

OIL COM. DIV.

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

DEPUTY OF A CAS INSPECTOR

AUG 0 9 1999

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 99-11 Unit or Qtr/QTR Sec "P" Sec 14, T 26 N, R 3 W County Location: Rio Arriba Pit Type: Separator: Dehydrator: Other: X - Abandoned Separator Pit Land Type: Range Pit Location: Pit dimensions: length: 20 ft width: 40 ft depth: 9 ft (Attach Diagram) Reference: wellhead: X other: Footage from reference: 78 Direction from reference: 40 Degrees East North of X West South Depth To Groundwater: 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) high water elevations of groundwater) Distance to an Ephemeral Stream: Less than 100 feet (10 points) (Downgradient dry wash greater than Greater than 100 feet (0 points) 0 ten feet in width) Distance to Nearest Lake, Playa, or Watering Less than 100 feet (10 points) Pond: (Downgradient lakes, playas, and Greater Than 100 feet (0 points) livestock or wildlife watering ponds) Wellhead Protection Area: Yes (20 points) (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 100 feet (20 points) (Horizontal distance to perennial 100 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 SCORE):

0

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



Pit Remediation and Closure Report

| Date Remediation Started:        | 5/20/00                |                  |                       |              |
|----------------------------------|------------------------|------------------|-----------------------|--------------|
| Remediation Method:              | 5/26/98<br>Excavation: | Date Completed   |                       |              |
| (Check all appropriate           | Landfarmed:            | X                | Approx. cubic yar     | 264          |
| sections)                        | Other:                 | X                | Insitu Bioremediation | on:          |
| Remediation Location:            | On-site:               |                  |                       |              |
| (I.e. landfarmed on site,        | On-site.               | X                | Off-site:             |              |
| name and location of             |                        |                  |                       |              |
| off site location)               |                        |                  |                       |              |
| General Description of Remedial  | Action:                | Soil was evenue  | and and law also      |              |
|                                  |                        | OUII Was excavat | ed and landfarmed     | on location. |
| Groundwater Encountered:         | No: X                  | Yes:             | Depth:                |              |
| Final Pit                        | Sample location        |                  | eet below surface.    | Dituralla    |
| Closure Sampling:                | were analyzed for      | or Headspace (se | e attachment)         | Pit Walls    |
| (If multiple samples,            |                        |                  | o attachmenty.        |              |
| attach sample results            |                        |                  |                       |              |
| and diagram of sample            | Sample depth:          | 9 feet           |                       |              |
| locations and depths.)           | Sample date:           |                  | Sample time:          | 1305         |
| Sample Results:                  |                        |                  |                       | 1303         |
| Soil:                            |                        |                  | Water:                |              |
| Benzene (ppm)                    | 0.093                  |                  | Benzene (ppb)         |              |
| Total BTEX (ppm)                 | 1.441                  |                  | Toluene (ppb)         |              |
| Field Headspace (ppm)            | 160                    | Eth              | ylbenzene (ppb)       |              |
| TPH (ppm)                        | 106                    |                  | al Xylenes (ppb)      |              |
| Groundwater Sample:              | Yes:                   |                  | No: X                 |              |
| (If yes, attach sample results.) |                        | _                |                       |              |
|                                  |                        | ····             |                       |              |
| HEREBY CERTIFY THAT TH           | E INFORMATIC           | N ABOVE IS T     | RUE AND COMPL         | ETE TO       |
| THE BEST OF MY KNOWLED           | GE AND BELIE           | F                |                       |              |
| D.4                              |                        |                  |                       |              |
| DATE: 7/27/98                    |                        | f                | Frank McDonald        |              |
| SIGNATURE (T)                    | 110 11                 |                  |                       |              |
| SIGNATURE Sunt M                 | 2/1//                  | AND TITLE: E     | Env. Division Mar     | nager        |
| ACTED DELVISION                  | /                      |                  |                       | 11           |
| AFTER REVIEW OF THE PIT (        | CLOSURE INFO           | PRMATION PIT     | CLOSURE IS APP        | POVED ?      |
| N ACCORDANCE TO THE JIC          | ARILLA APACI           | HE TRIBE PIT C   | LOSURE ORDINA         | ANCE         |
| ADDROVED: V                      |                        |                  |                       |              |
| APPROVED: Yes:                   | No: (                  | (Reason)         |                       |              |
| BIGNED: KOSC M                   | e((                    | Г                | DATE: 7-2             | 7-98         |
|                                  |                        |                  |                       | <u> </u>     |

Taurus Exploration U.S.A. Inc.

