

GW - 57

GENERAL CORRESPONDENCE

YEAR(S):

2000-1985

Kieling, Martyne

From: Kieling, Martyne
Sent: Tuesday, October 31, 2000 10:22 AM
To: 'george.friend@amec.com'
Subject: Araho Inc.

George,

I Thought I would try this method of sending you some information on Araho. We have some pictures on file that I will attach I hope you are able to open them. I will fax the maps to you. I have arrowed the road leading in and circled the approximate area. The pit is on the north side of the tanks. The Lock on the gate is now OCD's and Chris Williams of our District office has the Key. Again if at all possible I will be on site for the drilling of the Monitor well and will be available to go out to Araho with you.

We are looking for an estimate on how much it would be to remove the pit contents and liner for disposal at an OCD approved site and to back fill the hole and/or level the clean berm material on site. It is my understanding that the pit is on the ground surface and the berms were constructed above the original surface .

Investigations done by Navajo Refining showed that the ~~berm~~ has not leaked.



Pict0800.doc

Araho Inc.
Location is SE/4 Section 1, T 17 S, R 36 E

Surface is City of Lovington Contact is Bob Carter (505) 396-2884

Thanks
Martyne

New Program Initiatives – non-recurring expenditures.

SUMMARY

From 1974 to 1993 Araho Inc. operated an oilfield treating plant facility and injection well, located 5 miles south of Lovington, New Mexico, (Section 1, Township 17 south, Range 36 East, NMPM, Lea County. The facility is located above the Ogallala Formation, which is the primary source of drinking water for the city of Lovington. Groundwater is estimated to be approximately 50 feet below ground surface.

The facility contains: (see attached photos)

1. One 150 ft. by 150 ft. lined pit containing approximately 3333 cubic yards of water, sludge and oil that overflows on to the ground surface with each precipitation event;
2. Eight above ground storage tanks containing approximately 1,600 barrels of fluids and sludge;
3. Approximately 1000 feet of buried pipe; and
4. Surface trash including 15 barrels.

During a preliminary investigation in October 2000, four boreholes were drilled through the subsurface to ground water. The investigation revealed that the liner beneath the pit appears to be still intact and groundwater has not been impacted. However, when it rains the pond and an open-top tank overflow onto the ground surface. The New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division is concerned that if the facility is left in its present condition, ground water and the water supply for the city of Lovington could be impacted in the future.

PERFORMANCE GOALS

This investigation, cleanup, and restoration project would be protective of ground water supplies and therefore would advance the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division performance goal of Protection of Healthy Ecosystems. "The purpose of the healthy ecosystem program is to protect ecosystems throughout the state by identifying at-risk areas; preventing additional damage; and restoring damaged areas."

COST

The total cost for this project is estimated to be \$434,000. The cost break down is as follows:

Remove fluid/sludge from tanks and pit. Dismantle tanks and recycle/dispose of tanks, pipe, drums and pit liner. Excavate and transport 1000 cubic yards of visually known contaminated soil. Collect soil samples for analysis. \$196,000.

Excavate, transport and dispose of 6,453 cubic yards of contaminated soil from leaks below the pit, tanks and underground pipes. \$233,000.

Analysis of soil samples \$5,000.



Photo 1: June 26, 2002



Photo 4: June 26, 2002



Photo 2: June 26, 2002



Photo5: August 2000



Photo 3: June 26, 2002



Photo 6: August 2000



Photo 7: August 2000



Photo 10: August 2000



Photo 8: August 2000



Photo 9: August 2000

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505
(505) 827-7133
Fax: (505) 827-8177



(PLEASE DELIVER THIS FAX)

To: George Friend (505) 821-7371

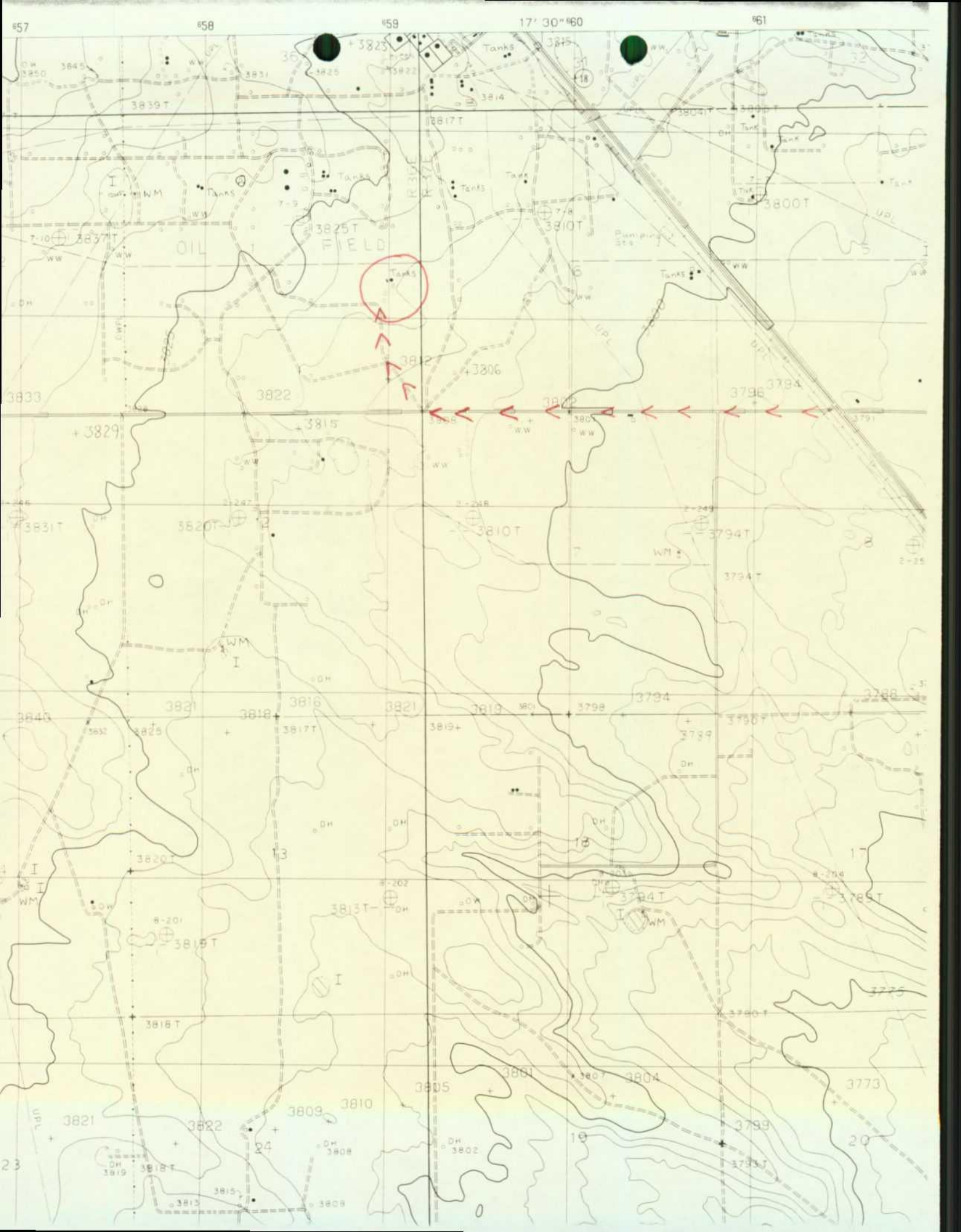
From: Martynne Kieling 505 827 7153

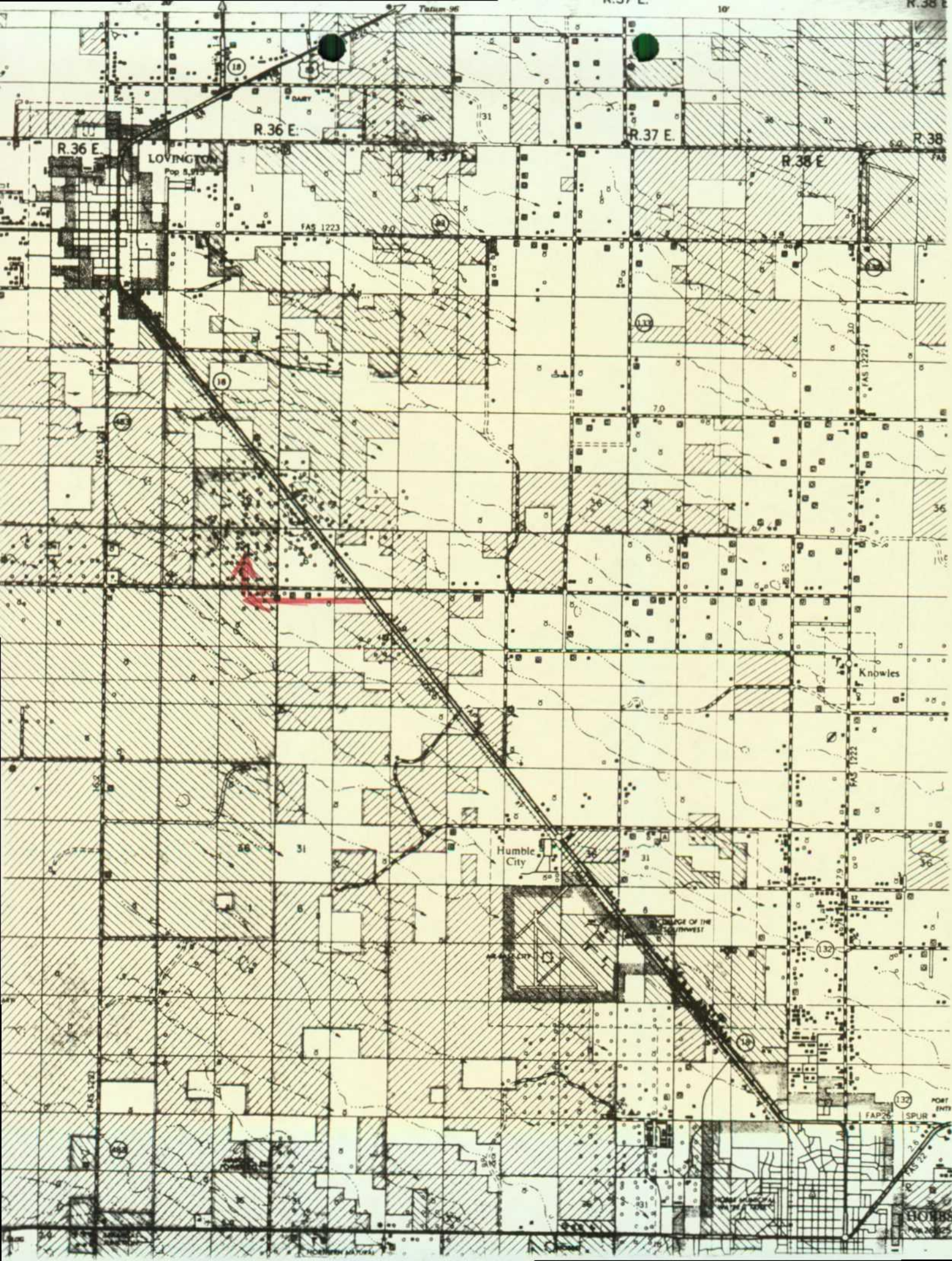
Date: 10-31-00

Number of Pages (Includes Cover Sheet) 1 of 3

Message: Araho Inc. Map

**If you have any trouble receiving this, please call:
(505) 827-7133**





STATE OF NEW MEXICO
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal

Time 8:44
Left message

Date 9-25-00

Originating Party

Martynne Kielem

Other Parties

Bob Carter

Livingston City Manager

(505) 396-2884

Subject

Archo - That Navajo Refining will be
comming on site Oct 2nd to Drill some
Booths

Discussion

Conclusions or Agreements

Distribution

Signed

STATE OF NEW MEXICO
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal Time 4:00 Date 9-22-00
8:40 9-25-00

Originating Party

Martyn Kieling

Other Parties

Ms. Dorothy Runnels

Araho Inc.

(505) 392 6223

Subject

Araho Inc.

Request to Call Back. Left message on Voice
Mail Box.

Discussion

Please Call me at 505 827-7153

The OCD would like to make a Request
and we have some ^{possible} Good News

Dorothy Returned Call on 7-22-00 at 7:12pm and 7-25-00 at 8:07am

9-25-00 Anything that OCD Approves of is OK with
with Dorothy. She no longer has a Key Bot
is OK with OCD using the Universal Key and
replacing the lock with one of our own.
and is Happy Nuwago Refining will be looking at the Site.

Conclusions or Agreements

OCD will use Universal Key and
Replace Padlock with our own. We will also
be calling the Lovington City Manager Rob Carter.
(505) 396 2884

Distribution

Signed

Martyn J. Kieling

From: Smith.Melissa@epamail.epa.gov[SMTP:Smith.Melissa@epamail.epa.gov]
Sent: Tuesday, August 01, 2000 1:00 PM
To: Kieling, Martyne
Cc: Anderson, Roger
Subject: RE: Araho, Inc.

Melissa
214-665-7357

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+-----+>
|      |   MKieling@stat  
|      |   e.nm.us    |  
|      |             |  
|      |   06/13/2000 |  
|      |   11:20 AM   |  
|      |             |  
+-----+>
>-----|
|      |   |  
| To:  |   Melissa Smith/R6/USEPA/US@EPA      |  
| cc:  |   WROTENBERY@state.nm.us,            |  
|      |   LHEBERT@state.nm.us, RCANDERSON@state.nm.us  
| Subject: RE: Araho, Inc.                    |  
>-----|

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> -----
> From:
> Smith.Melissa@epamail.epa.gov[SMTP:Smith.Melissa@epamail.epa.gov]
> Sent: Tuesday, June 13, 2000 9:51 AM
> To: Kieling, Martyne
> Subject: Re: Araho, Inc.
>
>
>
> I know it's only been 3 weeks since the letter went out to Ms. Runnels,
> but I
> was curious if you had heard anything from her yet.
>
>



Photo 1 August 2000



Photo 4 August 2000



Photo 2 August 2000



Photo 5 August 2000



Photo 3 August 2000



Photo 6 August 2000



Photo 7 August 2000



Photo 10 August 2000



Photo 8 August 2000



Photo 11 August 2000



Photo 9 August 2000



Photo 12 August 2000



Photo 13 August 2000



Photo 16 August 2000



Photo 14 August 2000



Photo 17 August 2000



Photo 15 August 2000



Photo 18 August 2000

Araho, Inc.
Section 1, Township 17 South, Range 36 East
Photos Taken By Darrell Moore of Navajo

Page 4



Photo 19 August 2000



Photo 1 August 2000



Photo 4 August 2000



Photo 2 August 2000



Photo 5 August 2000



Photo 3 August 2000



Photo 6 August 2000



Photo 7 August 2000



Photo 10 August 2000



Photo 8 August 2000



Photo 11 August 2000



Photo 9 August 2000



Photo 12 August 2000



Photo 13 August 2000



Photo 16 August 2000



Photo 14 August 2000



Photo 17 August 2000



Photo 15 August 2000



Photo 18 August 2000

Araho, Inc.
Section 1, Township 17 South, Range 36 East
Photos Taken By Darrell Moore of Navajo

Page 4



Photo 19 August 2000

Kieling, Martyne

From: Darrell Moore [darrell@navajo-refining.com]
Sent: Monday, July 15, 2002 7:13 AM
To: Kieling, Martyne
Subject: RE: ARAHO Pit Investigation

Martine,

I haven't forgotten you. We just finished a week long audit and I should have some time today or tomorrow to get that info for you.

Darrell

-----Original Message-----

From: Kieling, Martyne [mailto:MKieling@state.nm.us]
Sent: Monday, July 01, 2002 2:37 PM
To: Darrell Moore
Subject: ARAHO Pit Investigation

Darrell,

This is a follow-up to our phone conversation today regarding Navajo's investigation of the Araho pit located in the SE/4 Section 1, T17S, R36E. If you could locate any data regarding Navajo's Investigation of October 2000 I would greatly appreciate it.

Thanks so much for your time and consideration in this matter.

Martyne J. Kieling
Martyne J. Kieling
Environmental Geologist

DOROTHY RUNNELS
8100 WEST ALABAMA
HOBBS, NEW MEXICO 88240
(505) 392-6223

JUL 12 2000

June 30, 2000

Mr. Roger Anderson
Environmental Bureau Chief
NM Energy, Minerals & Natural Resources Dept.
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Araho, Inc.
SE/4 of Section 1, Township 17 South, Range 36 East,
NMPM, Lea County, New Mexico

Dear Mr. Anderson:

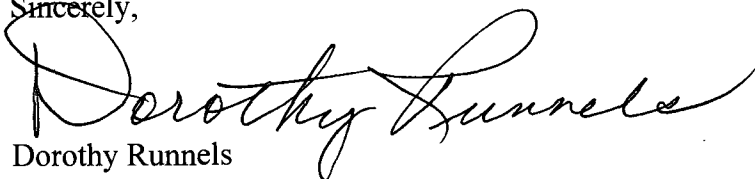
I received your letter of May 24, 2000 requiring an abatement plan for the aforementioned disposal facility. You mentioned that the OCD's records indicated two letters sent out in 1998 had not been answered. I only received one of those letters and while I did not personally answer it, I promptly turned it over to the City of Lovington who owns the surface rights to the property in question. I assumed, since I received no follow up correspondence from you that the matter has been taken care of.

Mr. Anderson, Araho, Inc. is a defunct corporation. It has no assets and no sources of income with which to pay for an abatement of the pollution your letter indicates is present at the site. Araho, Inc. has been closed for a number of years and all the records of the company are stored in warehouses. In my hurry to respond to your letter in the time allotted, I cannot lay my hands on them right this minute but, if you require financial statements or the last tax return of Araho, I will put forth the effort to find them.

When Araho, Inc. shut down this disposal facility I plugged the well with the help of Greenhill Petroleum and have managed to comply with the order to put netting over the pit. But, because Araho is closed and not generating any income I have not been able to secure the funds to do any major work there.

I am appealing to you and the OCD for your help in resolving this problem. I will be most amenable to any suggestions you may have.

Sincerely,

A handwritten signature in cursive script that reads "Dorothy Runnels". The signature is fluid and elegant, with a large initial "D".

Dorothy Runnels

Cc: Chris Williams
OCD District 1, Hobbs, NM

Mark Sanchez, Esq.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

May 24, 2000

Lori Wrotenbery

Director

Oil Conservation Division

CERTIFIED MAIL

RETURN RECEIPT NO. Z-559-573-312

Ms. Dorothy Runnels
Araho, Inc.
8100 West Alabama
Hobbs, NM 88242

Re: Notice of requirement to submit abatement plan

Araho, Inc.
SE/4 of Section 1, Township 17 South, Range 36 East, NMPM
Lea County, New Mexico

Dear Ms. Runnels:

The New Mexico Oil Conservation Division ("OCD") hereby notifies you that Araho, Inc. must submit an abatement plan proposal for Araho's facility in the SE/4 of Section 1, Township 17 South, Range 36 East, NMPM, Lea County, New Mexico pursuant to the Oil and Gas Act, NMSA 1978 §§ 70-2-1 through 70-2-38 and 19 NMAC 15.A.19. The abatement plan proposal must be submitted to OCD within 60 days of receipt of this notice. The abatement plan proposal must address all aspects of site investigation including the submittal of a final investigation report.

OCD's records indicate letters dated June 11, 1998, and December 9, 1998, were sent to Araho, Inc. in care of you regarding the necessity of abating pollution at this site. OCD is not aware of any action taken at the site in response to these letters. OCD's preliminary investigation determined the Araho facility is located above the City of Lovington's city water supply. To protect public health and the environment, the Araho facility, including the lined pit, tanks, equipment, valve sumps and contaminated soils must be cleaned up. If you have any questions regarding the required abatement proposal, please contact Martyne Kielsing at (505) 827-7153.

NMSA 1978 § 70-2-31 provides penalties for the violation of the Oil and Gas Act or any provision of any rule or order issued pursuant to that act.

Sincerely,

Roger C. Anderson,
Environmental Bureau Chief

xc: OCD District I, Hobbs, NM
Mark Sanchez, Esq.

Dorothy Runnels
8100 W. Alabama
Hobbs, NM 88240
Phone 392-6223
Fax 397-4993

facsimile transmittal

To: Roger Anderson

Fax: 505 827-8177

From: Dorothy Runnels

Date: 04/26/00

Re: Araho, Inc.

Pages: 10

CC:

☐ Urgent

☒ For Review

☐ Please Comment

☒ Please Reply

☐ Please Recycle

Roger: attached is the letter and the copies of documents I spoke with you about. Also, I am sorry to relate to you that Araho has been closed for over 10 years now and there are no funds for clean-up, nor is there any source of such funds for me to draw on. Any help you can suggest is greatly appreciated. DR

Anderson, Roger

From: Smith.Melissa@epamail.epa.gov[SMTP:Smith.Melissa@epamail.epa.gov]
Sent: Friday, March 31, 2000 8:55 AM
To: Anderson, Roger
Subject: update



JPEG File
Interchange.jpeg



JPEG File
Interchange.jpeg



3007.wpd

Hi Roger! I'm finally back at work (after 5 long months! I was wondering if I would still have a desk to come back to). I was planning to be back in January but my baby (Tyler) got sick and I had to keep him home for 2 more months. (of course I had to send you a couple of pictures since I'm a proud momma!)

Anyway....here is the letter (FINALLY) that I would like to send to Araho to try to clear up what's out there. Please let me know if you have any comments or suggestions.

Do you have time next week to talk about what's happening at the other sites? I'm available all week except from 10-11 on Tuesday (4/4).

Have a good weekend,
Melissa

(See attached file: 008_8.jpg)(See attached file: 023_23.jpg)(See attached file: 3007.wpd)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

CERTIFIED MAIL: RETURN RECEIPT REQUESTED P xxx xxx xxx

Ms. Dorothy Runnels, President
Araho, Inc.
8100 W. Alabama
Hobbs, NM 88240

Re: Request for Information Pursuant to Section 3007 of RCRA, 42 U.S.C. §6927.

Dear Ms. Runnels:

Activities associated with the waste management practices of the Araho, Inc. ("Araho") facility, located 5 miles southeast of Lovington, New Mexico, (Section 1, Township 17S, Range 36E) have prompted the U.S. Environmental Protection Agency (EPA) to request additional information regarding the operation of that facility. Specifically, we have reviewed information obtained during a Compliance Evaluation Inspection conducted on November 3, 1998, (the "CEI") which identified some concerns about environmental conditions at the site.

Please assist us in determining the significance of these concerns by responding within 30 calendar days of the receipt of this letter to the questions listed in Enclosure A. Your responses to the questions with all available supporting documents, and an executed copy of Enclosure B should be mailed to the following address:

Carol Peters-Wagnon, Chief
ALONM Section (6EN-HS)
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, TX 75202-2733

ATTN: Melissa Smith

Please refer to the "Instructions" and "Definitions" portions of Enclosure A for guidance in the preparation of your responses to the Questions.

If you have any questions relating to this Information Request, you may consult with EPA prior to the time specified above. You may contact Ms. Melissa Smith at the above address and at (214) 665-7357. Ms. Marcia Moncrieffe is the attorney assigned to this matter. She may be contacted at (214) 665-7343. Thank you for your cooperation in this matter, and we look forward to working with you.

Sincerely yours,

Mark W. Potts, Chief
Hazardous Waste Enforcement Branch

Enclosure

cc: Mr. Roger Anderson
New Mexico Oil Conservation Division

Ms. Debbie Brinkerhoof
New Mexico Environment Department

6EN-HS:MLSmith:x7357:10/06/99:L:\mlsmith\pops\nm\inspecti\araho\3007.wpd

6RC-EW
Moncrieffe

6EN-HS
Peters-Wagon

6EN-H
Morgan

ENCLOSURE A

Araho, Inc.

FIRST INFORMATION REQUEST

GENERAL

Pursuant to § 3007 of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. § 6927, any person who generates, stores, treats, transports or otherwise handles, or has handled, hazardous wastes shall, upon request of any officer or employee of EPA, furnish information relating to such wastes.

Compliance with this Information Request is mandatory. Failure to respond fully and truthfully to the Information Request, or to adequately justify such failure to respond, can result in enforcement action by EPA pursuant to § 3008 of RCRA. This statute permits EPA to seek the imposition of penalties of up to \$27,500 for each day of non-compliance. You are further advised that submittal of false, fictitious, or fraudulent information, or the knowing omission of pertinent information may subject you to additional penalties under § 3008(d)(3) of RCRA, 42 U.S.C. § 6928(d)(3).

This Information Request is not subject to the approval requirements of the Paperwork Reduction Act of 1980, 44 U.S.C. § 3501, *et seq.*

Instructions

1. Please provide a separate narrative response to each and every question and subpart of a question set forth in this Information Request.
2. Precede each answer with the text and the number of the question to which it corresponds.
3. Identify the person(s) answering the questions on behalf of Respondent.
4. For each and every question contained herein, identify all persons consulted in the preparation of the answer.
5. For each and every question contained herein, identify all documents consulted, examined, or referred to in the preparation of the answer or that contain information responsive to the question and provide true and accurate copies of all such documents.
6. The Affidavit in Enclosure B must be filled out and submitted along with your responses to this Information Request Letter.

7. If information or documents not known or not available to you as of the date of submission of a response to this Information Request should later become known or available to you, you must supplement your response to EPA. Moreover, should you find, at any time after the submission of your response that any portion of the submitted information is false or misrepresents the truth, you must notify EPA of this fact as soon as possible and provide EPA with a corrected response.
8. For each document produced in response to this Information Request, indicate on the document, or in some other reasonable manner, the number of the question to which it responds.
9. In accordance with § 3007 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6927, the information requested herein must be provided even though the Respondent may contend that it includes possibly confidential information or trade secrets. You may, if you desire, assert a confidentiality claim covering part or all of the information submitted in accordance with 40 C.F.R. Part 2, Subpart B [originally published in the Federal Register at 41 Fed. Reg. 36902 (September 1, 1976), and amended at 43 Fed. Reg. 40000 (September 8, 1978), and 50 Fed. Reg. 51661 (December 18, 1985)]. Unless you make a claim at the time that you submit the information, it may be made available to the public by EPA without further notice to you. If you wish to assert a business confidentiality claim, you must clearly mark each page of each document included in your claim with a legend such as "trade secret", "proprietary", or "company confidential".

If you claim information submitted in response to this request as confidential, you must also provide a redacted version of the information with all confidential business information deleted.

DEFINITIONS

The following definitions shall apply to the following words as they appear in this Enclosure A:

1. The term "you" or "Respondent" shall mean the addressee of this Request, the addressee's officers, managers, employees, contractors, trustees, partners, successors, assigns, and agents.
2. The term "person" shall have the same definition as in Section 1004 (15) of RCRA meaning an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body.
3. The terms "Araho" or "facility" shall mean and include the property on or about the Araho site located 5 miles southeast of Lovington, New Mexico, on Highway 18 in Section 1, Township 17S, Range 36E..

4. The term "hazardous waste" shall have the same definition as that contained in Section 1004 (5) of RCRA and 40 CFR § 261.3.
5. The term "solid waste" shall have the same definition as that contained in Section 1004 (27) of RCRA and 40 CFR §261.2.
6. With respect to a natural person, the term "identify" means to set forth the person's name, present or last known business address and business telephone number, and present or last known job title, position or business.
7. The term "identify" means, with respect to a corporation, partnership, business trust or other association or business entity (including a sole proprietorship) to set forth its full name, address, legal form (e.g. corporation, partnership, etc.), type of organization and a brief description of its business.
8. The term "identify" means, with respect to a document, to provide its customary business description, its date, its number (invoice or purchase order number) if any, the identity of the author, addressor, addressee and/or recipient, and the substance or the subject matter of the document.
9. The terms "document" and "documents" shall mean any object that records, stores, or presents information, and includes writings of any kind, formal or informal, whether or not wholly or partially in handwriting, including by way of illustration and not by way of limitation, any invoice, manifest, bill of lading, receipt, endorsement, check, bank draft, canceled check, deposit slip, withdrawal slip, order, correspondence, record book, minutes, memorandum of telephone and other conversations including meetings, agreements and the like, diary, calendar, desk pad, scrapbook, notebook, bulletin, circular, form, pamphlet, statement, journal, postcard, letter, telegram, telex, report, notice, message, analysis, comparison, graph, chart, interoffice or intraoffice communications, photostat or other copy of any documents, microfilm or other film record, any photograph, sound recording on any type of device, any punch card, disc or disc pack, any tape or other type of memory generally associated with computers and data processing (together with the programming instructions and other written material necessary to use such punch card, disc, or disc pack, tape or other type of memory and together with printouts of such punch card, disc, or disc pack, tape or other type of memory); and (a) every copy of each document which is not an exact duplicate of a document which is produced, (b) every copy which has any writing, figure or notation, annotation or the like on it, (c) drafts of each document, (d) attachments to or enclosures with any document and (e) every document referred to in any other document.
10. The terms "and" and "or" shall be construed either disjunctively or conjunctively as necessary to bring within the scope of this Information Request any information which might otherwise be construed to be outside its scope.

11. The term "arrangement" means every separate contract or other agreement between two or more persons.
12. The term "sample" means the contents of any container which are analyzed by a laboratory for chemical content. The sample can be effluent, surface water, ground water, other liquid, sludge, sediment, soil, air, etc.
13. Words in the masculine shall be construed in the feminine, and vice versa, and words in the singular shall be construed in the plural, and vice versa, where appropriate in the context of a particular question or questions.
14. All terms not defined herein shall have their ordinary meaning, unless such terms are defined in RCRA or 40 C.F.R. Parts 260 - 268, in which case the statutory or regulatory definitions shall apply.

QUESTIONS

1. Provide the legal name and address of Araho, Inc
(☒ Araho☒).
2. Provide documentation showing previous and present ownership of Araho.
3. Along with date(s), list the other companies which operated at this location.
4. Provide the name and address of Araho's current registered Agent for Service.
5. Provide the date and location of incorporation of Araho in New Mexico.
6. What is the affiliation, present and past, between Araho and the property located at Section 1, Township 17S, Range 36E
(☒ Property☒).
7. Provide the latitude and longitude for the Property located at Section 1, Township 17S, Range 36E, if known.
8. Provide previous and present ownership of the Property and when the present ownership began.
9. If you are not the current owner of the Property, what contractual agreement do you have with the owner of the Property? Is the contractual agreement with the owner still effective?
10. Describe any arrangements and/or agreements between Araho and the City of Lovington.

11. On what date did Araho begin operating on the Property and how long has Araho been in operation at this location (Araho Facility)?
12. Identify the EPA Identification Number for the Araho Facility.
13. Provide copies of the three (3) most recent Annual or Biennial Hazardous Waste Reports for the Araho Facility.
14. Provide copies of the following relative to the Araho Facility:
 - a. Compliance Orders;
 - b. Notice of Violation letters;
 - c. Correspondence between Araho and the New Mexico Oil Conservation Division (NMOCD) and/or the New Mexico Environment Department (NMED) regarding waste management practices;
 - d. Permits;
 - e. Records of discrepancies between incoming material identified by the source and actual material received by Araho.
15. Describe the operations conducted at the Araho Facility.
16. Describe all waste management units (e.g. tanks, pits, wells) utilized at the Araho Facility. Include the dimensions, capacities, and composition (including linings) of those structures, and the use of the structures. Include a diagram of where these structures are or were located on the site. Provide copies of engineering certifications of the structures, if available.
17. For each material stored, treated, and/or disposed at the Araho Facility please provide the following information:
 - a. Identify the source of the material, including the company's name, address, and EPA identification number;
 - b. Identify the process or manner of generation of the material;
 - c. Provide copies of all manifests, logs, invoices, bills of lading, load tickets, and/or other shipping records which accompanied the relating shipments of incoming material for the last three (3) years that operations were conducted at the Araho Facility;

- d. Specifically state the source of information used to characterize the incoming material (e.g. sampling data, process knowledge). In addition, provide documentation of any determination performed by or on behalf of Araho (sampling results and process knowledge relating thereto). Provide copies of the documentation used to make these characterizations;
 - e. Describe the method by which the incoming material is treated, stored, disposed of, or otherwise managed.
18. For all wastes generated at the Araho Facility, provide the following information:
- a. Identify the process or manner of generation of the waste;
 - b. Specifically state the source of information used to characterize the waste (e.g. sampling data, process knowledge) and provide copies of documentation used to make these characterizations;
 - c. Describe the method by which the waste is treated, stored, disposed of, or otherwise managed. If the waste is sent off-site, provide copies of all manifests, logs, invoices, bills of lading, load tickets, and/or other shipping records which accompanied the relating shipments for the last three (3) years that operations occurred.
19. Several tanks and a pit were observed during the November 3, 1998, inspection (❖ Inspection❖). For each tank and pit present at the Araho Facility at the time of the inspection, identify the contents of each, including the following information:
- a. Identify the source of the material, including the company's name, address, and EPA identification number;
 - b. Identify the process or manner of generation of the material;
 - c. Provide copies of all manifests, logs, invoices, bills of lading, load tickets, and/or other shipping records which accompanied the relating shipments of material;
 - d. Specifically state the source of information used to characterize the material (e.g. sampling data,

process knowledge). In addition, provide documentation of any determination performed by or on behalf of Araho (sampling results and process knowledge relating thereto). Provide copies of the documentation used to make these characterizations;

- e. Describe the method by which the material was and/or will be treated, stored, disposed of, or otherwise managed.
- 20. Provide copies of the most recent 3 years of ground water monitoring data collected at the Araho Facility.
 - 21. Identify the proximity of the nearest residence to the Property.
 - 22. Identify the proximity of the nearest agricultural land to the Property. Identify what this land is currently used for (e.g. type of crop, cattle grazing).
 - 23. If known, identify all wells located within 1 mile, 2 miles, and 2.5 miles of the Property. For each well, provide the following information:
 - a. The depth of the well;
 - b. The intended use of the well (e.g. Domestic, agricultural, industrial);
 - 24. Identify the proximity to the Property of the nearest public water supply well.
 - 25. Since the time of the Inspection, describe changes that have taken place regarding conditions of the Property or the Araho Facility.

