

*Denny G. Faust*  
DEPUTY OIL & GAS INSPECTOR

# APACHE CORPORATION

## REMEDIATION AND CLOSURE REPORT

JUL 18 1997

### ROUTING

|                                                                                                                 |            |                                                                       |            |
|-----------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------|------------|
| OCD Dist, III, 1000 Rio Brazos Road<br>Aztec, New Mexico 87410                                                  | XXX<br>XXX | OCD Sante Fe, P.O. Box 2088<br>Santa Fe, New Mexico 87504-2088        | XXX<br>XXX |
| BLM Albuquerque Dist. Office<br><i>Approved</i><br>Rio Puerco Resource Area<br>435 Montano N.E. Alb. N.M. 87107 | XXX        | Jicarilla Apache Tribe EPO<br>P.O. Box 507<br>Dulce, New Mexico 87528 |            |

Operator: APACHE CORPORATION Telephone: 505-325-0318

Address: 304 N. Behrend, Farmington, New Mexico 87401

Facility or Well Name: BADLAND FLATS # 1 Well Pad

Location: Unit or Qtr/Qtr Sec. Sec 3 T 23N R 1W County: Rio Arriba MAY 30 1997

Pit Type: Separator Dehydrator Other: Blow Pit

Land Type: BLM XXX STATE FEE Other: OIL CON. DIST. 3

### PIT LOCATION

(DIAGRAM ATTACHED)

|                          |            |           |           |
|--------------------------|------------|-----------|-----------|
| Pit Dimensions:          | LENGTH: 5' | WIDTH: 5' | DEPTH: 6' |
| Reference:               | Wellhead   | XX        | Other:    |
| Footage From Reference:  | 50'        |           |           |
| Direction From Reference | SW         | East      | North     |

of  
West South

### Depth of Ground Water:

(Vertical distance from contaminants to seasonal high water elevation of ground water)

|                       |             |
|-----------------------|-------------|
| Less than 50 feet     | (20 Points) |
| 50 feet to 99 feet    | (10 Points) |
| Greater than 100 feet | (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 | (20 Points) |
| No  | (0 Points)  |

0

### Distance to Surface Water

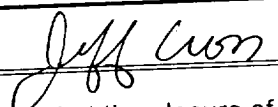
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)

|                       |             |
|-----------------------|-------------|
| Less than 50 feet     | (20 Points) |
| 50 feet to 99 feet    | (10 Points) |
| Greater than 100 feet | (0 Points)  |

0

Ranking Score (Total Points):

0

|                                                                                                                                |                                                                                                                                   |                                 |                                    |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------|
| <b>Date Remediation Started:</b> 9-12-96                                                                                       |                                                                                                                                   | <b>Date Completed:</b> 9-12-96  |                                    |
| <b>Remediation Method:</b><br>(Check all appropriate Sections)                                                                 | <b>Excavation</b>                                                                                                                 | <b>XX</b>                       | <b>Approx. Cu. Yds.:</b> 5         |
|                                                                                                                                | <b>Land Farmed</b>                                                                                                                | <b>XX</b>                       | <b>Insitu Bioremediation</b>       |
|                                                                                                                                | <b>Other:</b>                                                                                                                     |                                 |                                    |
| <b>Remediation Location:</b><br>(ie. landfarmed on site, name and location of offsite facility)                                | <b>Onsite</b>                                                                                                                     | <b>XX</b>                       | <b>Offsite:</b>                    |
|                                                                                                                                |                                                                                                                                   |                                 |                                    |
| <b>General Description of Remedial Action:</b> Layed out cell, Tilled cell, Sampled cell                                       |                                                                                                                                   |                                 |                                    |
|                                                                                                                                |                                                                                                                                   |                                 |                                    |
|                                                                                                                                |                                                                                                                                   |                                 |                                    |
|                                                                                                                                |                                                                                                                                   |                                 |                                    |
|                                                                                                                                |                                                                                                                                   |                                 |                                    |
| <b>Ground Water Encountered:</b>                                                                                               | No                                                                                                                                | XX                              | Yes                                |
| <b>Final Pit Closure Sampling:</b><br>(if multiple samples, attach sample results and diagram of sample locations and depths.) | <b>Sample Location:</b> 5 point composite, taken 8 to 10 inches into sidewalls, 6 to 12" off bottom, 8 to 10" into bottom center. |                                 |                                    |
|                                                                                                                                |                                                                                                                                   |                                 |                                    |
|                                                                                                                                | <b>Sample Depth:</b> 8" / 10"                                                                                                     |                                 |                                    |
|                                                                                                                                | <b>Sample Date:</b>                                                                                                               | 11-5-96                         | <b>Sample Time:</b> 16:10          |
|                                                                                                                                |                                                                                                                                   |                                 |                                    |
| <b>SAMPLE RESULTS</b>                                                                                                          |                                                                                                                                   |                                 |                                    |
| <b>Benzene (ppm)</b>                                                                                                           | ND                                                                                                                                | <b>Field Headspace (ppm)</b>    |                                    |
| <b>Total BTEX (ppm)</b>                                                                                                        | ND                                                                                                                                | <b>TPH</b> 75                   |                                    |
| <b>Ground Water Sample</b>                                                                                                     | Yes                                                                                                                               | No                              | XX (If yes, attach sample results) |
| I hereby certify that the information above is true and complete to the best of my knowledge and belief.                       |                                                                                                                                   |                                 |                                    |
| <b>Date:</b> 5/22/97                                                                                                           |                                                                                                                                   | <b>Printed Name:</b> Jeff Cross |                                    |
| <b>Signature:</b>                           |                                                                                                                                   | <b>Title:</b> Project Manager   |                                    |
| I hereby certify that the closure of this site is approved and has been accepted:                                              |                                                                                                                                   |                                 |                                    |
| <b>Date:</b>                                                                                                                   |                                                                                                                                   | <b>Printed Name:</b>            |                                    |
| <b>Signature:</b>                                                                                                              |                                                                                                                                   | <b>Org. and Title:</b>          |                                    |

