



AE Order Number Banner

Report Description

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1RP - 2366

PURVIS OIL CORP

R. T. HICKS CONSULTANTS, LTD.

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September 25, 2009

Mr. Geoffrey Leking
Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240
Via E-Mail and US Mail

RECEIVED

SEP 28 2009

HOBBSOCD

RE: Gladiola SWD Section 26 Release Site T-12-S R-37-E Section 26 Unit Letter J
NMOCD # Not Assigned

Mr. Leking:

On August 21, 2009, Purvis Operating Company (Purvis) retained R T Hicks Consultants Ltd to investigate a release of produced water from the Gladiola SWD pipeline observed on August 18, 2009. The location of the release is approximately 8.5 miles east of Tatum, New Mexico and 0.75 miles south of Highway 380 (33.24617, -103.16977), as shown on Figure 1. The land is presently used for cattle ranching although oil production occurs less than one mile to the west and exploration and production activities have occurred in Section 26 (Figure 2).



Purvis repaired the pipeline on August 19, 2009 and collected soil samples along the excavated trench at the pipeline depth (3 feet bgs) and at the surface in the northeast and southeast corners of the spill footprint as well as a sample of the produced water spill.

On August 24, 2009 Hicks Consultants

1. measured and photographed the site
2. collected samples from two hand auger borings through the sandy-clay loam topsoil to the auger-refusal depth of 3 feet bgs (B-1) and 4 feet bgs (B-2)
3. collected a composite soil sample from 0 to 1 foot bgs across the spill footprint area
4. collected a background soil sample outside of the spill footprint area, and
5. collected a water sample from the nearby windmill (see Figure 3).

Figure 4 is a site map that indicates the locations of the soil samples and the associated laboratory results

The horizontal extent of the spill (22,000 ft²) is defined by the damaged vegetation as verified by the spill footprint and background samples. The highest sample chloride concentration (10,700

2366

mg/kg) is at the pipeline depth near the source of the leak. High chloride concentrations in samples (8,590 to 8,750 mg/kg) are also in the top few inches of the spill footprint area. Chloride concentrations in the topsoil within most of the spill area range from 2,500 to 5,000 mg/kg.

Hicks Consultants proposes two soil borings at approximately 30 feet down gradient from the release source area and approximately 100 feet to the northeast (see Figure 4) in order to define the depth of chloride-impacted soil. The soil boring that encounters the highest chloride concentrations from 10 to 20 feet below grade, based on field titrations, will penetrate ground water depth and be completed as a monitoring well according to the August 13, 1993 *Guidelines for Remediation of Leaks, Spills and Releases* in order to evaluate the ground water quality relative to background conditions.

Purvis is currently negotiating with the landowner for property access to conduct the proposed corrective actions. We anticipate that the field activities can be performed in 60 to 90 days and a final report, including recommendations for remedial actions, will be submitted to the NMOCD by January 2010. In the final report we will provide remediation actions levels for the soil and underlying sediment based upon criteria in the NMOCD rules, science-based evaluation of the sampling data, and physical setting.

Please contact me if you have any questions, comments or require additional information prior to completion of the final report.