ENCLOSURE B

Araho, Inc.
5 miles Southeast of Lovington, NM
Section 1, Township 17S, Range 36E

STATEMENT OF CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

(Signature)

(Title)

(Date)

Public Regulation Commission**4/24/2000****ARAHO, INC.****MAILING ADDRESS****8100 N. ALABAMA HOBBS NEW MEXICO 88240**

SCC Number: 0789362**Tax & Revenue Number: 01797247007****INCORPORATED ON DECEMBER 12, 1973 , IN NEW MEXICO.****CORPORATION IS A DOMESTIC PROFIT****CORPORATION IN THE PROCESS OF REVOCATION****PURPOSE OF THE CORPORATION
OILFIELD SERVICES****CORPORATION DATES****Taxable Year End Date: 12/31/98 Filing Date: //**
Corporate Existence Expiration Date:**SUPPLEMENTAL POST MARK DATES****Supplemental: Name Change: Purpose Change:****PRINCIPAL ADDRESS****8100 N. ALABAMA HOBBS NEW MEXICO 88240****PRINCIPAL ADDRESS(Outside New Mexico)**

REGISTERED AGENT**DOROTHY RUNNELS****8100 N. ALABAMA HOBBS NEW MEXICO 88240****Designation date: 05/02/98 Agent Post Mark Date: Resignation date:****COOP LICENSE INFORMATION****Number: Type: Expiration Year:****INCORPORATOR(S)****RUNNELS, DOROTHY NONE****RUNNELS, DOROTHY RUNNELS, DOROTHY**

DIRECTORS**Date Election of Directors: 01/02/97**

RUNNELS , DOROTHY
8100 W. ALABAMA HOBBS , NM 88240

New Search Inquiry Page

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Personal	Time 8:42 9:12	Date 1-26-99
<u>Originating Party</u> Martyne Kieling .OCD		<u>Other Parties</u> Greg Stover US Fish & Wildlife (SOS) 346-7828
<u>Subject</u> ARAND		
<u>Discussion</u> Left Voice Mail Message Ms. Dorothy Runnels Phone # (SOS) 392-6223		
<u>Conclusions or Agreements</u> Call Back Tell Greg that the Land Surface owner is the City of Lovington (Industrial Park). The State Holds the mineral Rights. Left message TO Be Paged to Greg mjk		
<u>Distribution</u>	Signed Martyne Kieling	

STATE OF NEW MEXICO

FACSIMILE TRANSMITTAL SHEET

TO:	FROM:
WAYNE PRICE	DONNA WILLIAMS
FAX NUMBER:	DATE:
505-827-8177	AUGUST 19, 1999
COMPANY:	TOTAL NO. OF PAGES INCLUDING COVER:
NMOCD-SANTA FE	5
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
505-827-7155	
RE:	YOUR REFERENCE NUMBER:
ARAHO, INC.	505-393-6161 EXT...113

☐ URGENT☒ FOR REVIEW☐ PLEASE COMMENT☐ PLEASE REPLY☐ PLEASE RECYCLE

NOTES/COMMENTS:

WAYNE,

I AM SENDING YOU A FAX I RECEIVED TODAY FROM WANDA WHITE, SHE IS WITH THE CITY OF LOVINGTON. SHE CLAIMS THAT THE CITY OF LOVINGTON IS THE LAND OWNER AND THAT THEY KNEW NOTHING OF THIS SITE UNTIL YESTERDAY. I TOLD HER I WOULD FAX A COPY TO YOU AND THAT ROGER ANDERSON WILL LOOK AT THIS AS WELL. SHE IS LOOKING FOR SOME FUNDING. I AM NOT SURE AS THE STAND THAT THE STATE WILL TAKE AND I FIGURE YOU OR ROGER WILL TAKE CARE OF THIS. IF YOU NEED ANYTHING FROM ME LET ME KNOW. OK

DONNA

**CITY OF LOVINGTON**

LOVINGTON, NEW MEXICO 88260

214 South Love
PO Box 1269
BUS: (505) 396-2884
FAX: (505) 396-6128

August 18, 1999

Carol D. Peters-Wagon, Chief ALONM Section
Hazardous Waste Enforcement Branch
United State Environmental Protection Agency Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Dear Ms. Peters-Wagon:

It has come to my attention there are significant problems with a disposal well located 5 miles southeast of Lovington, New Mexico on Highway 18 in Section 1, Township 17S, Range 36E that is owned by Araho, Inc. Dorothy Runnels is the President of Araho, Inc. but the well is located on City of Lovington property. This location for the site was approved by New Mexico Oil Conservation Division some years ago.

The disposal well is no longer in operation and Mrs. Runnels, who is a widow in her seventies, does not have funds to cleanup the site. The City of Lovington does not have a lease with Mrs. Runnels for this site. Therefore, the City of Lovington will be requesting funding for assistance in cleaning up the site and removing debris from the property.

If you can assist us in any way to resolve this matter, please let us know at the letterhead address.

Sincerely,

Bob G. Carter
City Manager

BGC:wkW

Capitol of Lea County - Rich in Oil, Cattle, Cotton and People



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

JUL 26 1999

Ms. Dorothy Runnels, President
Araho, Inc.
8100 W. Alabama
Hobbs, NM 88240

Dear Ms. Runnels:

Enclosed you will find a copy of the Compliance Evaluation Inspection (CEI) report as compiled by the U.S. Environmental Protection Agency (EPA) for the inspection conducted at Araho, Inc., on November 3, 1998. The inspection was conducted by a team of inspectors representing the U.S. Environmental Protection Agency (EPA), New Mexico Oil Conservation Division (NMOCD), U.S. Fish and Wildlife Service (FWS), and U.S. Bureau of Land Management (BLM). The purpose of the inspection was to follow-up on an aerial survey conducted by the FWS. The FWS previously identified the Araho site through aerial surveys as having pits or structures which, from the air, appeared to pose a threat to migratory birds. The purpose of the inspection was to follow-up on the aerial survey and determine if any pits or structures at the Araho facility pose a threat to human health or the environment (including wildlife), and to determine if any wastes were being handled at the site which may be subject to the Resource Conservation and Recovery Act (RCRA) regulations regarding hazardous waste management.

The CEI report indicates that there are some concerns about the conditions of the pits and structures at the facility. A copy of this report has also been sent to the New Mexico Oil Conservation Division (NMOCD) in Santa Fe, New Mexico. Please be advised that EPA will be consulting with the NMOCD regarding the concerns identified at your facility and will be communicating with you shortly concerning resolution of those concerns.

If you have any questions concerning the CEI conducted at your facility on November 3, 1998, you may contact Ms. Melissa Smith of my staff at (214) 665-7357.

Sincerely yours,

A handwritten signature in cursive script, reading "Carol D. Peters-Wagnon", is written over the typed name.

Carol D. Peters-Wagnon, Chief
ALONM Section
Hazardous Waste Enforcement Branch

Enclosure

**Inspection Report
Araho, Inc.
Lea County, NM**

Inspection Date: November 3, 1998

EPA ID Number: none

Facility Name: Araho, Inc.

Physical Location: 5 Miles southeast of Lovington on Highway 18
N 32° 51.736' W 103° 18.060'
Section 1, Township 17S, Range 36E

Mailing Address: P.O. Box 983, Hobbs, New Mexico. 88240

Type of Ownership: private

Inspection Participants:

Lead EPA Inspector: Melissa Smith (214) 665-7357 **Initials:** MLS

Other Participants:

Roger Anderson	New Mexico Oil Conservation Division	(505) 827-7152
Doug McKenna	U.S. Fish and Wildlife Service	(505) 589-2823
Greg Stover	U.S. Fish and Wildlife Service	(505) 883-7828
Vince Balderaz	U.S. Bureau of Land Management	(505) 393-3612
Ed Moriarty	Science Applications International Corporation (SAIC)	(703) 645-6973
Tim Reeves	SAIC	(303) 382-6730

Facility Owner: Dorothy Runnels, President

Facility Description: Inactive, former commercial oilfield waste disposal site and refinery

Generator Status: Unknown

Inspection Type: Compliance evaluation inspection, EPA lead

Reason for Evaluation: General inspection

Summary of Inspection: see narrative

Checklists Completed: none

Peer Reviewed by: Louis L. Ellison

Date: 7/9/99

**Compliance Evaluation Inspection Narrative
Araho, Inc.
Lea County, NM**

On September 28, 1998, the Araho, Inc., facility ("facility") was identified during an aerial survey by the U.S. Fish and Wildlife Service (FWS) as being a potential problem oil pit facility. From the air, it appeared that the facility had a large oil pit and a tank which appeared to be leaking oil on to the ground. A site inspection was conducted on November 3, 1998, as a follow-up to the aerial survey. The inspection team arrived at the facility at approximately 4:30 pm. Araho, Inc., is located off of Highway 18, five miles southeast of Lovington, New Mexico (see Attachment A, photo #7). The facility has been inactive for several years.

At the time of the inspection, the facility consisted of several large tanks and a lined pit (see photo #'s 1 & 2). The tanks were located directly on the ground and were not within secondary containment. One of the tanks appeared to be leaking (see photo #3). The sump beneath the tank valve (approximately 2 feet deep as measured by a stick inserted into the sump) was full of liquid and oil (see photo #'s 4 & 5). Parts of two migratory birds (one meadowlark, and one Chihuahuan Raven) were recovered from the sump by the FWS during the inspection. The pit appeared to be lined and netted; however, the netting was almost completely submerged underneath the oil in the pit (see photo #6). The pit contents appeared to be level with the top of the berm; therefore, there was virtually no freeboard in the pit.

Areas of Concern

- Although the facility has been inactive for several years and the company no longer exists, there are still tanks and a pit on-site which appear to contain waste oil.
- The tanks are not equipped with secondary containment and one of the tanks appears to be leaking.
- Two dead migratory birds were recovered from a sump beneath one of the tanks.
- Although the pit is netted, the netting is almost completely submerged under the oil in the pit making it ineffective.
- There is no freeboard in the pit.
- The same site conditions were observed during a similar inspection conducted in September, 1997, by EPA, FWS, and NMOCD.

Attachments

- A Photograph log



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

December 9, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-492

Ms. Dorothy Runnels
8100 West Alabama
Hobbs, NM 88242

RE: Araho, Inc. Pit and Above Ground Tanks
SE/4 of Section 1, Township 17 South, Range 36 East, NMPM
Lea County, New Mexico

Dear Ms. Runnels:

The New Mexico Oil Conservation Division did not receive a response to the OCD letter written to Araho, Inc. on June 11, 1998. The letter required a response by August 11, 1998. The OCD is hereby requiring you, as the owner/operator of record to either obtain a Rule 711 permit for this facility or close it. A response is required by December 30, 1998.

To insure the protection of public health and the environment the abandoned lined pit, tanks, valve sumps, and contaminated soils at Araho, Inc. located in Township 17 South, Range 36 East, NMPM, Lea County, New Mexico shall be closed in accordance with an OCD approved closure plan.

The following is a list of specific points that shall be addressed in the facility closure plan:

1. Removal and proper disposal of the lined pit and recycling of any usable oilfield material;
2. Removal of the nine (9) tanks located at the facility and recycling of any oilfield material remaining within the tanks;
3. Removal of buried sump barrels at tank valves and cleanup of the surrounding surface and subsurface soil; and
4. Removal and proper remediation or disposal of contaminated soils around and beneath the tanks.

The following is a list of OCD Rules and Orders that apply to this facility;

1. OCD Rule 310, "Oil shall not be stored or retained in earthen reservoirs, or in open receptacles."

2. OCD Order R-8952, "To protect migratory birds, all tanks exceeding 16 feet in diameter, exposed pits and ponds shall be screened, netted or covered. Upon written application by the operator, an exception to screening, netting or covering of a facility may be granted by the district supervisor upon showing that an alternative method will protect migratory birds or that the facility is not hazardous to migratory birds."
3. OCD Rule 711 (19 NMAC 15.1.711, as amended 1-1-96), regarding underground injection facilities. A facility that manages waste on the ground in pits must be permitted under Rule 711

If you require any further information or assistance concerning permitting/closure procedures, or would like to discuss this matter please contact me at (505) 827-7152.

Sincerely,



Roger C. Anderson
Environmental Bureau Chief

xc: Hobbs OCD Office

P 326 936 492

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to	
Street & Number	
Post Office, State, & ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995

**Inspection Report
Araho, Inc.
Lea County, NM**

Inspection Date: November 3, 1998

EPA ID Number: none

Facility Name: Araho, Inc.

Physical Location: 5 Miles southeast of Lovington on Highway 18
N 32° 51.736', W 103° 18.060'
Section 1, Township 17S, Range 36E

Mailing Address: P.O. Box 983, Hobbs, New Mexico, 88240

Type of Ownership: private

Inspection Participants:

Lead EPA Inspector: Melissa Smith (214) 665-7357 **Initials:** MLS

Other Participants:

Roger Anderson	New Mexico Oil Conservation Division	(505) 827-7152
Doug McKenna	U.S. Fish and Wildlife Service	(505) 589-2823
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Vince Balderaz	U.S. Bureau of Land Management	(505) 393-3612
Ed Moriarty	Science Applications International Corporation (SAIC)	(703) 645-6973
Tim Reeves	SAIC	(303) 382-6730

Facility Owner: Dorothy Runnels, President

Facility Description: Inactive, former commercial oilfield waste disposal site and refinery

Generator Status: Unknown

Inspection Type: Compliance evaluation inspection, EPA lead

Reason for Evaluation: General inspection

Summary of Inspection: see narrative

Checklists Completed: none

Peer Reviewed by: Linda Hutcheon

Date: 7/9/99

Compliance Evaluation Inspection Narrative
Araho, Inc.
Lea County, NM

On September 28, 1998, the Araho, Inc., facility ("facility") was identified during an aerial survey by the U.S. Fish and Wildlife Service (FWS) as being a potential problem oil pit facility. From the air, it appeared that the facility had a large oil pit and a tank which appeared to be leaking oil on to the ground. A site inspection was conducted on November 3, 1998, as a follow-up to the aerial survey. The inspection team arrived at the facility at approximately 4:30 pm. Araho, Inc., is located off of Highway 18, five miles southeast of Lovington, New Mexico (see Attachment A, photo #7). The facility has been inactive for several years.

At the time of the inspection, the facility consisted of several large tanks and a lined pit (see photo #'s 1 & 2). The tanks were located directly on the ground and were not within secondary containment. One of the tanks appeared to be leaking (see photo #3). The sump beneath the tank valve (approximately 2 feet deep as measured by a stick inserted into the sump) was full of liquid and oil (see photo #'s 4 & 5). Parts of two migratory birds (one meadowlark, and one Chihuahuan Raven) were recovered from the sump by the FWS during the inspection. The pit appeared to be lined and netted; however, the netting was almost completely submerged underneath the oil in the pit (see photo #6). The pit contents appeared to be level with the top of the berm; therefore, there was virtually no freeboard in the pit.

Areas of Concern

- Although the facility has been inactive for several years and the company no longer exists, there are still tanks and a pit on-site which appear to contain waste oil.
- The tanks are not equipped with secondary containment and one of the tanks appears to be leaking.
- Two dead migratory birds were recovered from a sump beneath one of the tanks.
- Although the pit is netted, the netting is almost completely submerged under the oil in the pit making it ineffective.
- There is no freeboard in the pit.
- The same site conditions were observed during a similar inspection conducted in September, 1997, by EPA, FWS, and NMOCD.

Attachments

- A Photograph log

ATTACHMENT A



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

June 11, 1998

CERTIFIED MAIL

RETURN RECEIPT NO. P-326-936-449

Ms. Dorothy Runnels
8100 West Alabama
Hobbs, NM 88242

**RE: Araho, Inc. Pit and Above Ground Tanks
SE/4 of Section 1, Township 17 South, Range 36 East, NMPM
Lea County, New Mexico**

Dear Ms. Runnels:

On September 23, 1997 the New Mexico Oil Conservation Division (OCD) accompanied the U.S. Fish and Wildlife and U.S. Environmental Protection Agency on an inspection of the Araho, Inc. (Araho) abandoned lined pit and surface tanks located in the SE/4 of Section 1, Township 17 South, Range 36 East, NMPM, Lea County, New Mexico. Mr. Phil Runnels was present during the inspection and discussion of what corrective action options were available to Araho.

It was noted that the following items require corrective action:

1. One lined pit containing oilfield material filled to the top of the berm that could easily overflow allowing oil field waste to migrate from pit confines;
2. The pit was not netted or otherwise rendered non hazardous to migratory birds;
3. Nine (9) tanks are located at the facility, some may contain oil field material;
4. Buried catchment barrels at tank valves contain waste oil material and may have leaked to the subsurface;
5. Soils around and near tanks contain hardened asphalt material;

Ms. Dorothy Runnels

June 11, 1998

Page 2


The following is a list of OCD Rules and Orders that apply to this facility;

1. OCD Rule 310, "Oil shall not be stored or retained in earthen reservoirs, or in open receptacles."
2. OCD Order R-8952, "To protect migratory birds, all tanks exceeding 16 feet in diameter, exposed pits and ponds shall be screened, netted or covered. Upon written application by the operator, an exception to screening, netting or covering of a facility may be granted by the district supervisor upon showing that an alternative method will protect migratory birds or that the facility is not hazardous to migratory birds."
3. OCD Rule 711 (19 NMAC 15.1.711, as amended 1-1-96), regarding underground injection facilities. A facility that manages waste on the ground in pits must be permitted under Rule 711.

The OCD is hereby requiring you, as the owner/operator of record to either obtain a Rule 711 permit for this facility or close it. A response is required by Dorothy Runnels by August 11, 1998. Enclosed is a copy of the Order amending Rule 711, OCD's unlined surface impoundment closure guidelines, and a list of local facilities that are permitted by the OCD to recycle, remediate, and/or dispose of this type of waste.

If you require any further information or assistance concerning permitting/closure procedures, or would like to discuss this matter please contact me at (505) 827-7153.

Sincerely,



Martyne J. Kieling
Environmental Geologist

enclosures - Rule 711 Order R-10411-B, closure guidelines, and list of Waste Management Facilities.

xc: Hobbs OCD Office

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone

☐ Personal

Time

11:00

Date

6/11/98

Originating Party

Other Parties

Martynne Kieling

Ms. Dorothy Runnels
(505) 392-6223

Subject

Araho Inc. Pit and Surface tank closures

Discussion

Requesting Current Address. To send letter to
Ms. Dorothy Runnels
8100 West Alabama
Hobbs, NM 88242

Conclusions or Agreements

Distribution

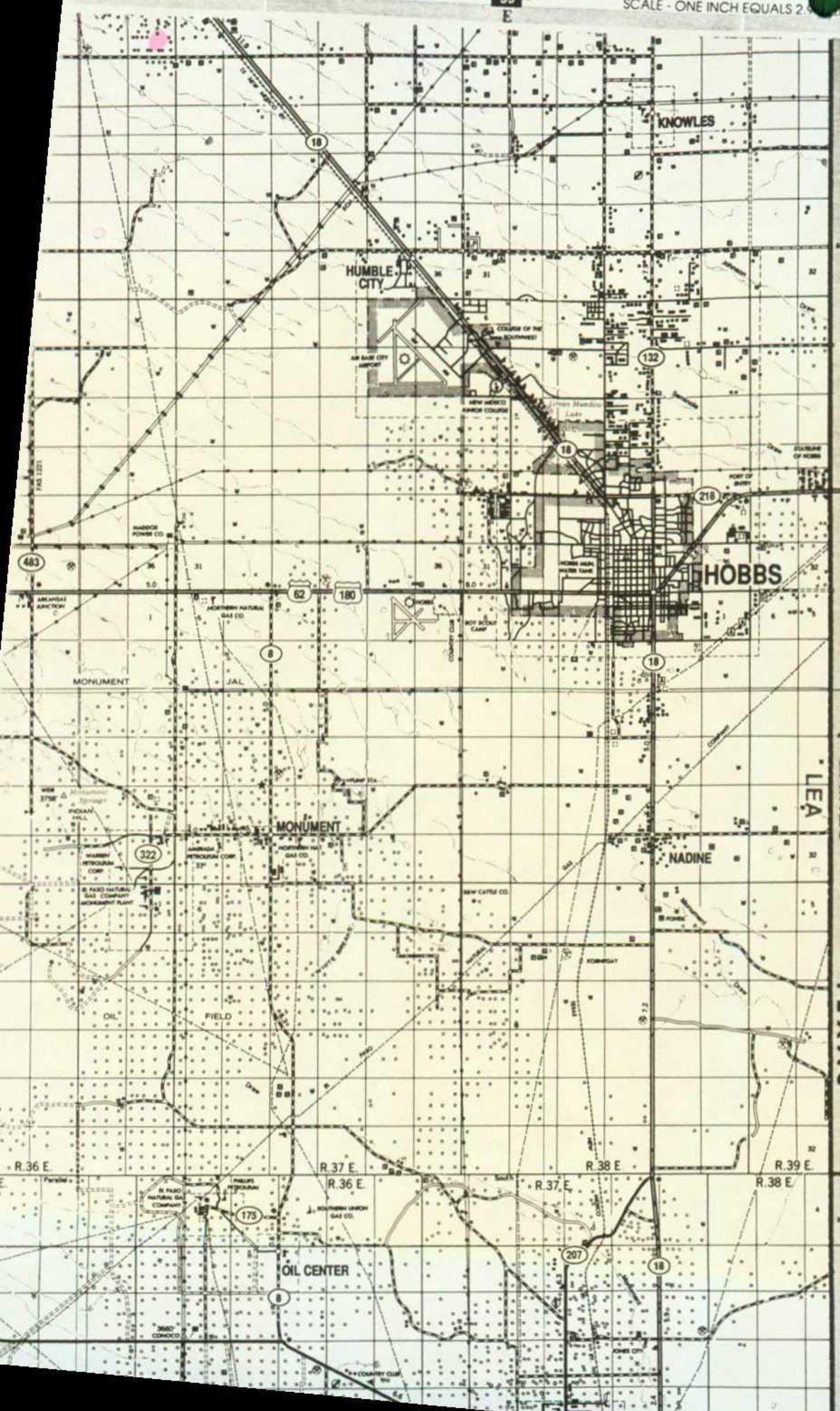
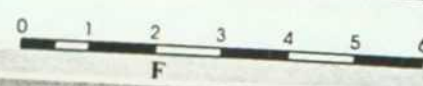
ARAHO Inc
GW-37 class I

Signed

Martyn Kieling

99
E

SCALE - ONE INCH EQUALS 2.5 MILES



GAINES
LEA
TEXAS

Araho

PROBLEM OIL PIT INSPECTION CHECKLIST

Site Number (State-Year-Waypoint):

Araho

Checklists Completed (circle those that apply):

(A) (B) (C)

Prepared by the US Environmental Protection Agency Region VIII and US Fish and Wildlife Service Region VI

6/12/97 --Reproduced by US EPA Region VI with permission 9/19/97

This is a pre-decisional document and is, or may be protected by the deliberative process exception and attorney client privilege. Conclusions or recommendations are intended solely as preliminary information for governmental personnel. This form contains tentative conclusions and staff-level recommendations and does not create any rights, substantive or procedural, or defenses, as they are not binding on the Agency.

PROBLEM OIL PIT INSPECTION CHECKLIST

SECTION ONE: Site Information

Site Name and Waypoint: _____

Lease # and Operator: Arado

Site Location Section/Township/Range: Sec 1 T17S R36S

GPS Coordinates Obtained During Aerial Survey: _____

GPS Coordinates Obtained During Site Inspection: _____

Site Address: 8100 Alabama

City/County/State/Zip: Humble city NM 88242

USFWS Case ID #: _____

EPA Facility ID # and/or NMOCD ID #'s: _____

Contact Name/Affiliation/Phone: Bill Runnels, Dorothy Runnels

Contact Address (if different from site address): 8100 Alabama, Humble city, NM.

Site Type (production, commercial disposal, other): closed commercial disposal & refiner

SECTION TWO: Inspection Information

Inspection date and time: 9/23/97 8:45 AM

Describe weather conditions (including estimated temperature): cloudy cool recent hail event.

If known, list federal, state, or tribal programs that this site is subject to regulation under via a permit and list all permit number(s):

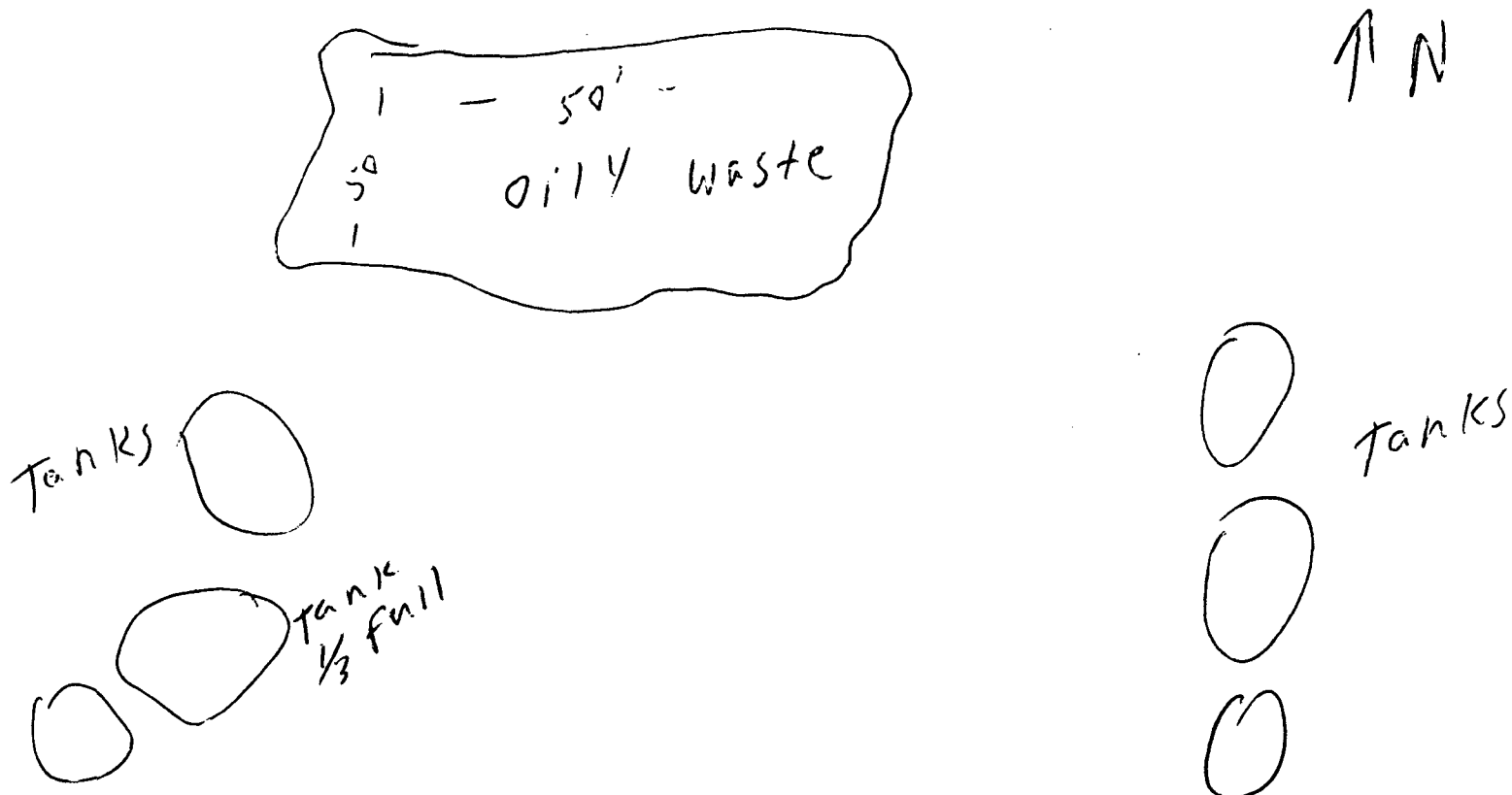
Inspection Team:

Inspector 1	<u>Wayne Price</u>	Agency/Program: <u>OCD</u>	Phone: _____
Inspector 2	<u>Nick Chavez</u>	Agency/Program: <u>FWS</u>	Phone: _____
Inspector 3	<u>Greg Pashia</u>	Agency/Program: <u>EPA</u>	Phone: _____
Inspector 4	_____	Agency/Program: _____	Phone: _____
Inspector 5	_____	Agency/Program: _____	Phone: _____
Inspector 6	_____	Agency/Program: _____	Phone: _____

SECTION THREE: Sketch of Site/Layout

Site Number and Name : Araho

Include the estimated size (including depth) of any pits and describe site operations on site sketch. Include description of pertinent features such as waters of the US (location of, distance to, description of conduits to, etc.) or electrical equipment areas, for example. Include a north arrow on site sketch.



SECTION FOUR: General Observations

A. PITS (complete checklist A if any of the following conditions exist)

1. Does accumulated oil exist on the surface of any pits, ponds, sumps, or other open-topped storage devices? Yes ☒ No ☐
2. Are pits, ponds, tanks, sumps, or other devices which may accumulate oil covered with netting or are there any other wildlife exclusionary or deterrent devices in use (covers, flagging, etc.)? Yes ☐ No ☒
3. Are there any dead or oiled birds or other wildlife on or near the site or any indication of oiled birds/wildlife previously at or near the site (oily tracks, etc.)? Yes ☐ No ☒

B. DISCHARGES (complete checklist B if any of the following conditions exist)

1. Is there a discharge (either ongoing or one-time) from a pit, pond, tank, or other device at the site? Yes ☐ No ☒
2. Is there indication of any past or potential future discharge from a pit, pond, tank, or other device at the site (soil staining, fresh dirt or gravel used as cover, 2 ft or less freeboard maintained, eroded berms, etc.)? Yes ☐ No ☒

C. TANKS AND CONTAINERS (complete checklist C if any of the following conditions exist)

1. Are there any tanks or containers on site? Yes ☐ No ☐

~~no tank ponds~~. Tanks closed
Tanks could have material in them. Don't
know what is in them. total

CHECKLIST "A" - PITS

1. If accumulated oil exists on the surface of any pits, ponds, sumps, or other open-topped storage devices, describe observed conditions including size of each pit, pond, sump, or device, percentage of area covered, and thickness of oil. Describe any other observations (visual, odor) of the material in each pit, pond, sump, or other device:

Hard asphaltic waste. some liquids mostly water

2. Describe any netting or other wildlife exclusionary or deterrent devices in use at the site. Include description of condition, coverage, netting mesh size, etc.:

no netting.

3. Describe any oiled or dead birds or other wildlife found at or near the site. Indicate the number of mortalities and the seizure tag numbers for any birds collected:

No birds

4. Describe the construction and operation of any pits or ponds located at the site. Include a description of the pond liner system, if possible. Estimate the freeboard observed at the time of the inspection:

abandoned pit with refinery waste. Lined
pipeline from Navajo refinery.

Emergency overflow pit. Took production
water. Permitted in 1986 as a non-haz refinery
waste

5. Indicate how long any pits or ponds at the site have been in operation:

1960's to 1994

6. If a pit, pond, sump, or other device is used as a loading/unloading area at a non-production site, describe any secondary containment used:

CHECKLIST "B" - DISCHARGES AND SPILLS

1. Indicate whether or not the site has a NPDES permit and, if so, indicate the permit number and whether or not the number is posted on site:

NONE

2. Describe any ongoing discharges or one-time spills from pits, ponds, or other devices at the site. For each discharge, include a description of the source, duration, and rate (gal/min or cfs) of material discharged. For each spill, describe the amount and area of the spilled material. Also describe any observations (oil sheen, odor) regarding the type of material discharged or spilled:

3. Describe any indications (e.g. soil / vegetation staining on ground or in drainages) of past discharges or spills from pits, ponds, tanks, or other devices at the site. Include any indication of the type of material discharged or spilled (e.g. oil stain, salt brine, etc.) and when and for how long the discharge or spill occurred:

4. Identify and describe the drainage pathway (dry arroyo, ditch, stream, etc.) of any current or suspected past discharges or spills from the site. Trace the drainage pathway to a flowing waterway, if possible, and describe the extent of any oil staining. Include a description of whether the drainage is dry at the time of the inspection, contains standing water that doesn't appear to be flowing or, if flowing, the estimated flowrate (gal/min or cfs) of water and/or discharged material:

5. Identify and describe any pits, ponds, or other devices in which less than 2 ft of freeboard exists at the time of the inspection. Also describe any indications that less than 2 ft of freeboard has been maintained in the past, such as staining of pond banks or overtopping of berms, etc.:

Pit has no freeboard pit level is at top of 4' high berms. could overflow if rain was heavy

6. If possible, estimate the receipt rate or production rate (gal/day) of oil and/or produced water at the site:

NO receipt of waste

7. If possible, determine whether or not any discharges or spills from the site have been reported and, if so, describe how (letter, phone, etc.), when, and to whom (EPA, BLM, DEQ, OGCC, BIA, etc.) it was reported:

8. Describe the general housekeeping and maintenance of the facility and any conditions which could result in a discharge or spill (valves which could be opened, poorly supported pipelines, etc.):

CHECKLIST "C" - TANKS AND CONTAINERS

1. Identify whether or not the site has a Spill Prevention, Control, and Countermeasure (SPCC) Plan. If so, verify by personally viewing the plan, if possible. Has it been certified by a registered Professional Engineer?:
2. Describe the type, use, condition, maximum capacity (gal or bbl), contents, markings, and actual quantity at the time of the inspection for each tank and container on the site. Also describe any secondary containment for each tank and container, including its condition, estimated capacity, and method of precipitation removal:

Tank / Container Type and Use	Maximum Capacity	Actual Quantity	Secondary Containment	Markings	Comments (including condition)
----------------------------------	---------------------	-----------------	--------------------------	----------	-----------------------------------

5 tanks

none

none

oil water

separator

Riveted tank is largest.

