

AP - 002

# STAGE 1 & 2 WORKPLANS

DATE:

Dec. 2, 1997



Central Region

**RECEIVED**

**DEC 18 1997**

Environmental Bureau  
Oil Conservation Division

December 2, 1997

Mr. Wayne Price  
New Mexico Oil Conservation Division  
P. O. Box 1980  
Hobbs, New Mexico

**Subject: Remediation Workplan; Shell E&P Technology Grimes Lease;  
Hobbs, New Mexico**

Dear Mr. Price,

On behalf of Shell E&P Technology Company (SEPTCO), Philip Services Corporation (Philip) respectfully submits this remediation workplan for the above referenced site. Philip will begin remediation activities as described in the workplan following receipt of your approval, and authorization from SEPTCO to proceed.

If you have any questions concerning the proposed workplan or anticipated schedule, please call Mr. Wayne Hamilton (SEPTCO) at 713 245-7782, or Sharon Hall (Philip) at 915 563-0118.

Sincerely,

PHILIP SERVICES CORPORATION

*Sharon E. Hall*  
Sharon E. Hall  
Operations Manager

*Helping Clients Obtain a Competitive Advantage in a Global Market*



**SHELL E&P TECHNOLOGY COMPANY**

HOUSTON, TEXAS

**REMEDIATION WORK PLAN  
GRIMES LEASE  
HOBBS, NEW MEXICO**

**December 2, 1997**

## PROJECT BACKGROUND

The subject property is located on Tasker Road, Hobbs, New Mexico. Portions of site are currently under construction of residential structures. Several weeks ago, Shell's environmental engineering group learned of an asphalt-like layer present at the construction site. The asphalt-like substance appears to be oil that was probably spread on the ground under then-normal operating practices in the 1940's. The layer occurs at a depth of approximately one foot below the ground surface, and is approximately one inch thick.

Shell representatives have sampled the material and analyzed the samples for total petroleum hydrocarbons (TPH); benzene, toluene, ethylbenzene, and xylenes (BTEX); chlorides, and TCLP metals. Analysis of TCLP metals indicate that all analytes analyzed for are below detection limits. Total chlorides were detected at a concentration of 128 milligrams per kilogram (mg/kg), indicating that elevated chloride concentrations are not present in the soil sample. Benzene, toluene, and ethylbenzene concentrations were below detection limits, and minor amounts of total xylenes were detected at a concentration of 0.017 mg/kg. TPH compounds were analyzed using GC/MS scan. Analytical results indicate the presence of n-Alkanes C13-C40. The chromatograph exhibited characteristics described by the laboratory as those of weathered oil. The value for numerous branched alkanes and cyclic hydrocarbons (unresolved mixture, 4122 mg/kg) are representative of USEPA method 8015 TPH analysis. Sample results are attached.

## WORKPLAN

Hydrocarbon impacted soils will be excavated and transported to Controlled Recovery Inc. located in Hobbs, New Mexico for disposal. The site will be remediated to achieve a TPH concentration of 100 milligrams per kilogram (mg/kg) or less, and a BTEX concentration of non-detect. A minimum of five (5) verification samples will be collected from the bottom of the excavation and will be submitted to Trace Analysis in Lubbock, Texas for analysis for TPH (method 418.1) and BTEX (method 8020). Following receipt of the analytical results, and with the approval of the New Mexico Oil Conservation Division (NMOCD), the excavation will be backfilled with clean soils, with a minimum of one foot of topsoil being backfilled on the surface of the excavation.

Upon completion of the project, Shell E&P Technology Company will submit a final closure report for NMOCD approval. The report will include a description and photographs of field activities, a plot-plan showing soil sampling locations and depths, results of laboratory analysis, disposal manifests, conclusions, and recommendations.



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
SHELL OIL CO.  
ATTN: DONNIE ANDERSON  
1017 W. STANOLIND  
HOBBS, NM 88240  
FAX TO: 505-397-8204

Receiving Date: 11/17/97  
Modified Reporting Date: 11/25/97  
Reporting Date: 11/19/97  
Project Number: NOT GIVEN  
Project Name: TASKER SITE  
Project Location: EAST OF GRIMES BATTERY  
Laboratory No.: H3320-1  
Sample ID: COMPOSITE OF #1, 2, 3, 4, 5

Analysis Date: 11/19/97  
Sampling Date: 11/17/97  
Sample Type: SOIL & WASTE  
Sample Condition: COOL & INTACT  
Sample Received By: GP  
Analyzed By: BC

## MODIFIED REPORT

## Compounds Detected (GC/MS Scan)

n-Alkanes, C13 through C40, maximum @ n-Pentacosane (C25) (Total n-Alkanes=92.2mg/Kg);  
2,6,10,14-Tetramethylpentadecane (7.4mg/Kg) and 2,6,10,14-Tetramethylheptadecane (10.9mg/Kg);  
Numerous branched alkanes and cyclic hydrocarbons (unresolved mixture) (4122mg/Kg);  
Naphthalene (0.7mg/Kg), 1- and 2-Methylnaphthalene (2.1mg/Kg).