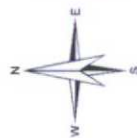
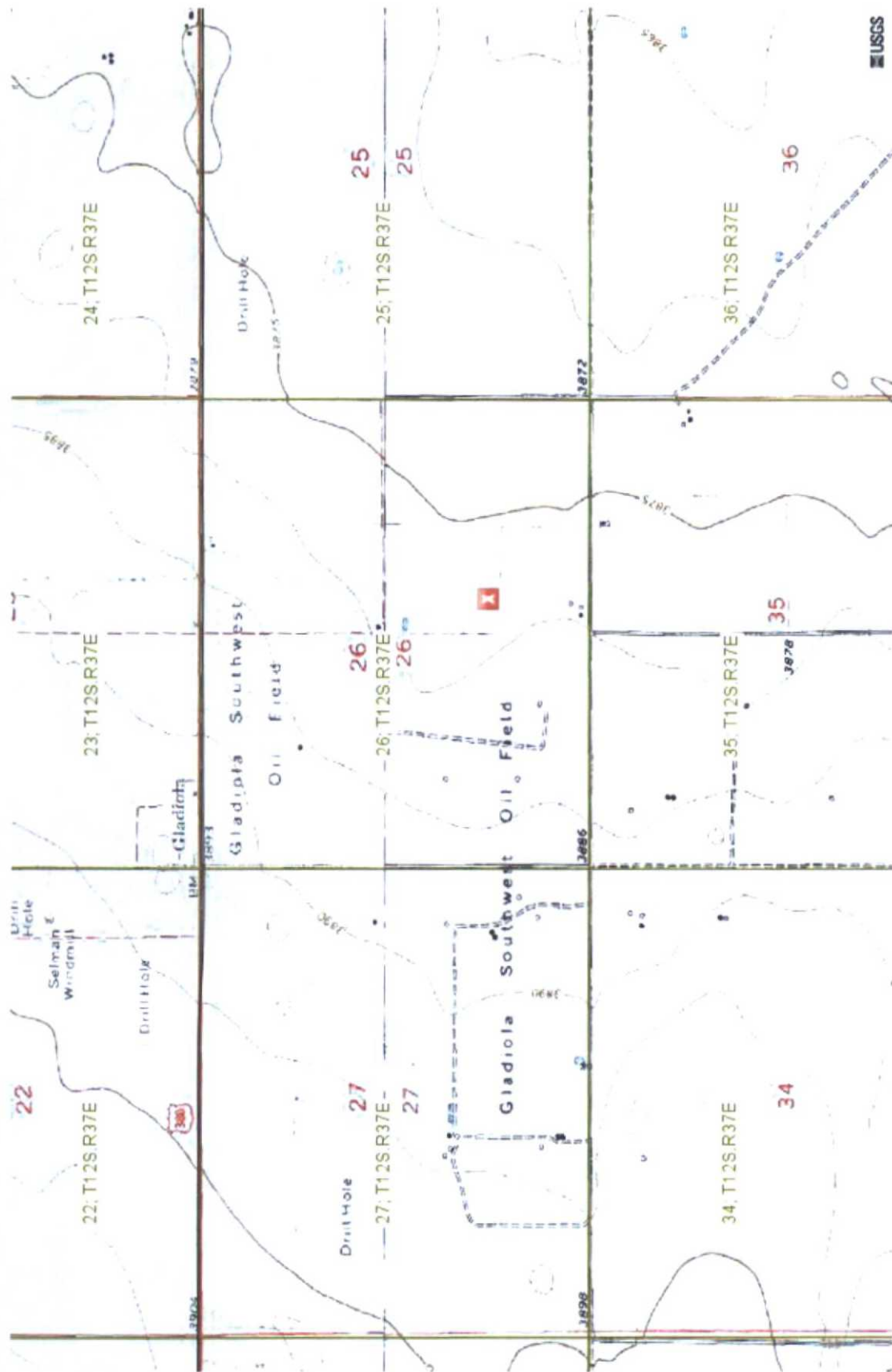
Sincerely,
R.T. Hicks Consultants, Ltd.