Tanks used for transfer
of waste for injection

CONTINUATION SHEET (identify Section and/or Checklist continued)

PHOTO LOG

Site Number: Araho Disposal Facility

Film Type/ASA/Size: Kodak/200 ASA/135

Photographer: Wallace O'Rear

Photo Number Subject

R3E01 View of pit at Araho Disposal facility Looking NW

R3E02 View of pit & tanks, looking Southeast

R3E03 View of pit and other tanks on the north side of pit

R3E04 View of south side of pit looking northeast

ARAH

Winds

Overcast 60 mph 9/23/97

West Side Road
NOL Hubs

8:15

Runnels Pit + Treating Plant?

Ray A. Mabe: K., Wayne P., Greg Pate, Arickelous, Luffy

Pit Took Refining Wastes.

Phil Runnels

Full Pit to the Top.

Cost of Purification

Emergency Overflow Pit From Refining

Tank Farm Leaking - Lavender Purple Paint -

Asphalted Behind Borehole around valves

9 Tanks

Write letter Make Recommendations to

Close the pit List of Permitted

Facilities. Need Closure Plan

Check Dates of Facility

Class 1 Waste

1986

Non Hazardous

was

Stopped Accepting 1986?

Pit is Lined.

Met with Dorothy Runnels Son

Phil Runnels

5614

SELL T 17

R 36 E

8:53

End

DOROTHY RUNNELS
8100 W. ALABAMA
HOBBS, NEW MEXICO 88240
(505) 392-6223

October 25, 1995

Mr. Mark Ashley
New Mexico Oil & Gas
Conservation Division
St. Land Office Building
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: Araho Salt Water Disposal

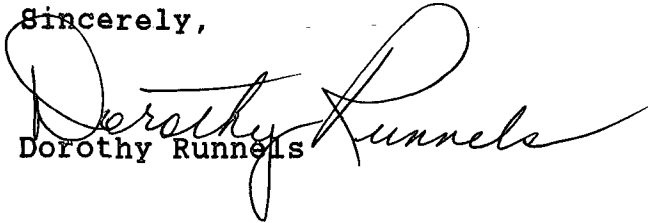
Dear Mr. Ashley:

I received your certified letter of October 13, 1995 and am at a loss. We have not talked with your office since June, 1993, at which time a proposal was made for a lined pit. Since that time we have not heard anything from your office.

Also since that time, circumstances have changed and the parties involved with Araho are no longer involved. I have no means of carrying out any proposal that was made at that time.

Please inform me as to how you wish to proceed in this matter.

Sincerely,


Dorothy Runnels

Hartgraves Insurance, Inc.
P. O. Box 1657
Lovington NM 88260

STATEMENT

Page 1

ACCOUNT NO.
ARAH001

STATEMENT AS OF
11/01/95

Araho, Inc.
8100 West Alabama
Hobbs, NM 88240

Pol	Eff Date	Co	Policy	Description	Amount
				Balance Forward:	0.75
	10/02/95			ITT-DAMAGE BOND	50.00
	11/01/95			Service Charge	0.76
				Balance Due:	51.51

DOES THIS NEED TO BE
ADJ?

SLO 827-5760
DANA VILLA

Z 765 962 776



**Receipt for
Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, March 1993

Z 765 962 767



**Receipt for
Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, March 1993

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

September 8, 1995

CERTIFIED MAIL

RETURN RECEIPT NO. Z-765-962-767

Mrs. Dorothy Runnels

Araho, Inc.

~~1621 S. Main~~ 8/30 DURANGO
~~Lovington, NM 88260~~ NOBBS, NM 88240

Re: Araho Class I Site Pit Closure

Dear Mrs. Runnels:

The New Mexico Oil Conservation Division (OCD) has received the pit closure correspondence from your June 7, 1995th meeting at the District I Office. In order to properly review and approve your pit closure request, could you please send a written closure plan to the OCD Santa Fe Office. Enclosed is a copy of the OCD "Unlined Surface Impoundment Closure Guidelines" and a copy of the "Pit Remediation And Closure Report" for your help.

If you have any questions regarding this matter, please feel free to call me at (505) 827-7155.

Sincerely,



Mark Ashley

Geologist

Attachments

xc: Jerry Sexton, OCD Hobbs Office
Wayne Price, OCD Hobbs Office



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT CONSERVATION DIVISION
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

'94 JUN 9 AM 8 50
REC: JED

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD Inter-Correspondence

To: Jerry Sexton-District I Supervisor

From: Wayne Price-Environmental Engineer District I

Date: June 8, 1994

Reference: Request from Jerry Sexton for recommendations on meeting held June 7, 1994-(minutes attached)

Subject: Araho Class I well site "pit closure"

Comments: Per your request I am making a recommendation that Bill Olson of our NMOCD Environmental Bureau take the lead on this project. I base this recommendation on a telephone conversation with Roger Anderson our Environmental Bureau Chief.

cc: Bill LeMay-NMOCD Director
Roger Anderson-Environmental Bureau Chief

Attachments-1



INTER-OFFICE MEMO

To file: Araho Inc.

Date: June 7, 1994

Time: 9:30 am

Telephone call: _____ Meeting: XX Other: _____

Person called or attending:

Wayne Price, Jerry Sexton- NMOCD
Mrs. Dorothy Runnels-Owner of Araho Inc.
Steve & Cindy Pearce-representing Lea Fishing Tools

REFERENCE: Minutes of Meeting held in Jerry Sexton's office.

Subject: Araho Pit Closure located at the "old" Araho class
I disposal well-

Comments: Steve Pearce, a close friend of Mrs. Runnels is helping her as a friend to properly close the pit. His understanding of the oil business and apparently an association through another disposal well where he had worked on a well and became the operator of that well due to a possible default by Mrs. Runnels prompted him to assist her.

They presented a verbal plan of action where they want to remove the liquids from the pit and dispose of at the Araho SDW # 1. The remaining material would then be bioremediated. They apparently want to do all of this in house.

They ask me if this plan would be ok! I informed them that there would be a number of environmental hoops to jump through in order to make this determination. I told them that the exempt status of the pit would have to be investigated and maybe some analytical work such as "metals" might have to be run. Jerry indicated that this has already been done and it is in some file either here or Santa Fe.

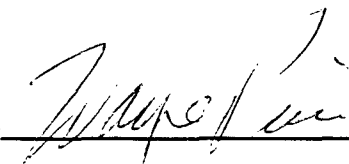
Mrs. Runnels said that the NMED has already signed off on it. She gave me a copy of a letter April 26, 1991 to her from the NMED. (see attachments)

It was pointed out during the meeting that the pit is lined with a heavy liner and is still in good shape.

It was pointed out in the meeting that if they could do it this way then everyone would benefit, the site would be cleaned up at the expense of Mrs. Runnels. If large demands are placed on this project, Mrs. Runnels was afraid her creditors might force her out of business and the site would be left to the state to clean up. She sincerely wants to do the right thing and abide by the environmental rules and regulations.

The meeting was concluded by indicating that the Santa Fe NMOC Environmental Group would have to be involved.

Wayne Price

A handwritten signature in dark ink, appearing to read 'Wayne Price', is written over a horizontal line.



BRUCE KING
GOVERNOR

April 26, 1991

State of New Mexico
ENVIRONMENT DEPARTMENT
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-2850

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

Mrs. Dorothy Runnels
President
Araho, Inc.
1621 S. Main
Lovington, NM 88260

RECEIVED
JUN 07 1994
OLD NEWS
OFFICE

Dear Mrs. Runnels:

On February 15, 1990, the New Mexico Environmental Improvement Division, now the New Mexico Environment Department (NMED), conducted a hazardous waste inspection of your facility, Araho, Inc. This letter is NMED's notice that, based on our review of the information received, Araho has not violated the hazardous waste regulations.

However, with new changes in the hazardous waste regulations, EID must inform you that you may not dispose of any refinery wastes (e.g. K049 and K051) in your wells. These wastes were prohibited from land disposal on August 8, 1990 (for wastewaters; for non-wastewaters the effective prohibition date is November 8, 1990).

If you have any questions concerning this information, please call me at 827-2928.

Sincerely,

Patricia A. Ringgenberg

Patricia A. Ringgenberg
Water Resource Specialist
Hazardous and Radioactive Waste Bureau

Lynx Petroleum Consultants, Inc.

P. O. Box 1666
3325 Enterprise Drive
Hobbs, New Mexico 88241
505 392-6950

FAX NUMBER: 505/392-7886

ATTN: Mr. Dave BoyerLOCATION: OCD Santa Fe1 - 827-5741FROM: Marc Wise

LOCATION: _____

DATE: 4/18/91TIME: 1:00 PMNO. OF PAGES INCLUDING INSTRUCTION SHEET 3

REMARKS I am reviewing the attached (2) disposal wells for possible usage by Navajo Refining. Please review and I will call you to find out what would be required to reclassify these well, from Class II to Class I.

Thanks
Marc

Archo, Inc.
P.O. Box 937
Lovington, NM 88260

4/9/91

451' - 13 3/8" 48# csg.
Cemented w/450 sxs. Circulated.

Squeezed T.O.L. w/50 sxs (9/7/79)

4825' - Top of 5 1/2" Liner

4999' - 8 5/8" csg.
Cemented w/1500 sxs. Circulated.

TOC @ 2765 by T.S.

Some

3 1/2" Tubing

Packer ● 11894'

11940' - 5 1/2", 17#, N-80, Liner
Cemented w/750 sxs. Circulated to top of Liner.

T.D. ● 12704'

L. C. State No. 1

2190' FSL & 560' FEL

Sec 1. T-17S. R-36E

Elev. 3858' D.F.

Araho, Inc.
P.O. Box 937
Lovington, NM 88260

4/9/91

349' - 13 3/8", 48#, H-40.
Cemented w/450 axs. Circulated.

3318' - 9 5/8", 36#, J-55.
Cemented w/1750 axs. Circulated.

T.O.C. @ 3890' (Cement Bond Log)

4241' - Casing Tie-back cemented w/200 axs

T.O.C. @ 4280'

2 3/8" Plastic Lined Tubing

Perfs 5845'-5968' Squeezed

Perfs 6186'-6265' Squeezed

Baker Model R Packer @ 8320'

Perfs 8378'-8404'

Perfs 8405'-8480'

8528' - 5 1/2", 17# csg.
Cemented w/1400 axs.

T.D. @ 9006'

L. C. State No. 2

1650' FNL & 2310' FWL

OIL CONSERVATION DIVISION
RECEIVED

'93 MAR 10 AM 9 25

Araho, Inc.
P. O. Box 983
Hobbs, NM 88241

May 4, 1993

Roger C. Anderson
Environmental Bureau Chief
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504

RE: Discharge Plan GW-37
Araho, Inc.
L. C. State Wells No. 1 and No. 2

Dear Mr. Anderson:

This letter is in response to your letter dated April 13, 1993. I understand that our current discharge plan permitting L. C. State Wells No. 1 and No. 2 as Class 1 effluent injection wells will expire on January 9, 1994 unless certain remedial work is performed on both wells (the discharge plan renewal and requirements do not affect our Class 2 SWD permit).

At this time we are not prepared to perform the remedial work on the aforementioned wells, but we do not want to close the door on later Class 1 permitting. Please let me know if I need to file any paperwork for our current OCD Class 2 SWD permit.

Also, please update your files to reflect our new mailing address at P. O. Box 983, Hobbs, NM 88241. Thank you for your help.

Cordially,

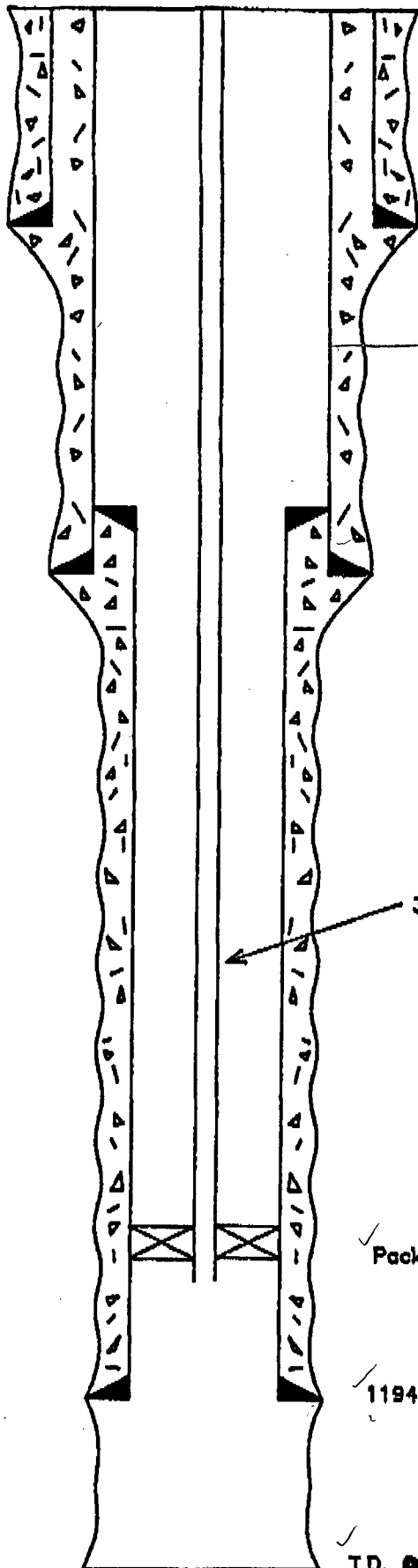


Cynthia Pearce

CP/ms

Araho, Inc.
P.O. Box 937
Lovington, NM 88260

4/9/91



✓ 451' - 13 3/8" 48# csg.
Cemented w/450 sxs. Circulated.

TOC @ 2765' (Temp. survey)

Squeezed T.O.L. w/50 sxs (9/7/79)

4825' - Top of 5 1/2" Liner

✓ 4999' - 8 5/8" csg. ✓
Cemented w/1500 sxs. Circulated.

3 1/2" Tubing

✓ Packer @ 11894'

✓ 11940' - 5 1/2", 17#, N-80, Liner
Cemented w/750 sxs. Circulated to top of Liner.

✓ T.D. @ 12704'

L. C. State No. 1

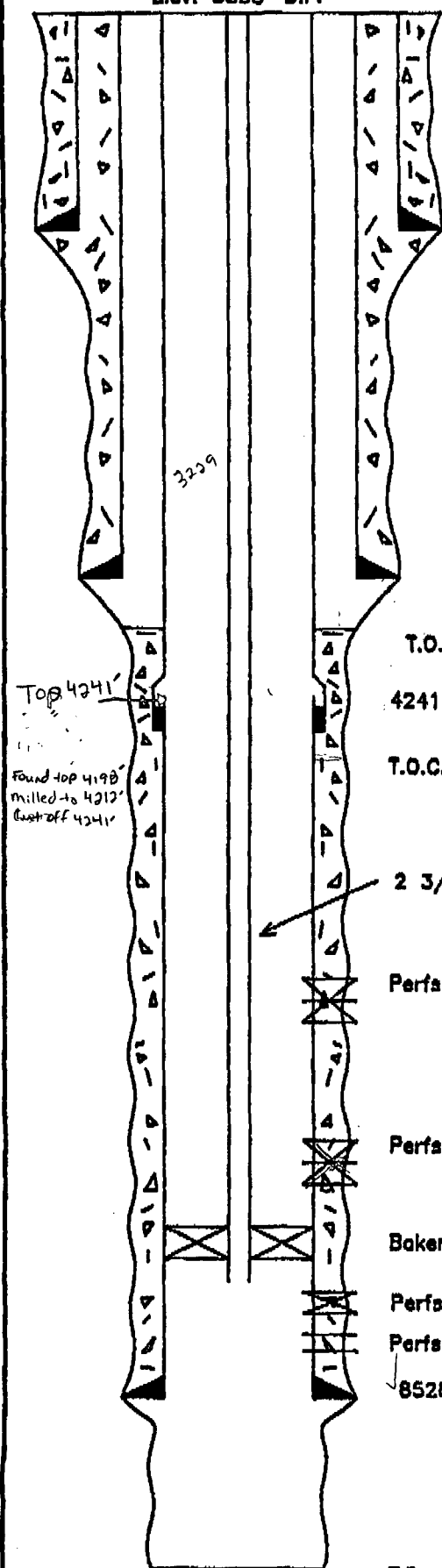
2190' FSL & 560' FEL

Sec 1. T-17S. R-36E

Elev. 3858' D.F.

Araho, Inc.
P.O. Box 937
Lovington, NM 88260

4/9/91



349' - 13 3/8", 48#, H-40.
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3318' - 9 5/8", 38#, J-55.
Cemented w/1750 axs. Circulated.

T.O.C. @ 3890' (Cement Bond Log)

4241' - Casing Tie-back cemented w/200 axs

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2 3/8" Plastic Lined Tubing

Perfs 5845'-5968' Squeezed

Perfs 6186'-6265' Squeezed

Baker Model R Packer @ 8320'

Perfs 8378'-8404'

Perfs 8405'-8480'

8528' - 5 1/2", 17# csg.
Cemented w/1400 axs.

5 1/2
joint 7
tie into 5 1/2' @ 4241'

L. C. State No. 2

1650' FNL & 2310' FWL

T.D. @ 9006'

- 2 Wells permitted for Class I wells (L.C. 5+06 Wells)
- Need mechanical work done on both wells before operational start-up
- Old Amoco Wells - dryholes P & A
- Both wells originally permitted as Class II wells (L.C. 5+06)
- Will retain their Class II permits

Physical Requirements for Wells & Facility

1. Plastic-lined tubing w/ packer < 100' from csg. shoe
2. Csg-Tbg annulus filled w/ an inert fluid & kept @ minimal press. of 100 psi.
3. Cement placement between casing and hole drilled from the casing shoe up to & overlapping the previous casing string.
4. Recording devices (charts) to continually monitor
 - injection pressure (vacuum)
 - flow rate
 - flow volume
 - annulus pressure
5. Automatic equipment to interrupt flow to the facility in case of overflow
6. Proper surface conditions for pits & tanks (berms)
7. Proper securing of surface equipment (gates, locks, etc.)
8. Pressure limiting switch limiting well head pressure to no more than hydrostatic pr. from storage tanks

- Tests to Run Prior to Start-Up

1. Static -fluid level determination
2. Mechanical integrity test (^{pull the} set packer)
3. Analysis of fluid injected (see addendum)
4. Bond or temperature survey log.

- Continual Monitoring

1. Monthly reports of disposed produced waters (R. 704 R. 1120)
2. Monthly reports (kept for 2 yrs) of all wastes, not being produced waters (source, location, type, volume, date, transportation) ^{WOC 3-107A}
3. Quarterly and yearly reports of fluid analysis
4. Yearly MIT (witnessed by OCS)
5. Monthly avg., min & max values for pr., rate, vol.
6. Any well workovers

Contingency Plan

1. If 1 well fails divert its fluids to other well
2. Waste oil & sludges taken to oil reclamation plants or Pollution Control (Laguna Gatuna)

Well No. 1

- inj into Fusselman Fm
@ 12,100' to 12,700' (Dolomite)

- Disperse water in all dir^s

Fm. S TDS \approx 45,000 ppm

Discharge TDS \approx 1200 to 45000 ppm

Groundwater @ 60' with TDS \approx 892 ppm
(50-300')

- No wells w/in $\frac{1}{2}$ mi penetrating
injection zone (all completed shallower)

- max. inj. pr. 12 lb/in² same

- Plant (refinery) responsible
for all disposal requirements

- MIT tests 9-85 lost 31-33%

Well No. 2

- inj into Abo Fm (Dolomite)

@ 8528' to 8900'

- Disperse water to east

- 3 wells w/in $\frac{1}{2}$ mile penetrate
injection zone (Class II inj. wells)

- Inj. into Abo (8330 - 9000' No 22)

- MIT passed after thy. repaired
9-85

Tanks, Pit lined & w/ leak detection

Plant: Southern Union Refinery / Farnass Ref.

-6000 to 10000 bpd to wells via pipeline

- Main problem is cement lacking

btw. 5' $\frac{1}{2}$ " lining & hole from

(8273' to 4999')

Open hole injection

- Open hole inj. 8510' to 8889'

ADDENDUM

Araho, Inc.

RE: Discharge Plan Application GW-37
L.C. State Well #1 and #2

The following tests will be performed on the effluent by the plant as soon as the effluent becomes available and quarterly and yearly thereafter as indicated.

Yearly:

1. Aromatic and halogenated hydrocarbon scan by EPA methods 601 and 602. This analysis will determine concentrations of Benzene, Toluene, Xylene and the presence of Chlorinated solvents.
2. General water chemistry, to include: Calcium, Magnesium, Potassium, Sodium, Bicarbonate, Chloride, Sulfate, Carbonate, TDS, pH and conductivity.
3. Heavy metals (by ICAP scan) to include Aluminum, Barium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Silver, Strontium, and Zinc.
4. Heavy metals by atomic absorption to include As and Hg.

Quarterly:

1. Chlorides, pH, TDS, Chromium and Lead.
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Other tests will be run and reported as directed by OCD.



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Araho, Inc.

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Other tests will be run and reported as directed by OCD.

A handwritten signature in cursive script, appearing to read "Dorothy Bunch". The signature is written in dark ink and is located at the bottom of the page.

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Araho, Inc.

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Other tests will be run and reported as directed by OCD.

A handwritten signature in cursive script, appearing to read "Dorothy Bunnell". The signature is written in dark ink and is located at the bottom of the page.

OIL CONSERVATION DIVISION
CASING-- DENICAD TEST

PT 4-29-88

34-33 OPERATOR: Araho Inc Pool/FM OH 11940-12000
Lease Name State L C Well# 1 Unit Letter 2 Sec 1 Twp 17 Rge 36
Footage _____ Inj. Press Limit _____ Order # SND 154
Test Date 2-2-88 Oper. Rep. _____ OCD Rep Szden

TOC	CASING STRING	Size	Set At	Cemented	Pressure	Remarks	Annulus Press Test
	SURFACE	<u>13 3/8</u>	<u>451'</u>	<u>450#</u>	<u>0#</u>	<u>Attempt to test S/LINER</u>	<u>19 87</u>
	INTERMEDIATE						<u>0</u>
	PRODUCTION	<u>8 3/8</u>	<u>4999'</u>	<u>1500#</u>		<u>Pumped 130 bbls, ON 2 VAC</u>	
	Liner	<u>5 1/2</u>	<u>48 25'</u>	<u>750#</u>	<u>VAC.</u>	<u>211 the way</u>	<u>0 Puff</u>
	TUBING	<u>3 1/2</u>	<u>11894'</u>	<u>Pkr</u>	<u>12" VAC</u>		<u>30" Vac</u>

If well is on Vacuum: SI _____ Min. Tbg Press _____ Csg: Vacuum _____ Static _____
Approximately how many hours a day is the well used _____ Test Reviewed by: _____

Remarks 84- operator claims annulus had never been loaded prior to Aug 9 test & that air was trapped causing bleedoff. Took approx 2 hrs 9-5-84 to load & bleed off prior to test. Oper SI & began Rep. on 2-2-88. After shut in & began repairs to
Test Date _____ Oper Rep. _____ OCD Rep _____

TOC	CASING STRING	Size	Set At	Cemented	Pressure	Remarks	Annulus Press. Test
	SURFACE	<u>13 3/8</u>	<u>451'</u>	<u>450#</u>			
	INTERMEDIATE						
	PRODUCTION	<u>8 3/8</u>	<u>4999'</u>	<u>1500#</u>			
	Liner	<u>5 1/2</u>	<u>48 25'</u>	<u>750#</u>			
	TUBING	<u>3 1/2</u>	<u>11894'</u>	<u>Pkr</u>			

If well is on Vacuum: SI _____ Min. Tbg Press _____ Csg: Vacuum _____ Static _____
Approximately how many hours a day is the well used _____ Test Reviewed by: _____

Remarks: _____

Test Date _____ Oper Rep. _____ OCD Rep _____

TOC	CASING STRING	Size	Set At	Cemented	Pressure	Remarks
	SURFACE					
	INTERMEDIATE					
	PRODUCTION					
	TUBING					

If well is on Vacuum: SI _____ Min Tbg. Press _____ Csg: Vacuum _____ Static _____
Approximately how many hours a day is the well used _____ Test Reviewed by: _____

Remarks: _____

NEW MEXICO OIL CONSERVATION DIVISION
CASING--BRADENHEAD TEST

OIL CONSERVATION DIVISION
RECEIVED

OPERATOR: ARAHO, INC

LEASE: STATE

POOL: ABO

FOOTAGE 1650-N

FOOTAGE 2310-W

ORDER NO. R-5251

SECTION

PRESS LMT

2

100

TWN

17 S

WELL #

2 --

UNIT LTR F

17 S

TYPE LEASE

DATE INJ. BEGAN

RANGE 36 E

TYPE WELL S

'91 APR 2 AM 9 30

TEST DATE 24-Feb-89 TEST TYPE BHT PASS/FAIL BSO1
OPERATOR REP: ROLAND OCD REP: TURNACLIFF
CASING SIZE SET AT TOP CMT CEMENTED PRESSURE REMARKS
SURFACE 13 3/8 349 0 450SX
INTERM-1 9 5/8 3318 0 1750SX
INTERM-2
PROD 5 1/2 8452 0 1400SX
LINER

TUBING 3 1/2 8320 PKR TSTM LIGHT PRESS-NOT IN
IF WELL IS ON VACUUM: SI. MIN. TBG PRESS.
CSG: VACUUM APPROX. HRS/DAY WELL 24 HRS-4
REMARKS: 77-5 1/2 PULLED FROM 4198-WHEN WELL WAS PLUGGED. SNC NO
REPAIR LETTER DATE DATE REPAIR

TEST DATE 23-Mar-90 TEST TYPE BHT PASS/FAIL BSO1
OPERATOR REP: WADE OCD REP: TURNACLIFF
CASING SIZE SET AT TOP CMT CEMENTED PRESSURE REMARKS
SURFACE 13 3/8 349 0 450SX
INTERM-1 9 5/8 3318 0 1750SX
INTERM-2
PROD 5 1/2 8452 0 1400SX
LINER

TUBING 3 1/2 8320 PKR 5 TSTM-NOT INJ
IF WELL IS ON VACUUM: SI. MIN. TBG PRESS.
CSG: VACUUM APPROX. HRS/DAY WELL 24 HRS A
REMARKS: SNC NO
REPAIR LETTER DATE DATE REPAIR

TEST DATE 2-27-91 TEST TYPE BHT PASS/FAIL BSO1
OPERATOR REP: WADE OCD REP: LYKE
CASING SIZE SET AT TOP CMT CEMENTED PRESSURE REMARKS
SURFACE 13 3/8 349 0 450SX
INTERM-1 9 5/8 3318 0 1750SX
INTERM-2
PROD 5 1/2 8452 0 1400SX
LINER

TUBING 3 1/2 8320 PKR
IF WELL IS ON VACUUM: SI 20 MIN. TBG PRESS 0
CSG: VACUUM STATIC 0 APPROX. HRS/DAY WELL 24 Hrs. Auto

REMARKS: SNC NO
REPAIR LETTER DATE DATE REPAIRED

3/7/91 copy to Jerry
3/8/91 - Eddie will have rechecked



U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF DRINKING WATER
INVENTORY OF INJECTION WELLS
(This information is collected under
the authority of the Safe Drinking Water Act.)

I. DATE PREPARED
(mo., day, & year)

II. FACILITY I.D. NUMBER

III. TRANSACTION TYPE ('X' one)

☐ 1. DELETION
☒ 2. FIRST TIME ENTRY
☐ 3. CHANGE OF ENTRY

IV. FACILITY NAME AND LOCATION

A. NAME

01 ARAHO INC.

B. STREET ADDRESS OR ROUTE NUMBER

02 SEC. 1 T27S R36E N4PM

C. CITY OR TOWN

D. ST. E. ZIP CODE

F. COUNTY

G. INDIAN LAND (mark 'X')

V. LEGAL CONTACT: TYPE, NAME, PHONE, MAILING ADDRESS, AND OWNERSHIP

A. TYPE (mark 'X')

1. OWNER

2. OPERATOR

B. NAME (last, first, & middle initial)

C. PHONE (area code & no.)

D. ORGANIZATION

E. STREET OR P.O. BOX

F. CITY OR TOWN

G. ST. H. ZIP CODE

I. OWNERSHIP ('X' one)

M. PUBLIC

O. OTHER (specify)

P. PRIVATE

S. STATE

VI. WELL INFORMATION

WELL OPERATION STATUS:

PA = PERMANENTLY ABANDONED AND APPROVED BY STATE

AC = ACTIVE

TA = TEMPORARILY ABANDONED

AN = PERMANENTLY ABANDONED AND NOT APPROVED BY STATE

D. COMMENTS (optional)

REFINERY EFFLUENT AND PRODUCED WATER

DISPOSAL WELLS. PERMITTED THROUGH

GROUND WATER DISCHARGE PLAN GW-37



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

January 9, 1987

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mrs. Dorothy Runnels, President
Araho, Inc.
P. O. Box 937
Lovington, New Mexico 88260

RE: DISCHARGE PLAN (GW-37)
ARAHO, INC.
L. C. STATE WELLS NO. 1 AND NO. 2

Dear Mrs. Runnels:

The ground water discharge Plan (GW-37) for the Araho, Inc., L. C. State Wells No. 1 and No. 2, Class I effluent (non-hazardous) injection wells, and associated surface facilities located in the SE/4 of Section 1, Township 27 South, Range 36 East (NMPM) is hereby approved with the following provisions:

1. To prevent corrosion and provide maximum protection for the casing, injection shall be through plastic lined tubing with a packer set no more than 100 feet from the bottom of the long-string casing.
2. The casing-tubing annulus shall be filled with an inert fluid, and a minimum pressure of 100 psi maintained pursuant to WQCC 5-206.B.2.
3. Continuous monitoring devices shall be installed to provide a record of injection pressure (vacuum), flow rate, flow volume and annular pressure, pursuant to N.M. WQCC 5-207.B.2. Such devices shall be installed prior to injection of any industrial effluent.
4. Monthly reports of the disposal of produced water shall be submitted in accordance with Rules 704 and 1120 of the Division Class II Rules and Regulations.
5. For wastes other than produced water, the operator shall keep and make available for inspection, records for each calendar month on the source, location, volume and type of waste, date of disposal and pipeline or hauling company that disposes of fluids or materials in the facility. Such records shall be maintained for a period of two years from the date of disposal.

This requirement is pursuant to WQCC 3-107.A. and is needed to track the types and volumes of waste received by the facility.

6. The operator shall provide a representative analysis of the injected fluids quarterly pursuant to WQCC 5-208.A.2(a) and Apollo letter of January 8, 1987.
7. Mechanical integrity for each effluent disposal well shall be demonstrated yearly during the life of the well pursuant to WQCC 5-207.A. and the discharge plan dated October 15, 1986. The type of test shall be approved by the Division and witnessed by an OCD representative.
8. The injection well or system shall be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than the hydrostatic pressure from the injection storage tanks exerted at the wellhead.
9. The operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer in the wells or the leakage of water from around said wells, or associated surface facility, and take such steps as may be timely and necessary to correct such failure or leakage pursuant to WQCC 5-208.A.1.
10. Pursuant to WQCC 5-208.2, the following quarterly reports will be submitted to the Director:
 - a) The analyses as required in (6) above.
 - b) Monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure.
 - c) Any well workover.
11. L. C. State No. 1 well shall not be used for disposal of industrial effluent prior to the completion of remedial repairs as specified in the OCD correspondence of November 10, 1986.

