

Denny E. Foust
DEPUTY OIL & GAS INSPECTOR

AUG 09 1999

Jicarilla Apache Tribe
Environmental Protection Office
P.O. Box 507
Dulce, New Mexico 87528

OK
RECEIVED
JUN 24 1999
OIL CON. DIV.
DIST. 3

Approved

Pit Remediation and Closure Report

| | | | |
|---|---|--|------------------------------------|
| Operator: | Taurus Exploration U.S.A., Inc | Telephone: | (505) 325-6800 |
| Address: | 2198 Bloomfield Hwy, Farmington, NM 87401 | | |
| Facility or Well Name: | Jicarilla 67-18 | | |
| Location: | Unit or Qtr/QTR Sec "I" Sec 19, T 25 N, R 5 W County Rio Arriba | | |
| Pit Type: | Separator: | Dehydrator: | Other: X - Abandoned Separator Pit |
| Land Type: | Range | | |
| Pit Location: | Pit dimensions: length: 15 ft width: 15 ft depth: 6 ft | | |
| (Attach Diagram) | Reference: wellhead: X other: | | |
| | Footage from reference: 15 feet | | |
| | Direction from reference: 10 Degrees X East North X | | |
| | West South | | |
| Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevations of groundwater) | Less than 50 feet 50 feet to 99 feet Greater than 100 feet | (20 points) (10 points) (0 points) | 0 |
| Distance to an Ephemeral Stream: (Downgradient dry wash greater than ten feet in width) | Less than 100 feet Greater than 100 feet | (10 points) (0 points) | 0 |
| Distance to Nearest Lake, Playa, or Watering Pond: (Downgradient lakes, playas, and livestock or wildlife watering ponds) | Less than 100 feet Greater Than 100 feet | (10 points) (0 points) | 0 |
| Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources) | Yes No | (20 points) (0 points) | 0 |
| Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches.) | Less than 100 feet 100 feet to 1000 feet Greater than 1000 feet | (20 points) (10 points) (0 points) | 0 |
| RANKING SCORE (TOTAL SCORE): | | | 0 |

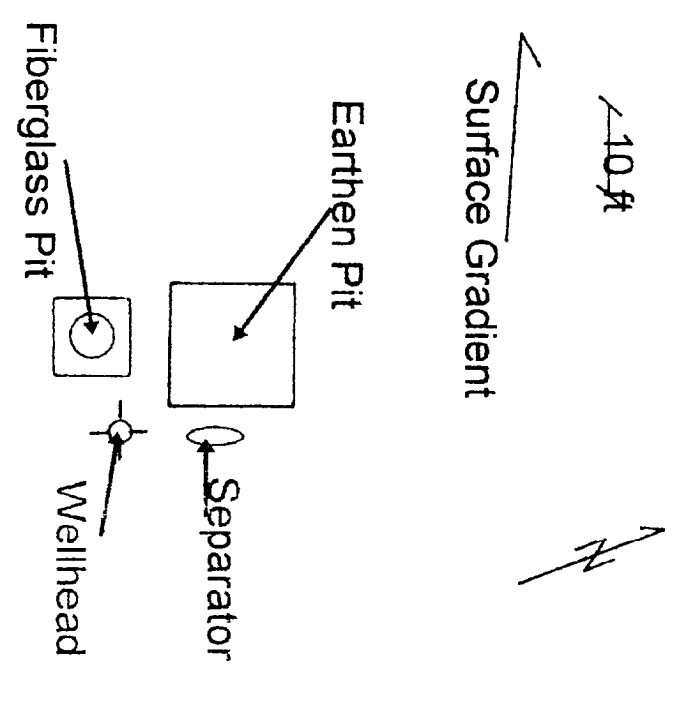
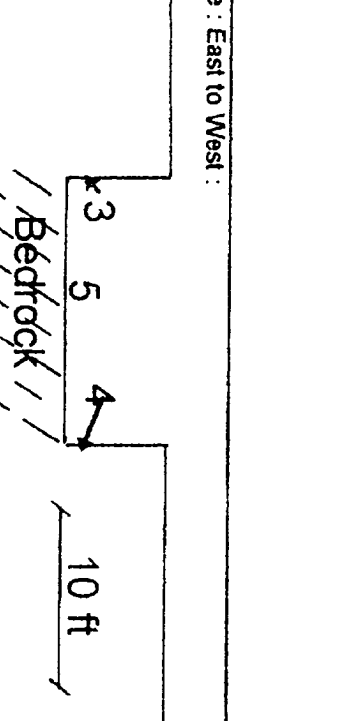
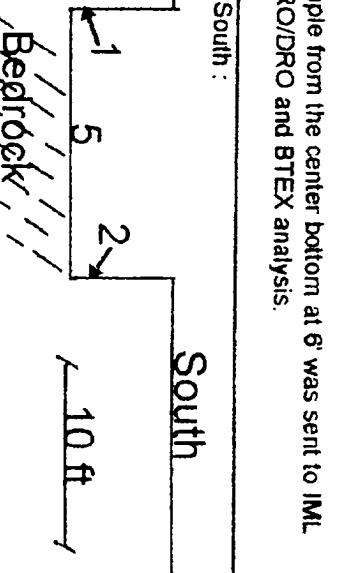
Jicarilla Apache Tribe
Environmental Protection Office
P.O. Box 507
Dulce, New Mexico 87528

