type="checkbox"/> STEEL TANK INSTALLED |
| <input type="checkbox"/> FIBERGLASS TANK INSTALLED |

DR. YELL. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OR HC ODOR OBSERVED W/IN EXCAVATION, NO APPARENT HC ODOR IN ANY OF THE OVM SAMPLES.

CLOSED

FIELD 418.1 CALCULATIONS

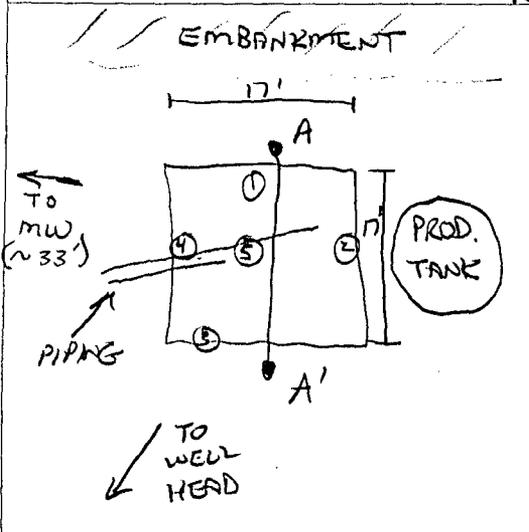
| TIME | SAMPLE I.D. | LAB No. | WEIGHT (g) | mL. FREON | DILUTION | READING | CALC. ppm |
|------|-------------|---------|------------|-----------|----------|---------|-----------|
| 1145 | ⑤ @ 11' | TPH-A14 | 5 | 20 | 1:1 | 15 | 60 |
| | | | | | | | |
| | | | | | | | |



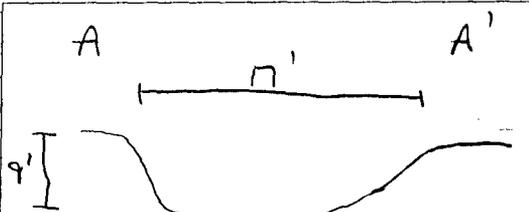
PIT PERIMETER

OVM RESULTS

PIT PROFILE



| SAMPLE ID | FIELD HEADSPACE PID (ppm) |
|-----------|---------------------------|
| 1 @ 5' | 0.0 |
| 2 @ 5' | 0.0 |
| 3 @ 6' | 0.0 |
| 4 @ 6' | 0.0 |
| 5 @ 11' | 2.3 |
| | |
| | |
| | |
| | |
| | |



| LAB SAMPLES | | |
|-------------|-------------|------|
| SAMPLE ID | ANALYSIS | TIME |
| ⑤ @ 11' | TPH (418.1) | 1145 |
| | | |
| | | |
| | | |

TRAVEL NOTES: CALLOUT: 8/4/97-MORN. ONSITE: 8/4/97-MORN.

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

| | | | |
|--------------------|-------------------|----------------|----------|
| Client: | AMOCO | Project #: | |
| Sample ID: | 5 @ 11' | Date Analyzed: | 08-04-97 |
| Project Location: | Florance M # 47 X | Date Reported: | 08-04-97 |
| Laboratory Number: | TPH-1914 | Sample Matrix: | Soil |

| Parameter | Result, mg/kg | Detection Limit, mg/kg |
|--|---------------|------------------------|
| Total Recoverable Petroleum Hydrocarbons | 60 | 20 |

ND = Not Detectable at stated detection limits.

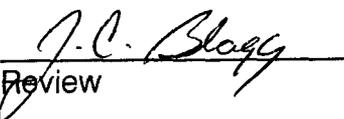
| QA/QC: | QA/QC Sample TPH mg/kg | Duplicate TPH mg/kg | % *Diff. |
|--------|---------------------------|------------------------|-------------|
| | 608 | 568 | 6.80 |

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Production Tank Pit - B0501


Analyst


Review

| | | | |
|----------------------|-----------------|------------------|-----------|
| Client: | Blagg / Amoco | Project #: | 04034-10 |
| Sample ID: | 5 @ 11' | Date Reported: | 08-06-97 |
| Laboratory Number: | B764 | Date Sampled: | 08-04-97 |
| Chain of Custody No: | 5105 | Date Received: | 08-04-97 |
| Sample Matrix: | Soil | Date Extracted: | 08-05-97 |
| Preservative: | Cool | Date Analyzed: | 08-05-97 |
| Condition: | Cool and Intact | Analysis Needed: | TPH-418.1 |

| Parameter | Concentration (mg/kg) | Det. Limit (mg/kg) |
|------------------------------|--------------------------|--------------------------|
| Total Petroleum Hydrocarbons | 5.8 | 5.0 |

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Florance #47X Prod. Tank Pit.


