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**GENERAL
CORRESPONDENCE**

YEAR(S):

1992

TIERRA Environmental Company, Inc.
909 West Apache
Farmington, New Mexico 87401
(505) 3225-0924

August 7, 1992

Mr. Denney Foust
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: REMEDIATION PROJECT, CONDOR OIL CORPORATION/HICKS OIL AND GAS CORPORATION, FEDERAL UNIT NE HOGBACK , SE 1/4, SE 1/4, SECTION 10, T-39 NORTH, R-19 WEST, by Tierra Environmental Company, Inc.:

Dear Denney:

Pursuant to our conversation of August 9, 1992, enclosed please find a copy of our file on the project and the appropriate laboratory analysis for TPH and TCLP as requested by BLM.

Also enclosed is a letter to Jim Hicks, Hicks Oil and Gas, from Tierra, recommending the remediation process. I have also furnished this information to Don Elsworth of BLM.

I would appreciate any comments or additional recommendations you may have regarding the project and our proposed remediation process. At closure we will also test for BTEX, if you think its' necessary, but I believe as a result of the fire on location anything light was burned off long ago.

In the initial excavation, what we found was some balled up hydrocarbon material (sludge) and some old piping. No barrels or anything of that nature was uncovered.

I'll keep you informed.

Sincerely,



Phillip C. Nobis
Vice President

**TIERRA Environmental Company, Inc.
909 West Apache
Farmington, New Mexico 87401
(505) 325-0924**

August 7, 1992

Mr. Don Elsworth
Bureau of Land Management
Farmington Resource Area
1235 La Plata Highway
Farmington, New Mexico 87401

**RE: FEDERAL UNIT NE HOGBACK, CONDOR OIL CORPORATION / HICKS OIL AND
GAS, REMEDIATION PROJECT:**

Dear Mr. Elsworth:

Enclosed please find a copy of the laboratory analysis requested by BLM Order of June 3, 1992.

As we had discussed on the phone EPA Method 418.1 was substituted for EPA Method 8015 at the recommendation of Intermountain Laboratory for Total Petroleum Hydrocarbons (TPH).

The Toxicity Characteristic Leaching Procedure (TCLP) were run for Semi-volatiles, Metal and Volatiles. All were below detection limits. TPH results were 81,400 parts per million (ppm). Those high readings were a result of the balled up sludge in the samples.

Also enclosed for your review, is a letter to Jim Hicks, Hicks Oil and Gas from me, recommending the remediation process. I would appreciate your comments and any other recommendations BLM might have on the subject.

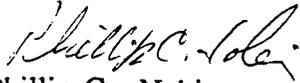
Denney Foust from OCD has asked to be kept informed on this project. I have also furnished him with the same information and asked for his comments and or OCD recommendations if any.

Mr. Don Elsworth
August 7, 1992
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In the letter to Hicks, I make reference to a Bio-remediation product called, "Bio-Max". Tierras' affiliate company, Dichlor Chemical provides the product and is the exclusive area dealer. I have enclosed some information on the product and some references from BLM in the southern part of the state. According to the supplier, BLM has had quite a bit of experience with Bio-Max in that part of the New Mexico as a remediator for oil and gas related contamination problems.

I will keep you informed as to dates etc. when Hicks wants to begin the remedial process.

Sincerely,



Phillip C. Nobis
Vice President

TIERRA Environmental Company Inc.
909 West Apache
Farmington, New Mexico 87401
(505) 325-0924

August 7, 1992

Mr. Jim Hicks
Hicks Oil and Gas
80 South Dustin
Farmington, New Mexico 87401

**RE: FEDERAL UNIT NE HOGBACK, LABORATORY ANALYSIS RESULTS, TIERRA
RECOMMENDATIONS:**

Dear Jim:

On July 21, 1992, I delivered samples taken from the Hogback location to Intermountain Laboratory in Farmington, New Mexico. As per the BLM Directive of June 3, 1992, the samples were tested by Intermountain for Toxicity Characteristic Leaching Procedure (TCLP) EPA Method 1311 and Total Petroleum Hydrocarbons (TPH). EPA Method 418.1 was used instead of Method 8015 on the advice of the laboratory. This change was approved by Don Elsworth of BLM.