Pit Remediation and Closure Report

| | | | |
|---|-------------------------|--|---|
| Date Remediation Started: <u>7/29/98</u> | | Date Completed: <u>7/30/98</u> | |
| Remediation Method: (Check all appropriate sections) | Excavation: | <u>X</u> | Approx. cubic yd: <u>17</u> |
| | Landfarmed: | <u>X</u> | Insitu Bioremediation: |
| | Other: | | |
| Remediation Location: (I.e. landfarmed on site, name and location of off site location) | On-site: | <u>X</u> | Off-site: |
| | | | |
| General Description of Remedial Action: <u>Soil was excavated and landfarmed on location.</u> | | | |
| Groundwater Encountered: No: <u>X</u> Yes: _____ Depth: _____ | | | |
| Final Pit Closure Sampling: (If multiple samples, attach sample results and diagram of sample locations and depths.) | | Sample location: <u>Pit Bottom @ 6 feet below surface (Bedrock). Pit walls were analyzed for Headspace (see attachment).</u> | |
| | | Sample depth: | <u>6 feet (Bedrock)</u> |
| | | Sample date: | <u>7/30/98</u> Sample time: <u>1025</u> |
| Sample Results: | | | |
| <u>Soil:</u> | | <u>Water:</u> | |
| Benzene (ppm) | <u>0.188</u> | Benzene (ppb) | _____ |
| Total BTEX (ppm) | <u>5.275</u> | Toluene (ppb) | _____ |
| Field Headspace (ppm) | <u>482</u> | Ethylbenzene (ppb) | _____ |
| TPH (ppm) | <u><96 (Bedrock)</u> | Total Xylenes (ppb) | _____ |
| Groundwater Sample: (If yes, attach sample results.) | Yes: _____ | No: <u>X</u> | |
| I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF | | | |
| DATE: <u>8/25/98</u> | | Frank McDonald | |
| SIGNATURE: <u>Frank McDonald</u> | | AND TITLE: <u>Env. Division Manager</u> | |
| AFTER REVIEW OF THE PIT CLOSURE INFORMATION PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE | | | |
| APPROVED: Yes: <u>X</u> No: _____ (Reason) _____ | | | |
| SIGNED: <u>Kurt C. M...</u> | | DATE: <u>9-2-98</u> | |

Client : Taurus Exploration U.S.A. Inc.

Date Started : July 29, 1998 Date Completed : July 30, 1998

| | | | |
|---|--|--|--|
| Location : <u>Jicarilla 67 - 18</u> | | Overview of Location and Sampling :  | |
| Quad : <u>1</u> Section : <u>19</u> | | | |
| Range : <u>5 W</u> Township: <u>25 N</u> | | | |
| Pit : <u>Abandoned Separator Pit</u> Reference : <u>15' N 10' E</u> Initial Size : <u>15' x 15' x 4' deep</u> Final Size : <u>15' x 15' x 6' deep</u> Yds. Excavated : <u>17 cy</u> Depth to Groundwater: <u>>100'</u> Nearest Water Source: <u>>1000'</u> Nearest Surface Water: <u>>1000'</u> Nearest Ephemeral Stream: <u>>1000'</u> EPO Ranking Score: <u>0</u> TPH Closure Standard: <u>5000</u> | | | |
| Comments : <u>Top soil - 6' Soil is moist, dark brown, loam with minor gray/black staining, and a strong hydrocarbon odor.</u> <u>6' Bedrock.</u> <u>A sample from the center bottom at 6' was sent to IML for GRO/DRO and BTEX analysis.</u> | | Pit Profile : East to West :  | |
| Pit Profile : North to South :  | | | |
| North | | | |
| South | | | |