Methods: SW-846 8270 and 8015 modified

NOTE: Sample has chromatographic characteristics of weathered oil.

  
Chemist

11/25/97  
Date



# ARDINAL LABORATORIES

PHONE (915) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
SHELL OIL COMPANY  
ATTN: DONNIE ANDERSON  
1017 W. STANOLIND  
HOBBS, NM. 88240  
FAX TO: 505-397-8204

Receiving Date: 11/17/97  
Reporting Date: 11/18/97  
Project Number: NOT GIVEN  
Project Name: TASKER SITE  
Project Location: EAST OF GRIMES BATTERY

Sampling Date: 11/17/97  
Sample Type: SOIL  
Sample Condition: INTACT & COOL  
Sample Received By: GP  
Analyzed By: GP

| LAB NO.                     | SAMPLE ID                 | BENZENE<br>(mg/Kg) | TOLUENE<br>(mg/Kg) | ETHYL<br>BENZENE<br>(mg/Kg) | TOTAL<br>XYLENES<br>(mg/Kg) |
|-----------------------------|---------------------------|--------------------|--------------------|-----------------------------|-----------------------------|
| ANALYSIS DATE               |                           | 11/17/97           | 11/17/97           | 11/17/97                    | 11/17/97                    |
| H3320-1                     | COMPOSITE OF 5<br>SAMPLES | <0.002             | <0.002             | <0.002                      | 0.017                       |
|                             |                           |                    |                    |                             |                             |
|                             |                           |                    |                    |                             |                             |
|                             |                           |                    |                    |                             |                             |
|                             |                           |                    |                    |                             |                             |
|                             |                           |                    |                    |                             |                             |
|                             |                           |                    |                    |                             |                             |
| Quality Control             |                           | 101                | 99                 | 91                          | 306                         |
| True Value QC               |                           | 100                | 100                | 100                         | 300                         |
| % Recovery                  |                           | 101                | 99                 | 91                          | 102                         |
| Relative Percent Difference |                           | 0.8                | 2.6                | 9.4                         | 5.4                         |

METHOD: EPA SW 846-8021B, 5030, 5021 Gas Chromatography

*Ray W. Porter*  
Chemist

*11/18/97*  
Date

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ATTN: DONNIE ANDERSON  
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HOBBS, NM. 88240  
FAX TO: 505-397-8204

Receiving Date: 11/17/97  
Reporting Date: 11/18/97  
Project Number: NOT GIVEN  
Project Name: TASKER SITE  
Project Location: EAST OF GRIMES BATTERY

Analysis Date: 11/17/97  
Sampling Date: 11/17/97  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: GP  
Analyzed By: AH

| LAB NUMBER                  | SAMPLE ID                 | Cl <sup>-</sup><br>(mg/Kg) |
|-----------------------------|---------------------------|----------------------------|
| H3320-1                     | COMPOSITE OF 5<br>SAMPLES | 128                        |
|                             |                           |                            |
|                             |                           |                            |
|                             |                           |                            |
|                             |                           |                            |
| Quality Control             |                           | 480                        |
| True Value QC               |                           | 500                        |
| % Accuracy                  |                           | 96                         |
| Relative Percent Difference |                           | 4                          |

|                                    |       |
|------------------------------------|-------|
| METHOD: STANDARD METHODS 4500 Cl B | 325.3 |
|------------------------------------|-------|

  
Gayle A. Potter, Chemist

11/19/97  
Date

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ATTN: DONNIE ANDERSON  
1017 W. STANOLIND  
HOBBS, NM. 88240  
FAX TO: 505-397-8204

Receiving Date: 11/17/97  
Reporting Date: 11/21/97  
Project Number: NOT GIVEN  
Project Name: TASKER SITE  
Project Location: EAST OF GRIMES BATTERY

Sampling Date: 11/17/97  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: GP  
Analyzed By: GP

## TCLP METALS

| LAB NO. | SAMPLE ID | As<br>ppm | Ag<br>ppm | Ba<br>ppm | Cd<br>ppm | Cr<br>ppm | Pb<br>ppm | Hg<br>ppm | Se<br>ppm |
|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|

|                                   |          |          |          |          |          |          |          |          |  |
|-----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| ANALYSIS DATE:                    | 11/20/97 | 11/20/97 | 11/20/97 | 11/20/97 | 11/20/97 | 11/20/97 | 11/21/97 | 11/20/97 |  |
| EPA LIMITS:                       | 5        | 5        | 100      | 1        | 5        | 5        | 0.2      | 1        |  |
| H3320-1 COMPOSITE OF<br>5 SAMPLES | <1.0     | <1.0     | <5.0     | <0.1     | <1.0     | <1.0     | <0.02    | <0.1     |  |
|                                   |          |          |          |          |          |          |          |          |  |
|                                   |          |          |          |          |          |          |          |          |  |
|                                   |          |          |          |          |          |          |          |          |  |
|                                   |          |          |          |          |          |          |          |          |  |
|                                   |          |          |          |          |          |          |          |          |  |
|                                   |          |          |          |          |          |          |          |          |  |
|                                   |          |          |          |          |          |          |          |          |  |
| Quality Control                   | 0.095    | 5.02     | 9.9      | 1.010    | 1.00     | 5.03     | 0.0101   | 0.108    |  |
| True Value QC                     | 0.100    | 5.00     | 10.0     | 1.000    | 1.00     | 5.00     | 0.0100   | 0.100    |  |
| % Recovery                        | 95       | 101      | 99       | 101      | 100      | 101      | 101      | 108      |  |
| Relative Standard Deviation       | 3.9      | 0.4      | 1.8      | 0.5      | 1.1      | 0.7      | 3.7      | 6.4      |  |