Date Started : \_\_\_

May 26, 1998 Date Completed :

June 25, 1998

Pit Profile : North to South : Comments: TPH Closure Standard: EPO Ranking Score: Nearest Epherneral Stream: > 1000 Nearest Surface Water: Nearest Water Source: Depth to Groundwater: Final Size: 20' x 40' x 9' deep Initial Size: 6' x 6' x 2' deep Reference: 78' S 40 W Pit: Abandoned Separator Pit Range : Quad: Yds. Excavated: 264 cy \_ocation : North Sample from bottom sent to IML for GRO/DRO and 3' to bottom - Soil is brown, clay/loam with a mild BTEX analysis. hydrocarbon odor and minor red staining present. odor and staining is present. 3 ¥ Top soil to 4' - Soil is dry, clay/loam, a strong hydrocarbon from wellhead σ Jicarilla 99 # 11 Township: Section: >1000' >1000' 5000 >100 Sample # Location 26 N 12 = ŏ 9 00 O 4 S. Wall @ 7' W. Wall @ 7 N. Wall @ 7 E. Wall @ 7 Bottom @ 9' South OVM M 30 D N.D. 4.4 160 Pit Profile : East to West : Overview of Location and Sampling Earthen Pit East 20' Separator Fiberglass Pit Gradient Production Tank Fiberglass Pit > Above Ground Fiberglass Pit Meter Run

Environmental Specialist : VC

Cimarron Oilfield Services

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2506 W. Main Street Farmington, New Mexico 87401

Client:

Taurus Exploration U.S.A., Inc.

Project:

**Organics** 

Sample ID:

Jic 99-11 C. Btm @ 9'

Lab ID:

0398G03538

Matrix:

Soil

Condition: Intact

Date Received: 06/26/98

. Date Reported: 07/10/98

Date Sampled: 06/25/98

Time Sampled: 1305

|   |                      | Time Sampled: 1305       |
|---|----------------------|--------------------------|
| Parameter   | Analytical<br>Result | Units Units              |
| Diesel Range Organics Diesel Range Organics as Diesel Gasoline Range Organics Gasoline Range Organics as Gasoline | 95<br><5<br>11<br><5 | ppm<br>ppm<br>ppm<br>ppm |

Reference: DRO - USEPA Method for Determination of Diesel Range Organics. Revision 2, February 1992.

WTPH-D Total Petroleum Hydrocarbons Analytical Methods for Soil, Washington State Department of Ecology, Revision 3, October 1991.

Reviewed By:

2506 W. Main Street Farmington, New Mexico 87401

## **VOLATILE AROMATIC HYDROCARBONS**

Client ID:

Taurus Exploration U.S.A., Inc.

Project ID:

**Organics** 

Report Date: 07/10/98

Sample ID:

Jic 99-11 C. Btm @ 9'

Date Sampled: 06/25/98

Lab ID:

0398G03538

Date Received: 06/26/98

Sample Matrix:

Soil

Date Extracted: na

Condition:

Cool/Intact

Date Analyzed: 07/09/98

| Target Analyte | Concentration (ppb) | Method Detection<br>Limit (ppb) |
|----------------|---------------------|---------------------------------|
| Benzene        | 93                  | 10.0                            |
| Toluene        | 185                 | 50.0                            |
| Ethylbenzene   | 123                 | 50.0                            |
| m,p-Xylenes    | 810                 | 50.0                            |
| o-Xylene       | 230                 | 50.0                            |

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate

Percent Recovery

Acceptance Limits

Bromofluorobenzene

99%

70%-130%

Reference:

Method 5030B, 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:



# CHAIN OF CUSTODY RECORD

| Tape No.  Matrix  Matr | 54525     | 11183 State Hwy 30 College Station, TX 77845 Telephone (100) 776 on the | es, Inc.  1160 Research Drive Bozeman, Montana 59718 Tolephone (406) 586-8450 | hbora<br>n Stree<br>4 8740 | Inter-Mount | Inter-I | 1633 Terra Avenue<br>Sheridan, Wyoming 82801<br>Telephone (307) 672-8945 |
|--|-----------|---|---|----------------------------|-------------|---------|--|
| Chain of Custody Tape No.  Chain of Custody Tape No.  Date Time Lab Number Matrix John John John John John John John John  |           | )   | Received by: (Signature)  Received by laboratory: (Signature)                 | 100                        |             | 10      | Relinquished by: (Signature)   |
| Piper: (Signature)  Chain of Custody Tape No.  Sample No.  Sample No.  Date Time Lab Number Matrix  PI-11 C. Blm 69' 6/35/fg / 3:05  Sav. J.  ANALYSES / PARAMETERS  Remarks  Sav. J.  ANALYSES / PARAMETERS  Remarks  Sav. J.  Analyses / PARAMETERS  | Date Time |   | Received by: (Signature)  |                            |             |         | Relinguished by: (Signature)   |
| Ther: (Signature)  There: (Signature)  There: (Signature)  There: (Signature)  There: (Signature)  There: (Signature)  Sample No.  Sample No.  Time Identification  Date  Time Lab Number  Matrix  Soil  Soil  Contain of Custody Tape No.  Sample No.  Soil  Soil  Custody Tape No.  Soil  Soil | t hand    | Latac   |   |                            |             |         |  |
| Sample No.  Date Time Lab Number Matrix  77-11 C. 84m 69 6125178 13:05  ANALYSES / PARAMET  Chain of Custody Tape No.  Matrix  So. 1  Chain of Custody Tape No.  Sample No.  S |           |   |   |                            |             |         |  |
| Sample No.  Sample No.  Date Time Lab Number Matrix  77-11 C. 84m 69' 6/35/87 13:05  ANALYSES / PARAMET  Chain of Custody Tape No.  Matrix  Social So |           |   |   |                            |             |         |  |
| Sample No   15/1   Inc.   Trearilly 99-11   September   ANALYSES / PARAMET   Signature)   1   Sample No   Sample No   Sample No   Sample No   Social No   September   Sample No   September   Sample No   September   Sept                 |           |   |   |                            |             |         |  |
| Sample No.  Sample No.  19-11 C. 8tm 69 6135/18 13:05  ANALYSES / PARAMET Trace Chain of Custody Tape No.  Sample No.  Chain of Custody Tape No.  Matrix  Social Sample Sam |           |   |   |                            |             |         |  |
| Chain of Custody Tape No.  |           | 2020<br>250   | No. of Containe   |                            |             |         | Sample No./<br>Identification<br>97-11 C. Blm & 9'                       |
|  | RS        | YSES / PARAMET  | T.S.  |                            | Chain o     | 1 1     | 17/2   |

### 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, Farming   |  |  |  |  |  |  |  |  |
| Facility or Well Name: <u>Jicarilla 99 - 11</u>   |  |  |  |  |  |  |  |  |
| Location: Unit or Qtr/Qtr Sec_P_Sec_  | 14 T 26 N R 3 W County Rio Arriba  |  |  |  |  |  |  |  |
| Land Type: Range  |  |  |  |  |  |  |  |  |
| Date Remediation Started: 5/26/98 Da  | ate Completed: 11/25/98  |  |  |  |  |  |  |  |
| Remediation Method: Landfarmed X  | Approx. cubic yards264   |  |  |  |  |  |  |  |
| Composted   | <del></del>  |  |  |  |  |  |  |  |
| Other   | ·<br><del>-</del>  |  |  |  |  |  |  |  |
| Depth to Groundwater: (pts) 0   | Final Closure Sampling:  |  |  |  |  |  |  |  |
| Distance to an Ephemeral Stream (pts) 0   | Sampling Date: <u>11/25/98</u> Time: <u>11:55</u>                                      |  |  |  |  |  |  |  |
| Distance to Nearest Lake, Playa, or Watering Pond (pts)0  | Sample Results:  |  |  |  |  |  |  |  |
| Wellhead Protection Area (pts)0   | Field Headspace (ppm) <u>31.1</u> TPH (ppm) <u>&lt;10</u> Method <u>8015</u>           |  |  |  |  |  |  |  |
| Distance to Surface Water (pts)0  | Other:   |  |  |  |  |  |  |  |
| RANKING SCORE (TOTAL POINTS): 0   |  |  |  |  |  |  |  |  |
| HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF DATE: 1/7/99 PRINTED NAME VIRGIL CHAVEZ |  |  |  |  |  |  |  |  |
| SIGNATURE THE   | AND TITLE ENV. SPECIALIST  |  |  |  |  |  |  |  |
| AFTER REVIEW OF THE SOIL REMEDIATION REFOR APPROVED IN ACCORDANCE TO THE JIE ARTILLA A APPROVED: YESNO (REASON)                               | RMATION. ON-SITE SOIL REMEDIATION IS  APACHE TRIBE PIT CLOSURE ORDINANCE  LAR BUCKLING |  |  |  |  |  |  |  |
| <b>*</b>  |  |  |  |  |  |  |  |  |

Taurus Exploration USA Inc.

Date Started: May 26, 1998 Date Completed: November 25, 1998

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

## **GASOLINE RANGE ORGANICS - GRO**

### **ENERGEN RESOURCES**

Project ID:

Jicarilla 99-11

Report Date:

12/31/98

Sample ID:

L.F. Sep. Pit Comp #1

Date Sampled:

11/25/98

Lab ID:

0398G06932 Soil

Date Received: Date Analyzed:

12/02/98

Condition:

Sample Matrix:

Cool/Intact

12/29/98\*

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 withing the holding times, however, due to instrument problems

and QC failure, the sample was re-analyzed to verify results.