The results of the tests were received by me on July 6, 1992. The TCLP was clean; not detectable. The TPH was an amazing 81,400 parts per million (ppm) in a representative analysis of the samples recovered. Regulatory limits are at 100 ppm. I don't think the high levels are cause for concern however. The high readings were a result of the "globs" of hydrocarbon material that had balled up in the samples and in the excavation.

The next move is to complete remediation in the excavation. That would be best accomplished by having your dirt work contractor come back to the location with Tierra. I recommend a Track Hoe and a Loader be used to complete the work. Representative samples would be taken from the excavation bottom and sides, using the "Headspace" Method. The Headspace Method involves placing representative samples in a quart mason jar, covering them with tin foil, letting them stand a few minutes and then pierce the tin foil with the probe on a photoionization detector for a reading. Basically, we would keep removing dirt and any visible hydrocarbon until the Headspace tests read below 100 ppm. Another representative sample should then be taken for laboratory analysis to cooberate that no contamination remains in the excavation.

Mr. Jim Hicks
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Once the hole is "clean", the dirt should be removed from the stockpile to a bermed area on the location proper. It has to be spread in no more than six (6) inch lifts. Regulations under OCD require that the soils have to be tilled at least once every two weeks to assist bio-degradation of the contaminants. I recommend that each time the soils are tilled that a headspace test be conducted on at least three (3) representative samples from different areas of the landfarm operation. When those headspace readings are below 100 ppm, Tierra needs to take at least three (3) representative samples and submit them to the laboratory for final analysis, again using EPA Method 418.1 TPH. If the analysis agree with the headspace tests in that the contaminants TPH are reduced to below 100 ppm then the soils can be placed back into the excavation and the site closed. Testing on the landfarm site will also be required to insure that no contaminants leached into the native soils. If they have, remediation will be a simple process of having someone rake the ground frequently for exposure to the atmosphere and to test the ground with the Headspace test until they read below 100 ppm. Tierra would again grab a representative sample for laboratory analysis to prove the ground is also "clean". A closure report would then be furnished to BLM, OCD and to you for your records.

As I had explained in the proposal for the job, the closure report would contain information on exactly how much soils was removed for remediation from the planimetric survey, the exact location of the excavation, the procedures used for remediation and lab results demonstrating successful remediation.

I have recommended the headspace method field test for a couple of reasons. You own an instrument that is the equivalent of the photoionization detector, therefore Tierra could demonstrate the Headspace test to you and you could in house monitor the landfarm then call us back to the location when the readings are below 100 ppm, for final closure analysis. The second reason, is while doing the excavation, the headspace method is quick and would not cause unnecessary delay in the process of removing the contaminated soils. In fact I would offer to use your device and to train you or one of your personnel on the Headspace test while we are removing soils from the excavation.

The process I have recommended will have to receive OCD and BLM approval however.

I would further recommend the addition of microbes to the landfarm operation. They will greatly enhance bio-degradation. Again Tierra could make the initial application of the bio-remediation product and we could teach you how to make any subsequent applications. The product we would use is called "Bio-Max" It has been used successfully in these types of situations and is on the BLM approved list. I don't know if Don or the Farmington BLM Office have had any experience, but BLM is familiar with the product in southern New Mexico.

Mr. Jim Hicks
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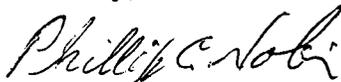
It also appears that some contamination has saturated into the sandstone at the bottom of the excavation. The addition of microbes to those areas would also be the best method to decontaminate. That could be accomplished while the hole is open and the soils are being remediated at the landfarm on location.

I spoke to Denney Fost from OCD. He wants to be kept informed on the project. I furnished him a copy of the file and this letter.

Enclosed is a copy of a letter to Don Elsworth BLM and to OCD asking for their approval for what I have proposed.

When we receive approval we can proceed.