# APACHE CORPORATION/FARMINGTON DISTRICT PIT EXCAVATION AND CLOSURE REPORT

LOCATION Badland Flats #1 Well Pad  
PIT COUNT One

Jicarilla Apache Tribal EPO/OCD/BLM  
Review and Approval  
OCD--BLM  
EPO Representative \_\_\_\_\_  
Date of Review \_\_\_\_\_

| DIMENSIONS  |           | START: 12-Sep-96 |         | FINISH: 12-Sep-96 |             | Excavation |         | D       | CU YDS |
|-------------|-----------|------------------|---------|-------------------|-------------|------------|---------|---------|--------|
|             | W         | L                | D       |                   |             | W          | L       |         |        |
| Pit 1       | 4         | 4                | 2       | Pit 1             |             | 5          | 5       | 6       | 5      |
| Pit 2       |           |                  |         | Pit 2             |             |            |         |         |        |
| Pit 3       |           |                  |         | Pit 3             |             |            |         |         |        |
| DATE:       |           | Pit 1 @ 4'       | Pit 2 @ | Pit 3 @           | Date:       | Pit 1 @    | Pit 2 @ | Pit 3 @ |        |
| P<br>I<br>D | Center    | 45.6             |         |                   | P<br>I<br>D | Center     |         |         |        |
|             | NW Corner | 36.2             |         |                   |             | NW Corner  |         |         |        |
|             | NE Corner | 51.5             |         |                   |             | NE Corner  |         |         |        |
|             | SW Corner | 42.6             |         |                   |             | SW Corner  |         |         |        |
|             | SE Corner | 29.8             |         |                   |             | SE Corner  |         |         |        |

## NOTES:

Excavated Pit to 4' below pit bottom---No signs of staining or Heavy smell.  
Sampled 11-5-97---Sent to Lab 11-7-97 (Pit and Cell Sampled)  
Tilled Cell 11-3-96 (Allen Cockran)

## SOIL SAMPLING

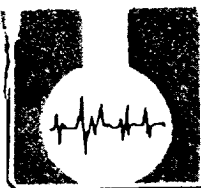
| DATE: 11/5/96 |           | Pit 1 @ 4' | Pit 2 @ | Pit 3 @ | ANALYSIS RESULTS |     | PER LAB | Assaigai     |
|---------------|-----------|------------|---------|---------|------------------|-----|---------|--------------|
|               |           |            |         |         | PIT NO           | TPH | BETEX   | WITNESS DATE |
| P<br>I<br>D   | Center    | 32.1       |         |         |                  |     |         |              |
|               | NW Corner | 28.6       |         |         | 1                | 75  | ND      | KB 11-5-96   |
|               | NE Corner | 26.5       |         |         | 2                |     |         |              |
|               | SW Corner | 19.5       |         |         | 3                |     |         |              |
|               | SE Corner | 20.1       |         |         |                  |     |         |              |