DIESEL RANGE ORGANICS - DRO**Taurus Exploration U.S.A., Inc.**

| | | | |
|----------------|--------------------------|----------------|----------|
| Project ID: | Jicarilla 67-18 Sep. Pit | Report Date: | 08/18/98 |
| Sample ID: | C Bottom @ 6' | Date Sampled: | 07/30/98 |
| Lab ID: | 0398G04326 | Date Received: | 08/03/98 |
| Sample Matrix: | Soil | Date Analyzed: | 08/06/98 |
| Condition: | Cool/Intact | | |

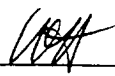
TPH DIESEL-RANGE (MOD EPA 8015)**RESULT****DETECTION LIMIT**

Diesel-Range Petroleum Hydrocarbons

<5.0

5.0 mg/kg

ND - Analyte not detected at the stated detection limit.

Reference:**Comments:**
Reported By:
Reviewed By:

VOLATILE AROMATIC HYDROCARBONS

Taurus Exploration U.S.A., Inc.

| | | | |
|----------------|--------------------------|-----------------|----------|
| Project ID: | Jicarilla 67-18 Sep. Pit | Report Date: | 08/18/98 |
| Sample ID: | C. Bottom @ 6' | Date Sampled: | 07/30/98 |
| Lab ID: | 0398G04326 | Time Sampled: | 10:25 |
| Sample Matrix: | Soil | Date Received: | 08/03/98 |
| Condition: | Cool/Intact | Date Extracted: | NA |
| | | Date Analyzed: | 08/06/98 |


| Target Analyte | Concentration (ppb) | Detection Limit (ppb) |
|----------------|---------------------|-----------------------|
| Benzene | 188 | 10.0 |
| Toluene | 1,927 | 50.0 |
| Ethylbenzene | 82 | 50.0 |
| m,p-Xylenes | 1383 | 50.0 |
| o-Xylene | 1695 | 50.0 |

ND - Analyte not detected at the stated detection limit.

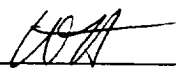
| Quality Control: | Surrogate | Percent Recovery | Acceptance Limits |
|------------------|--------------------|------------------|-------------------|
| | Bromofluorobenzene | 53%* | 70%-130% |

Reference: Method 5030, Purge and Trap; Method 8021B, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Revision 2, December, 1996.

Comments: *Surrogate recovery failed due to matrix interferences.



Analyst



Review

CHAIN OF CUSTODY RECORD

| Client/Project Name | | | Project Location | | Chain of Custody Tape No. | | ANALYSES / PARAMETERS | | Remarks | |
|--|---------|-------|------------------|--------|---------------------------|--|-----------------------|--|---------|--|
| Burus Exploration (H) Inc | | | Jicilla 67-12 | | | | | | | |
| Sampler: (Signature) <i>[Signature]</i> | | | | | | | | | | |
| Sample No./ Identification | Date | Time | Lab Number | Matrix | No. of Containers | | | | | |
| Jic 67-18 C Bme 6' | 7/30/98 | 10:25 | | Soil | 1 | | | | | |
| <div style="display: flex; justify-content: space-between;"> <div> <p>Relinquished by: (Signature) <i>[Signature]</i></p> <p>Relinquished by: (Signature) <i>[Signature]</i></p> <p>Relinquished by: (Signature) <i>[Signature]</i></p> </div> <div> <p>Date 3/3/98</p> <p>Date 8/3/98</p> <p>Date 8/3/98</p> </div> <div> <p>Time 200</p> <p>Time 0800</p> <p>Time 800</p> </div> <div> <p>Received by: (Signature) <i>[Signature]</i></p> <p>Received by: (Signature) <i>[Signature]</i></p> <p>Received by: (Signature) <i>[Signature]</i></p> </div> <div> <p>Date 8/3/98</p> <p>Date 8/3/98</p> <p>Date 8-3/98</p> </div> <div> <p>Time 800</p> <p>Time 800</p> <p>Time 800</p> </div> </div> | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> <div> <p>1633 Terra Avenue</p> <p>Sheridan, Wyoming 82801</p> <p>Telephone (307) 672-8945</p> </div> <div> <p>1701 Phillips Circle</p> <p>Gillette, Wyoming 82718</p> <p>Telephone (307) 682-8945</p> </div> <div> <p>2506 West Main Street</p> <p>Farmington, NM 87401</p> <p>Telephone (505) 326-4737</p> </div> <div> <p>1160 Research Drive</p> <p>Bozeman, Montana 59718</p> <p>Telephone (406) 586-8450</p> </div> <div> <p>11183 State Hwy. 30</p> <p>College Station, TX 77845</p> <p>Telephone (409) 776-8945</p> </div> </div> | | | | | | | | | | |