The discharge plan was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission Regulations. It consists of the application dated October 6, 1986, and supplements dated October 15, 1986, December 2, 1986, and January, 1987. It is approved pursuant to Section 3-109.C. which provides for the possible future amendments of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

Please note that Section 3-104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C., you are required to notify the Director of any facility expansion or process modification that would result in any change in the discharge of water quality or volume. You are further required to notify the Director prior to the receipt of any industrial effluent.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

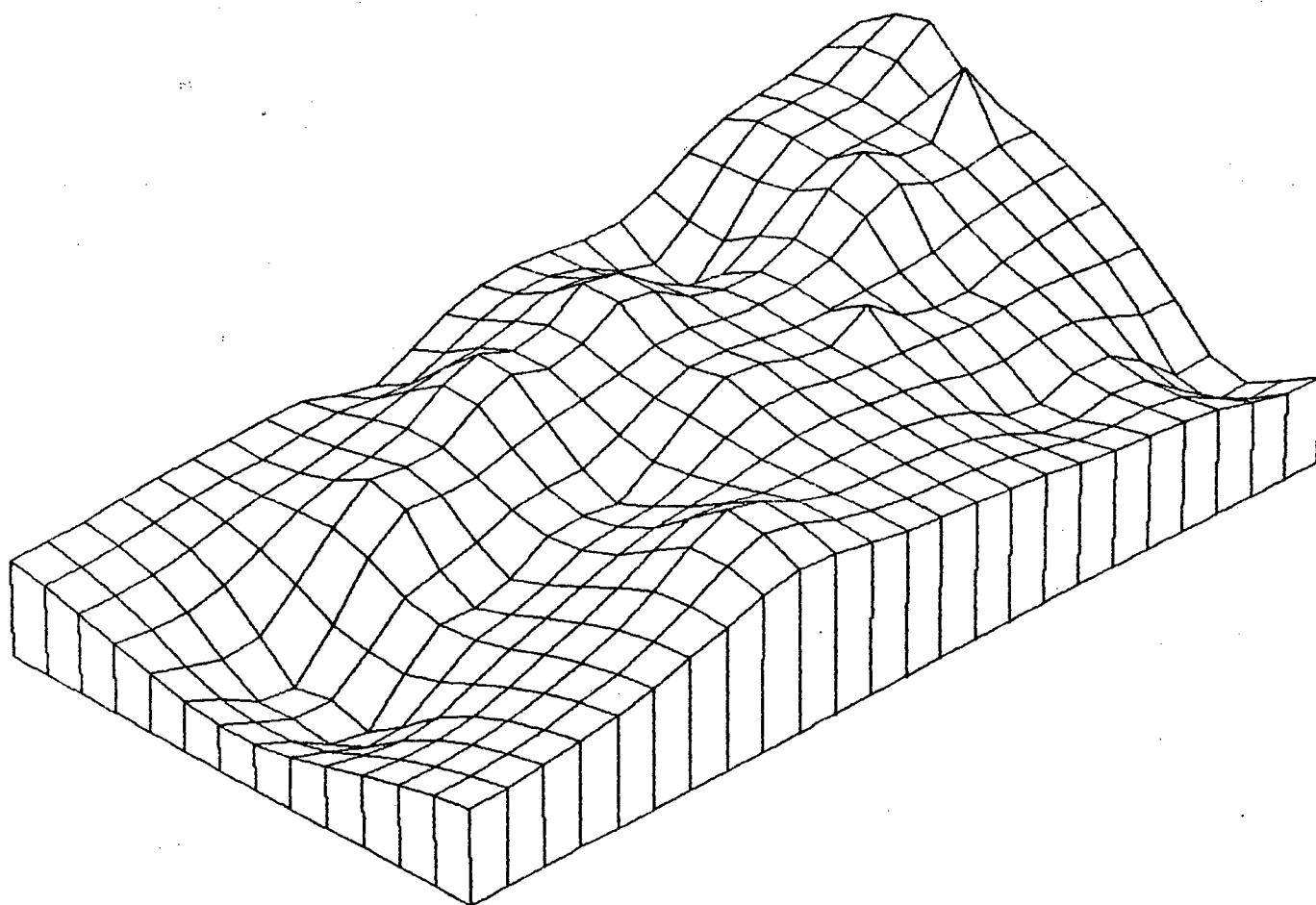
Sincerely,



CHARLES ROYBAL
Acting Director

CR:RCA:dp

cc: OCD, Hobbs
Southern Union Refinery



Top of the Abo



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

December 29, 1986

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501-2088
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mrs. Dorothy Runnels, President
Araho, Inc.
P. O. Box 937
Lovington, New Mexico 88260

RE: DISCHARGE PLAN APPLICATION GW-37
ARAHO, INC.
L. C. STATE WELLS NO. 1 AND NO. 2

Dear Mrs. Runnels:

We have received and are in the process of reviewing your addendum, dated December 2, 1986, to your discharge plan application. The information contained in the submittals adequately addresses the requirements of the WQCC Rules and Regulations and applicable OCD Rules and Regulations.

An item of clarification needs to be addressed concerning constituent testing of the effluent waste stream. As you already know the source of industrial effluent you will be receiving, the following constituents need to be analyzed for as soon as the effluent is available, and yearly thereafter:

1. Aromatic and halogenated hydrocarbon scan by EPA Methods 601 and 602. This analysis will determine the concentration of benzene, toluene, and xylene, and the presence of chlorinated solvents. The latter are considered "hazardous wastes" and should not be in the refinery's waste stream.
2. General water chemistry, to include calcium, magnesium, potassium, sodium, bicarbonate, chloride, sulfate, carbonate, TDS, pH and conductivity.
3. Heavy metals (by ICAP Scan) to include aluminum, barium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese molybdenum, nickel, silver, strontium, and zinc.
4. Heavy metals by atomic absorption to include As, Hg.

The following constituents need to be analyzed for quarterly:

1. chloride, pH, TDS, chromium and lead.

2. Aromatic and halogenated hydrocarbon scan by EPA Methods 601 and 602.

A written commitment from you to have analyses of these constituents performed on the above schedule will expedite our review process.

If you have any questions, please do not hesitate to call me at (505) 827-5885.

Sincerely,

A handwritten signature in black ink, appearing to read "Roger C. Anderson", followed by a horizontal flourish.

ROGER C. ANDERSON
Environmental Engineer

RCA:dp

cc: OCD, Hobbs



DOROTHY RUNNELS
Chairman of the Board

January 8, 1987

Mr. Roger Anderson
Environmental Engineer
Energy and Minerals Department
Post Office Box 2088
State Land Office Building
Santa Fe, New Mexico 87501-2088


Re: Discharge Plan Application GW-37
Araho, Inc.
L.C. State Wells No. 1 and No. 2

Dear Mr. Anderson:

Enclosed is the additional information you requested to be added to our discharge plan.

If you need any additional information, please don't hesitate to call. I am sending the original and three copies, should you need the copies.

Yours truly,


Dorothy Runnels

DR/jh

enc.

via Federal Express

RUNCO, INC.
RUNNELS MUD COMPANY
P. O. Box 937 • Lovington, New Mexico 88260
Phone (505) 396-3663 • (505) 393-2813

ADDENDUM

Araho, Inc.

RE: Discharge Plan Application GW-37
L.C. State Well #1 and #2

The following tests will be performed on the effluent by the plant as soon as the effluent becomes available and quarterly and yearly thereafter as indicated.

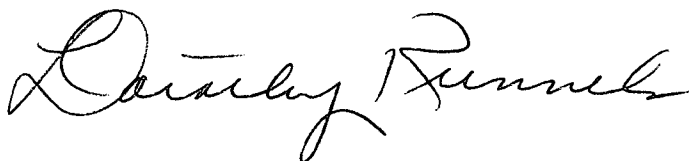
Yearly:

1. Aromatic and halogenated hydrocarbon scan by EPA methods 601 and 602. This analysis will determine concentrations of Benzene, Toluene, Xylene and the presence of Chlorinated solvents.
2. General water chemistry, to include: Calcium, Magnesium, Potassium, Sodium, Bicarbonate, Chloride, Sulfate, Carbonate, TDS, pH and conductivity.
3. Heavy metals (by ICAP scan) to include Aluminum, Barium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Silver, Strontium, and Zinc.
4. Heavy metals by atomic absorption to include As and Hg.

Quarterly:

1. Chlorides, pH, TDS, Chromium and Lead.
2. Aromatic and halogenated Hydrocarbon scan by EPA methods 601 and 602.

Other tests will be run and reported as directed by OCD.



NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

RECEIVED	
DIVISION	
3.	
DIVISION OFFICE	
OPERATOR	

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER: Salt Water Disposal	7. Unit Agreement Name Abo SWD
2. Name of Operator Rice Engineering & Operating, Inc.	8. Farm or Lease Name Abo SWD
3. Address of Operator P. O. Box 1142, Hobbs, New Mexico 88240	9. Well No. 2
4. Location of Well UNIT LETTER C 2310 FEET FROM THE west LINE AND 990 FEET FROM THE north LINE, SECTION 2 TOWNSHIP 17S RANGE 36E NMPM.	10. Field and Pool, or Wildcat Lovington Abo
15. Elevation (Show whether DF, RT, GR, etc.) 3863' N.B.	12. County Dea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐
OTHER ☐

PLUG AND ABANDON ☐
CHANGE PLANS ☐
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐
COMMENCE DRILLING OPNS. ☐
CASING TEST AND CEMENT JOBS ☐
OTHER Install tubing ☒
ALTERING CASING ☐
PLUG AND ABANDONMENT ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

10-19-74:

Run 3,317' (268 jts.)-3½" OD plastic-lined tubing w/packer on bottom & loaded casing-tubing annulus with chromate water. Injecting produced water down 3½" OD plastic-lined tubing under vacuum and casing-tubing annulus is pressured to 150 psi.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

ORIGINAL SIGNED BY

SIGNED L. B. GOODHEART

TITLE Division Manager

DATE Nov. 11, 1974

APPROVED BY

Orig. Signed by
De D. Ramey
Dist. I. Supt.

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

The Ohio Oil Company
(Company or Operator)

State B-4286 "A"
(Lease)

Well No. 1, in NE 1/4 of NW 1/4, of Sec. 2, T. 17 S, R. 36 E, NMPM.

Lovington-Abo

Pool, Lea

County.

Well is 2310 feet from West line and 990 feet from North line

of Section 2 If State Land the Oil and Gas Lease No. is B-4286

Drilling Commenced December 12, 1953 Drilling was Completed February 8, 1954

Name of Drilling Contractor Company tools, Rig #2

Address Hobbs, New Mexico

Elevation above sea level at Top of Tubing Head. The information given is to be kept confidential until 19

OIL SANDS OR ZONES

No. 1, from to No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet.

No. 2, from to feet.

No. 3, from to feet.

No. 4, from to feet.

CASING RECORD

SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
13-3/8"	48	New	375'	Baker guide shoe			
9-5/8"	36	New	3330'	3" Baker differential collar			
5-1/2"	17	New	8572'	11" Baker "	float " & guide shoe		
2-3/8"	4.7	New	8505'	3"			

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
17 1/2"	13-3/8"	396	350	B J Cementing Co.		
12"	9-5/8"	3348	1750	B J Cementing Co.		
8-3/4"	5-1/2"	8530	1350	B J Cementing Co.		
	2-3/8"	8465		torp. end.		

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

Washed w/750 gallon acid before testing, after acid 528 BOPD, on 22/64" choke.

Perforated tbgs. from 8444' to 8468' w/6 shots per ft. 168 - 1/2" holes.

Acidized thru perforation in 5 1/2" casing from 8440' to 8468' w/750 gal. mud acid.

Result of Production Stimulation

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Amoco Production Company		ADDRESS P. O. Box 68 - Hobbs, NM 88240	
LEASE NAME State "E" Tract 13	WELL NO. 22	FIELD Lovington Abo	COUNTY Lea
LOCATION UNIT LETTER <u>G</u> ; WELL IS LOCATED <u>1650</u> FEET FROM THE <u>North</u> LINE AND <u>1650</u> FEET FROM THE <u>East</u> LINE. SECTION <u>2</u> TOWNSHIP <u>17-S</u> RANGE <u>36-E</u> NMPM.			

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13-3/8"	270'	275	Surface	Circulated
INTERMEDIATE	9-5/8"	3287'	300	Unknown	Cemented with DV tool at 2106'
LONG STRING	5-1/2"	8330'	835 sx originally will squeeze 450 sx Approx. 4150'		Temp Survey
TUBING	3-1/2"	Approx. 8331'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson Uni Packer VI - 3-1/2" - 8300'		

NAME OF PROPOSED INJECTION FORMATION Abo		TOP OF FORMATION 8350'	BOTTOM OF FORMATION 9250'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Internally Coated Tubing		PERFORATIONS OR OPEN HOLES? 8330' - 9000'	PROPOSED INTERVAL(S) OF INJECTION 8330' - 9000'
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Producing Well		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 8338' - 8340' 75 sx slosset; 8292' - 8316' 150 sx Class H					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 80'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 6800'		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 9500'	
ANTICIPATED DAILY INJECTION VOLUME (BBLS.) 6,000	MINIMUM 10,000	MAXIMUM Closed	OPEN OR CLOSED TYPE SYSTEM Pressure	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 1650#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -		WATER TO BE DISPOSED OF Yes		NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes

NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) City of Lovington, New Mexico			
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL			
Marathon Oil Company - P. O. Box 2409 - Hobbs, NM 88240			
Cities Service Company - P. O. Box 1919 - Midland, TX 79702			
Getty Oil Company - P. O. Box 730 - Hobbs, NM 88240			
Amerada Hess Corporation - P. O. Box 2040 - Tulsa, OK 74102			
Phillips Petroleum Company - 4001 Penbrook - Odessa, TX 79701			

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER Yes	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	THE NEW MEXICO STATE ENGINEER Yes
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)	PLAT OF AREA Yes	ELECTRICAL LOG No	DIAGRAMMATIC SKETCH OF WELL Yes

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Bob Davis

(Signature)

Administrative Analyst

(Title)

June 20, 1980

(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Amoco Production Company		ADDRESS P. O. Box 68 - Hobbs, NM 88240	
LEASE NAME State "E" Tract 13	WELL NO. 22	FIELD Lovington Abo	COUNTY Lea
LOCATION UNIT LETTER <u>G</u> : WELL IS LOCATED <u>1650</u> FEET FROM THE <u>North</u> LINE AND <u>1650</u> FEET FROM THE <u>East</u> LINE, SECTION <u>2</u> TOWNSHIP <u>17-S</u> RANGE <u>36-E</u> NMPM.			

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13-3/8"	270'	275	Surface	Circulated
INTERMEDIATE	9-5/8"	3287'	300	Unknown	Cemented with DV tool at 2106'
LONG STRING	5-1/2"	8330'	835 sx originally will squeeze 450 sx Approx. 4150'		Temp Survey
TUBING	3-1/2"	Approx. 8331'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson Uni Packer VI - 3-1/2" - 8300'		

NAME OF PROPOSED INJECTION FORMATION Abo		TOP OF FORMATION 8350'	BOTTOM OF FORMATION 9250'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Internally Coated Tubing	PERFORATIONS OR OPEN HOLES? 8330' - 9000'	PROPOSED INTERVAL(S) OF INJECTION 8330' - 9000'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Producing Well	HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes	

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 8338' - 8340' 75 sx sloslet; 8292' - 8316' 150 sx Class H			
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 80'	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 6800'	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 9500'	
ANTICIPATED DAILY INJECTION VOLUME (BBL/S.) 6,000	MINIMUM 10,000	MAXIMUM Closed	OPEN OR CLOSED TYPE SYSTEM Pressure
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -		IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 1650#
WATER TO BE DISPOSED OF Yes		NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes

NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) City of Lovington, New Mexico
--

LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL			
Marathon Oil Company - P. O. Box 2409 - Hobbs, NM 88240			
Cities Service Company - P. O. Box 1919 - Midland, TX 79702			
Getty Oil Company - P. O. Box 730 - Hobbs, NM 88240			
Amerada Hess Corporation - P. O. Box 2040 - Tulsa, OK 74102			
Phillips Petroleum Company - 4001 Penbrook - Odessa, TX 79701			

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER Yes	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	THE NEW MEXICO STATE ENGINEER Yes
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)	PLAT OF AREA Yes	ELECTRICAL LOG No	DIAGRAMMATIC SKETCH OF WELL Yes

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Bob Laws
(Signature)Administrative Analyst
(Title)June 20, 1980
(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-103
Revised 10-1-7

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease
State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.

SUNDARY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO REPER OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE APPLICATION FOR PERMIT TO REPER OR PLUG BACK FOR SUCH PROPOSALS.

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- Injection	7. Unit Agreement Name
2. Name of Operator Amoco Production Company	8. Farm or Lease Name State "E" Tract 18
3. Address of Operator P. O. Box 68, Hobbs, New Mexico 88240	9. Well No. 22
4. Location of well UNIT LETTER <u>G</u> <u>1650</u> FEET FROM THE <u>North</u> LINE AND <u>1650</u> FEET FROM THE <u>East</u> LINE, SECTION <u>2</u> TOWNSHIP <u>17-S</u> RANGE <u>36-E</u> N.M.P.M.	10. Field and Pool, or adjacent Lovington ABO
11. Elevation (Show whether DF, RT, CR, etc.) 3852' RDB	12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPER. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Processes or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Moved in service unit 3-10-82. Pulled tubing and packer. Ran a retrievable bridge plug, packer and tubing. Set bridge plug at 8235' and packer at 8225'. Tested bridge plug to 1000 psi and tested okay. Tested casing and packer to 2500 psi and tested okay. Pulled tubing and packer. Ran a casing inspection log 8150' to surface. Ran a casing bond log 8150-3600'. Perforated 3700' with 2 SPF. Ran packer and tubing and spotted 14' of sand on bridge plug. Pulled tubing and packer. Circulated 9-5/8" casing with 280 bbl. water and dye. Cement squeezed casing with 1500 sacks class C cement. Drilled out cement 3624'-3745'. Pressure tested casing to 1000 psi and tested okay. Pulled tubing and tools. Ran a retrieving tool and tubing. Washed sand off retrievable bridge plug. Pulled tubing and retrievable bridge plug. Ran packer and 2-7/8" tubing. Set packer at 8239'. Moved out service unit 3-21-82. Returned well to injection.

O+4-NMOCD, H 1-Hou 1-Susp 1-CLF

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Cathy L. Forman TITLE Assist. Admin. Analyst DATE 3-29-82

ORIGINAL SIGNED BY

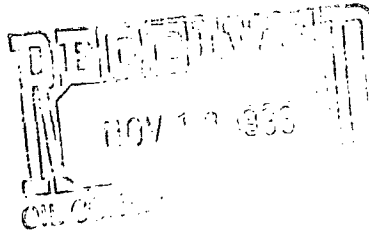
APPROVED BY John J. Forman TITLE Assistant Secretary DATE MAR 31 1982
CONDITIONS OF APPROVAL, IF ANY, LISTED BELOW.



**UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE**

Field Supervisor
Ecological Services, USFWS
Post Office Box 4487
Albuquerque, New Mexico 87196

November 10, 1986



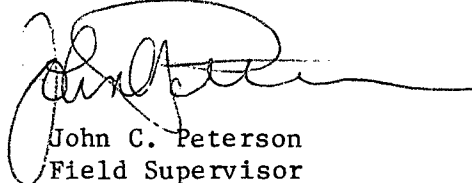
R. L. Stamets, Director
Oil Conservation Division
State of New Mexico
State Land Office Building
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Stamets:

We have reviewed the proposed discharge plan for reclassification of GW-37, Araho Incorporated, Lovington, New Mexico to class I effluent disposal (non-hazardous) wells. The disposal facility is located in SE $\frac{1}{4}$ of Section 1, T17S, R36E (NMPM) Lea County. The discharge plan is for the injection of up to 420,000 gallons/day of produce water with a total dissolved solids concentration up to 45,000 ppm into two deep wells.

We have not identified any significant fish and wildlife resources or their habitats that would be impacted by reclassification of these wells. These comments represent the views of the Fish and Wildlife Service. Thank you for the opportunity to comment on the proposed plan. If you have any questions concerning our comments please contact Tom O'Brien at (505) 883-7877 or FTS 474-7877.

Sincerely yours,



John C. Peterson
Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Health and Environment Department, Environmental
Improvement Division, Santa Fe, New Mexico
Regional Administrator, Environmental Protection Agency, Dallas, Texas
Regional Director, FWS, FWE, Albuquerque, New Mexico

All USGS

observation wells in
area of injection wells
are completed in the
Ogallala fm.

TABLE 3. STRATIGRAPHIC UNITS IN SOUTHERN LEA COUNTY, N. MEX.

	GEOLOGIC AGE	GEOLOGIC UNIT	THICKNESS (ft)	GENERAL CHARACTER	WATER-BEARING PROPERTIES
Cenozoic Quaternary	Recent	Sand	0-30±	Dune sand, unconsolidated stabilized to drifting, semiconsolidated at depth; fine- to medium-grained.	Above the zone of saturation, hence, does not yield water to wells. Aids recharge to underlying formations by permitting rapid infiltration of rain-water.
	and Pleistocene	Alluvium	0-400±	Channel and lake deposits; alternating thickbedded calcareous silt, fine sand, and clay; thickest in San Simon Swale; less than 100 feet thick in most places.	Saturated and highly permeable in places in east end of Laguna Valley. Forms continuous aquifer with Ogallala formation. Wells usually yield less than 30 gpm. Locally above the water table.
Cenozoic Tertiary	Pliocene	Ogallala	0-300±	Semiconsolidated fine-grained calcareous sand capped with thick layer of caliche; contains some clay, silt, and gravel.	Major water-bearing formation of the area. Unsaturated in many localities, such as north side of Grama Ridge, west side of Eunice Plain, Antelope Ridge area, and Rattlesnake Ridge. Greatest saturated thickness along east side of Eunice Plain, west of Monument Draw, where wells yield up to 30 gpm. Highest yields, up to 700 gpm, obtained from wells along south edge of Eunice Plain, east of Jal.
Mesozoic Cretaceous		Undifferentiated	35±	Small isolated and buried residual blocks of limestone, about 3 miles east of Eunice.	Possibly small isolated bodies of water locally.

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NEW MEXICO BUREAU OF MINES & MINERAL RESOURCES

Mesozoic Triassic	Dockum group	Chinle formation	0-1,270±	Claystone, red and green; minor fine-grained sandstones and siltstones; underlies all of eastern part of southern Lea County area; thins westward; absent in extreme west.	Yields small quantities of water from sandstone beds. Yields are rarely over 10 gpm. Water has high sulfate content.
		Santa Rosa sandstone	140-300±	Sandstone, chiefly red but locally white, gray, or greenish-gray; fine- to coarse-grained; exposed in extreme west; underlies Cenozoic rocks in western part of area, and is present at depth in eastern part.	Yields small quantities of water over most of the area. Some wells are reported to yield as much as 100 gpm. Water has high sulfate content.
Paleozoic Permian or Triassic		Undifferentiated	90-400+	Siltstone, red, shale, and sandstone; present at depth under all of southern Lea County.	No wells are known to be bottomed in the red beds. Probably can yield very small quantities of high-sulfate water.
Paleozoic Ordovician through Permian			6,500-17,000±	Thick basin deposits ranging in character from evaporites to coarse clastics; thinnest on the east side of the area over the Central basin platform, thickest toward the southwest.	No presently usable water supply available from these rocks. Source of highly mineralized oil-field waters.
Precambrian				Granite, granodioritic and other igneous and metamorphic rocks; complex structure.	Not hydrologically significant.

GROUND WATER

LEA COUNTY

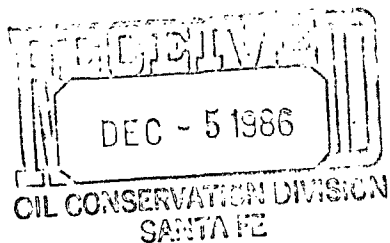
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TABLE 1. -- WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1979, CHANGE FROM WINTER 1978 TO WINTER 1979, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	79 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 36E 23 241	T.M. MONTEITH	OGLL	-59.07	1-04	-0.52	-46.68	55	-62.59	72	54-58,60-63,65-79
16S 37E 01 311	WILKS	OGLL	-81.99	1-03	-0.55	-34.99	50	-81.99	79	50-79
14S 37E 02 211	HARADA	OGLL	-78.26	1-03	-0.96	-38.33	50	-78.26	79	50-79
16S 37E 07 114	BEAL GLEASON	OGLL	-63.36	1-04	-0.72	-38.32	50	-63.36	79	50-79
16S 37E 11 111	R.J. TAYLOR	OGLL	-78.64	1-03	-0.22	-31.93	49	-75.64	79	49-79
16S 37E 25 111	A.C. DAVIS	OGLL	-64.70	1-05	-	-64.70	79	-64.63	75	75
16S 38E 05 333	STATE OF N. MEX.	OGLL	-44.35	1-04	-0.36	-24.60	56	-44.35	79	51-79
16S 38E 27 111	WOODY'S ACRES INC.	OGLL	-80.84	1-03	-1.07	-32.85	50	-82.34	79	50-79
16S 38E 30 211	MITCHELL	OGLL	-62.93	1-03	+2.09	-34.82	51	-65.02	78	51-54,57-79
16S 38E 34 131	WOODY'S ACRES INC.	OGLL	-102.76	1-03	+1.56	-62.39	59	-104.32	75	52,58-79
16S 39E 29 233	SIMS AND HOLDER	OGLL	-92.08	1-03	-2.66	-54.85	50	-92.08	79	50-58,60-79
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-171.04	1-04	-1.22	-146.05	53	-171.04	79	52-79
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-153.48	1-04	-1.05	-133.01	69	-153.48	79	68-79
17S 34E 35 130	STATE OF N. MEX.	OGLL	-124.32	1-04	-1.32	-59.88	53	-124.32	79	40-79
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-39.81	1-04	-0.47	-33.05	49	-39.31	79	47-79
17S 37E 10 211	S.M. REILAND	OGLL	-60.08	1-03	-1.22	-32.87	49	-60.08	79	49-79
17S 37E 12 113	LEE STILES	OGLL	-75.12	1-03	-0.30	-43.69	50	-75.12	79	50-79
17S 37E 34 111	C.G. GOODWIN	OGLL	-60.96	1-03	-0.01	-42.13	57	-69.74	73	57-79
17S 38E 02 311	H.V. LAWRENCE	OGLL	-79.94	1-03	-2.17	-43.65	51	-79.94	79	49-79
17S 38E 07 111	L.R. SEBRINGS	OGLL	-68.36	1-03	-0.37	-35.59	52	-68.36	79	51-79
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-70.92	1-03	-0.66	-36.46	50	-70.92	79	50-57,59-79
17S 38E 24 133	H.V. LAWRENCE	OGLL	-53.02	1-03	-1.20	-41.30	50	-57.00	70	50-58,60-64,66-79
17S 38E 31 311	G.L. BEENE	OGLL	-52.09	1-03	+2.61	-26.71	49	-54.70	73	48-71,74-79
17S 38E 34 113	W.E. BUSBY	OGLL	-54.62	1-03	-1.12	-24.78	44	-54.62	79	43-79
18S 34E 22 343	CONOCO OIL CO.	OGLL	-110.45	1-04	-	-109.22	67	-110.62	72	65-77,79
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-75.05	1-04	-0.25	-69.46	56	-75.05	79	53-79
18S 36E 27 111	STATE OF N. MEX.	OGLL	-47.30	1-04	-1.40	-38.13	43	-47.30	79	39-79
19S 36E 32 321	F.K. TURNER	ALVM	-26.75	1-04	-	-24.05	76	-27.33	71	71,74-77,79
19S 37E 34 111	UNKNOWN	OGLL	-18.85	1-04	-	-18.85	79	-22.33	74	74-77,79
19S 38E 30 121	UNKNOWN	OGLL	-29.66	1-04	+0.88	-28.53	76	-30.54	76	74-79
19S 38E 34 222	J.D. COURSEY	OGLL	-52.14	1-04	-2.27	-42.27	49	-55.95	72	49-59,61-79

Araho, Inc.

P. O. Box 937 / Lovington, New Mexico 88260 / Phone (505) 396-3663



December 2, 1986

Mr. David Boyer
Energy and Minerals Department
Land Office Building
Room 206
Santa Fe, New Mexico 87504

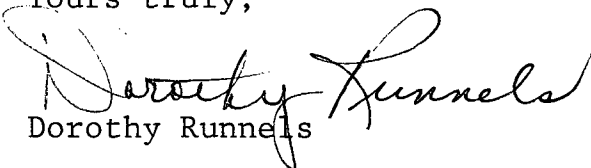
Dear Mr. Boyer:

Enclosed is the addendum to our Discharge plan. Hopefully, this will complete our package. If not, please let us know what additional information you need.

I have also included two copies of the addendum for Mr. R. L. Stamets, Chairman of OCD, and Ms. Denise Fort, WQCC Chairman. Will you please see that they get these copies?

Thank you for all your help in this matter.

Yours truly,


Dorothy Runnels

DR/jh

enc.

ARAHO, INC.

Plugging and Abandonment Plan

For: L.C. STATE WELLS #1 AND #2

If for any reason these wells are to be abandoned the following procedures will be followed.

As both wells, to meet Class I disposal requirements, will require casings to be cemented, we therefore will not attempt to recover casing during plugging procedures. Salt Gel made with 10 lb. brine and 35 lb. of Gel/BBL. hereafter referred to as Gel will be used between plugs. Cement plugs will be 25 sacks or 100 ft. whichever is greater.

L.C. STATE #1:

A cast iron bridge plug will be set at 12,050', bottom of long string with 25 sacks of cement on top. Gel fill to top of Devonian, plug set at 11,716', Gel fill to top of Strawn, plug set at 10,300', Gel fill to top of Penn, plug set at 10,055', Gel fill to top of Abo, plug set at 8,304', Gel fill to top of Glorietta, plug set at 6,017', Gel fill to casing shoe, plug set at 7,949', tag plug to verify Gel fill to top of San Andres, plug set at 4,607', Gel fill to top of Queen, plug set at 3,601', Gel fill to top of Salt Zone, plug set at 1,990', Gel fill to surface plug, permanent marker welded to casings.

L.C. STATE #2:

A cast iron bridge plug will be set at 8,500', bottom of long string, with 25 sacks cement on top. Gel fill to top of Glorietta, plug set at 6,095', Gel fill to top of San Andres, plug set at 4,708', Gel fill to top of Queen, plug set at 3,670', Gel fill to casing shoe, plug set at 3,368', tag to verify, Gel fill to top of Salt Zone, plug set at 2,078', Gel fill to surface cement plug with permanent marker welded to casings.

Both locations upon plugging will have all tanks, pipe and connections removed along with fence wires and posts. Surface caliche will be leveled. Locations will be plowed and seeded before abandonment. Cattleguards will be removed and fence replaced where necessary.

This plugging and abandonment plan is for guidelines only and may be revised by OCD as regulations or requirements change.

Tabulation of Wells:

L.C. State #1 records indicate no wells within $\frac{1}{2}$ mile that penetrate #1's injection zone. All surrounding wells are completed in higher formations.

L.C. State #2 records indicate that only three wells located within $\frac{1}{2}$ mile penetrate the injection zone. All three of these wells are Class II SWD wells and all three wells are on vacuum. Rice Engineering's #1 is located $\frac{1}{8}$ mile North of #2. Apollo Oil's #21 and #22 are located $\frac{1}{4}$ mile Northeast and East respectively of Araho #2. Copies of OCD form C-104 for each of these three well are enclosed.

WaterCourses:

There are no true watercourses located within one mile of either disposal site. There is one small dirt stockwater tank located $\frac{1}{2}$ mile East of #2. The topography in this area is relatively flat with occasional depressions and little to no long range drainage. No true watercourses or bodies of water would be affected by accidental or unauthorized release of effluent on the surface.

Since no pumps are set up to pressurize the disposal wells, the maximum pressure to the well will be hydrostatic head from the tanks (approximately 12 lbs./in.²) to a vacuum of 30 in. of mercury. As both wells have taken large quantities of water for several years I can see no pressure changes in the foreseeable future.

Formation fluid displacement seems to occur readily to justify the tremendous rates at which the wells take water. The Abo formation of #2 water well disperse generally to the East. The Fusselman formation of #1 probably disperses in all directions.

Contingency Plans:

In the event of one of the wells failing, flow of the effluent will be diverted to the other until the failure can be repaired. In the event of well failure fresh water will be placed so as to displace all effluent in the tubing and/or casing to prevent escape of the effluent into other zones.

The system is checked more than three times daily. Morning, noon and night and as more often as necessary. Small leaks and leaks outside of the berms will be detected visually. Leaks outside of the bermed area immediately after detection will be sucked up by vacuum trucks and returned to the system.

All fluids including oils, sludges and tank bottoms received will be sold to oil reclamation plants. What fluids they will not take will be trucked to pollution control (Latuna Laguna).

Compliance Plans:

The plant anticipates only producing 2,000 BBLs./day of effluent for the first few months, therefore we propose to perform the cement bond log, static fluid level, placement of any cement required, installation of all automatic equipment and the mechanical integrity test within sixty days of approval of the discharge plan on #2 well only. As the plant is responsible for all expenses in meeting #1 disposal requirements this timetable will of course depend on them. Since the plant has said they will not start up until this discharge plan is approved, we will not be able to obtain an analysis of the effluent prior to this discharge plan approval. We propose to obtain this analysis immediately upon start up of the plant.

All other requirements will be met on #2 within 180 days of start up of plant. All requirements on #1 well will be met before effluent injection from the plant is turned into it. I wish we could give you more accurate dates and times but at this time we are unable to do so. If you have any other questions please contact us and we will attempt to answer them.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Submitted by:


Dorothy Runnels
President
Araho, Inc.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

November 10, 1986

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501-2088
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mrs. Dorothy Runnels, President
Araho, Inc.
P. O. Box 937
Lovington, New Mexico 88260

RE: Discharge Plan Application GW-37
Araho, Inc.
L. C. State Wells No. 1 and No. 2

Dear Mrs. Runnels:

The Oil Conservation Division has received and is in the process of reviewing the above-referenced discharge plan application. The plan submittal, dated October 15, 1986, was received by the OCD on October 16, 1986. The following comments and requests for additional information are based on our review of the data provided in the plan. A site inspection field trip will be conducted in the near future and may produce additional comments and a further need for additional information. The discharge plan review and evaluation is pursuant to the requirement to bring the subject wells and their associated surface equipment into compliance with Part 3 (Discharges to Groundwater) and Part 5 (Underground Injection Control) of the New Mexico Water Quality Control Commission (WQCC) Regulations.