## RE-SAMPLE OR CELL(S) SAMPLE

| DATE: 11-5-96 |           | Pit 1 @ | Pit 2 @ | Pit 3 @ | ANALYSIS RESULTS |     | PER LAB |              |
|---------------|-----------|---------|---------|---------|------------------|-----|---------|--------------|
|               |           |         |         |         | PIT NO           | TPH | BETEX   | WITNESS DATE |
| P<br>I<br>D   | Center    | 28.9    |         |         |                  |     |         |              |
|               | NW Corner | 35.1    |         |         | 1                | 250 | ND      | KB 11-5-96   |
|               | NE Corner | 38.3    |         |         | 2                |     |         |              |
|               | SW Corner | 40.1    |         |         | 3                |     |         |              |
|               | SE Corner | 39.8    |         |         |                  |     |         |              |

## RE-SAMPLE OR CELL(S) SAMPLE

| DATE:       |           | Pit 1 @ | Pit 2 @ | Pit 3 @ | ANALYSIS RESULTS |     | PER LAB |              |
|-------------|-----------|---------|---------|---------|------------------|-----|---------|--------------|
|             |           |         |         |         | PIT NO           | TPH | BETEX   | WITNESS DATE |
| P<br>I<br>D | Center    |         |         |         |                  |     |         |              |
|             | NW Corner |         |         |         | 1                |     |         |              |
|             | NE Corner |         |         |         | 2                |     |         |              |
|             | SW Corner |         |         |         | 3                |     |         |              |
|             | SE Corner |         |         |         |                  |     |         |              |



**ASSAIGAI  
ANALYTICAL  
LABORATORIES, INC.**

7300 Jefferson, N.E. • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259  
3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820

Report Generated:  
November 21, 1996 14:36

**CERTIFICATE OF ANALYSIS  
RESULTS BY SAMPLE**

SENT APACHE CORPORATION  
TO: 304 N. BEHREND  
FARMINGTON, NM 87401

WORKORDER # : 9611045  
WORK ID : BADLAND FLATS FED COML  
CLIENT CODE : APA01  
DATE RECEIVED : 11/07/96

ATTN: JOHN TAYLOR

Page: 1

Lab ID: 9611045-01A  
Sample ID: WELL PIT CELL

Collected: 11/05/96 16:10:00  
Matrix: SOIL

| TEST / METHOD              | RESULT | UNITS | LIMIT  | D_F | DATE ANAL | BATCH_ID  |
|----------------------------|--------|-------|--------|-----|-----------|-----------|
| BTEX/SW846 8020A           |        |       |        |     |           |           |
| Benzene                    | ND     | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| Toluene                    | 1.2    | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| Ethylbenzene               | ND     | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| P-&m-Xylene                | ND     | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| O-Xylene                   | ND     | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| Diesel Range OG Soil/M8015 |        |       |        |     |           |           |
| Diesel Range OG in Soil    | 250    | mg/Kg | 50     | 2.0 | 11/15/96  | SDRO005   |

Lab ID: 9611045-02A  
Sample ID: WELL PIT

Collected: 11/05/96 16:20:00  
Matrix: SOIL

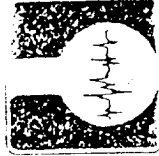
| TEST / METHOD              | RESULT | UNITS | LIMIT  | D_F | DATE ANAL | BATCH_ID  |
|----------------------------|--------|-------|--------|-----|-----------|-----------|
| BTEX/SW846 8020A           |        |       |        |     |           |           |
| Benzene                    | ND     | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| Toluene                    | ND     | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| Ethylbenzene               | ND     | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| P-&m-Xylene                | ND     | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| O-Xylene                   | ND     | mg/Kg | 0.0010 | 250 | 11/11/96  | SBTXME136 |
| Diesel Range OG Soil/M8015 |        |       |        |     |           |           |
| Diesel Range OG in Soil    | 75     | mg/Kg | 50     | 1.0 | 11/15/96  | SDRO005   |