Sincerely,



Phillip C. Nobis
Vice President

**TIERRA Environmental Company, Inc.
909 West Apache
Farmington, New Mexico 87413**

June 29, 1992

Mr. Don Elsworth
U.S. Department of the Interior
Bureau of Land Management
Farmington Resource Area
1235 La Plata Highway
Farmington, New Mexico 87401

RE: REMEDIATION PROJECT, Condor Oil Corporation / Hicks Oil & Gas Corp., Federal Unit N.E., Hogback, SE 1/4, SE 1/4, Section 10, T-30 North, R-16 West, directly north of tank battery; by Tierra Environmental Company, Inc.:

Dear Mr. Elsworth:

Tierra Environmental Company, Inc., has been retained by Condor Oil Corporation through Hicks Oil and Gas Corp., their operator.

Based on what information is available from BLM and Hicks an excavation of unknown proportions took place at the above described site. Non-Hazardous Oil Field Waste (NOW), exempt under the Resource Conservation and Recovery Act (RCRA) and possibly non exempt chemicals may have been disposed of in the excavation.

Tierra has proposed the following scope of work to Condor through Hicks:

1. A preliminary site survey be conducted to exactly identify the location of the excavation.
2. Excavation of the site pursuant to BLM Orders to Condor dated June 3, 1992, obtain composited samples of contents, obtain lab analysis TCLP and TPH as prescribed in the BLM Orders.

Mr. Don Elsworth
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3. A 22 Mil. Liner will be placed near the excavation and bermed for containment of the material excavated initially. Temporary fencing will also be erected to protect the site as well as wild life.
4. Based on observations during excavation and laboratory analysis, a remedial plan will be developed and presented to the client and BLM for review and approval. If no hazardous waste, exceeding regulatory limits is detected or otherwise identified, Tierra would in general propose the following;

- a. Complete excavation of all contaminated soils will be conducted until they field test to below detectable limits.

- b. Landfarm on location the contaminated soils. If approved by client, Tierra would recommend the addition of Microbes in order to accelerate decomposition.

An area would be identified, bermed and the contaminated soils spread in no more than six (6) inch lifts. If approved, microbes would be added. The soils would be turned once a week and moisture added. A Hanby Method test from two (2) random locations within the landfarm area would be taken each week to track remediation success. Tierra would estimate approximately six (6) weeks to complete soils remediation.

- c. Following laboratory analysis and BLM approval, replace remediated soils in excavation, remove fencing and return site to as near natural state as is practical and as directed by BLM.

- d. Submission of a Final Closure Report to BLM and the Client complete with final survey and planimetric map, identifying the exact quantity of soil removed from the site for remediation, the exact location of the site and the exact location of the on site landfarm facility. The final report would also include, a description of the actual work completed and appropriate field and laboratory analysis demonstrating that successful remediation has been completed.

Mr. Don Elsworth
June 29, 1992
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If a regulated substance is identified a different course of action would have to be developed as directed by BLM and required by EPA and New Mexico Environmental Department.

Condor through Hicks, has been made aware of some of the costs involved in the removal and subsequent disposal of Hazardous Wastes as well as what could be required of them as far as further Remedial Investigation / Feasibility Studies etc.

I hope this information is helpful to the BLM.

Sincerely,



Phillip C. Nobis
Vice President
Risk Management

**TIERRA Environmental Company, Inc.
909 West Apache
Farmington, New Mexico 87401**

June 29, 1992

Mr. Jim Hicks
Hicks Oil and Gas Inc.
680 S. Dustin Road
Farmington, New Mexico

RE: REMEDIATION PROJECT, Federal Unit N.E., Hogback, SE 1/4,
SE 1/4, Section 10, T-30 N, R-16 W, directly north of tank Battery:

Dear Mr. Hicks:

Enclosed is a proposal for remediation of the above described site.

As I explained on the phone Friday, I spoke to Don Elsworth of BLM and told him that Hicks Oil and Gas had retained Tierra. I asked him about the deadline for the testing on site and he said that as long as Hicks Oil and Gas had retained an Environmental Company the deadline no longer applied. He would like to schedule a meeting at the site this week with BLM, Tierra and your company. At the meeting BLM will explain what they expect and will review the scope of work I have enclosed for their approval. Also we will discuss on site remediation of contaminated soils. Mr. Elsworth indicated that BLM would prefer that option, should the soils only be contaminated with hydrocarbons and non-hazardous oil field waste as exempted under Resource Conservation and Recovery Act (RCRA).