Reported By

Reviewed By

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

## **DIESEL RANGE ORGANICS - DRO**

### **ENERGEN RESOURCES**

Project ID: Sample ID: Jicarilla 99-11

L.F. Sep. Pit Comp #1

Lab ID:

0398G06932

Sample Matrix:

Soil

Condition:

Report Date:

12/22/98

Date Sampled:

11/25/98

Date Received:

12/01/98

Date Analyzed:

12/16/98

Cool/Intact

| TPH DIES | EL-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:



## CHAIN OF CUSTODY RECORD

|  |  | ,   |                              |             |                           |                              |                                |   | _ | <br> |  |   |   |  |     |          |                    |                           |                       |                     |
|--|--|-----|------------------------------|-------------|---------------------------|------------------------------|--------------------------------|---|---|------|--|---|---|--|-----|----------|--------------------|---------------------------|-----------------------|---------------------|
| 1633 Terra Avenue<br>Sheridan, Wyoming 82801<br>Telephone (307) 672-8945     |  |     | nemiquisited by: (Signature) | Dollar Land | (almanific) . (almanific) | Relinquished by: (Signatura) | neiliquisned by: (Signature) / |   |   |      |  |   |   |  | 0.4 | 1        | Sample No./        | Sampler: (Signature)      | -                     | Client/Project Name |
| 1701 P<br>Gillette<br>Telepho  |  |     |                              | 11/1/       | •                         | 121-                         | X                              |   |   |      |  |   | - |  |     | 11-25-42 | Date               | 12                        | Refion                |                     |
| 1701 Phillips Circle<br>Gillette, Wyoming 82718<br>Telephone (307) 682-8945  | 5                                      |     |                              | 30 g        |                           |                              |                                |   |   |      |  |   |   |  |     | 155      | Time               | T                         | . ( % .               |                     |
| ĊΊ   | Inter-Mountain Laboratories, Inc.<br>☑ |     |                              |             |                           |                              |                                |   |   |      |  |   |   |  |     |          | Lab Number         | Chain c                   |                       |                     |
| 2506 West Main Street<br>Farmington, NM 87401<br>Telephone (505) 326-4737    | ntain La                               |     | Date                         | 11.3/11     | Date                      | 11-30-92                     | Date                           |   |   |      |  |   | 1 |  |     | (°       | er                 | Chain of Custody Tape No. | Toject Eocation       | Project             |
| in Street<br>M 87401<br>5) 326-4737  | aborator                               | 1   | Time                         | 2           | Time                      | -92 073                      | Time                           | - |   |      |  |   |   |  |     |          | Matrix             | Гаре No.                  | 39. <u>   </u>        |                     |
| 1160 Research Drive<br>Bozeman, Montana 5<br>Telephone (406) 586-            | ies, Inc.                              |     | Received                     | *           | Received                  |                              | Received                       |   |   |      |  |   |   |  |     |          | ×                  |                           |                       |                     |
| arch Drive<br>Montana 59718<br>(406) 586-8450                                |  |     | by laboratory: (Signature)   |             | by: (Signature)           | Chert ?                      | by: (Signature)                |   |   |      |  |   |   |  |     |          | No. of<br>Containe | ers                       |                       |                     |
|  | _                                      |     | ry: (Signati                 |             | ıre)                      | [W]                          | ıre)                           |   |   |      |  |   |   |  |     | ×        | 2012               |                           | AN                    |                     |
| 11183 Stat<br>College Sta<br>Telephone                                       |  |     | ure)                         |             |                           |                              |                                |   |   |      |  |   |   |  |     |          |                    |                           | IALYSES               |                     |
| 11183 State Hwy. 30<br>College Station, TX 77845<br>Telephone (409) 776-8945 |  |     |                              |             |                           |                              |                                |   |   |      |  |   |   |  |     | ~.       |                    |                           | ANALYSES / PARAMETERS |                     |
| <i>ა</i> ი აი  |  |     |                              |             |                           |                              |                                |   |   |      |  |   |   |  |     |          |                    | Remarks                   | ETERS                 |                     |
| 57714  |  | 460 | Date                         | :           | Date                      |                              | Date                           |   |   |      |  |   |   |  |     | 77       |                    | G                         |                       |                     |
|  | <del></del>                            |     | Time                         | ·<br>·      | Time                      |                              | Time                           |   |   |      |  | , |   |  |     | 4 7      |                    | į                         |                       |                     |