|                            |       |       |       |       |       |       |       |       |  |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| METHODS: EPA 1311, 600/4-9 | 206.2 | 272.1 | 208.1 | 213.1 | 218.1 | 239.1 | 245.1 | 270.2 |  |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|

  
Gayle A. Potter, Chemist

11/21/97  
Date

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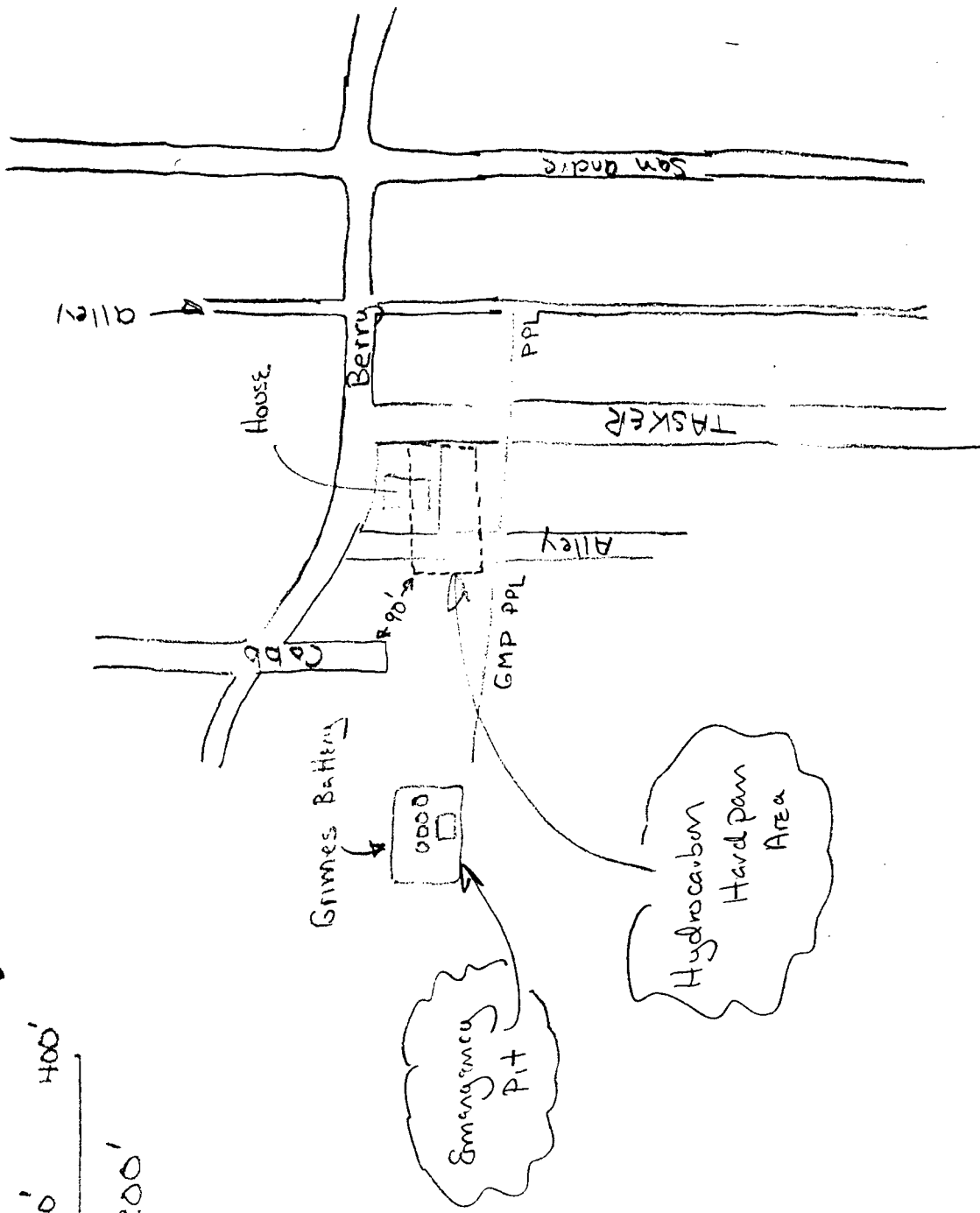
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0 200' 400'

1" = 200'

# Grimes Battery Delineation Map

Figure #1



WGH  
11/2/92