Lab ID: 9611045-03A  
Sample ID: METER RUN CELL

Collected: 11/05/96 17:05:00  
Matrix: SOIL

| TEST / METHOD              | RESULT | UNITS | LIMIT  | D_F  | DATE ANAL | BATCH_ID  |
|----------------------------|--------|-------|--------|------|-----------|-----------|
| BTEX/SW846 8020A           |        |       |        |      |           |           |
| Benzene                    | ND     | mg/Kg | 0.0010 | 5000 | 11/13/96  | SBTXME137 |
| Toluene                    | ND     | mg/Kg | 0.0010 | 5000 | 11/13/96  | SBTXME137 |
| Ethylbenzene               | ND     | mg/Kg | 0.0010 | 5000 | 11/13/96  | SBTXME137 |
| P-&m-Xylene                | ND     | mg/Kg | 0.0010 | 5000 | 11/13/96  | SBTXME137 |
| O-Xylene                   | ND     | mg/Kg | 0.0010 | 5000 | 11/13/96  | SBTXME137 |
| Diesel Range OG Soil/M8015 |        |       |        |      |           |           |





# Chain of Custody Record

ASSAIGAI  
ANALYTICAL  
LABORATORIES

7300 JEFFERSON, N.E.  
ALBUQUERQUE, NEW MEXICO 87106  
(505) 345-8964

3332 WEDGEWOOD  
EL PASO, TEXAS 79925  
(915) 593-6000

1910 N. BIG SPRING  
MIDLAND, TEXAS 79705  
(915) 570-1116

MELQUIADES ALANIS

6411 LOCAL UNO

CIUDAD JUAREZ, CHIHUAHUA MEXICO 32320

Client

Apache Corp.

Project Manager / Contact

M. Kelly ALYONS

Address

City / State / Zip

Project Name / Number

Badland Flats Fed. Coal

Contract / Purchase Order / Quote

Telephone No.

(505) 774-6643

Fax No.

774-6624

Samplers: (Signature)

