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APPROVALS

YEAR(S):

1994



BRUCE KING

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT



ANITA LOCKWOOD CABINET SECRETARY

MATTHEW BACA DEPUTY SECRETARY

March 23, 1994

Mr. George M. Harris, Jr. Alpha West, Inc. 200 N. Loraine, Suite 500 Midland, Texas 79701

RE: Bioremediation Clean-up Procedure

Pogo Producing Company 23 State #1 Sec.23, T.25S, R.27E Eddy County, New Mexico

Dear Mr. Harris:

The New Mexico Oil Conservation Division (OCD) has completed a reviewed of your "Bioremediation Clean-up Procedure" dated March 15, 1994 for bioremediation at the Pogo Producing Company 23 State #1.

The above mentioned closure plan is hereby approved with the following conditions:

- 1. The remediation project will conform to the OCD "Guidelines For Remediation of Leaks, Spills and Releases."
- 2. Provide the OCD with the composition of the biosystem or Material Safety Data Sheets.
- 3. Verticle extent will be determined and enclosed in the final report.

Mr. George Harris March 23, 1994 Page 2

- 4. A closure report will be submitted to the OCD district and Santa Fe offices within 60 days of final clean-up.
- 5. The OCD will be notified at least 72 hours in advance of all closure activities such that the OCD may have the opportunity to witness the activities and/or split samples.

Please be advised that OCD approval does not relieve Pogo Producing Company of liability if closure activities determine that contamination exists which is beyond the scope of the closure plan. In addition, OCD approval does not relieve Pogo Producing Company of liability for compliance with other federal, state or local laws and/or regulations.

If you have any questions, please do not hesitate to contact me at (505) 748-1283.

Sincerely,

Mark Ashley

District Geologist

cc: Bill Olson - OCD, Santa Fe, New Mexico

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GENERAL CORRESPONDENCE

YEAR(S): 1994

STATE OF NEW MEXICO

and Energy, Minerals and Natural Resources Department

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OIL CONSERVATION DIVISION ARTESIA DISTRICT OFFICE



ANITA LOCKWOOD CABINET SECRETARY

MATTHEW BACA DEPUTY SECRETARY

August 9, 1994

Mr. Don Riggs
Pogo Producing Company
5 Greenway Plaza, Suite 2700
Houston, Texas 77046-0504

RE: Bioremediation Clean-up Procedure

Pogo Producing Company
23 State #1
Sec. 23, T. 25S, R. 27E
Eddy County, New Mexico

Dear Mr Riggs:

On July 21, 1994 the New Mexico Oil Conservation Division (OCD) made a field inspection of Pogo's reported spill at the above mentioned location. The field inspection consisted of hand auguring through the spill area to delineate the vertical extent of contamination, and sampling an adjacent water well in the area.

To determine the vertical extent, the OCD hand augured a borehole to a total depth of approximately 9 feet. During auguring activities field soil samples were surveyed for volatile organics using a hand held photoionization detector. Volatile organic concentrations in samples from all depths were above 100 ppm.

Inspection of water wells revealed one located approximately 1/2 mile southeast of the spill in unit letter G of Sec.23, T.25S, R.27E. Total depth of the well is 76 feet and the water table is approximately 25 feet from the surface.

The OCD's field inspection has shown that petroleum contaminants have migrated vertically at least 9 feet in the spill area. The full vertical extent has yet to be determined. Based on the site ranking criteria within the enclosed OCD guidelines and the measured depth to ground water the required degree of remediation is 10 ppm Benzene, 50 ppm total BTEX, and 100 ppm TPH.

Mr. Don Riggs August 9, 1994 Page 2

As a result of this inspection, the OCD requires that Pogo determine the vertical extent of the contamination and that Pogo supply the OCD with a report containing the vertical extent of contamination and the remainder of the conditions provided in the OCD's letter dated March 23, 1994. This report will be submitted to the OCD Artesia Office and the OCD Santa Fe Office by October 9, 1994.