General Comments

Our review of the discharge plan and a review of the OCD well files for the subject wells indicate that submission of additional information as detailed below is required for further review. Specific monitoring, operating and reporting requirements need to be addressed and clarified.

Although the subject wells fulfill the requirements to be permitted as Class II SWD wells, their construction does not meet the requirements for Class I effluent disposal wells. Certain remedial work and corrective actions will be required prior to injection of any industrial effluent.

Specific Comments

- 1) The certification signature sheet as required pursuant to Sec. 5-101.H.2 of the WQCC regulations was omitted. Please supply this page as a supplement to your discharge plan application.
- 2) A plugging and abandonment plan was omitted. Please supply a plan pursuant to WQCC Section 5-209.

- 3) A tabulation of all wells within one-half mile of each injection well that penetrate the injection zone is required as per Section 5-210.B.3 and 5-210.B.4.
- 4) A general description of the geologic and hydrologic conditions and specific maps and cross sections were omitted from the application. However, in lieu of the submission of these items, the following references as researched by the OCD staff will be incorporated in your discharge plan where available and appropriate:
 - a. Sidney R. Ash, Ground-Water Conditions in Northern Lea County, Hydrologic investigations Atlas HA-62, USGS, 1963, satisfies the requirement for maps and cross sections indicating the general vertical and lateral limits of all ground waters having 10,000 mg/l or less TDS within the area of review.
 - b. Cross section prepared by J. Bailey, OCD, using OCD well files, drillers logs and log files, satisfies the requirement for maps and cross sections detailing the geology and geologic structure of the local area. A copy of this review will be placed in your discharge plan.
- 5) Please supply the following additional information:
 - a. Locations of any watercourse or body of water within one mile of the discharge site that would be impacted by any accidental and/or unauthorized release of effluent on the surface.
 - b. Information on expected pressure changes, formation fluid displacement, and direction of movement of injected fluids in the injection zone.
 - c. Contingency plans for well failures or shut-ins to prevent movement of fluids to zones other than the approved injection zone.
- 6) Descriptions and schematics of the surface facilities and a monitoring system were submitted in the plan. Please submit the following information and clarifications:
 - a. Contingency plans for any unauthorized release resulting from leaks or rupture of a flow line not contained by the proposed berm. How will any small leaks be detected? How often will the system be physically checked? ..
 - b. What will be the disposition of fluids including oils, sludges and tank bottoms that may be received but cannot be injected?
- 7) As mentioned previously, the subject Class II SWD wells do not meet the more stringent Class I effluent disposal well construction requirements.

The following are the minimum requirements for conversion of your Class II SWD wells to Class I effluent disposal (non-hazardous) wells and for associated surface facilities. Additional requirements may be identified and added based on a site inspection, test results, and/or public response following public notification. Please submit plans for compliance including expected dates of completion.

Not all items listed below need be completed before injection of industrial effluent. However, prior to such injection, those items listed in Section (a) below must be completed and the results evaluated by OCD prior to injection approval. As Araho already has an agreement to receive industrial effluent from Southern Union Refining Company, the items listed in Section (b) below must be completed within six months of discharge plan approval. If the agreement is no longer in effect at the time of approval, the items listed in Section (b) must be completed within six months of any subsequent agreement to receive any industrial effluent. The items listed in Section (c) below will be performed from onset of injection throughout the period the well is used for injection of industrial effluent.

a. Prior to injection of any industrial effluent:

1. Static fluid level determination.
2. Mechanical Integrity Test.
3. Installation of continuous monitoring equipment to provide a record of injection pressure (vacuum), flow rate, flow volume, and pressure on the annulus.
4. An analysis of the fluid injected.

b. Completed within six months:

1. Placement of cement in the annulus between the drilled hole and each string of casing extending from the bottom of the pipe to within the previous string of casing where such cement may not now be present.
2. A bond log or temperature survey verifying all casing is cemented so as to fulfill the requirement in b.1 above.
3. Performance of a Mechanical Integrity Test after remedial work in b.1 above.
4. Automatic equipment shall be installed to interrupt the flow to the facility in the event of tank overflow.
5. Any pits on the facility shall conform to the OCD "Guidelines".

c. During the period the well is used for injection of industrial effluent:

1. Inject through plastic lined tubing with a packer set

no more than 100 feet from the bottom of the long-string casing.

2. Surface equipment will be secured to prevent unauthorized operation.
3. Surface equipment shall be maintained and have proper berms to contain any leaks or spills.
4. Continuous monitoring of injection pressure (vacuum), flow rate, flow volume, and pressure on the annulus with a monthly summary report to the Division.
5. A quarterly chemical analysis of the injected fluids for those constituents representative of fluid characteristics and required by OCD.

Enforcement Agreement (Prior to Discharge Plan Approval)

The wells proposed for reclassification can retain their Class II SWD permit and can continue to be used for produced water disposal pursuant to OCD Rules and Regulations. In the event you receive industrial effluent for disposal prior to discharge plan approval, the enforcement agreement as negotiated between the OCD, Araho and Southern Union will take effect.

If you have any questions, please do not hesitate to call me at (505) 827-5885.

Sincerely,



ROGER C. ANDERSON
Environmental Engineer

RCA:dp

cc: OCD-Hobbs

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed discharge plan has been submitted for approval to the Director of the Oil Conservation Division, State Land Office Building, P. O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800.

(GW-37) Araho, Inc., Dorothy Runnels, President, P. O. Box 937, Lovington, N.M. 88260, proposes to reclassify their State L.C. Well No. 1 and Well No. 2 from Class II salt water disposal wells to Class I effluent disposal (non-hazardous) wells. The disposal facility is located in the SE/4 of Section 1, Township 17 South, Range 36 East (NMPM), Lea County, New Mexico. Up to 10,000 barrels (420,000 gallons) per day of produced water and/or non-hazardous refinery effluent will be disposed of through the two disposal wells. Well No. 2 injects into the Abo formation at a depth from 8528 to 8900 feet, and Well No. 1 injects into the Fusselman formation at a depth from 12,100 to 12,700. Discharge concentrations are expected to range between 1200 and 45,000 mg/l total dissolved solids. The approximate total dissolved solids concentration of formation fluids is 45,000 mg/l. The discharge plan addresses current and proposed construction, operation and monitoring of the wells and associated surface facility, and provides a contingency plan in the event of spills, leaks and other unauthorized discharges to ground water. Protectable ground water most likely to be affected in the event of unauthorized discharge is at a depth of approximately 60 feet with a total dissolved solids concentration of approximately 892 mg/l.

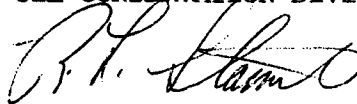
Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil

Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN Under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 22nd day of October, 1986. To be published on or before October 31, 1986.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



R. L. STAMETS
Director

S E A L

Affidavit of Publication

STATE OF NEW MEXICO)

) ss.

COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that he is **Adv. Director** of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Notice Of Publication

and numbered in the

..... Court of Lea County, New Mexico, was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, once each week on the same day of the week, for one (1)

consecutive weeks, beginning with the issue of

October 28, 1986

and ending with the issue of

19.....

And that the cost of publishing said notice is the sum of \$ 22.99

which sum has been (Paid) (~~Assessed~~) as Court Costs

Subscribed and sworn to before me this 12th

day of November, 1986

Mr. J. A. Series
Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 1990

LEGAL NOTICE NOTICE OF PUBLICATION STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed discharge plan has been submitted for approval to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505)827-5800.

(GW-37) Araho, Inc., Dorothy Runnels, President, P.O. Box 937, Lovington, N.M. 88260, proposes to reclassify their State L.C. Well No. 1 and Well No. 2 from Class II salt water disposal wells to Class I effluent disposal (non-hazardous) wells. The disposal facility is located in the SE/4 of Section 1, Township 17 South, Range 36 East (NMPM), Lea County, New Mexico. Up to 10,000 barrels (420,000 gallons) per day of produced water and/or non-hazardous refinery effluent will be disposed of through the two disposal wells. Well No. 2 injects into the Abo formation at a depth from 8528 to 8900 feet, and Well No. 1 injects into the Fusselman formation at a depth from 12,100 to 12,700. Discharge concentrations are expected to range between 1200 and 45,000 mg/l total dissolved solids. The approximate total dissolved solids concentration of formation fluids is 45,000 mg/l. The discharge plan addresses current and proposed construction, operation and monitoring of the wells and associated surface facility, and provides a contingency plan in the event of spills, leaks and other unauthorized discharges to ground water. Protectable ground water most likely to be affected in the event of unauthorized discharge is at a depth of approximately 60 feet with a total dissolved solids concentration of approximately 892 mg/l.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN Under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 22nd day of October, 1986. To be published on or before October 31, 1986.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

R.L. STAMETS
Director

Seal
Published in the Lovington Daily Leader October 28, 1986.

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/R.L. STAMETS
Director

Journal October 30, 1986

STATE OF NEW MEXICO

County of Bernalillo

THOMAS J. SMITHSON

ss

being duly sworn declares and

says that he is NAT'L ADV. MGR. of the Albuquerque Journal, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, a copy of which is hereto attached, was published in said paper in the regular daily edition,

for times, the first publication being on the day of , 1986, and the subsequent consecutive publications on , 1986.

NOTARIAL SEAL

RAE MONTROYA

NOTARY PUBLIC STATE OF NEW MEXICO

My Comm. Expires 9-18-90

Notary Public

Signature of Notary

Sworn and subscribed to before me, a Notary Public in and for the County of Bernalillo and State of New Mexico, this day of , 1986.

PRICE \$5.00

Statement to come at end of month.

ACCOUNT NUMBER C80932

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

1, _____

Robert L. Summers

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supplement thereof for a period

of _____

One weeks.

Beginning with the issue dated

October 28, 19 86

and ending with the issue dated

October 28, 19 86

Robert L. Summers
Publisher.

Sworn and subscribed to before

me this 28 day of

October, 19 86

Vera Murphy
Notary Public

My Commission expires _____

Nov. 14, 19 88

(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE

NOTICE OF PUBLICATION STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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STATE OF
NEW MEXICO
OIL CONSERVATION
DIVISION
R.L. STAMETS
Director
(Seal)



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

October 17, 1986

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Mr. Eugene N. Dubay
Vice President and Treasurer
Southern Union Company
1800 InterFirst Two
Dallas, Texas 75270

Re: Araho Disposal Wells

Dear Mr. Dubay:

Enclosed for your signature is the Enforcement Agreement to allow for continued use of the Araho SWD wells for disposal of Southern Union refinery effluent during the discharge plan processing. The changes and additions discussed in our telephone conversation have been incorporated in the agreement as well as changes to reflect OCD receipt of the discharge plan application. No changes were made to the exhibits.

If the changes meet with your approval, please forward the signed agreement to Mrs. Runnels for her signature.

Please feel free to call me if any other questions arise.

Sincerely,

A handwritten signature in dark ink, appearing to read "R. L. Stamets", written over a horizontal line.

R. L. STAMETS,
Director

enclosure

ENFORCEMENT AGREEMENT

This Agreement is made and entered into this _____ day of _____, 1986 by and among the New Mexico Oil Conservation Division of the Energy and Minerals Department (hereinafter "OCD"); Araho, Inc.; and Southern Union Refining Company (hereinafter Southern Union):

WHEREAS Southern Union is the owner of a refinery located approximately five miles southeast of Lovington, New Mexico in Section 36, Township 16 South, Range 36 East, and Section 31, Township 16 South, Range 37 East, NMPM; and

WHEREAS Araho, Inc. is the owner and operator of two Class II disposal wells, being the State LC Well No. 1, located in Section 1, Township 17 South, Range 36 East and the State LC Well No. 2, located in Section 2, Township 17 South, Range 36 East, NMPM; and

WHEREAS the above-referenced wells have historically been utilized for disposal of wastewater effluent from the Southern Union Refinery which disposal is exclusively authorized in the discharge plan for the refinery approved by the OCD in 1984; and

WHEREAS the OCD has notified Araho, Inc. of the need to file a discharge plan for the subject wells to bring such wells into compliance with Part 3 (Discharges to Ground Water) and Part 5 (Underground Injection Control) of the New Mexico Water Quality Control Commission (WQCC) Regulations, if they are to continue to be used for refinery effluent disposal in the future; and

WHEREAS Araho, Inc. has filed a discharge plan application with the OCD to obtain approval for disposal of industrial waste water effluent into the subject wells; and

WHEREAS no violation of WQCC Regulations occurs unless such discharge actually occurs; and

WHEREAS no such discharge has occurred since Araho, Inc. was notified of the need to file a discharge plan application; and

WHEREAS by regulation a certain amount of time is necessary prior to OCD making a decision on the application to provide for public comment and permit review; and

WHEREAS the OCD has determined that limited continued use of the subject wells presents no hazard to fresh water; and

WHEREAS, the parties to this Agreement desire to set forth the minimum conditions upon which the wells may be utilized for future refinery effluent disposal.

NOW THEREFORE, the parties mutually agree as follows:

1. Araho Inc. will be granted a 90 (ninety) day period to allow disposal of effluent from the Southern Union Refinery, such period to be extended to six months duration upon request of Araho, Inc. and a satisfactory showing of progress towards discharge plan approval. During the period that this agreement is in force, Araho Inc. shall accept industrial effluent only from the Southern Union Refinery.

2. During this limited period Araho, Inc. will perform such upgrading operations as are necessary to bring the subject wells into compliance with discharge plan requirements pursuant to Parts 3 and 5 of the WQCC Regulations, such upgrading to include at least those items listed in Exhibit A, attached hereto and made a part hereof.

3. Southern Union will apply to the OCD to amend its existing discharge plan in such a manner as to make explicit the requirement that all refinery effluent is to be disposed of into approved effluent disposal wells, or other approved disposal facility.

4. A penalty of up to 100 dollars per day shall be paid for any day during which injection of plant effluent takes place in said wells prior to final discharge plan approval. Such penalty shall be waived in event of delay by OCD beyond the times allowed in the WQCC Regulations for review of the application, or in the event of additional time required if a public hearing on the application is necessary. The actual penalty amount will be determined at the completion of discharge plan processing, and will be dependent on the completeness of the initial application, time taken to comply with the items specified in Exhibit A, prompt and complete response to OCD questions and comments on the application submitted, and on other items that show a willingness to promptly come into compliance.

5. During the period of this Agreement, OCD will take no further enforcement action against Araho, Inc., for utilizing subject wells for disposal of refinery effluent, provided Araho complies with those items in Exhibit B, attached hereto and made a part hereof.

6. This Agreement shall terminate on date of discharge plan approval, or no later than six months following receipt of discharge plan application, or by mutually agreeable consent of the parties.

ARAHO, INC. _____ DATE _____

OIL CONSERVATION DIVISION _____ DATE _____

SOUTHERN UNION REFINING COMPANY _____ DATE _____

EXHIBIT A

Below are the minimum requirements for conversion of your Class II SWD wells to Class I effluent disposal (non-hazardous) wells and for associated surface facilities. Additional requirements may be identified and added based on a physical site inspection, test results, and/or public response following public notification. Final discharge plan approval will be based on the application meeting applicable sections of Part 3 and 5 of the WQCC Regulations.

State LC Well No. 1, Sec. 1, T-17-S, R-36-E

State LC Well No. 2, Sec. 2, T-17-S, R-36-E

- (1) Placement of cement in the annulus between the drilled hole and each string of casing extending from the bottom of the pipe to within the previous string of casing where such cement may not now be present.
- (2) A bond log or temperature survey verifying all casing is cemented so as to fulfill the requirements in (1) above.
- (3) Performance of a Mechanical Integrity test prior to injection after remedial work and yearly thereafter.
- (4) Provide analyses of the injected fluids quarterly for constituents determined by the Director.
- (5) Install continuous monitoring devices to provide a record of injection pressure (Vacuum), flow rate, flow volume, and pressure on the annulus.
- (6) Inject through plastic lined tubing with a packer set no more than 100 feet from the bottom of the long string casing.
- (7) Surface equipment will be secured to allow no unauthorized operation.
- (8) Surface equipment shall be maintained and have proper berms to contain any leaks or spills.
- (9) Automatic equipment shall be installed to interrupt the flow to the facility in the event of tank overflow.

- (10) Any pits on the facility shall conform to the
OCD "Guidelines," attached.

EXHIBIT B

- A. Prior to injecting any industrial effluent pursuant to this Agreement the following will be required:
- (1) Static fluid level determination.
 - (2) Mechanical Integrity Test.
 - (3) Installation of surface monitoring equipment.
 - (4) An analyses of the fluid injected.
- B. During the period of this Agreement, the following will be required:
- (1) Injection of fluids on a vacuum.
 - (2) Continuous monitoring of injection pressure (vacuum), flow rate, flow volume, and pressure on the annulus with a monthly summary report to the Division.
 - (3) A quarterly chemical analysis of the injected fluids for those constituents representative of fluid characteristics and required by OCD.

Araho, Inc.

P. O. Box 937 / Lovington, New Mexico 88260 / Phone (505) 396-3663

DISCHARGE PLAN

For: L. C. State well #1, Located 2190' FSL, 560' FEL, Sec. 1, Twp. 17S, Rge 36E
L. C. State well #2, Located 2310' FWL, 1650' FNL, Sec. 2, Twp. 17S, Rge. 36E
Lea County, New Mexico.

Effluent Source: Southern Union Refining Company (The Plant)

The plant is located in Sec. 36, Twp. 16S, Rge. 36E, of Lea County, New Mexico, and has water supply wells for cooling purposes. Locations of the plant and disposal wells, as well as adjacent oil wells and SWD wells and fresh water supply wells, are shown in enclosure 1 - 1.

The quantity of the discharge normally ranges from 6,000 barrels per day to 10,000 barrels per day total fluid. The discharge reaches the well sites via pipeline at temperatures of 80 degrees plus, but freezes readily when left stagnant for short periods of time with daily temperatures below freezing. The discharge has some scaling tendencies, but can be controlled with scale inhibitors. The quality of the discharge will be similar to the water analysis shown in enclosures 2 - 1 and 2 - 2. The flow characteristics of the discharge will be consistent with fresh water.

The fresh water supply in this area is the west edge of the Ogallala Basin. The ground water zone ranges from 50 feet to 300 feet below ground level in this part of Lea County, New Mexico. This is the only known ground water zone that the discharge would increase in TDS concentration if allowed to co-mingle. All other known ground water stratas have greater TDS concentrations than the discharge.

The overall drainage of both well sites is generally good and will be controlled by berms built around both sites. These sites will be designed to evacuate accumulated waters down the disposal wells themselves, thereby precluding any hazard of runoff contamination. (See enclosures 3 - 1 and 3 - 2).

Prior to discharge injection, both wells will have a cement bond log to insure cement between drilled hole annulus and each string of casing extends from bottom of casing to the bottom of the previous string of casing. While doing this, static fluid levels will be determined by the log and wireline equipment. The tubing, which is 3 1/2" plastic lined, will be reinstalled with packers set in each well within 100' of the bottom of each longstring casing. At this time the annulus between tubing and casing will be filled with fresh water and packer fluid, and pressure tested to 350# for 30 minutes. This test will be witnessed by OCD designated representatives. This mechanical integrity test will be repeated annually. If the bond log shows cement to be deficient from requirements of WQCC, then remedial work will be performed to meet requirements.

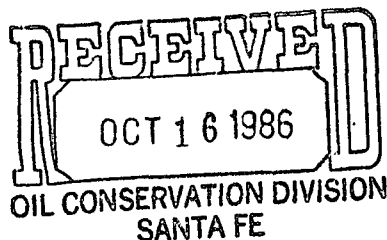
Analysis of discharge fluids and fresh water supply wells will be taken quarterly, and records of these kept for inspection of WQCC personnel. A 3" Halliburton meter will be placed on well #1, and a 1 1/2" Halliburton meter will be placed on well #2. These meters will provide flow rates and total flow volumes, which will be recorded daily. Pressure (vacuum) gauges will be installed on each well and will be recorded daily.

All surface equipment will be sealed to preclude unauthorized operation. A float operated warning will be installed on overflow pits to warn the plant of failure of storage facilities to accept more fluids. Their 24 hour manning will then shut down flow of discharge to the wells. The overflow pits will conform to OCD regulations. Application to install these pits shown in enclosures 3 - 1 and 3 - 2 will be forthcoming.

This discharge plan is for "guidelines" only and may be added to or subtracted from as dictated by Water Quality Control Commission and/or the Oil Conservation Division of the State of New Mexico.

SUBMITTED BY:

Dorothy Runnels
President: Araho, Inc.





Araho, Inc.

P. O. Box 937 / Lovington, New Mexico 88260 / Phone (505) 396-3663

WATER ANALYSIS

Samples taken: Date 9/17/81
Time 10:30 a.m.

		WELL WATER	WASTE WATER
Part A			
Arsenic	mg/l	0.01	0.1
Barium	mg/l	0.3	0.5
Cadmium	mg/l	< 0.001	< 0.001
Chromium	mg/l	0.001	0.053
Cyanide	mg/l	< 0.1	260
Flouride	mg/l	1.0	1.7
Lead	mg/l	< 0.001	0.005
Total Mercury	mg/l	< 0.0004	0.0009
Nitrate (NO ₃ as N)		3.5	0.8
Selenium	mg/l	< 0.01	< 0.01
Silver	mg/l	< 0.01	< 0.01
Uranium	mg/l	< 5	14
Radioactivity pCi/l			
Radium-226		< 0.6	< 0.6
Radium-228		4.2 + 3.0	3.1 + 2.3
Part B			
Chloride	mg/l	79	505
Copper	mg/l	0.002	0.005
Iron	mg/l	0.02	4.6
Manganese	mg/l	0.002	0.11
Phenols	mg/l	< 0.001	0.327
Sulfate	mg/l	74.5	292
TDS	mg/l	453	1300
Zinc	mg/l	< 0.1	0.1
pH*	--	7.1	9.8
Part C			
Aluminum	mg/l	< 0.1	< 0.1
Boron	mg/l	0.2	2.0
Cobalt	mg/l	< 0.01	< 0.01
Molybdenum	mg/l	0.001	0.001
Nickel	mg/l	< 0.01	< 0.01
Toxic Pollutants			
Benzene			< 1.0
Ethybenzene			< 1.0

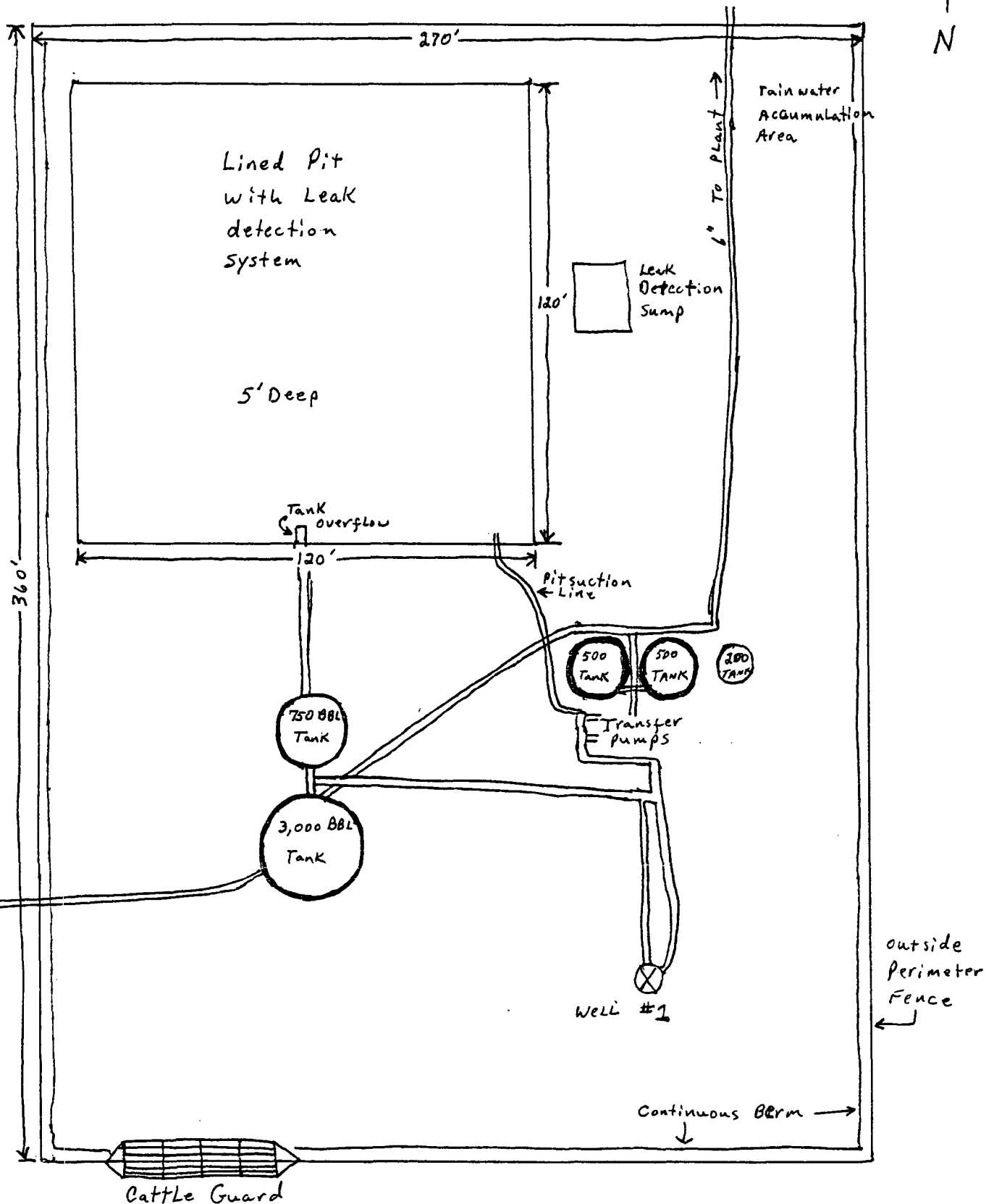
Notes:

* pH determined at the site

< less than symbol: presence of the chemical not detected at the lowest sensitivity of the test.

ARAHO INC. L.C. STATE # 1

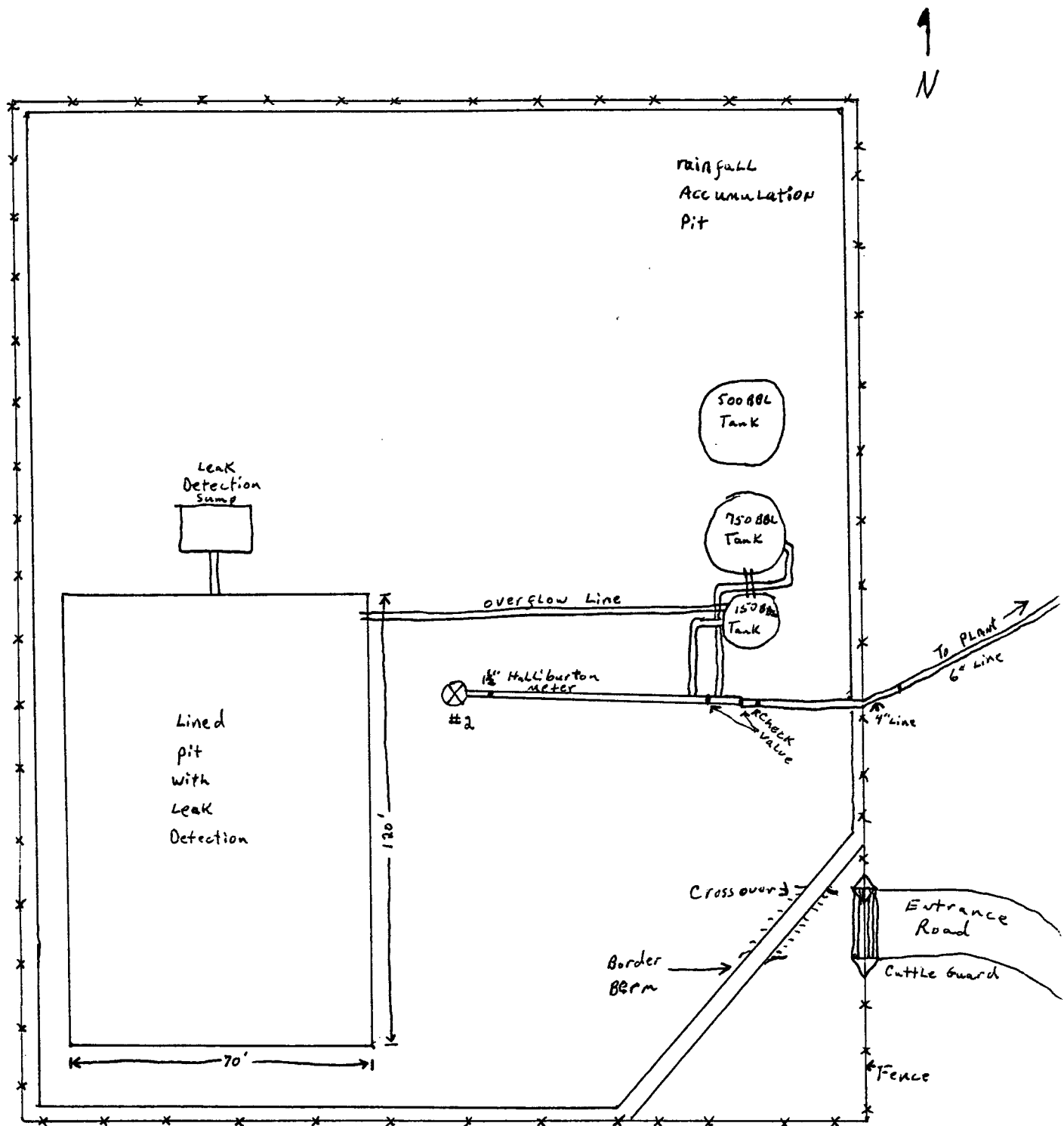
↑
 N



Tanks and lines are in place. Pits are in place, but do not have leak detection system installed. Application for pit reconstruction will be forthcoming.

ARAHO INC.

L.C. STATE #2



Tanks and lines are in place. Pits are in place, but do not have leak detection system installed. Application for pit reconstruction will be forthcoming.

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	6	6	Cellar				
6	300	294	Caliche, Red Shale & Sand				
300	700	400	Red Sand				
700	1930	1230	Red Shale & Sand				
1930	1990	60	Anhydrite				
1990	2900	910	Salt				
2900	4600	1700	Anhydrite & Shale				
4600	6000	1400	Dolomite				
6000	6850	850	Dolomite & Sand				
6850	7750	900	Dolomite				
7750	7875	125	Dolomite & Sand				
7875	10130	2255	Dolomite				
10130	10300	170	Lime, Chert, & Dolomite				
10300	10510	210	Dolomite				
10510	10710	200	Shale				
10710	10755	45	Lime				
10755	10860	105	Sand & Shale				
10860	10925	65	Lime & Chert				
10925	11555	630	Lime				
11555	11710	155	Shale				
11710	11850	140	Lime & Dolomite				
11850	12704	854	Dolomite				

Araho, Inc.

P. O. Box 937 / Lovington, New Mexico 88260 / Phone (505) 396-3663

October 15, 1986

Mr. David Boyer
Energy and Minerals Department
Land Office Building
Room 206
Santa Fe, New Mexico 87504

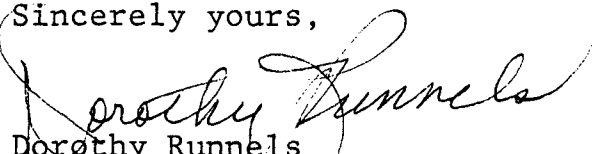
Dear Mr. Boyer:

Enclosed is all the material that we feel is necessary at this time. The Discharge Plan and all supporting documentation from Roland Caudill is enclosed. If you need any further information, please let me know.

Hopefully, this thing will get off the ground... we in Lea County definitely need it.

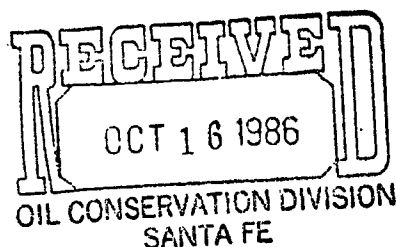
Thank you for all your assistance in this matter.

Sincerely yours,


Dorothy Runnels

P.S. I am enclosing two additional copies for Mr. R. L. Stamets, Chairman of OCD, and Ms. Denise Fort, WQCC Chairman. Will you please see that they get these copies. Again, thank you.

enc.



ARAHO, INC.

Plugging and Abandonment Plan

For: L.C. STATE WELLS #1 AND #2

If for any reason these wells are to be abandoned the following proceedings will be followed.

As both wells, to meet Class I disposal requirements, will require casings to be cemented, we therefore will not attempt to recover casing during plugging proceedings. Salt Gel made with 10 lb. brine and 35 lb. of Gel/BBL. hereafter referred to as Gel will be used between plugs. Cement plugs will be 25 sacks or 100 ft. whichever is greater.