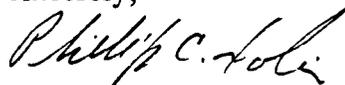
The proposal and scope of work is broken down is to three(3) phases; Phase 1, initial excavation and testing as required in the BLM Orders dated June 3, 1992. The results of that testing will dictate what further remedial measures must be completed. Phase 2, includes some different scenarios, depending on the results of the testing required and what is found during initial excavation in Phase 1. Phase 3 will cover closure ie: completion of remediation approved by BLM.

Mr. Jim Hicks
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You will notice that beginning with Phase I and completed in Phase 3, is a site survey and planimetric map. It is a very important part of the overall plan to have that work included. The site survey identifies the area to be excavated and the exact area to be landfarmed, if approved. It also will allow for identification of exactly how much soil was removed during excavation, for the record. When the closure plan is submitted to BLM for their approval, there will be no question as to exactly what was done and that remediation was successfully completed and at the correct location. That will cover you now and in the future should ever any question arise.

Tierra will be available to begin Phase I, immediately following BLM approval at your direction.

Sincerely,



Phillip C. Nobis
Vice President

TIERRA Environmental Company, Inc.
909 West Apache
Farmington, New Mexico 87401
(505) 325-0924

July 15, 1992

Mr. Don Elsworth
U.S. Department of the Interior
Bureau of Land Management
Farmington Resource Area
1235 La Plata Highway
Farmington, New Mexico 87401

RE: REMEDIATION PROJECT, CONDOR OIL CORPORATION / HICKS OIL AND GAS
CORP., FEDERAL UNIT N.E., HOGBACK, SE 1/4, SE 1/4, SECTION 10, T-39N,
R-16W, DIRECTLY NORTH OF TANK BATTERY, BY TIERRA ENVIRONMENTAL
COMPANY, INC.

Dear Mr. Elsworth:

I attempted to call you this afternoon. Hicks Oil and Gas has finally given us authorization to proceed with the remediation project. The scope of work has changed somewhat. Hicks has opted to use his own dirt work contractor. He has agreed to placing the contractor under the direction of Tierra. We will be managing the operation and will conduct the required testing.

I have enclosed a copy of the amended scope of work proposal which is signed by Jim Hicks and myself, for your review.

I would like to send a survey crew out to the location on Friday morning July 17, 1992. They will be identifying the exact location of the area to be excavated. No other work will be conducted that date. Hicks and I would like to begin the initial excavation of the site and subsequent sampling pursuant to the BLM order on Monday July 20, 1992 around 8:30 am, providing that time and date meet with your approval.

Also, Hicks has informed me that his dirt work contractor has already placed a bermed 22 mil liner near the site. It will be used to contain what ever soils are initially excavated, while awaiting test results.

TIERRA Environmental Company, Inc.
909 West Apache
Farmington, New Mexico 87401
(505) 325-0924

July 15, 1992

Mr. Jim Hicks
Hicks Oil and Gas, Inc.
680 S. Dustin Road
Farmington, New Mexico 87401

RE: AMENDED PROJECT SCOPE, Federal Unit N.E., Hogback, SE1/4, SE 1/4, Section 10, T-30N, R-16W, directly north of tank battery.

Dear Mr. Hicks:

The following is an amended scope of work for the above described project. It is based on an estimated 200 cubic yards of material.

It is understood that Hicks Oil and Gas, Inc. will use their own dirt work contractor for all dirt work and placing of a 22 mil liner for deposit of initial excavation soils etc. All dirt work performed will be at the direction of Tierra Personnel.

In our initial and subsequent proposals dirt work at \$ 6.00 per yard included site management.