Dale T Littlejohn
Project Manager
(432) 528-3878

cc: Purvis Operating Company

Mr. Dean Kinsolving (Landowner)
P O Box 100
Crossroads, New Mexico 88114



0 1000 2000ft

R.T. Hicks Consultants, Ltd

Location Map

Figure: 1

Purvis Operating - Gladiola Section 26 Release

Sep 21, 2009



R.T. Hicks Consultants, Ltd

Recent Air Photo Showing E&P Activities

Figure: 2

Purvis Operating - Gladiola Section 26 Release

Sep 21, 2009



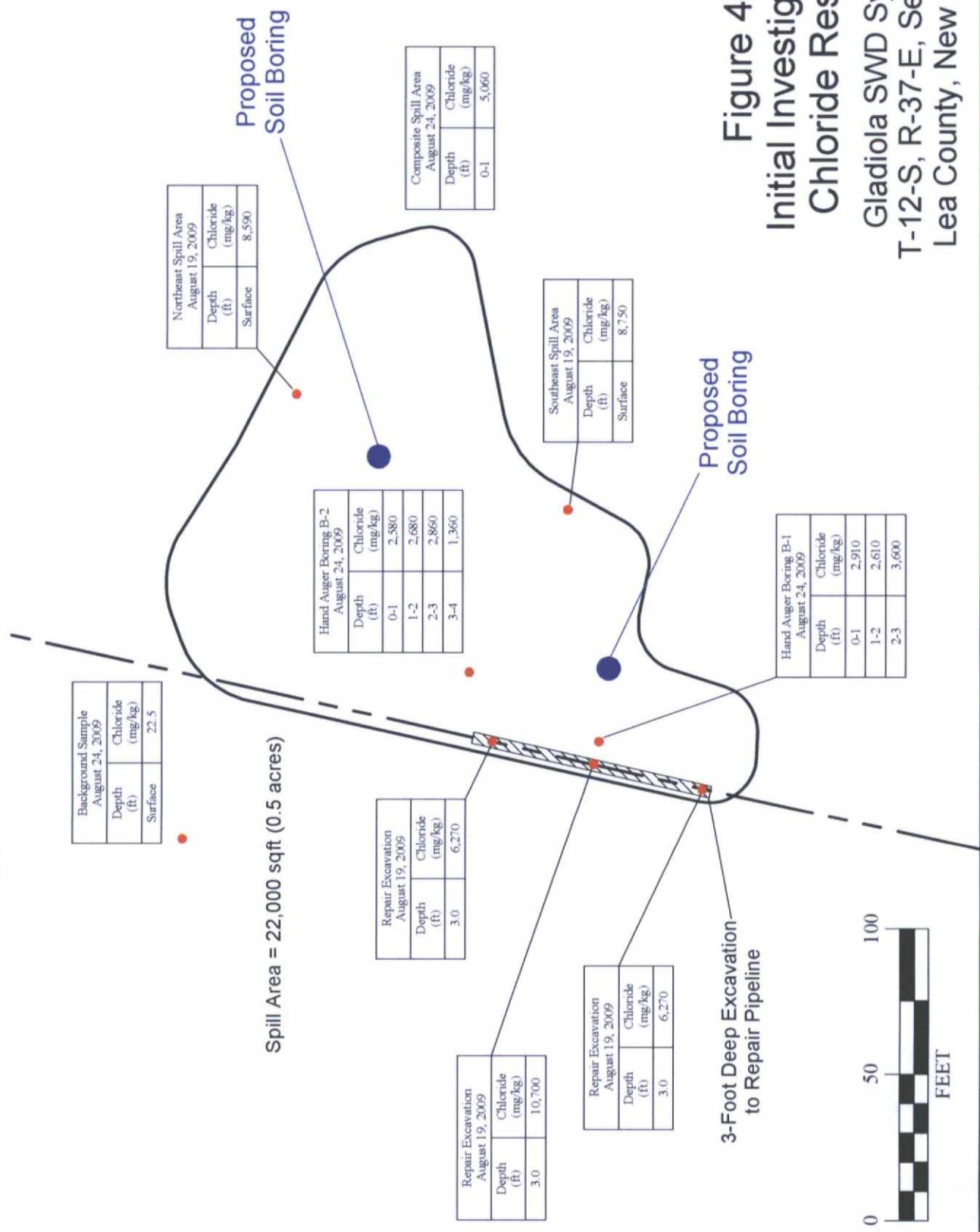


Figure 4
Initial Investigation
Chloride Results

Gladiola SWD System
T-12-S, R-37-E, Sec 26 (J)
Lea County, New Mexico