L.C. STATE #1:

A cast iron bridge plug will be set at 12,050', bottom of long string with 25 sacks of cement on top. Gel fill to top of Devonian, plug set at 11,716', Gel fill to top of Strawn, plug set at 10,300', Gel fill to top of Penn, plug set at 10,055', Gel fill to top of Abo, plug set at 8,304', Gel fill to top of Glorietta, plug set at 6,017', Gel fill to casing shoe, plug set at 7,949', tag plug to verify Gel fill to top of San Andres, plug set at 4,607', Gel fill to top of Queen, plug set at 3,601', Gel fill to top of Salt Zone, plug set at 1,990', Gel fill to surface plug, permanent marker welded to casings.

L.C. STATE #2:

A cast iron bridge plug will be set at 8,500', bottom of long string, with 25 sacks cement on top. Gel fill to top of Glorietta, plug set at 6,095', Gel fill to top of San Andres, plug set at 4,708', Gel fill to top of Queen, plug set at 3,670', Gel fill to casing shoe, plug set at 3,368', tag to verify, Gel fill to top of Salt Zone, plug set at 2,078', Gel fill to surface cement plug with permanent marker welded to casings.

Both locations upon plugging will have all tanks, pipe and connections removed along with fence wires and posts. Surface caliche will be leveled. Locations will be plowed and seeded before abandonment. Cattleguards will be removed and fence replaced where necessary.

This plugging and abandonment plan is for guidelines only and may be revised by OCD as regulations or requirements change.

Tabulation of Wells:

L.C. State #1 records indicate no wells within $\frac{1}{2}$ mile that penetrate #1's injection zone. All surrounding wells are completed in higher formations.

L.C. State #2 records indicate that only three wells located within $\frac{1}{2}$ mile penetrate the injection zone. All three of these wells are Class II SWD wells and all three wells are on vacuum. Rice Engineering's #1 is located $\frac{1}{8}$ mile North of #2. Apollo Oil's #21 and #22 are located $\frac{1}{4}$ mile Northeast and East respectively of Araho #2. Copies of OCD form C-104 for each of these three well are enclosed.

WaterCourses:

There are no true watercourses located within one mile of either disposal site. There is one small dirt stockwater tank located $\frac{1}{2}$ mile East of #2. The topography in this area is relatively flat with occasional depressions and little to no long range drainage. No true watercourses or bodies of water would be affected by accidental or unauthorized release of effluent on the surface.

Since no pumps are set up to pressurize the disposal wells, the maximum pressure to the well will be hydrostatic head from the tanks (approximately 12 lbs./in.²) to a vacuum of 30 in. of mercury. As both wells have taken large quantities of water for several years I can see no pressure changes in the foreseeable future.

Formation fluid displacement seems to occur readily to justify the tremendous rates at which the wells take water. The Abo formation of #2 water well disperse generally to the East. The Fusselman formation of #1 probably disperses in all directions.

Contingency Plans:

In the event of one of the wells failing, flow of the effluent will be diverted to the other until the failure can be repaired. In the event of well failure fresh water will be placed so as to displace all effluent in the tubing and/or casing to prevent escape of the effluent into other zones.

The system is checked more than three times daily. Morning, noon and night and as more often as necessary. Small leaks and leaks outside of the berms will be detected visually. Leaks outside of the bermed area immediately after detection will be sucked up by vacuum trucks and returned to the system.

All fluids including oils, sludges and tank bottoms received will be sold to oil reclamation plants. What fluids they will not take will be trucked to pollution control (Latuna Laguna).

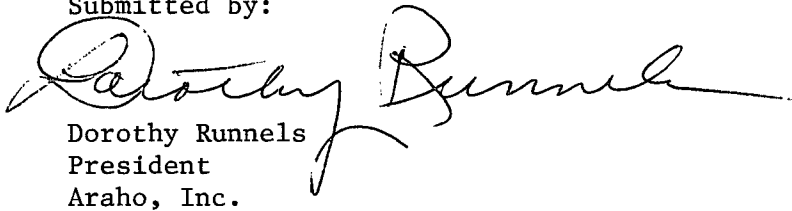
Compliance Plans:

The plant anticipates only producing 2,000 BBLS./day of effluent for the first few months, therefore we propose to perform the cement bond log, static fluid level, placement of any cement required, installation of all automatic equipment and the mechanical integrity test within sixty days of approval of the discharge plan on #2 well only. As the plant is responsible for all expenses in meeting #1 disposal requirements this timetable will of course depend on them. Since the plant has said they will not start up until this discharge plan is approved, we will not be able to obtain an analysis of the effluent prior to this discharge plan approval. We propose to obtain this analysis immediately upon start up of the plant.

All other requirements will be met on #2 within 180 days of start up of plant. All requirements on #1 well will be met before effluent injection from the plant is turned into it. I wish we could give you more accurate dates and times but at this time we are unable to do so. If you have any other questions please contact us and we will attempt to answer them.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Submitted by:

A handwritten signature in cursive script, appearing to read "Dorothy Runnels", written in dark ink. The signature is fluid and extends to the right.

Dorothy Runnels
President
Araho, Inc.

RECEIVED		
NOTIFICATION		
3.		
JOFFICE		
ERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT - A" (FORM C-101) FOR SUCH PROPOSALS.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- Salt Water Disposal		7. Unit Agreement Name Abo SWD
2. Name of Operator Rice Engineering & Operating, Inc.		8. Farm or Lease Name Abo SWD
3. Address of Operator P. O. Box 1142, Hobbs, New Mexico 88240		9. Well No. 2
4. Location of Well UNIT LETTER <u>C</u> <u>2310</u> FEET FROM THE <u>west</u> LINE AND <u>990</u> FEET FROM THE <u>north</u> LINE, SECTION <u>2</u> TOWNSHIP <u>17S</u> RANGE <u>36E</u> NMPM.		10. Field and Pool, or Wildcat Lovington Abo
15. Elevation (Show whether DF, RT, GR, etc.) 3863' K.B.		12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	OTHER <u>Install tubing</u> <input checked="" type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

10-19-74:

Run 8,317' (268 jts.)-3½" OD plastic-lined tubing w/packer on bottom & loaded casing-tubing annulus with chromate water. Injecting produced water down 3½" OD plastic-lined tubing under vacuum and casing-tubing annulus is pressured to 150 psi.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

ORIGINAL SIGNED BY
SIGNED L. B. GOODHEART TITLE Division Manager DATE Nov. 11, 1974

APPROVED BY Joe D. Ramey TITLE Dist. I, Supv. DATE 11/11/74
CONDITIONS OF APPROVAL, IF ANY:

The Ohio Oil Company

(Company or Operator)

State 4286 "A"

(Lease)

Well No. 1, in NE 1/4 of NW 1/4, of Sec. 2, T. 17 S, R. 36 E, NMPM.

Lovington-Abo

Pool, Lea

County.

Well is 2310 feet from West line and 990 feet from North line

of Section 2 If State Land the Oil and Gas Lease No. is B-4286

Drilling Commenced December 12, 1953 Drilling was Completed February 8, 1954

Name of Drilling Contractor Company tools, Rig #2

Address Hobbs, New Mexico

Elevation above sea level at Top of Tubing Head The information given is to be kept confidential until, 19

OIL SANDS OR ZONES

No. 1, from to No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet.

No. 2, from to feet.

No. 3, from to feet.

No. 4, from to feet.

CASING RECORD

SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
13-3/8"	48	New	375'	Baker guide shoe			
9-5/8"	36	New	3330'	3" Baker differential collar			
5-1/2"	17	New	8572'	11" Baker "	float " & guide shoe		
2-3/8"	4.7	New	8505'	3"			

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
17 1/2"	13-3/8"	396	350	B J Cementing Co.		
12"	9-5/8"	3348	1750	B J Cementing Co.		
8-3/4"	5-1/2"	8530	1350	B J Cementing Co.		
	2-3/8"	8465		torp. end.		

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

Washed w/750 gallon acid before testing, after acid 528 BOPD, on 22/64" choke.

Perforated tbg. from 8444' to 8468' w/6 shots per ft. 168 = 1/2" holes.

Acidized thru perforation in 5 1/2" casing from 8440' to 8468' w/750 gal. mud acid.

Result of Production Stimulation.

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Amoco Production Company		ADDRESS P. O. Box 68 - Hobbs, NM 88240	
LEASE NAME State "E" Tract 18	WELL NO. 22	FIELD Lovington Abo	COUNTY Lea
LOCATION UNIT LETTER <u>G</u> ; WELL IS LOCATED <u>1650</u> FEET FROM THE <u>North</u> LINE AND <u>1650</u> FEET FROM THE <u>East</u> LINE, SECTION <u>2</u> TOWNSHIP <u>17-S</u> RANGE <u>36-E</u> NMPM.			

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13-3/8"	270'	275	Surface	Circulated
INTERMEDIATE	9-5/8"	3287'	300	Unknown	Cemented with DV tool at 2106'
LONG STRING	5-1/2"	8330'	835 sx originally will squeeze 450 sx Approx. 4150'		Temp Survey
TUBING	3-1/2"	Approx. 8331'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson Uni Packer VI - 3-1/2" - 8300'		
NAME OF PROPOSED INJECTION FORMATION Abo			TOP OF FORMATION 8350'		BOTTOM OF FORMATION 9250'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Internally Coated Tubing		PERFORATIONS OR OPEN HOLE? 8330' - 9000'		PROPOSED INTERVAL(S) OF INJECTION 8330' - 9000'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Producing Well		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 8338' - 8340' 75 sx sloset; 8292' - 8316' 150 sx Class H					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 80'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 6800'		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 9500'	
ANTICIPATED DAILY INJECTION VOLUME (BBLS.)	MINIMUM 6,000	MAXIMUM 10,000	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 1650#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF Yes	NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) City of Lovington, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Marathon Oil Company - P. O. Box 2409 - Hobbs, NM 88240 Cities Service Company - P. O. Box 1919 - Midland, TX 79702 Getty Oil Company - P. O. Box 730 - Hobbs, NM 88240 Amerada Hess Corporation - P. O. Box 2040 - Tulsa, OK 74102 Phillips Petroleum Company - 4001 Penbrook - Odessa, TX 79701					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA Yes		ELECTRICAL LOG No	
				DIAGRAMMATIC SKETCH OF WELL Yes	

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Bob Davis

(Signature)

Administrative Analyst

(Title)

June 20, 1980

(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Amoco Production Company		ADDRESS P. O. Box 68 - Hobbs, NM 88240	
LEASE NAME State "E" Tract 18	WELL NO. 22	FIELD Lovington Abo	COUNTY Lea
LOCATION UNIT LETTER <u>G</u> ; WELL IS LOCATED <u>1650</u> FEET FROM THE <u>North</u> LINE AND <u>1650</u> FEET FROM THE <u>East</u> LINE, SECTION <u>2</u> TOWNSHIP <u>17-S</u> RANGE <u>36-E</u> NMPM.			

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13-3/8"	270'	275	Surface	Circulated
INTERMEDIATE	9-5/8"	3287'	300	Unknown	Cemented with DV tool at 2106'
LONG STRING	5-1/2"	8330'	835 sx originally will squeeze 450 sx Approx. 4150'		Temp Survey
TUBING	3-1/2"	Approx. 8331'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson Uni Packer VI - 3-1/2" - 8300'		
NAME OF PROPOSED INJECTION FORMATION Abo			TOP OF FORMATION 8350'		BOTTOM OF FORMATION 9250'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Internally Coated Tubing		PERFORATIONS OR OPEN HOLE? 8330' - 9000'		PROPOSED INTERVAL(S) OF INJECTION 8330' - 9000'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Producing Well			HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 8338' - 8340' 75 sx slosset; 8292' - 8316' 150 sx Class H					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 80'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 6800'		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 9500'	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.)	MINIMUM 6,000	MAXIMUM 10,000	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 1650#
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF Yes	NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) City of Lovington, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Marathon Oil Company - P. O. Box 2409 - Hobbs, NM 88240 Cities Service Company - P. O. Box 1919 - Midland, TX 79702 Getty Oil Company - P. O. Box 730 - Hobbs, NM 88240 Amerada Hess Corporation - P. O. Box 2040 - Tulsa, OK 74102 Phillips Petroleum Company - 4001 Penbrook - Odessa, TX 79701					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes		THE NEW MEXICO STATE ENGINEER Yes
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)	PLAT OF AREA Yes		ELECTRICAL LOG No		DIAGRAMMATIC SKETCH OF WELL Yes

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Bob Davis
(Signature)

Administrative Analyst
(Title)

June 20, 1980
(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well. not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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U.S.G.S.	
LAND OFFICE	
OPERATOR	

CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-7

5a. Indicate Type of Lease
State ☒ Fee ☐
5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT - I" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- Injection	7. Unit Agreement Name
2. Name of Operator Amoco Production Company	8. Farm or Lease Name State "E" Tract 18
3. Address of Operator P. O. Box 68, Hobbs, New Mexico 88240	9. Well No. 22
4. Location of Well UNIT LETTER G 1650 FEET FROM THE North LINE AND 1650 FEET FROM THE East LINE, SECTION 2 TOWNSHIP 17-S RANGE 36-E N.M.P.M.	10. Field and Pool, or adjacent Lovington ABO
11. Elevation (Show whether DP, RT, GR, etc.) 3852' RDB	12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Moved in service unit 3-10-82. Pulled tubing and packer. Ran a retrievable bridge plug, packer and tubing. Set bridge plug at 8235' and packer at 8225'. Tested bridge plug to 1000 psi and tested okay. Tested casing and packer to 2500 psi and tested okay. Pulled tubing and packer. Ran a casing inspection log 8150' to surface. Ran a casing bond log 8150-3600'. Perforated 3700' with 2 SPF. Ran packer and tubing and spotted 14' of sand on bridge plug. Pulled tubing and packer. Circulated 9-5/8" casing with 280 bbl. water and dye. Cement squeezed casing with 1500 sacks class C cement. Drilled out cement 3624'-3745'. Pressure tested casing to 1000 psi and tested okay. Pulled tubing and tools. Ran a retrieving tool and tubing. Washed sand off retrievable bridge plug. Pulled tubing and retrievable bridge plug. Ran packer and 2-7/8" tubing. Set packer at 8239'. Moved out service unit 3-21-82. Returned well to injection.

0+4-NMOCD, H 1-Hou 1-Susp 1-CLF

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Cathy L. Ferman TITLE Assist. Admin. Analyst DATE 3-29-82

APPROVED BY ORIGINAL SIGNED BY TITLE DATE MAR 31 1982
CONDITIONS OF APPROVAL IF ANY:
DISTRICT 10002.

Araho, Inc.

P. O. Box 937 / Lovington, New Mexico 88260 / Phone (505) 396-3663

October 15, 1986

Mr. David Boyer
Energy and Minerals Department
Land Office Building
Room 206
Santa Fe, New Mexico 87504

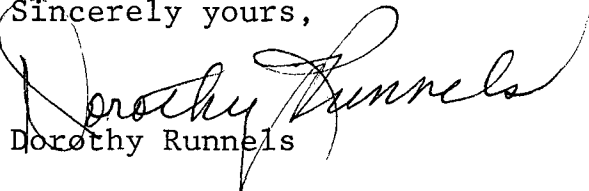
Dear Mr. Boyer:

Enclosed is all the material that we feel is necessary at this time. The Discharge Plan and all supporting documentation from Roland Caudill is enclosed. If you need any further information, please let me know.

Hopefully, this thing will get off the ground... we in Lea County definitely need it.

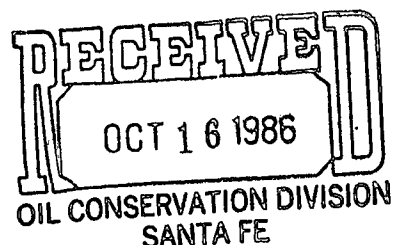
Thank you for all your assistance in this matter.

Sincerely yours,


Dorothy Runnels

P.S. I am enclosing two additional copies for Mr. R. L. Stamets, Chairman of OCD, and Ms. Denise Fort, WQCC Chairman. Will you please see that they get these copies. Again, thank you.

enc.



Araho, Inc.

P. O. Box 937 / Lovington, New Mexico 88260 / Phone (505) 396-3663

DISCHARGE PLAN

For: L. C. State well #1, Located 2190' FSL, 560' FEL, Sec. 1, Twp. 17S, Rge 36E
L. C. State well #2, Located 2310' FWL, 1650' FNL, Sec. 2, Twp. 17S, Rge. 36E
Lea County, New Mexico.

Effluent Source: Southern Union Refining Company (The Plant)

The plant is located in Sec. 36, Twp. 16S, Rge. 36E, of Lea County, New Mexico, and has water supply wells for cooling purposes. Locations of the plant and disposal wells, as well as adjacent oil wells and SWD wells and fresh water supply wells, are shown in enclosure 1 - 1.

The quantity of the discharge normally ranges from 6,000 barrels per day to 10,000 barrels per day total fluid. The discharge reaches the well sites via pipeline at temperatures of 80 degrees plus, but freezes readily when left stagnant for short periods of time with daily temperatures below freezing. The discharge has some scaling tendencies, but can be controlled with scale inhibitors. The quality of the discharge will be similar to the water analysis shown in enclosures 2 - 1 and 2 - 2. The flow characteristics of the discharge will be consistent with fresh water.

The fresh water supply in this area is the west edge of the Ogallala Basin. The ground water zone ranges from 50 feet to 300 feet below ground level in this part of Lea County, New Mexico. This is the only known ground water zone that the discharge would increase in TDS concentration if allowed to co-mingle. All other known ground water stratas have greater TDS concentrations than the discharge.

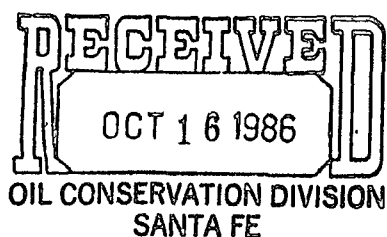
The overall drainage of both well sites is generally good and will be controlled by berms built around both sites. These sites will be designed to evacuate accumulated waters down the disposal wells themselves, thereby precluding any hazard of runoff contamination. (See enclosures 3 - 1 and 3 - 2).

Prior to discharge injection, both wells will have a cement bond log to insure cement between drilled hole annulus and each string of casing extends from bottom of casing to the bottom of the previous string of casing. While doing this, static fluid levels will be determined by the log and wireline equipment. The tubing, which is 3 1/2" plastic lined, will be reinstalled with packers set in each well within 100' of the bottom of each longstring casing. At this time the annulus between tubing and casing will be filled with fresh water and packer fluid, and pressure tested to 350# for 30 minutes. This test will be witnessed by OCD designated representatives. This mechanical integrity test will be repeated annually. If the bond log shows cement to be deficient from requirements of WQCC, then remedial work will be performed to meet requirements.

Analysis of discharge fluids and fresh water supply wells will be taken quarterly, and records of these kept for inspection of WQCC personnel. A 3" Halliburton meter will be placed on well #1, and a 1 1/2" Halliburton meter will be placed on well #2. These meters will provide flow rates and total flow volumes, which will be recorded daily. Pressure (vacuum) guages will be installed on each well and will be recorded daily.

All surface equipment will be sealed to preclude unauthorized operation. A float operated warning will be installed on overflow pits to warn the plant of failure of storage facilities to accept more fluids. Their 24 hour manning will then shut down flow of discharge to the wells. The overflow pits will conform to OCD regulations. Application to install these pits shown in enclosures 3 - 1 and 3 - 2 will be forthcoming.

This discharge plan is for "guidelines" only and may be added to or subtracted from as dictated by Water Quality Control Commission and/or the Oil Conservation Division of the State of New Mexico.



SUBMITTED BY:

Dorothy Runnels
Dorothy Runnels
President: Araho, Inc.

Araho, Inc.

P. O. Box 937 / Lovington, New Mexico 88260 / Phone (505) 396-3663

WATER ANALYSIS

Samples taken: Date 9/17/81
Time 10:30 a.m.

WELL WATER

WASTE WATER

Part A

Arsenic	mg/l	0.01	0.1
Barium	mg/l	0.3	0.5
Cadmium	mg/l	< 0.001	< 0.001
Chromium	mg/l	0.001	0.053
Cyanide	mg/l	< 0.1	260
Flouride	mg/l	1.0	1.7
Lead	mg/l	< 0.001	0.005
Total Mercury	mg/l	< 0.0004	0.0009
Nitrate (NO ₃ as N)		3.5	0.8
Selenium	mg/l	< 0.01	< 0.01
Silver	mg/l	< 0.01	< 0.01
Uranium	mg/l	< 5	14
Radioactivity pCi/l			
Radium-226		< 0.6	< 0.6
Radium-228		4.2 + 3.0	3.1 + 2.3

Part B

Chloride	mg/l	79	505
Copper	mg/l	0.002	0.005
Iron	mg/l	0.02	4.6
Manganese	mg/l	0.002	0.11
Phenols	mg/l	< 0.001	0.327
Sulfate	mg/l	74.5	292
TDS	mg/l	453	1300
Zinc	mg/l	< 0.1	0.1
pH*	--	7.1	9.8

Part C

Aluminum	mg/l	< 0.1	< 0.1
Boron	mg/l	0.2	2.0
Cobalt	mg/l	< 0.01	< 0.01
Molybdenum	mg/l	0.001	0.001
Nickel	mg/l	< 0.01	< 0.01

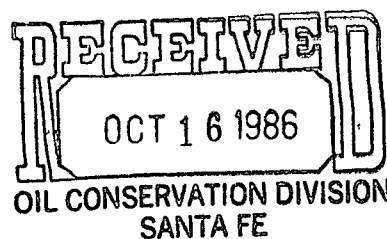
Toxic Pollutants

Benzene	< 1.0
Ethybenzene	< 1.0

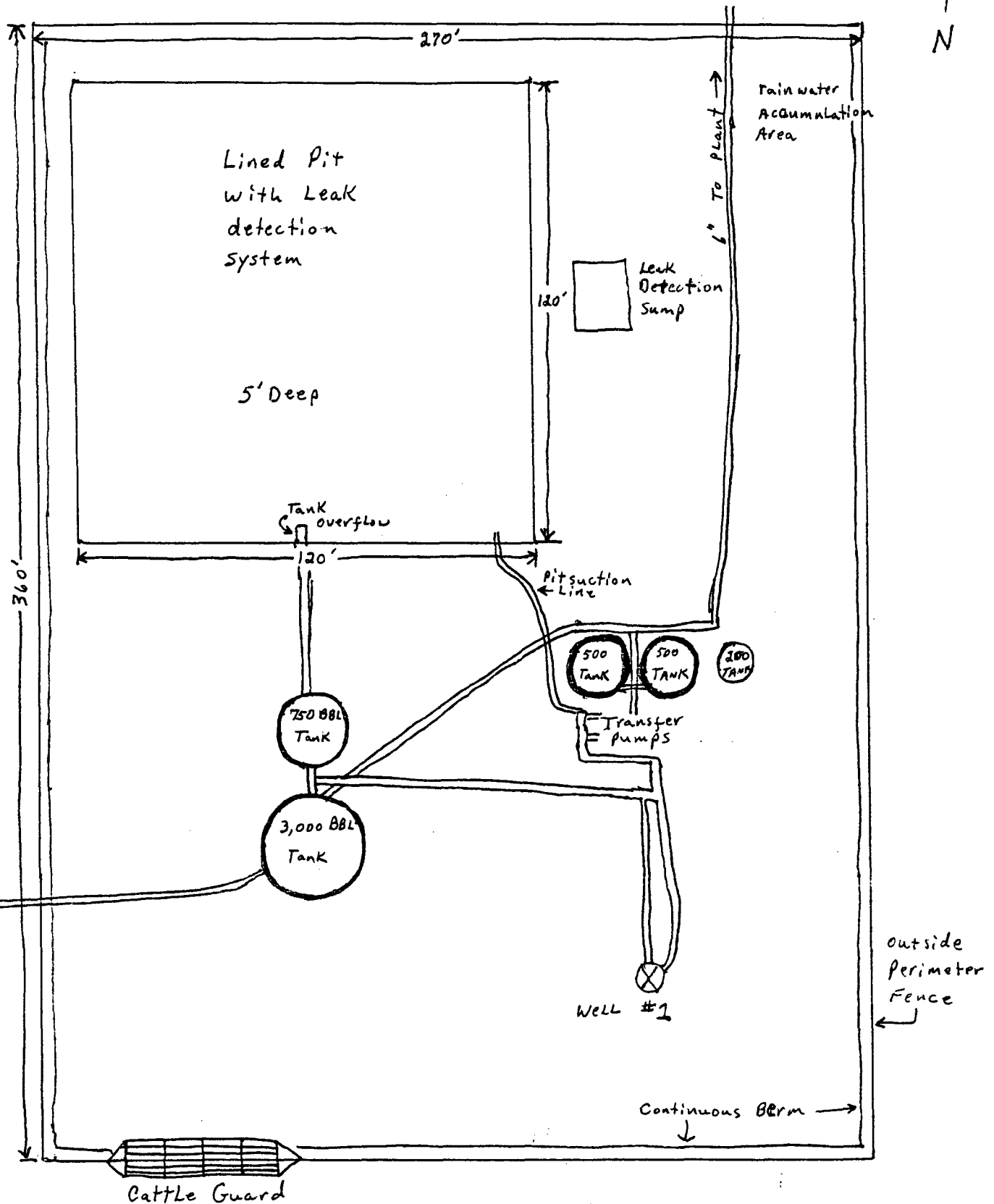
Notes:

* pH determined at the site

< less than symbol: presence of the chemical not detected at the lowest sensitivity of the test.



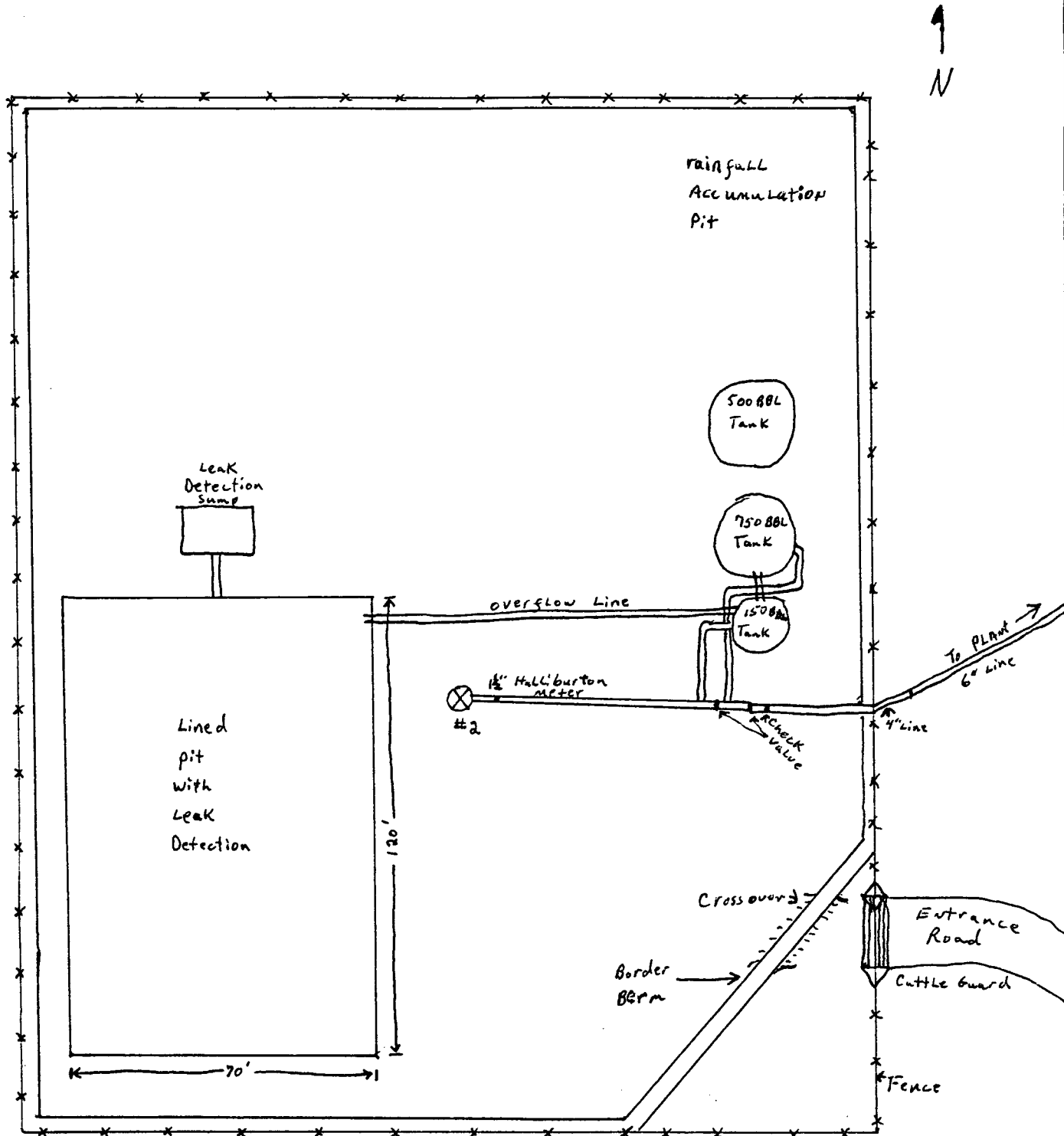
4
N



Tanks and lines are in place. Pits are in place, but do not have leak detection system installed. Application for pit reconstruction will be forthcoming.

ARAHO INC.

L.C. STATE #2



Tanks and lines are in place. Pits are in place, but do not have leak detection system installed. Application for pit reconstruction will be forthcoming.

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	6	6	Cellar				
6	300	294	Caliche, Red Shale & Sand				
300	700	400	Red Sand				
700	1930	1230	Red Shale & Sand				
1930	1990	60	Anhydrite				
1990	2900	910	Salt				
2900	4600	1700	Anhydrite & Shale				
4600	6000	1400	Dolomite				
6000	6850	850	Dolomite & Sand				
6850	7750	900	Dolomite				
7750	7875	125	Dolomite & Sand				
7875	10130	2255	Dolomite				
10130	10300	170	Lime, Chert, & Dolomite				
10300	10510	210	Dolomite				
10510	10710	200	Shale				
10710	10755	45	Lime				
10755	10860	105	Sand & Shale				
10860	10925	65	Lime & Chert				
10925	11555	630	Lime				
11555	11710	155	Shale				
11710	11850	140	Lime & Dolomite				
11850	12704	854	Dolomite				



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONY ANAYA
GOVERNOR

October 9, 1986

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Mrs. Dorothy Runnels
President
Araho, Inc.
P. O. Box 937
Lovington, New Mexico 88260

Re: Araho Disposal Wells

Dear Mrs. Runnels:

Enclosed for your review is the draft Enforcement Agreement to allow for continued use of Araho SWD wells for disposal of Southern Union refinery effluent while a discharge plan application is being processed. Upon receipt of your comments, we will finalize the document unless further negotiation is necessary.

Please note that the agreement includes provision for a penalty of up to \$100 per day for each day of actual disposal. This addition was felt to be necessary as further examination of the Federal Regulations indicated a temporary permit could not be granted. The Enforcement Agreement then becomes our only vehicle in this matter. Since Araho was notified in September, 1984, and again in May, 1986, that a discharge plan would be necessary, some penalty provision seems appropriate.

It is regrettable that this could not be discussed in person, however, the time available this week to the effort to resolve this matter did not allow for complete consideration of the options prior to our meeting on Tuesday.

Please feel free to call me relative to any questions about,
or concerns with, the Enforcement Agreement.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. L. Stamets", written over the word "Sincerely,".

R. L. STAMETS,
Director

cc: David Boyer
Jeff Taylor
Jerry Sexton

ENFORCEMENT AGREEMENT

This Agreement is made and entered into this _____ day of October, 1986 by and among the New Mexico Oil Conservation Division of the Energy and Minerals Department (hereinafter "OCD"); Araho, Inc.; and Southern Union Refining Company (hereinafter Southern Union):

WHEREAS Southern Union is the owner of a refinery located approximately five miles southeast of Lovington, New Mexico in Section 36, Township 16 South, Range 36 East, and Section 31, Township 16 South, Range 37 East, NMPM; and

WHEREAS Araho, Inc. is the owner and operator of two Class II disposal wells, being the State LC Well No. 1, located in Section 1, Township 17 South, Range 36 East and the State LC Well No. 2, located in Section 2, Township 17 South, Range 36 East, NMPM; and

WHEREAS the above-referenced wells have historically been utilized for disposal of wastewater effluent from the Southern Union Refinery which disposal is exclusively authorized in the discharge plan for the refinery approved by the OCD in 1984; and

WHEREAS the OCD has notified Araho, Inc. of the need to file a discharge plan for the subject wells to bring such wells into compliance with Part 3 (Discharges to Ground Water) and Part 5 (Underground Injection Control) of the New Mexico Water Quality Control Commission (WQCC) Regulations, if they are to continue to be used for refinery effluent disposal in the future; and

WHEREAS Araho, Inc. has filed a request with the OCD to obtain approval of a discharge plan for the subject wells; and

WHEREAS the OCD has determined that limited continued use of the subject wells presents no hazard to fresh water; and

WHEREAS, the parties to this Agreement desire to set forth the conditions upon which the wells may be utilized for future refinery effluent disposal.