1.	Site Survey and Planimetric Map	\$ 950.00
2.	Site Management @ 45.00 per hour (16hr min.)	720.00
3.	Obtain composite sample and conduct analysis, according to BLM requirements for TPH & TCLP.	1,000.00
4.	Prepare Remedial Plan	500.00
5.	Final composite sample and conduct analysis	1,000.00
6.	Closure Report	<u>500.00</u>

Sub Total Cost

\$ 4,670.00

Mr. Jim Hicks
July 15, 1992
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7. Soils remediation

Option a) On site @ \$ 13.00 per cu. yd. x 200 yds with bio-tec plus six week soils management, does not include spreading of soils from excavation	2,600.00 <u>3,000.00</u>
Option b) Off site to permitted facility \$ 18. per yard x 200 yards Does not include loading and trucking	\$ 5,600.00 3,600.00
Total Cost including Option 7 a) Plus Tax	\$ 10,270.00
Total Cost including Option 7 b) Plus Tax	\$ 8,270.00

This amended scope of work, includes only the items written and concerns work involving soils and substances exempt under the Resource Conservation and Recovery Act (RCRA) only. Actual cubic yardage will be determined by the planimetric survey. Client is solely responsible for all dirt work, placing of liner, necessary berming and removal or replacement of soils, including any backfill if required. Should any Hazardous material not exempted by RCRA be discovered, this proposal is null and void. Payment will be required for actual work completed. Additional Charges will be incurred for disposal of contaminated material other than soils ie barrels, metals, etc.

Respectfully submitted:

Phillip C. Nobis
Phillip C. Nobis
Vice President

Project Number 92009

Accepted: *Jim Hicks*

Option selected ^{UNKNOWN} (7a) or (7b). Firm: *HICKS OIL & GAS, INC*

Date: 7/15/92

RECEIVED JUN 1 1992



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Farmington Resource Area
1235 La Plata Highway
Farmington, New Mexico 87401



IN REPLY REFER TO:
Northeast Hogback (GC)
8910066740
3162.5 (019)

JUN 03 1992

Mr. John Somers
Condor Oil Corporation
3860 Carlock Drive
Boulder, CO 80303

Dear Mr. Somers:

This letter is in reference to the federal unit, Northeast Hogback, which according to our records you are the unit operator. On May 26, 1992, this office conducted an inspection on the above referenced lease. During the inspection process, we detected what appears to be an unapproved dumping of oil. The site in question is located in SE $\frac{1}{4}$ SE $\frac{1}{4}$ section 10, T.30 N., R.16 W., directly northwest of the tank battery.

You are hereby required to excavate the disposal site and secure a composited grab sample of the contaminated soil at the site. The sample must be composited from at least five separate locations within the site. You must also submit the composited sample to a laboratory certified by the New Mexico Environment Department (NMED) to perform the following tests: Toxicity Characteristic Leaching Procedure (TCLP) described in 40 CFR 261, Appendix II; Toxicity Characteristic (TC) Protocol, Method 1311; and Total Petroleum Hydrocarbons (TPH), method 8015A. Results of the soil tests must be submitted to this office no later than July 2, 1992. If the samples tested show that no hazardous materials are entrained in the soil, you must submit to this office your plans for remediation and reclamation of this site by July 10, 1992. If hazardous materials are found to be present, the Environmental Protection Agency and the New Mexico Environment Department will be notified of the results of the test by the BLM and remediation and reclamation will be approved and monitored by the appropriate Agency.

You must notify Don Ellsworth of this office prior to commencing with the above orders. Failure to comply with the above orders or notification will result in assessment and/or civil penalties in accordance with 43 CFR 3163.

Under provisions of 43 CFR 3165.3, you may request an Administrative Review of the orders described above. Such request, including all supporting documents, must be filed in writing within 20 business days of receipt of this notice and must be filed with the State Director, Bureau of Land Management, P. O. Box 27115, Santa Fe, New Mexico 87502-7115. Such request shall not result in a suspension of the order(s) unless the reviewing official so determines. Procedures governing appeals from instructions, orders or decisions are contained in 43 CFR 3165.4 and 43 CFR 4.400 et. seq.

Sincerely,

Mike Pool
Area Manager

District
10/25/92
[Handwritten initials]