Analyst


Review

QUALITY ASSURANCE / QUALITY CONTROL
DOCUMENTATION

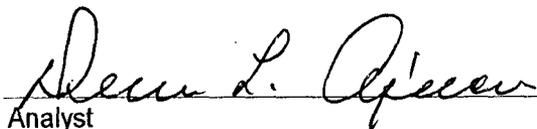
| | | | |
|--------------------|------------------|------------------|----------|
| Client: | QA/QC | Project #: | N/A |
| Sample ID: | Method Blank | Date Reported: | 08-06-97 |
| Laboratory Number: | 08-05 -TPH.BLANK | Date Sampled: | N/A |
| Sample Matrix: | Freon-113 | Date Received: | N/A |
| Preservative: | N/A | Date Extracted: | 08-05-97 |
| Condition: | N/A | Analysis Needed: | TPH |

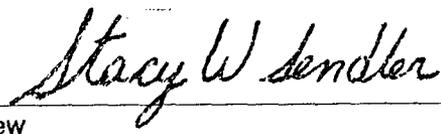
| Parameter | Concentration (mg/kg) | Det. Limit (mg/kg) |
|------------------------------|--------------------------|--------------------------|
| Total Petroleum Hydrocarbons | ND | 5.0 |

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: QA/QC for sample B764.


Analyst


Review

| | | | |
|--------------------|------------------|------------------|----------|
| Client: | QA/QC | Project #: | N/A |
| Sample ID: | Matrix Duplicate | Date Reported: | 08-06-97 |
| Laboratory Number: | B764 | Date Sampled: | N/A |
| Sample Matrix: | Soil | Date Received: | N/A |
| Preservative: | Cool | Date Extracted: | 08-05-97 |
| Condition: | Cool & Intact | Date Analyzed: | 08-05-97 |
| | | Analysis Needed: | TPH |

| Parameter | Concentration (mg/Kg) | | Dilution Factor | Det. Limit (mg/Kg) | Percent Difference |
|---------------------------------|-----------------------|-----------|--------------------|--------------------------|-----------------------|
| | Sample | Duplicate | | | |
| Total Petroleum Hydrocarbons | 5.8 | 6.3 | 1 | 5.0 | 8.3% |

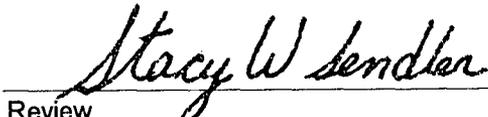
ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria: Administrative control limit set at maximum of 30% difference.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis os Water and Waste, USEPA Storet No. 4551, 1978.

Comments: QA/QC for sample B764.


Analyst


Review

| | | | |
|---------------------|--------------|-----------------|----------|
| Client: | QA/QC | Project #: | N/A |
| Sample ID: | Matrix Spike | Date Reported: | 08-06-97 |
| Laboratory Number: | B764 | Date Sampled:: | N/A |
| Sample Matrix: | Soil | Date Received: | N/A |
| Analysis Requested: | TPH | Date Extracted: | 08-05-97 |
| | | Date Analyzed: | 08-05-97 |

| Parameter | Sample Result (mg/kg) | Spike Added (mg/kg) | Spike Sample Result (mg/kg) | Det. Limit (mg/kg) | Percent Recovery |
|------------------------------|-----------------------|---------------------|-----------------------------|--------------------|------------------|
| Total Petroleum Hydrocarbons | 5.8 | 2,000 | 2,023 | 5.0 | 101% |

ND = Parameter not detected at the stated detection limit.

| QA ACCEPTANCE CRITERIA: | Parameter | Acceptance Range |
|-------------------------|------------------------------|------------------|
| | Total Petroleum Hydrocarbons | 80 - 120% |

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: QA/QC for sample B764.


Analyst


Review



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

July 15, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. Z-235-437-313

Mr. B.D. Shaw
Amoco Production Company
200 Amoco Court
Farmington, New Mexico 87401

**RE: GROUND WATER CONTAMINATION
FLORANCE 44 AND FLORANCE 47X WELL SITES**

Dear Mr. Shaw:

The New Mexico Oil Conservation Division (OCD) has recently reviewed Public Service Company of New Mexico's (PNM) April 29, 1998 "FLORANCE 44 SITE, RECONTAMINATION OF CLEAN FILL AND GROUNDWATER CONTAMINATION" and April 29, 1998 "FLORANCE 47X SITE, FREE PRODUCT AND GROUND WATER CONTAMINATION". These documents contain the results of PNM's recent investigation of ground water contamination related to PNM dehydrator pits at Amoco's Florance 44 and Florance 47X well sites.

A review of the above referenced documents shows that ground water contamination upgradient of PNM's former dehydration pits appears to be a result of production disposal activities related to Amoco's former separator pits. Therefore, the OCD requires that Amoco investigate and remediate soil and ground water contamination at and downgradient of Amoco's separator pits at these sites pursuant to Amoco's previously approved ground water remediation plan. Ground water contamination originating from PNM's former dehy pits will be handled by PNM. The OCD requests that Amoco work together with PNM for overall remediation of site ground waters.

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

Sincerely,

A handwritten signature in black ink, appearing to read "William C. Olson".

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Bill Liess, BLM Farmington District Office
Nelson Velez, Blagg Engineering, Inc.
Maureen Gannon, PNM