Y. S. Duff

| AAL<br>FRACTION<br>NUMBER | Field<br>Sample Number | Date    | Sample<br>Type | Type / Size of Container | Preservation |          |
|---------------------------|------------------------|---------|----------------|--------------------------|--------------|----------|
|                           |                        |         |                |                          | Temp.        | Chemical |
| 1A                        | Well P.T. Cell         | 11/5/96 | 1610           | 50.0                     | 8 oz. G.     | 4°C N/A  |
| 2A                        | Well P.T.              |         | 1620           |                          |              |          |
| 3A                        | Meter Run Cell         |         | 1705           |                          |              |          |
| 4A                        | Meter Run P.T.         |         | 1710           |                          |              |          |
| 5A                        | Separator Cell         |         | 1655           |                          |              |          |
| 6A                        | Separator P.T.         | 11/3/96 | 1715           | 50.0                     | 8 oz. G.     | 4°C N/A  |
| 7A                        |                        |         |                |                          |              |          |
| 8A                        |                        |         |                |                          |              |          |
| 9A                        |                        |         |                |                          |              |          |
| 10A                       |                        |         |                |                          |              |          |
| 11A                       |                        |         |                |                          |              |          |
| 12A                       |                        |         |                |                          |              |          |
| 13A                       |                        |         |                |                          |              |          |
| 14A                       |                        |         |                |                          |              |          |
| 15A                       |                        |         |                |                          |              |          |
| 16A                       |                        |         |                |                          |              |          |
| 17A                       |                        |         |                |                          |              |          |
| 18A                       |                        |         |                |                          |              |          |
| 19A                       |                        |         |                |                          |              |          |
| 20A                       |                        |         |                |                          |              |          |
| 21A                       |                        |         |                |                          |              |          |
| 22A                       |                        |         |                |                          |              |          |
| 23A                       |                        |         |                |                          |              |          |
| 24A                       |                        |         |                |                          |              |          |
| 25A                       |                        |         |                |                          |              |          |
| 26A                       |                        |         |                |                          |              |          |
| 27A                       |                        |         |                |                          |              |          |
| 28A                       |                        |         |                |                          |              |          |
| 29A                       |                        |         |                |                          |              |          |
| 30A                       |                        |         |                |                          |              |          |
| 31A                       |                        |         |                |                          |              |          |
| 32A                       |                        |         |                |                          |              |          |
| 33A                       |                        |         |                |                          |              |          |
| 34A                       |                        |         |                |                          |              |          |
| 35A                       |                        |         |                |                          |              |          |
| 36A                       |                        |         |                |                          |              |          |
| 37A                       |                        |         |                |                          |              |          |
| 38A                       |                        |         |                |                          |              |          |
| 39A                       |                        |         |                |                          |              |          |
| 40A                       |                        |         |                |                          |              |          |
| 41A                       |                        |         |                |                          |              |          |
| 42A                       |                        |         |                |                          |              |          |
| 43A                       |                        |         |                |                          |              |          |
| 44A                       |                        |         |                |                          |              |          |
| 45A                       |                        |         |                |                          |              |          |
| 46A                       |                        |         |                |                          |              |          |
| 47A                       |                        |         |                |                          |              |          |
| 48A                       |                        |         |                |                          |              |          |
| 49A                       |                        |         |                |                          |              |          |
| 50A                       |                        |         |                |                          |              |          |
| 51A                       |                        |         |                |                          |              |          |
| 52A                       |                        |         |                |                          |              |          |
| 53A                       |                        |         |                |                          |              |          |
| 54A                       |                        |         |                |                          |              |          |
| 55A                       |                        |         |                |                          |              |          |
| 56A                       |                        |         |                |                          |              |          |
| 57A                       |                        |         |                |                          |              |          |
| 58A                       |                        |         |                |                          |              |          |
| 59A                       |                        |         |                |                          |              |          |
| 60A                       |                        |         |                |                          |              |          |
| 61A                       |                        |         |                |                          |              |          |
| 62A                       |                        |         |                |                          |              |          |
| 63A                       |                        |         |                |                          |              |          |
| 64A                       |                        |         |                |                          |              |          |
| 65A                       |                        |         |                |                          |              |          |
| 66A                       |                        |         |                |                          |              |          |
| 67A                       |                        |         |                |                          |              |          |
| 68A                       |                        |         |                |                          |              |          |
| 69A                       |                        |         |                |                          |              |          |
| 70A                       |                        |         |                |                          |              |          |
| 71A                       |                        |         |                |                          |              |          |
| 72A                       |                        |         |                |                          |              |          |
| 73A                       |                        |         |                |                          |              |          |
| 74A                       |                        |         |                |                          |              |          |
| 75A                       |                        |         |                |                          |              |          |
| 76A                       |                        |         |                |                          |              |          |
| 77A                       |                        |         |                |                          |              |          |
| 78A                       |                        |         |                |                          |              |          |
| 79A                       |                        |         |                |                          |              |          |
| 80A                       |                        |         |                |                          |              |          |
| 81A                       |                        |         |                |                          |              |          |
| 82A                       |                        |         |                |                          |              |          |
| 83A                       |                        |         |                |                          |              |          |
| 84A                       |                        |         |                |                          |              |          |
| 85A                       |                        |         |                |                          |              |          |
| 86A                       |                        |         |                |                          |              |          |
| 87A                       |                        |         |                |                          |              |          |
| 88A                       |                        |         |                |                          |              |          |
| 89A                       |                        |         |                |                          |              |          |
| 90A                       |                        |         |                |                          |              |          |
| 91A                       |                        |         |                |                          |              |          |
| 92A                       |                        |         |                |                          |              |          |
| 93A                       |                        |         |                |                          |              |          |
| 94A                       |                        |         |                |                          |              |          |
| 95A                       |                        |         |                |                          |              |          |
| 96A                       |                        |         |                |                          |              |          |
| 97A                       |                        |         |                |                          |              |          |
| 98A                       |                        |         |                |                          |              |          |
| 99A                       |                        |         |                |                          |              |          |
| 100A                      |                        |         |                |                          |              |          |

Relinquished by:

Signature: S. Duff

Printed: Kevin L. Buttry

Company: Apache Corp.