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**JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528**

ON-SITE SOIL REMEDIATION REPORT

Operator: Taurus Exploration USA Inc. Telephone: (505) 325 - 6800

Address: 2198 Bloomfield Hwy, Farmington N.M. 87401

Facility or Well Name: Jicarilla 67 - 18

Location: Unit or Qtr/Qtr Sec I Sec 19 T 25 N R 5 W County Rio Arriba

Land Type: Range

Date Remediation Started: 7/29/98 Date Completed: 12/1/98

Remediation Method: Landfarmed X Approx. cubic yards 17

Composted

Other

Depth to Groundwater: (pts) 0

Distance to an Ephemeral
Stream (pts) 0

Distance to Nearest Lake,
Playa, or Watering Pond (pts) 0

Wellhead Protection Area (pts) 0

Distance to Surface Water (pts) 0

**RANKING SCORE
(TOTAL POINTS):** 0

Final Closure Sampling:

Sampling Date: 12/1/98 Time: 13:10

Sample Results:

Field Headspace (ppm) .5

TPH (ppm) <10 Method 8015

Other:

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

DATE: 1/6/99 PRINTED NAME VIRGIL CHAVEZ

SIGNATURE  AND TITLE ENV. SPECIALIST

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION. ON-SITE SOIL REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO (REASON) use as Backfill

SIGNED:  DATE: 1-7-99



GASOLINE RANGE ORGANICS - GRO

ENERGEN RESOURCES

| | | | |
|----------------|--------------------------|----------------|-----------|
| Project ID: | Jicarilla 67-18 Landfarm | Report Date: | 12/31/98 |
| Sample ID: | Composite #1 | Date Sampled: | 12/02/98 |
| Lab ID: | 0398G06958 | Date Received: | 12/02/98 |
| Sample Matrix: | Soil | Date Analyzed: | 12/29/98* |
| Condition: | Cool/Intact | | |


| TPH GAS-RANGE (MOD EPA 8015) | RESULT | DETECTION LIMIT |
|---------------------------------------|--------|-----------------|
| Gasoline-Range Petroleum Hydrocarbons | <5.0 | 5.0 mg/Kg |

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

*Sample was analyzed within the holding times, however, due to instrument problems and QC failure, the sample had to be re-analyzed to verify results.


Reported By:


Reviewed By:



DIESEL RANGE ORGANICS - DRO

ENERGEN RESOURCES


| | | | |
|----------------|--------------------------|----------------|----------|
| Project ID: | Jicarilla 67-18 Landfarm | Report Date: | 12/22/98 |
| Sample ID: | Composite #1 | Date Sampled: | 12/02/98 |
| Lab ID: | 0398G06958 | Date Received: | 12/02/98 |
| Sample Matrix: | Soil | Date Analyzed: | 12/16/98 |
| Condition: | Cool/Intact | | |

| TPH DIESEL-RANGE (MOD EPA 8015) | RESULT | DETECTION LIMIT |
|-------------------------------------|--------|-----------------|
| Diesel-Range Petroleum Hydrocarbons | <5.0 | 5.0 mg/Kg |

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:


Reported By:


Reviewed By:



CHAIN OF CUSTODY RECORD

| Client/Project Name | | | | Project Location | | | | ANALYSES / PARAMETERS | | | | | | | | | |
|---|------|------|------------|---------------------------|-------------------|--|--|-----------------------|--|------------------------------|--|--|------|------|--------------------------|------|------|
| Sampler: (Signature) | | | | Chain of Custody Tape No. | | | | Remarks | | | | | | | | | |
| Sample No./ Identification | Date | Time | Lab Number | Matrix | No. of Containers | | | | | | | | | | | | |
| <div>BS</div> <div>intact, hand delivered</div> | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |
| | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |
| | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |
| | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |
| | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |
| | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |
| | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |
| | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |
| | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |
| | | | | | | | | | | Relinquished by: (Signature) | | | Date | Time | Received by: (Signature) | Date | Time |

☐ 1633 Terra Avenue
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Inter-Mountain Laboratories, Inc.

58217