Please notify the OCD at least 72 hours in advance of all activities such that the OCD may have the opportunity to witness the events and/or split samples. If you have any questions, please do not hesitate to contact me at (505) 748-1283.

Sincerely,

Mark Ashley

District Geologist

xc:

Bill Olson, NMOCD, Santa Fe, New Mexico

George M. Harris, Jr., Alpha West, Inc., Midland, Texas

DISTRICTI

DISTRICT III

SIGNED

State of New Mexico

Energy, Minerals and Natural Resources Department

P.O.Box 1980, Hobbs, NM 88241-1980 TIL COMSER. P.O. Drawer DD, Artesia, NM 88214-0719

1000 Rio Brazos Rd, Asige, MM 87410

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OIL CONSERVATION DIVISION P.O. Box 2088

Santa Fe, New Mexico 87504-2088

SUBMIT 2 COPIES TO APPROPRIATE DISTRICT OFFICE IN ACCORDANCE WITH RULE 116 PRINTED ON BACK SIDE OF FORM

DATE 3/3/94

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND BLOWOUTS

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Dry, Ap	proximate	1y 75°	F.			•									

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

AND TITLE

PRINTED NAME Manager of

Environmental Operations

Mark,

The State 23#1 was visited by myself & E.L. Gonzales of Alpha. Vest on Wednesday, 5-11-94, to evaluate spill response action to be taken.

E.L. intends to deep disc off the pad & apply mitrogen, bacteria & a catalyst.

On the pdd, E.L. intends to power wash the caliche with bacteria in the water.

logo is in the process of abandoning this site is turning it over to yates letroleum. We will wait to power wash the pad until after the equipment, including the grac tanks, are removed so we can get to all of the contamination.

DON RIGGSMANAGER OF
ENVIRONMENTAL OPERATIONS

Don A. Riggs



POGO PRODUCING COMPANY



State of New Mexico ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT Santa Fe, New Mexico 87505

STATE OF NEW MEXICO OIL CONSERVICTION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone Personal	Time 0900)	Date 3/2-/94				
Originating Party		Other Parties					
Bill Olian - Envir. Bure	'bu	Make Ashley - 19CD Artains					
Subject			· //				
130 Producing - 23 State Federal # 1 spill remodication							
Discussion							
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1) Composition at his - ysten privided to DCD							
2.) Soils conschoted to CO mideling							
3) downst vertical extent ist nonterminant							
4.) Find report to OCD with Et days of usugalith							
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Corclusions or Agreements							
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The state of the s							
							
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200 N. LORAINE, SUITE 500 MIDLAND, TEXAS 79701 915-683-5384 FAX 915-684-8746 MAR 1 8 1994

OIL CONSERVATION DIVISION Mr. Mark Ashley Drawer DD 88211 Artesia, New Mexico

March 15, 1994

Dear Mr. Ashley:

Per request of Mr. E L Gonzales, I am sending you the proposed bioremediation procedure to be performed at the 23 State Federal #1 location for POGO Producing Company.

I believe Mr. Gonzales has discussed this job and procedure with you and wanted me to send you a hard copy for your information. If you have any questions, feel free to call me at 915-683-5384.

Yours, truly

George M. Harris, Jr. Petroleum Engineer

Vice President of Operations

POGO PRODUCING COMPANY 23 STATE FEDERAL #1 EDDY COUNTY, NEW MEXICO

BIOREMEDIATION CLEAN-UP PROCEDURE

WELLSITE LOCATION TREATMENT:

Prepare microbial system. Clean location using high pressure application of microbial system to wash oil from area. Utilize 720 G of bio-system.

OFF WELLSITE RANGELAND TREATMENT:

Install tiller on tractor and prepare affected soil by tilling. Mix microbial system and apply to soil. Incorporate system into the soil with the tiller. Re-apply and incorporate, utilize a total of 3 - 720 G. loads of bio-system. After 30 days apply first maintenance phase. If necessary, a second maintainance treatment will be applied after 60—days.