Reason:

Received by:

Signature: Scott Pratt

Printed: Scott Pratt

Company: AAL

Reason:

Relinquished by:

Signature: Scott Pratt

Printed: Scott Pratt

Company: AAL

Reason:

Date

11-7-96

Time

12:21 PM

Received by:

Signature: Scott Pratt

Printed: Scott Pratt

Company: AAL

Reason:

Date

7 NOV 96

Time

15:30

Received by:

Signature: Scott Pratt

Printed: Scott Pratt

Company: AAL

Reason:

After analysis, samples are to be:

☐ Disposed of (additional fee)

☐ Stored (30 days max)

☐ Stored over 30 days (additional fee)

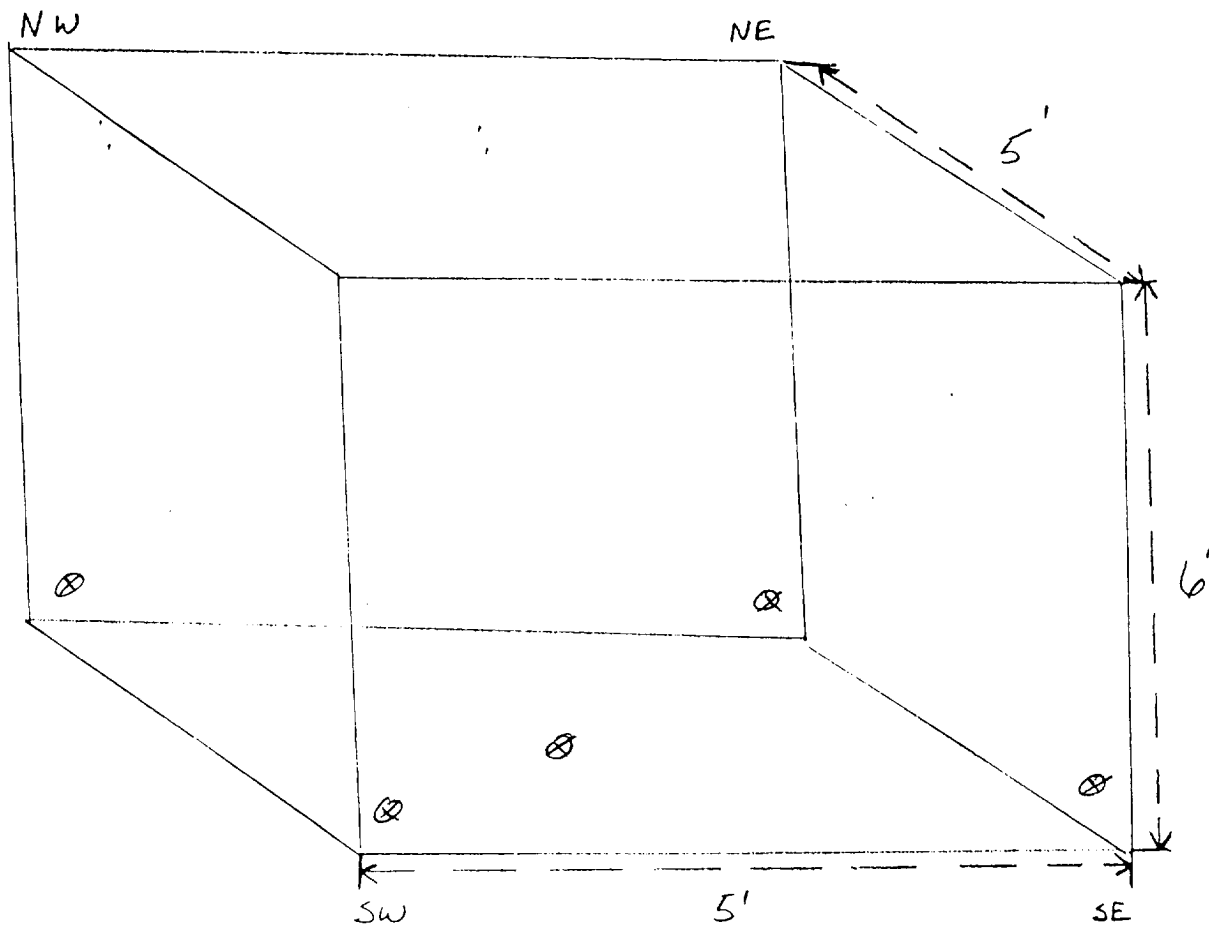
☐ Returned to customer

Method of Shipment:

Shipment No.