NOW THEREFORE, the parties mutually agree as follows:

1. Upon receipt by OCD of a discharge plan application for effluent disposal (Class I) well approval, Araho Inc. will be granted a 90 (ninety) day period to allow disposal of effluent from the Southern Union Refinery, such period to be extended to six months duration upon request of Araho, Inc. and a satisfactory showing of progress towards discharge plan approval. During the period that this agreement is in force, Araho Inc. shall accept industrial effluent only from the Southern Union Refinery.

2. During this limited period Araho, Inc. will perform such upgrading operations as are necessary to bring the subject wells into compliance with discharge plan requirements pursuant to Parts 3 and 5 of the WQCC Regulations, such upgrading to include at least those items listed in Exhibit A, attached hereto and made a part hereof.

3. Southern Union will apply to the OCD to amend its existing discharge plan in such a manner as to make explicit the requirement that all refinery effluent is to be disposed of into approved effluent disposal wells, or other approved disposal facility.

4. A penalty of up to 100 dollars per day shall be paid for any day during which injection of plant effluent takes place in said wells prior to final discharge plan approval. Such penalty shall be waived in event of delay by OCD beyond the times allowed in the WQCC Regulations for review of the application, or in the event of additional time required if a public hearing on the application is necessary. The actual penalty amount will be determined at the completion of discharge plan processing, and will be dependent on the completeness of the initial application, time taken to comply with the items specified in Exhibit A, prompt and complete response to OCD questions and comments on the application submitted, and on other items that show a willingness to promptly come into compliance.

5. During the period of this Agreement, OCD will take no further enforcement action against Araho, Inc., for utilizing subject wells for disposal of refinery effluent, provided Araho complies with those items in Exhibit B, attached hereto and made a part hereof.

6. This Agreement shall terminate on date of discharge plan approval, or no later than six months following receipt of discharge plan application, or by mutually agreeable consent of the parties.

ARAHO, INC. DATE

OIL CONSERVATION DIVISION DATE

SOUTHERN UNION REFINING COMPANY DATE

EXHIBIT A

Below are the minimum requirements for conversion of your Class II SWD wells to Class I effluent disposal (non-hazardous) wells and for associated surface facilities. Additional requirements may be identified and added based on a physical site inspection, test results, and/or public response following public notification. Final discharge plan approval will be based on the application meeting applicable sections of Part 3 and 5 of the WQCC Regulations.

State LC Well No. 1, Sec. 1, T-17-S, R-36-E
State LC Well No. 2, Sec. 2, T-17-S, R-36-E

- (1) Placement of cement in the annulus between the drilled hole and each string of casing extending from the bottom of the pipe to within the previous string of casing where such cement may not now be present.
- (2) A bond log or temperature survey verifying all casing is cemented so as to fulfill the requirements in (1) above.
- (3) Performance of a Mechanical Integrity test prior to injection after remedial work and yearly thereafter.
- (4) Provide analyses of the injected fluids quarterly for constituents determined by the Director.
- (5) Install continuous monitoring devices to provide a record of injection pressure (Vacuum), flow rate, flow volume, and pressure on the annulus.
- (6) Inject through plastic lined tubing with a packer set no more than 100 feet from the bottom of the long string casing.
- (7) Surface equipment will be secured to allow no unauthorized operation.
- (8) Surface equipment shall be maintained and have proper berms to contain any leaks or spills.
- (9) Automatic equipment shall be installed to interrupt the flow to the facility in the event of tank overflow.

- (10) Any pits on the facility shall conform to the
OCD "Guidelines," attached.

EXHIBIT B

- A. Prior to injecting any industrial effluent pursuant to this Agreement the following will be required:
- (1) Static fluid level determination.
 - (2) Mechanical Integrity Test.
 - (3) Installation of surface monitoring equipment.
 - (4) An analyses of the fluid injected.
- B. During the period of this Agreement, the following will be required:
- (1) Injection of fluids on a vacuum.
 - (2) Continuous monitoring of injection pressure (vacuum), flow rate, flow volume, and pressure on the annulus with a monthly summary report to the Division.
 - (3) A quarterly chemical analysis of the injected fluids for those constituents representative of fluid characteristics and required by OCD.

Araho, Inc.

P. O. Box 937 / Lovington, New Mexico 88260 / Phone (505) 396-3663

October 6, 1986

Mr. R. L. Stamets
Director, Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Stamets:

With this letter, Araho, Inc. seeks to re-permit the State L.C. No. 1, located in Unit I, Section 1, Township 17S, Range 36E, and State No. 2, located in Unit F, Section 2, Township 17S, Range 36E, Lea County, New Mexico, to allow disposal of Class 1 Industrial effluent.

Araho, Inc. currently has approved OCD permits to operate Class II Salt Water Disposal wells for produced water and will retain its current Class II permits.

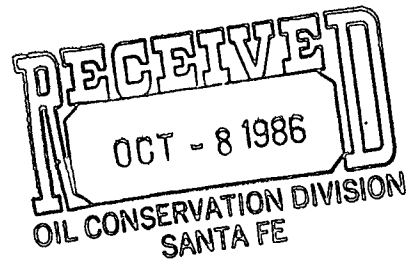
A permit application to comply with the discharge plan requirements of Part 3 (Discharges to Ground Water) and Part 5 (UIC) of the Water Quality Control Commission Regulations is being prepared and will be submitted within the next ten (10) days because injection is on a vacuum and well below the lowest zone of fresh water.

Araho, Inc. seeks emergency approval to operate and to receive Refinery effluence during the interim period before Discharge Plan approval.

Sincerely,


Dorothy Runnels
President

DR/jh



Memo

From

JERRY SEXTON
District Supervisor

February 18, 1986

To DICK,

Araho - was sent the attached letter from EID along with a booklet to be filled out by the Operator on the disposal well.

It will certainly be a hardship, expense-wise to fill out this form.

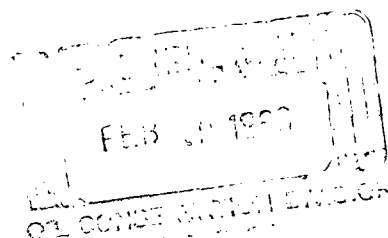
Since the refinery was shut down, it has been used as a Class IV well.

It was my understanding, even if it was a Class I well, we would do the permitting.

Would you look into this or clarify our position?

MRS. Runnels
393-2813

Judy Hinshaw
ARWHO, Inc
P.O. 937
Lorington
88260



Memo

From
DAVID G. BOYER

2/19

Hydrogeologist

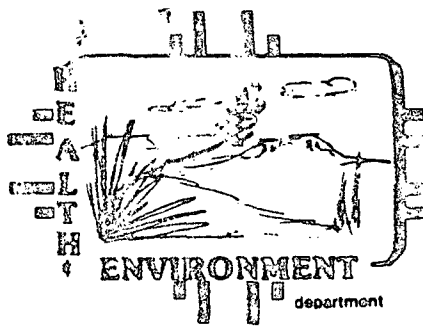
To Judy Hinshaw -

Here is the EIS package.
As I said on the phone,
Call Peter Pacheco, tell ~~them~~
him you are only a Class II
injection well operator,
accepting only salt water
and produced water, and
disposing of ~~no~~ other waste.
Ask to be taken off their
competitor listing for this
reporting.

David Boyer
827-5812
Environmental
Bureau Chief.

TONEY ANAYA
GOVERNOR

DENISE D. FORT
DIRECTOR



STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION

P.O. Box 968, Santa Fe, New Mexico 87504-0968
(505) 984-0020

February 6, 1986

Earl R. Bruno, Manager
ARAO, Inc.
P.O. Box 5456
Midland, Texas 79704

Dear Mr. Bruno:

Please find enclosed the Biennial Hazardous Waste Report Form(s) that need to be completed pursuant to Section 203.A.3. and/or Section 203.C.3. of the New Mexico Hazardous Waste Management Regulations-2.

In that there was a delay in obtaining these forms for distribution, an extension is granted until April 1, 1986 for their return. The forms when completed should be returned to:

Environmental Improvement Division
Ground Water/Hazardous Waste Bureau
Hazardous Waste Section
P.O. Box 968
Santa Fe, New Mexico 87504
ATTN: Peter H. Pache, Program Manager

Sincerely,

Peter H. Pache
Program Manager
Hazardous Waste Section

PHP:mt

Encl.

**U.S. Environmental Protection Agency
Hazardous Waste
Treatment, Storage, and
Disposal Facility
Report for
1985**

THIS BOOKLET CONTAINS FORMS AND INSTRUCTIONS FOR COMPLETING
THE 1985 RCRA FACILITY BIENNIAL HAZARDOUS WASTE REPORT.
APPENDIX CONTAINS EXCERPTS FROM 40 CFR PARTS 260-265.
A RESPONSE IS REQUIRED BY LAW.

50 YEARS



TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION



1935 - 1985

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

MEMORANDUM

TO: R. L. STAMETS, DIRECTOR

FROM: DAVID CATANACH, PETROLEUM ENGINEER

SUBJECT: SWD-154 Araho Disposal Wells
R-5251 for Southern Union

I went through the well files on these two disposal wells and came up with the attached schematics. The construction of both wells is adequate for use as disposal wells.

State LC No. 1 - SWD-154

There is a slight discrepancy in the packer setting depth in this well. The order SWD-154 says the packer shall be no higher than 12,100 feet. Records show it to be set at 12,050 feet. I ran the mechanical integrity test on this well while I was still in Hobbs. The first time we pressured up to 300 psi on the casing and it lost 100 psi, approximately 33% in 15 minutes. Thinking we might have had some trapped air, we repressured to 400 psi, and this time it lost approximately 125 psi in 15 minutes or 31%. After that, we did not retest, thinking that we had some kind of problem. I have now been informed that the test was rerun on 9-4-84, approximately one month later, and that the well passed. There is some question in my mind about the validity of the second test. Copies of both tests run are enclosed. I would recommend that another test be run on this well just to be sure that the casing and packer are in good shape before they commence injection operations again.

State SWD No. 2-F - R-5251

There is also a discrepancy in this well regarding the tubing size. R-5251 authorized injection through 2 7/8" tubing and they are using 3 1/2" tubing in the well. I ran the mechanical integrity test on this well also and when we ran it, we found a tubing leak. The tubing was repaired and the well was retested and passed the test.

September 26, 1985

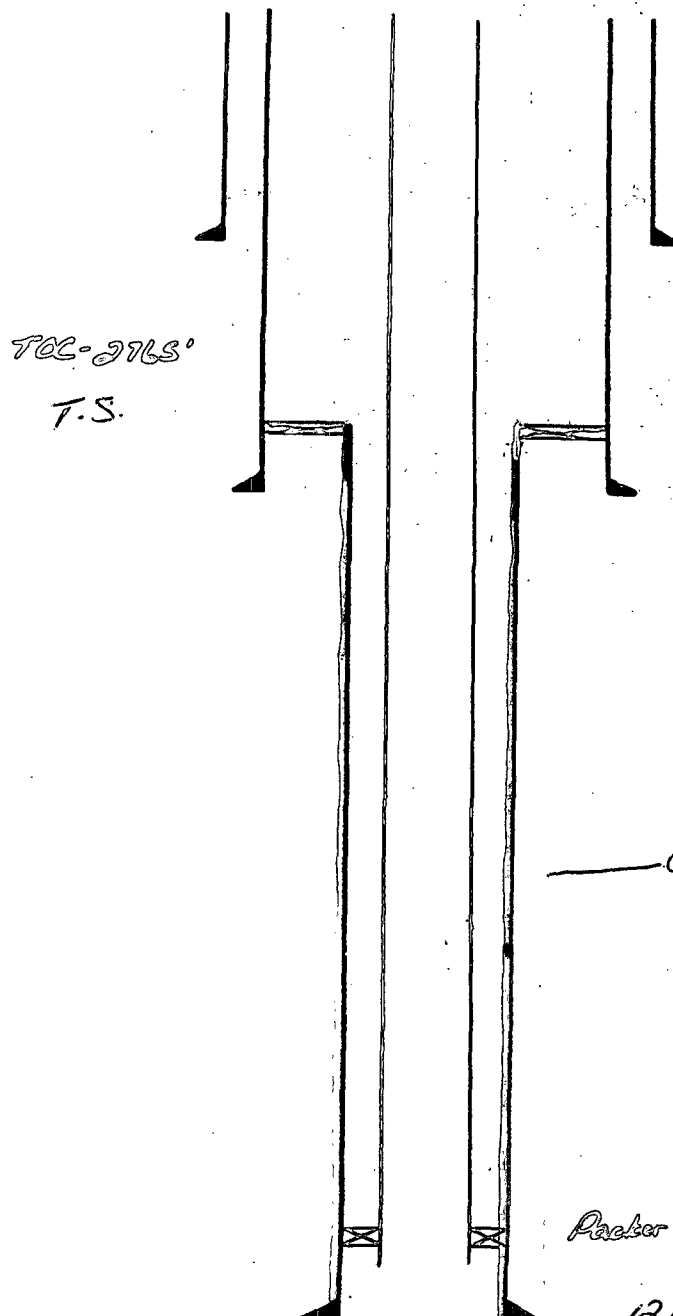
/bok

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

1a. Type of Work DRILL <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		7. Unit Agreement Name
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>SWD</u> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Form or Lease Name <u>Stub AC</u>
2. Name of Operator <u>Archie Inc.</u>		9. Well No. <u>1</u>
3. Address of Operator		10. Field and Pool, or Wadcat
4. Location of Well UNIT LETTER <u>I</u> LOCATED <u>2190</u> FEET FROM THE <u>South</u> LINE AND <u>560 E.</u> LINE OF SEC. <u>1</u> TWP. <u>17S</u> REG. <u>36E</u> NMPM		



SIZE OF HOLE 17.5 SIZE OF CASING 13 3/8

WEIGHT PER FOOT 48 SETTING DEPTH 451'

SACKS OF CEMENT 450 EST. TCP Scrby

SIZE OF HOLE 11 SIZE OF CASING 8 5/8

WEIGHT PER FOOT 32 SETTING DEPTH 4999

SACKS OF CEMENT 1400 EST. TCP 2765-

+100 lbs. = 1500 lbs.

P. & A. December 1959 Dug hole.

Calc. top of cement @ 6513'
 ~~8273'~~

SIZE OF HOLE 2 1/8 SIZE OF CASING 5 1/8"

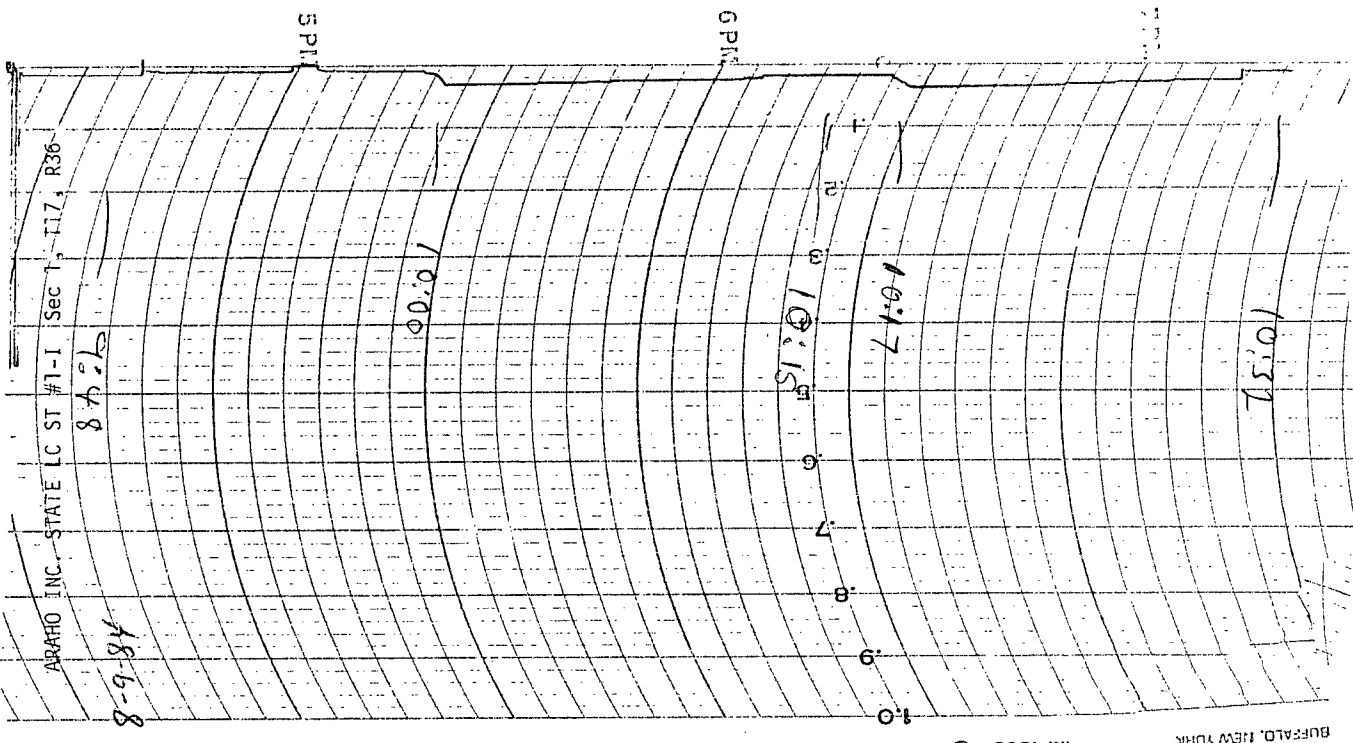
WEIGHT PER FOOT 17 SETTING DEPTH 400-12,100

SACKS OF CEMENT 600 EST. TCP

Packer @ 12,050' 3 1/2" Tbg.

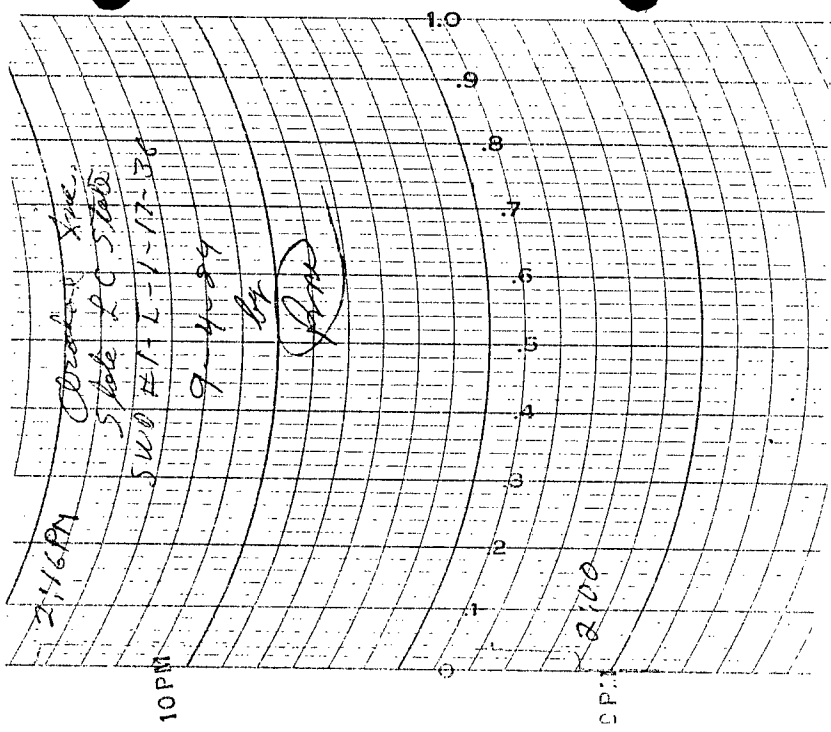
12,100

Open hole injection 12,100' - 12,700'



NO. 4305-C

BUFFALO, NEW YORK



PRINTED

REC

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

May 13, 1974

Famariss Oil and Refining Company
P. O. Box 980
Hobbs, New Mexico 88240

Attention: Mr. Earl M. Crain III

Re: Administrative Order SWD-154

Gentlemen:

Reference is made to your letter of May 3, 1974, concerning the Araho Inc. State "LC" Well No. 1, located 2190 feet from the South line and 560 feet from the East line of Section 1, Township 17 South, Range 36 East, Lea County, New Mexico, which well was authorized for salt water disposal by the Commission's Administrative Order No. SWD-154, dated April 1, 1974. The order provided that disposal is to be down 3 1/2-inch plastic-lined tubing set in a packer located no higher than 12,100 feet, although the application was for the packer to be set at 9,000 feet. Injection will be into the open-hole interval from 12,400 feet to 12,704 feet.

It is our understanding that although the well will continue to be operated by Araho, Inc., the waters disposed into the well will include refinery waste water produced at the Famariss refinery near Lovington.

The Foster Wheeler water analysis attached to your most recent letter indicates that the refinery waste water can be safely disposed of in the subject well, although it may be necessary to occasionally acidize or otherwise treat the well to prevent formation blockage.

Administrative Order SWD-154 is therefore hereby amended to include in the authority contained therein authority to dispose

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Famariss Oil and Refining Company

May 13, 1974

-2-

of refinery waste waters of the general type described in the Foster Wheeler Corporation letter of October 18, 1973.

Araho, Inc., shall file monthly disposal reports on Commission Form C-120-A, as required by Commission Rules 704 and 1120.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/DSN/dr

cc: Oil Conservation Commission - Hobbs
New Mexico State Land Office - Santa Fe
Araho, Inc., Box 5446, Midland, Texas 79701
Attention: Mr. Earl R. Bruno

C
O
P
Y

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

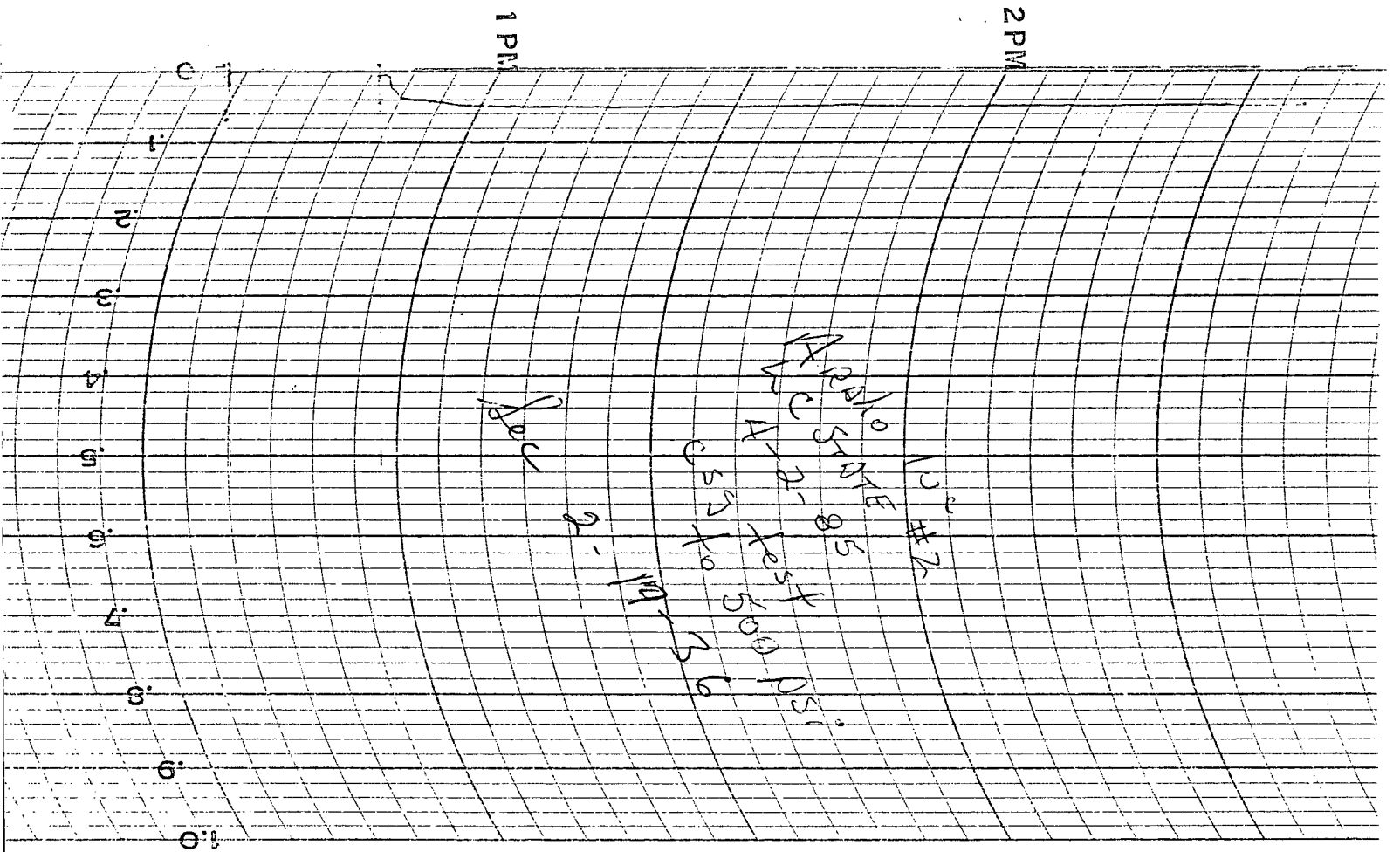
1a. Type of Work DRILL <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		7. Unit Agreement Name
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Form or Lease Name <i>State SWD</i>
2. Name of Operator <i>Arahoe Inc.</i>		9. Well No. <i>2-F</i>
3. Address of Operator		10. Field and Pool, or Wildcat
4. Location of Well UNIT LETTER <i>F</i> LOCATED <i>2200</i> FEET FROM THE <i>West</i> LINE AND <i>1100</i> FEET FROM THE <i>North</i> LINE OF SEC. <i>2</i> TWP. <i>17S</i> RGE. <i>36E</i> NMPM		

SIZE OF HOLE _____ SIZE OF CASING *13 7/8*WEIGHT PER FOOT *48* SETTING DEPTH *349*SACKS OF CEMENT *450* EST. TOP *Surface*SIZE OF HOLE _____ SIZE OF CASING *9 5/8*WEIGHT PER FOOT *36* SETTING DEPTH *3318*SACKS OF CEMENT *1750* EST. TOP *Surface**5 1/2" liner
Set at 4253'**4280 —
Original TOC**349'*

*Cut & pulled 5 1/2" @ 4200' and plugged
Reinstated, set 5 1/2" liner from 3229- 4273'
Pulled liner, P. A
Set liner at 4253' to surface, cemented w/20054.*

*Tbg leak found on Integrity test
Repaired and retested.*

SIZE OF HOLE _____ SIZE OF CASING *5 1/2*WEIGHT PER FOOT *17* SETTING DEPTH *8528*SACKS OF CEMENT *1400* EST. TOP *T.S. - 4280**3 1/2" Tbg set at 8492 (packer)**8510' - 8889' Open hole Injection Interval*



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5701
Order No. R-5251

APPLICATION OF ARAHO, INC. FOR
SALT WATER DISPOSAL, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 23, 1976, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 3rd day of August, 1976, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Araho, Inc., is the owner and operator of the State SWD Well No. 2, located in Unit F of Section 2, Township 17 South, Range 36 East, NMPM, Lovington Field, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Abo formation, with injection into the open-hole interval from approximately 8528 feet to 8900 feet.

(4) That the injection should be accomplished through 2 7/8-inch plastic lined tubing installed in a packer set at approximately 8500 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure/vacuum gauge should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(5) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 100 psi.

(6) That the operator should notify the supervisor of the Hobbs district office of the Commission of the date and time of

the installation of disposal equipment so that the same may be inspected.

(7) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(8) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Araho, Inc., is hereby authorized to utilize its State SWD Well No. 2, located in Unit F of Section 2, Township 17 South, Range 36 East, NMPM, Lovington Field, Lea County, New Mexico, to dispose of produced salt water into the Abo formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 8500 feet, with injection into the open-hole interval from approximately 8528 feet to 8900 feet.

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure/vacuum gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 100 psi.

(3) That the operator shall notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(4) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(5) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

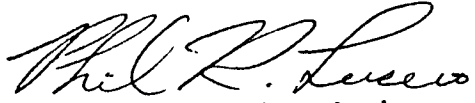
(6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

-3-

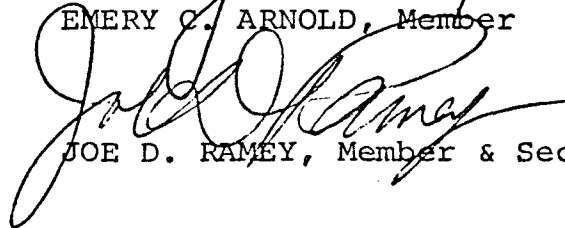
Case No. 5701
Order No. R-5251

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


PHIL R. LUCERO, Chairman


EMERY C. ARNOLD, Member


JOE D. RAMEY, Member & Secretary

S E A L

dr/

COPIES RECEIVED		
TRIBUTION		
FE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- <u>Water Disposal</u>		7. Unit Agreement Name <u>None</u>
2. Name of Operator <u>Araho, Inc.</u>		8. Farm or Lease Name <u>State "LC"</u>
3. Address of Operator <u>P. O. Box 5456, Midland, Texas 79701</u>		9. Well No. <u>1</u>
4. Location of Well UNIT LETTER <u>I</u> <u>2190</u> FEET FROM THE <u>South</u> LINE AND <u>560</u> FEET FROM THE <u>East</u> LINE, SECTION <u>1</u> TOWNSHIP <u>17S</u> RANGE <u>36E</u> NMPM.		10. Field and Pool, or Wildcat <u>Dry Hole</u>
15. Elevation (Show whether DF, RT, GR, etc.) <u>3828 DF</u>		12. County <u>Lea</u>

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input checked="" type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	OTHER <u>complete water disposal well</u> <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

5/9/74 thru 6/10/74 - Moved in rotary rig. Drilled cement plugs and washed and cleaned out to 12,000'.
Set 5½" 17# N-80 LT&C Liner from 4825.20 ft. to 11,940 ft. and cemented w/650 sx Lite Weight W/8/10% of 1% Halad 9 followed by 100 sx Class H w/1% Halad 9. Plug down at 1:00 a.m. 5/17/74.
Circulated to top of liner. WIH w/7 7/8" bit and washed to top of 5½" liner.
Drilled cement inside 5½" liner from 11,600-11,940'.
Drilled double valved guide shoe.
Ran 3½" 9.2# N-80 tubing to 11,894'. Set packer at 11,894'. Well taking water on vacuum.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Earl R. Bruno TITLE Vice President DATE 9/13/74
SUPERVISOR DISTRICT I
DATE SEP 16 1974

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input checked="" type="checkbox"/>	FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.	
Unknown	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well		None	
DRILL <input type="checkbox"/>	DEEPEN <input type="checkbox"/>	8. Farm or Lease Name	
Clean Out <input checked="" type="checkbox"/>	PLUG BACK <input type="checkbox"/>	State "LC"	
OIL WELL <input type="checkbox"/>	GAS WELL <input type="checkbox"/>	9. Well No.	
OTHER <input type="checkbox"/>	Water Disposal	1	
2. Name of Operator		10. Field and Pool, or Wildcat	
Araho, Inc		Not Applicable	
3. Address of Operator		12. County	
P. O. Box 5456, Midland, Texas 79701		Lea	
4. Location of Well		19. Proposed Depth	
UNIT LETTER <u>I</u>	LOCATED <u>2190</u> FEET FROM THE <u>South</u> LINE	12,704'	
AND <u>560</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>1</u> TWP. <u>17S</u> RGE. <u>36E</u> NMPM	19A. Formation		20. Rotary or C.T.
		Fusselman	
		Rotary	
21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
DF 3828	Blanket	Robinson Bros.	April 1, 1974

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11"	8 5/8"	32#	4999'	1500	Circulated
7 7/8"	5 1/2"	17#	12,100-4800'	800	Circulate
	3 1/2"	9.2#	12,050'		

Will set packer at 12,050'. Dispose of water in open-hole interval from 12,100-12704'.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed Care R. Bruno Title Vice-President Date March 20, 1974

(This space for State Use)

SUPERVISOR DISTRICT I

APPROVED BY _____ TITLE _____

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company Amerada Petroleum Corporation		Address Drawer "D" - Monument, N.M.			
Lease STATE L "C"	Well No. 1	Unit Letter I	Section 1	Township 17-S	Range 36-E
Date Work Performed 12-28-60	Pool Wildcat		County Lea		

THIS IS A REPORT OF: (Check appropriate block)

- ☐ Beginning Drilling Operations ☐ Casing Test and Cement Job ☐ Other (Explain):
☒ Plugging ☐ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

Spotted a 10 sack cement plug in top of 8-5/8"
OD casing from 0' to 30' and installed a 4" OD
abandon marker.