Special Instructions:

COURIER

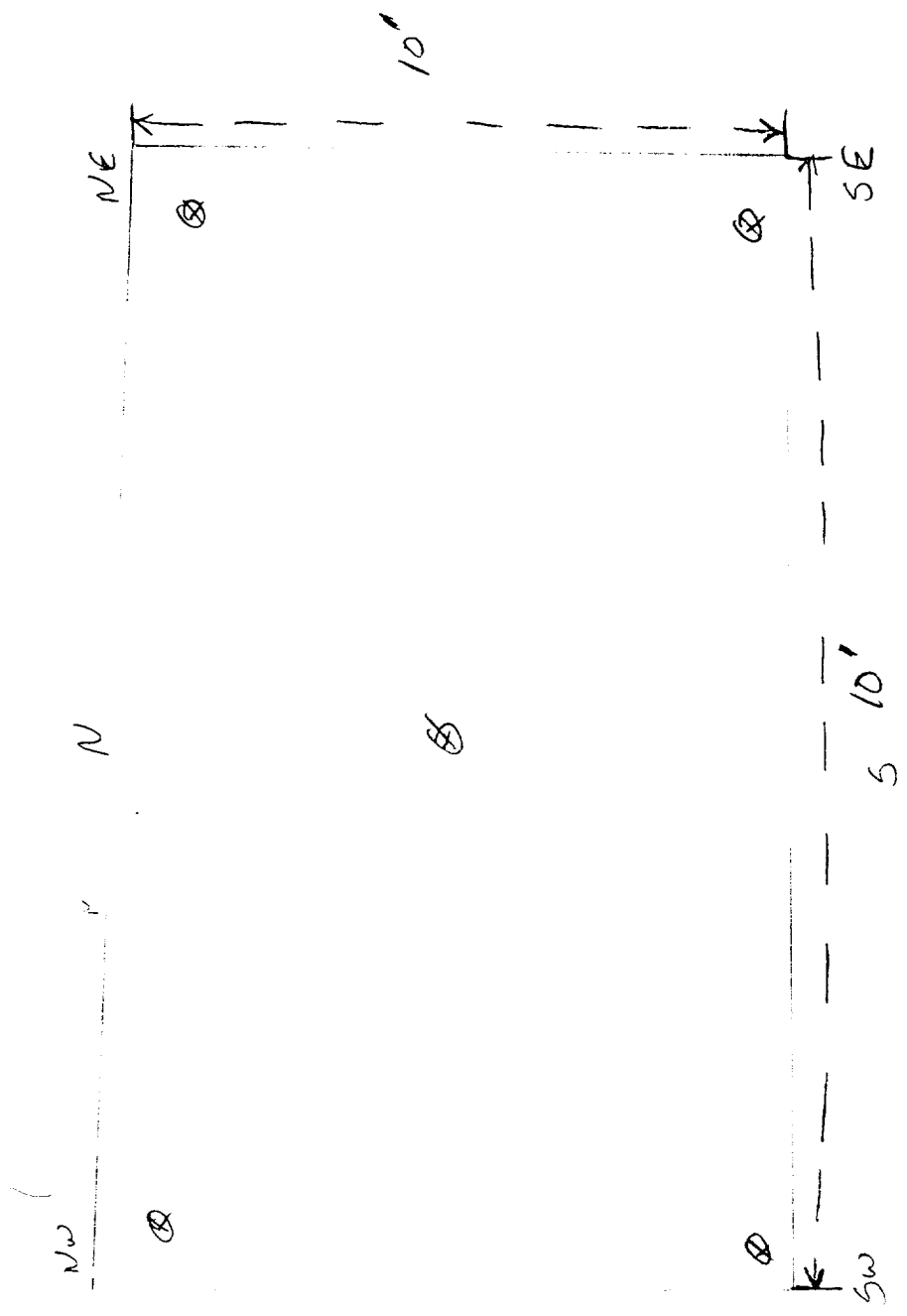


WELL NAME: BADLANDS FLATS #1 wellpad pit 1

SAMPLE DATE: 11-5-97

⊗ = SAMPLE AREA 5 point sample TAKEN 8" into pit corner SIDE WALLS  
10" into Bottom center.

NOTES:



LOCATION: BADLANDS FLAT #1 well pad cell #1

SAMPLE DATE: 11-5-94

X = sample Area

NOTES: 5 point sample TAKEN 10" into cell.