Witnessed by C. L. Thurman	Position Foreman	Company Amerada
-------------------------------	---------------------	--------------------

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev.	T D	P B T D	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	
Perforated Interval(s)				
Open Hole Interval		Producing Formation(s)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Approved by <i>Lester A. Clement</i>	Name <i>Lester A. Clement</i>
Title	Position Asst. District Superintendent
Date	Company

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

NOTES OFFICE

MISCELLANEOUS NOTICES

Submit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
NOTICE OF INTENTION TO PLUG WELL	X	NOTICE OF INTENTION TO PLUG BACK		NOTICE OF INTENTION TO SET LINER	
NOTICE OF INTENTION TO SQUEEZE		NOTICE OF INTENTION TO ACIDIZE		NOTICE OF INTENTION TO SHOOT (Nitro)	
NOTICE OF INTENTION TO GUN PERFORATE		NOTICE OF INTENTION (OTHER)		NOTICE OF INTENTION (OTHER)	

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICOMonument, New Mexico
(Place)December 27, 1960
(Date)

Gentlemen:

Following is a Notice of Intention to do certain work as described below at the State L "C"

Amerada Petroleum Corporation
(Company or Operator)Well No. 1 in I
(Unit)N E 1/4 S E 1/4 of Sec. 1, T. 17S, R. 36E, NMPM, Wildcat Pool
(40-acre Subdivision)
Lea County.FULL DETAILS OF PROPOSED PLAN OF WORK
(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

Plan to plug and abandon as follows:

Spot a 10 sack cement plug in top of 8-5/8" OD
casing, cap casing and set a 4" OD abandon marker.

Approved....., 19.....
Except as follows:Approved
OIL CONSERVATION COMMISSIONAmerada Petroleum Corporation
Company or Operator

By: [Signature]

Position: Asst. District Superintendent

Send Communications regarding well to:

Name: Amerada Petroleum Corporation

Address: District "C" - Monument, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company Amerada Petroleum Corporation		Address Drawer "D" - Monument, N.M.				
Lease State L "C"	Well No. 1	Unit Letter I	Section 1	Township 17S	Range 36E	
Date Work Performed	Pool Wildcat	County Lea				

THIS IS A REPORT OF: (Check appropriate block)

- ☐ Beginning Drilling Operations ☐ Casing Test and Cement Job ☒ Other (Explain):
☐ Plugging ☐ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

Well is still temporarily abandoned.

Plan to hold for possible future use as a salt water disposal well.

THE COMMISSION MUST BE NOTIFIED
EVERY 6 MONTHS ON FORM C-103
AS TO THE WELL STATUS AND YOUR
FUTURE PLANS FOR THIS WELL

Witnessed by	Position	Company
--------------	----------	---------

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

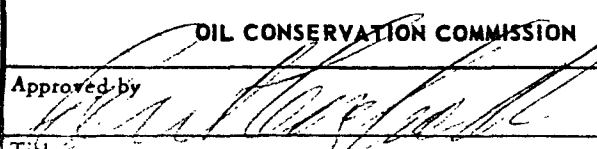
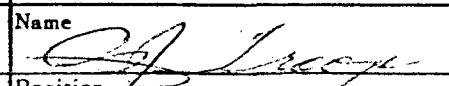
ORIGINAL WELL DATA

D F Elev.	T D	P B T D	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	
Perforated Interval(s)				
Open Hole Interval		Producing Formation(s)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION

Approved by 		I hereby certify that the information given above is true and complete to the best of my knowledge.	
Title Engineer		Name 	
Date		Position Asst. Dist. Superintendent	
		Company Amerada Petroleum Corporation	

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company Amerada Petroleum Corporation		Address Drawer 4D - Monument, New Mexico			
Lease STATE L #CM	Well No. 1	Unit Letter I	Section 1	Township 17-S	Range 36-E
Date Work Performed	Pool Wildcat	County Lea			

THIS IS A REPORT OF: (Check appropriate block)

- ☐ Beginning Drilling Operations ☐ Casing Test and Cement Job ☒ Other (Explain):
☐ Plugging ☐ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

FOR RECORD ONLY

This is to advise that this well is still temporarily abandoned.

Plans remain to hold for possible future use as a salt water disposal well.

THE COMMISSION MUST BE NOTIFIED
EVERY 6 MONTHS ON FORM C-103
AS TO THE WELL STATUS AND YOUR
FUTURE PLANS FOR THIS WELL

Witnessed by	Position	Company
--------------	----------	---------

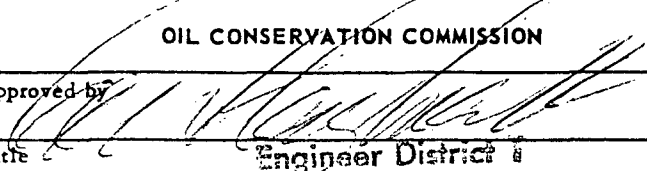

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev.	T D	P BTD	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	
Perforated Interval(s)				
Open Hole Interval		Producing Formation(s)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION		I hereby certify that the information given above is true and complete to the best of my knowledge.	
Approved by 		Name 	
Title Engineer District 1		Position Asst. District Superintendent	
Date		Company Amerada Petroleum Corporation	

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company Amerada Petroleum Corporation		Address Drawer "D" - Monument, N.M. 10 27			
Lease State L "C"	Well No. 1	Unit Letter I	Section 1	Township 17-S	Range 36-E
Date Work Performed	Pool Wildcat	County Lea			

THIS IS A REPORT OF: (Check appropriate block)

- ☐ Beginning Drilling Operations ☐ Casing Test and Cement Job ☐ Other (Explain):
☒ Plugging ☐ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

Permission to perform the following work was obtained from Mr. Ramey by telephone on 11-9-59.

12,704' total depth - dry hole. Cement plugs spotted as follows: 150 sx regular mixed 4% Gel with 1/4# flocele and 50# Gilsonite per sack at 12,005'; 35 sx slo-set at 11,625'; 105 sx slo-set and 125 sx regular mixed 4% Gel and 1/4# flocele per sack and 50# Gilsonite per sack at 9950'; 75 sx regular from 8220' to 8464'; 35 sx regular from 6300' to 6414'; 35 sx regular from 5936' to 6050' and 35 sx regular from 5000' to 5050', & in 8-5/8" csg from 4936' to 5000'.

Left all 8-5/8" and 13-3/8" casing in hole. Welded a metal cap over top of 8-5/8" OD casing.

Well temporarily abandoned as of 12-2-59. Plan to hold for possible future use as a salt water disposal well.

THE COMMISSION MUST BE NOTIFIED
EVERY 6 MONTHS ON FORM C-103
AS TO THE WELL STATUS AND YOUR
FUTURE PLANS FOR THIS WELL.

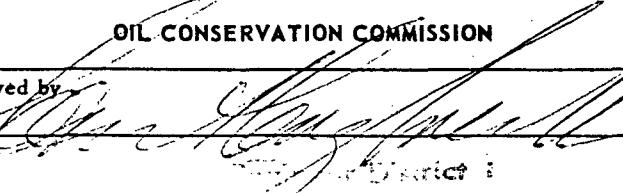
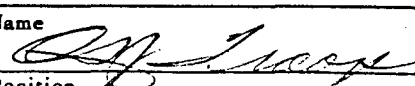
Witnessed by C. L. Thruman	Position Foreman	Company Amerada Petr. Corp.
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FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA				
D F Elev.	T D	P B T D	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	
Perforated Interval(s)				
Open Hole Interval		Producing Formation(s)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION		I hereby certify that the information given above is true and complete to the best of my knowledge.	
Approved by 	Name 		
Title District :	Position Asst. District Superintendent		
Date	Company Amerada Petroleum Corporation		

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

TOOLS USED

Rotary tools were used from 0 feet to 12,700 feet, and from 0 feet to 0 feet.
Cable tools were used from 0 feet to 0 feet, and from 0 feet to 0 feet.

PRODUCTION

Put to Producing 19

OIL WELL: The production during the first 24 hours was 0 barrels of liquid of which 0% was oil; 0% was emulsion; 0% water; and 0% was sediment. A.P.I.

Gravity 0

GAS WELL: The production during the first 24 hours was 0 M.C.F. plus 0 barrels of liquid Hydrocarbon. Shut in Pressure 0 lbs.

Length of Time Shut in 0

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

Southeastern New Mexico

Northwestern New Mexico

T. Anhy. 1970'	T. Devonian 11716'	T. Ojo Alamo 12700'
T. Salt 1970'	T. Silurian 12700'	T. Kirtland-Fruitland 12700'
T. Salt 1970'	T. Monterey 12700'	T. Farmington 12700'
T. Yates 1970'	T. Simpson 12700'	T. Pictured Cliffs 12700'
T. 7 Rivers 1970'	T. McKee 12700'	T. Menefee 12700'
T. Queen 1970'	T. Ellenburger 12700'	T. Point Lookout 12700'
T. Grayburg 1970'	T. Gr. Wash. 12700'	T. Mancos 12700'
T. San Andres 1970'	T. Granite 12700'	T. Dakota 12700'
T. Glorieta 1970'	T. 12700'	T. Morrison 12700'
T. Drinkard 1970'	T. 12700'	T. Penn. 12700'
T. Tubbs 1970'	T. 12700'	T. 12700'
T. Abo 1970'	T. 12700'	T. 12700'
T. Penn. 1970'	T. 12700'	T. 12700'
T. Mix 1970'	T. 12700'	T. 12700'

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	6	6	Collar				
6	300	294	Caliche, Red Shale & Sand				
300	700	400	Red Sand				
700	1970	1270	Red Shale & Sand				
1970	1970	0	Andersite				
1970	1970	0	Salt				
1970	1970	0	Andersite & Shale				
1970	1970	0	Dolomite				
1970	1970	0	Dolomite & Sand				
1970	1970	0	Dolomite				
1970	1970	0	Dolomite & Sand				
1970	1970	0	Dolomite				
1970	1970	0	Lime, Shale & Dolomite				
1970	1970	0	Dolomite				
1970	1970	0	Shale				
1970	1970	0	Lime				
1970	1970	0	Sand & Shale				
1970	1970	0	Lime & Shale				
1970	1970	0	Lime				
1970	1970	0	Shale				
1970	1970	0	Lime & Dolomite				
1970	1970	0	Dolomite				

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

December 9, 1939

Amecora Petr. Corporation

By W. H. H. H. (Date)

Company or Operator

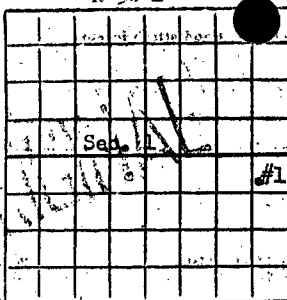
Address

1201, District Superintendent

Name

Position or Title

R-36-E

Oil Well 1/1/59
(Form C-101)

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

ROBBS OFFICE 060

WELL RECORD

NOV 27

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in QUINTUPLICATE. If State Land submit 6 Copies

AREA 640 ACRES
LOCATE WELL CORRECTLY

Amerasia Petroleum Corporation

State L "C"

(Company or Operator)

(Lease)

Well No. 01 in NE 1/4 of SE 1/4 of Sec. 1 T. 17-S. R. 36-E NMPM.

Wildcat

Pool

Lea

County.

Well is 2190 feet from South line and 560 feet from East line

of Section 1 If State Land the Oil and Gas Lease No. is B - 3009

Drilling Commenced September 5, 1959 Drilling was Completed November 26, 1959

Name of Drilling Contractor Rowan Drilling Co., Inc.

Address Midland, Texas

Elevation above sea level at Top of Casing Head 3828' D.F. The information given is to be kept confidential until

Not Confidential

OIL SANDS OR ZONES

No. 1, from None to No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from None to feet

No. 2, from to feet

No. 3, from to feet

No. 4, from to feet

CASING RECORD

SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
13-3/8"	48#	New	433'	Guide			
8-5/8"	32#	New	5006'	"			

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
17-1/2"	13-3/8	451'	450	Halliburton		
11"	8-5/8	4999'	1500	"		

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qu. or Gals. used, interval treated or shot.)

Dry Hole - Temporarily abandoned.

Result of Production Stimulation

Depth Cleaned Out

STATE L'C" NO. 1 - DRILL STEM TESTS

- DST #1 from 9640' to 9687', Wolfcamp, Opened tool with weak blow of air. Packer failed.
- DST #1, 2nd run, from 9640' to 9687', Wolfcamp, opened tool with very weak blow air and died in 4 minutes. Recovered: 9561' dry pipe and 59' drilling fluid, no shows of oil, gas or water. HI & HO - 4176#, IFP - 54#, FFP - 54#, 10, 20, & 30 min. build up - 54#.
- DST #2 from 10,290' to 10,335', Pennsylvanian, 4 hour test. Used 1300' water blanket. Opened tool with fair blow of air then decreased to a very weak blow in 4 hours. Recovered: 1953' dry pipe, 1300' water blanket, 279' drilling fluid and 6713' salty sulphur water above TC valve and 90' salt water below TC valve, no shows of oil or gas. HI-4415#, HO-4380#, IFP-700#, FFP-3850#, 10, 20, & 30 min. build up- 3960#.
- DST #3 from 10,730' to 10,780', Pennsylvanian, had packer failure.
- DST #3, 2nd run, from 10,715' to 10,780', Pennsylvanian, 15 min. test. Used 1800' water blanket. Opened tool with a very weak blow of air and died in 5 mins. Recovered: 1800' water blanket and 280' of drilling fluid with no shows of water, oil & gas. HI & HO-4681#, IFP & FFP-766#, no build up due to packer failure.
- DST #4 from 10,765' to 10,865', Lower Pennsylvanian, had packer failure.
- DST #4, 2nd run, from 10,755' to 10,865', Lower Pennsylvanian, 2 hour & 9 minute test. Used 1800' water blanket. Opened tool with weak blow of air for 15 minutes and died. Closed and re-opened with no blow. Recovered: 1800' water blanket, 465' drilling mud above TC valve and 171' drilling mud below TC valve, no shows of oil, water or gas. HI & HO-4930#, IFP-1275#, FFP-1275#, 10 min. BUP-1310#, 20 min. BUP-1434# and 30 min. 1500#.
- DST #5 from 11,718' to 11,760', Devonian, 1 hour test. Used 2711' nitrogen blanket. Opened tool with few air bubbles and died. Recovered nitrogen blanket and 30' of very slightly gas cut drilling mud, no shows of oil or water. HI & HO-5500#, IFP & FFP-880#, 10 min BUP-1300#, 20 min. BUP-1630# and 30 min. BUP-2240# and increasing.
- DST #6 from 11,760' to 11,789', Devonian zone, 2 hour test. Used 2711' nitrogen blanket. Opened tool with weak blow air and died after 19 minutes. Recovered: 2711' nitrogen blanket, 304' water and 30' drilling mud estimated 5% heavy black oil cut. HI & HO-5520#, IFP-880#, FFP-1040#, 10 min. BUP-3020#, 20 min. BUP-3420#, and 30 min. BUP-3700#.
- DST #7 from 11,789' to 11,840', Devonian, 1 hour and 21 min. test. Used 2813' nitrogen blanket. Opened tool with very weak blow of air for 21 mins. and died. Recovered: 2813' nitrogen blanket, 151' water and 98' drilling mud, no shows of oil or gas. HI & HO-5580#, IFP-900#, FFP-975#, 10 min. BUP-3620#, 20 min. BUP-3900# and 30 min. BUP-4100#.
- DST #8 from 11,840' to 11,876', Devonian zone, 4 hour test. Used 2813' nitrogen blanket. Opened tool with weak blow air for 10 mins. then increased to strong blow for 2 hours & decreased to weak blow at end of test. Recovered: 256' of mud cut salt water and 5146' of salt water. No shows of oil. HI & HO-5600#, IFP-940#, FFP-2080#, 10 min, BUP-2080#, 20 min. BUP-2120#, and 30 min. BUP-2300#.
- DST #9 from 12,540' to 12,704', Fusselman zone, 3 hour test. Opened tool with faint blow increasing to sudden-strong blow then weakened & died. Had another blow increasing to strong blow at end of test. Recovered: 10,677' of salt water, no shows of oil or gas. HI-5000#, HO-4800#, IFP-2620#, FFP-4320#, 10 min. BUP-4360#, 20 min. BUP-4520#, and 30 min. BUP-4740#.
- DST #10 from 9910' to 9990', Pennsylvanian, opened tool with good blow air continuing for 2 hrs and gradually decreasing to weak blow at end of test. Recovered above TC valve: 282' of drilling mud and 6470' salty sulphur water. Below TC valve: 150' salty sulphur water. HI-4220#, HO-4150#, IFP-45#, FFP-2930#, 10 min. BUP-3180#, 20 min. BUP-3205#, 30 min. BUP-3225#.

TOTCOS					
623'	1/2 deg.	7060'	1-3/4 deg.	11755'	3 degs.
1910'	2-	8005'	2	12168'	3-1/2
2840'	3/4	9060'	2-3/4		
3335'	1/2	10070'	3/4		
4260'	1-3/4	10864'	3/4		
5054'	1-1/2	10040'	1/2		
6310'	1-3/4	11465'	2		

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS NOTICES

Submit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
NOTICE OF INTENTION TO PLUG WELL		NOTICE OF INTENTION TO PLUG BACK		NOTICE OF INTENTION TO SET LINER	
NOTICE OF INTENTION TO SQUEEZE		NOTICE OF INTENTION TO ACIDIZE		NOTICE OF INTENTION TO SHOOT (Nitro)	
NOTICE OF INTENTION TO GUN PERFORATE		NOTICE OF INTENTION (OTHER)		NOTICE OF INTENTION (OTHER)	

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Monument, New Mexico
(Place)

November 18, 1959
(Date)

Gentlemen:

Following is a Notice of Intention to do certain work as described below at the.....

Amerada Petroleum Corporation
(Company or Operator)

State L "C"

Well No. 1 in I
(Unit)

N E 1/4 S E 1/4 of Sec. 1, T 17-S, R 36-E, NMPM., Wildcat Pool
(40-acre Subdivision)

Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK
(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

On Notice of Intention to Drill dated 8-25-59, intentions were to drill to a depth of approximately 12,000' and test the Devonian. We have reached the proposed depth and now plan to drill deeper to approximately 12,875' and test the Silurian.

Approved....., 19.....
Except as follows:

Approved
OIL CONSERVATION COMMISSION

By.....

Title.....

Amerada Petroleum Corporation
Company or Operator

By.....
Position Asst. District Superintendent

Send Communications regarding well to:

Name Amerada Petr. Corp.

Address Santa Fe - Monument, N.M.

ORIGINAL

HOBBS OFFICE 65-060-103
(Revised 3-55)

NEW MEXICO OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

1959 SEP 23 AM 8:02

(Submit to appropriate District Office as per Commission Rule 1106)

COMPANY Amerada Petroleum Corporation - Drawer "D" - Monument, New Mexico
(Address)

LEASE State L "C" WELL NO. 1 UNIT I S 1 T 17S R 36-E

DATE WORK PERFORMED Sept., 1959 POOL wildcat

This is a Report of: (Check appropriate block) ☒ Results of Test of Casing Shut-off

☐ Beginning Drilling Operations

☐ Remedial Work

☐ Plugging

☐ Other

Detailed account of work done, nature and quantity of materials used and results obtained.

Drilled 11" hole to 5000'. Ran 117 jts of 8-5/8" OD casing and set at 4999'. Cemented with 1400 sx of 50-50 Bozmix and regular cement mixed with 2% Gel and 100 sx of Incor, total of 1500 sx. Maximum pressure - 1200#. Rotated casing until cement equalized. Ran temperature survey and found top of cement outside of 8-5/8" OD casing at 2765' or 31% fill. After WOG, tested 8-5/8" OD casing with 1000# press. for 30 mins, held OK. Drilled cement from 4907' to 5000' and tested 8-5/8" casing with 1000# press. for 30 mins, held OK.

Started drilling formation and 7-7/8" hole at 6PM, 9-23-59.

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

Original Well Data:

DF Elev. TD PBD Prod. Int. Compl Date

Tbng. Dia Tbng Depth Oil String Dia Oil String Depth

Perf Interval (s)

Open Hole Interval Producing Formation (s)

RESULTS OF WORKOVER:

BEFORE

AFTER

Date of Test

Oil Production, bbls. per day

Gas Production, Mcf per day

Water Production, bbls. per day

Gas-Oil Ratio, cu. ft. per bbl.

Gas Well Potential, Mcf per day

Witnessed by

(Company)

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name [Signature]

Name [Signature]

Title Engineer District I

Position Asst. Dist. Superintendent

Date SEP 24 1959

Company Amerada Petroleum Corporation

SEP 24 1959

ORIGINAL

MAIN OFFICE OCC

HOBBS 657660003
(Revised 3-55)

NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

COMPANY Amerada Petroleum Corporation - Drawer "D" - Monument, New Mexico
(Address)

LEASE State L "C" WELL NO. 1 UNIT I S 1 T 17S R 36-E

DATE WORK PERFORMED Sept., 1959 POOL Wildcat

This is a Report of: (Check appropriate block) ☒ Results of Test of Casing Shut-off

☒ Beginning Drilling Operations

☐ Remedial Work

☐ Plugging

☐ Other _____

Detailed account of work done, nature and quantity of materials used and results obtained.

Spudded 17-1/2" hole at 1:30PM, 9-5-59.

At a depth of 455', ran 13-3/8" OD 48# casing and set at 451' and cemented with total of 450 sacks, Maximum pump pressure 400#. Cement circulated. After WOC, tested 13-3/8" OD casing with 800# pressure & held OK. Drilled cement to 455' and tested 13-3/8" OD casing with 800# pressure, Held OK.

Started drilling formation and 11" hole at 455' at 2:30AM, 9-8-59.

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

Original Well Data:

DF Elev. _____ TD _____ PBD _____ Prod. Int. _____ Compl Date _____

Tbng. Dia _____ Tbng Depth _____ Oil String Dia _____ Oil String Depth _____

Perf Interval (s) _____

Open Hole Interval _____ Producing Formation (s) _____

RESULTS OF WORKOVER:

BEFORE

AFTER

Date of Test _____

Oil Production, bbls. per day _____

Gas Production, Mcf per day _____

Water Production, bbls. per day _____

Gas-Oil Ratio, cu. ft. per bbl. _____

Gas Well Potential, Mcf per day _____

Witnessed by _____

(Company)

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name [Signature]

Name [Signature]

Title Commissioner

Position Asst. Dist. Superintendent

Date 9/11/59

Company Amerada Petroleum Corporation

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

(F-401 C-101)
(Revised 7/1/52)

HOBBS OFFICE OCC

NOTICE OF INTENTION TO DRILL OR RECOMPLETION

Notice must be given to the District Office of the Oil Conservation Commission and approval obtained before drilling or recompletion begins. If changes in the proposed plan are considered advisable a copy of this notice showing such changes will be returned to the sender. Submit this notice in **QUINTUPLICATE**. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

Monument, New Mexico

August 25, 1959

(Place)

(Date)

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Gentlemen:

You are hereby notified that it is our intention to commence the (Drilling) (Recompletion) of a well to be known as

Amerada Petroleum Corporation

(Company or Operator)

State L "C"

(Lease)

Well No. 1

in I (Unit)

The well is

located 2190 feet from the South line and 560 feet from the

East line of Section 1, T. 17-S, R. 36-E, NMPM.

(GIVE LOCATION FROM SECTION LINE)

Wildcat

Pool,

Lea

County

R 36E

If State Land the Oil and Gas Lease is No. B-3009

If patented land the owner is

Address

We propose to drill well with drilling equipment as follows:

Rotary tools all the way

The status of plugging bond is Blanket

Drilling Contractor Rowan Drilling Co., Inc.

Midland, Texas

We intend to complete this well in the Devonian

formation at an approximate depth of 12,000 feet.

CASING PROGRAM

We propose to use the following strings of Casing and to cement them as indicated:

Size of Hole	Size of Casing	Weight per Foot	New or Second Hand	Depth	Sacks Cement
17-1/2"	13-3/8"	48#	New	400'	450 - Circ.
12 1/4" & 11"	8-5/8"	32#	New	5000'	2000
7-7/8"	5-1/2"	17 & 20#	New	12000'	600

If changes in the above plans become advisable we will notify you immediately.

ADDITIONAL INFORMATION (If recompletion give full details of proposed plan of work.)

Approved _____, 19____
Except as follows:

Sincerely yours,

Amerada Petroleum Corporation

(Company or Operator)

By _____

Position Asst. District Superintendent

Send Communications regarding well to

Name Amerada Petr. Corp.

Address Drawer "D"

Monument, New Mexico

OIL CONSERVATION COMMISSION

By _____

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-128
Revised 5/1/57

WELL LOCATION AND ACREAGE DEDICATION PLAT

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE OFS OFFICE OCC

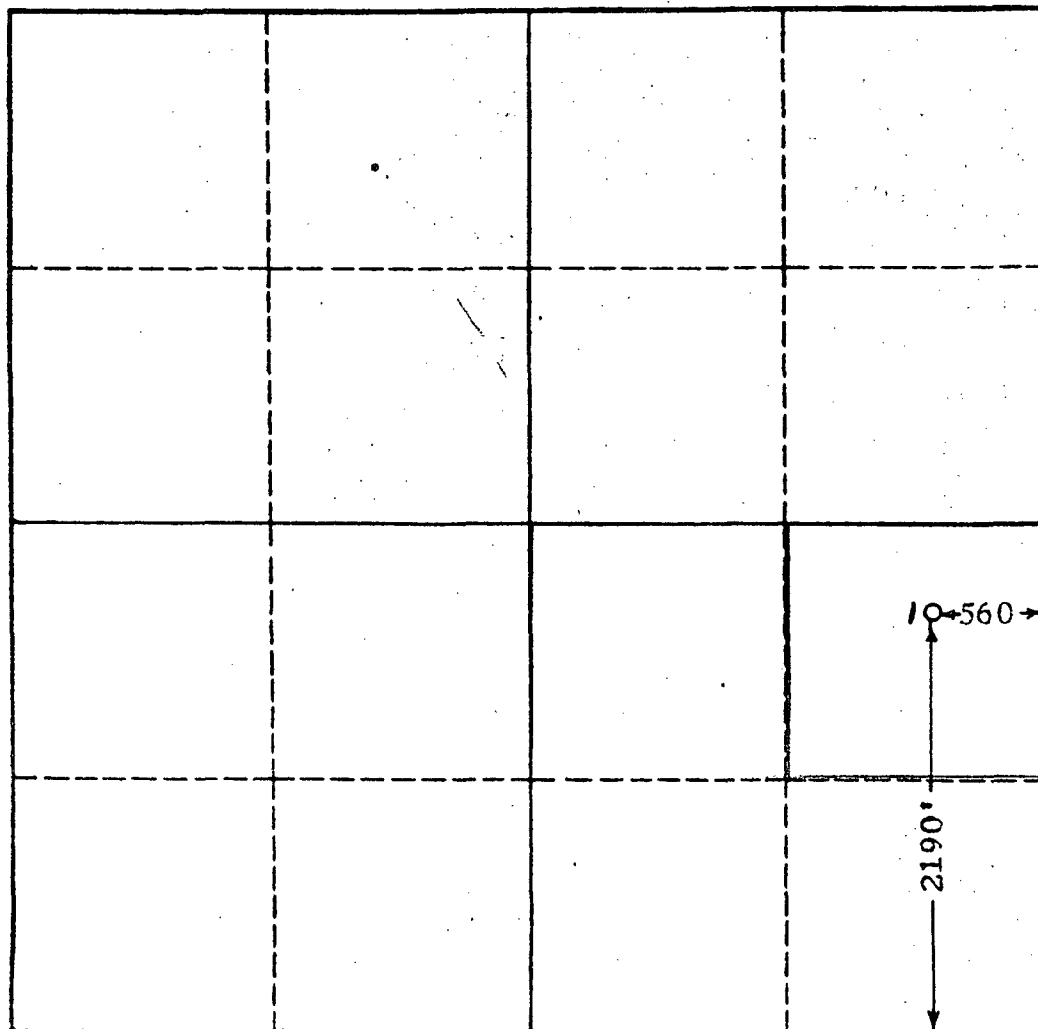
SECTION A

Operator Amerada Pet. Corp.		Lease State LC		1959 AUG 25		Well No. PM 2159
Unit Letter I	Section 1	Township 17 S	Range 36 E	County Lea		
Actual Footage Location of Well: 2190 feet from the South line and 560 feet from the East line						
Ground Level Elev. -	Producing Formation Devonian		Pool Wildcat		Dedicated Acreage: 40.00 Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES _____ NO X . ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES X NO ____ . If answer is "yes," Type of Consolidation Operating Agreement
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

SECTION B



CERTIFICATION

I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief.

Name	<u>John W. West</u>
Position	Asst. Dist. Superintendent
Company	Amerada Petr. Corporation
Date	August 25, 1959

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed	8-19-59
Registered Professional Engineer and/or Land Surveyor	JOHN W. WEST
Certificate No.	N.M. - P.E. & L.S. NO. 678

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

COUNTY LEA FIELD Undesignated STATE NM
 OPR ARAO, INC. API MN 03829
 NO WD-1 LEASE State "LC" SERIAL OWWO
Sec 1, T-17-S, R-36-E MAP
2190' FSL, 560' FEL of Sec CO-ORD

		CLASS <u>IR-I</u>		ELEV		L & S	
Re- SPD CSG	5-9-74	Re- CMP	6-10-74	FORMATION	DATUM	FORMATION	DATUM
13 3/8" at 451' w/450 sx 8 5/8" at 4999' w/1500 sx 5 1/2" lnr 4825-11,940' w/750 sx							
				TO 12,704' (FSLM)		PBD 12,000'	

(Fusselman) OH 11,940-12,000' WATER DISPOSAL WELL

CONTR OPRS ELEV 3828' GL PD 12,704' TYPE WC

F.R. 4-1-74

(Fusselman) WATER DISPOSAL WELL
 (Orig. Amerada Pet Corp., P&A 12-2-59, OTD
 12,704')

10-14-74 TD 12,704'; PBD 12,000'; COMPLETE
 CO to 12,000'

10-19-74 Ran 5 1/2" lnr
 COMPLETION REPORTED

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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	GAS	
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PRORATION OFFICE		

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-104
Revised 10-01-78
Format 06-01-83
Page 1

REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

I.

Operator
Araho Inc.

Address
P.O.Box 936, Lovington, New Mexico 88260

Reason(s) for filing (Check proper box)

<input type="checkbox"/> New Well	Change in Transporter of:	Other (Please explain) 300 BBLs oil
<input type="checkbox"/> Recompletion	<input checked="" type="checkbox"/> Oil	
<input type="checkbox"/> Change in Ownership	<input type="checkbox"/> Casinghead Gas	

☐ Dry Gas
☐ Condensate

If change of ownership give name
and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name X L.C. State	Well No. 2	Pool Name, including Formation Wolfcamp	Kind of Lease State, Federal or Fee State	Lease No. unknown
Location				
Unit Letter F : 2310 Feet From The West Line and 1650 Feet From The North				
Line of Section 2 Township 17S Range 36E, NMPM, Lea County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/> Navajo Refining	Address (Give address to which approved copy of this form is to be sent) P.O. Drawer 159, Artesia, N.M. 88210	
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)	
If well produces oil or liquids, give location of tanks.	Unit	Sec.
	Twp.	Rge.
	Is gas actually connected? When	

If this production is commingled with that from any other lease or pool, give commingling order number:

NOTE: Complete Parts IV and V on reverse side if necessary.

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.

Robert E. Canfield
(Signature)

Pumper
(Title)

12-15-84
(Date)

OIL CONSERVATION DIVISION

APPROVED JAN 14 1985, 19
BY [Signature]
TITLE DISTRICT SUPERVISOR

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

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CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-78

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No. unknown	

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

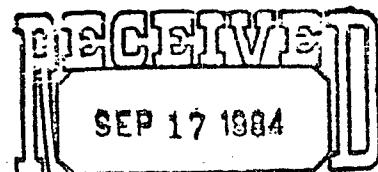
1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- SWD well		7. Unit Agreement Name none	
2. Name of Operator Araho, Inc.		8. Farm or Lease Name LC State	
3. Address of Operator P.O. Box 5456 Midland, Texas 79701		9. Well No. 2 SWD	
4. Location of Well UNIT LETTER F 2310 FEET FROM THE west LINE AND 1650 FEET FROM THE north LINE, SECTION 2 TOWNSHIP 17 S RANGE 36 E NMPM.		10. Field and Pool, or Wildcat not applicable	
15. Elevation (Show whether DF, RT, GR, etc.) 3858 DF		12. County Lea	

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input checked="" type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

We propose to temporarily shut in the well until such time as the Southern Union plant determines whether to reopen or to remain shut down. We will determine at that time the feasibility of repairing the tubing leak, to reopen the well or to plug and abandon it. We will reschedule your test of this well if and when repairs have been accomplished.



OIL CONSERVATION DIVISION
SANTA FE

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Roland E. Caudill TITLE Pumper DATE Sept. 6, 1984

APPROVED BY [Signature] TITLE DISTRICT 1 SUPERVISOR DATE SEP 10 1984

CONDITIONS OF APPROVAL, IF ANY:

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LAND OFFICE	
OPERATOR	

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	
Unknown	

1a. TYPE OF WELL						7. Unit Agreement Name	
OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> SWD 107						None	
b. TYPE OF COMPLETION						8. Farm or Lease Name	
NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEPEN <input checked="" type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>						State	
2. Name of Operator						9. Well No.	
Araho, Inc.						2 SWD	
3. Address of Operator						10. Field and Pool, or Wildcat	
P. O. Box 5456, Midland, Texas 79701						Not applicable	
4. Location of Well						12. County	
UNIT LETTER <u>F</u> LOCATED <u>2310</u> FEET FROM THE <u>W</u> LINE AND <u>1650</u> FEET FROM THE <u>N</u> LINE OF SEC. <u>2</u> TWP. <u>17S</u> RGE. <u>36E</u> NMPM						Lea	
15. Date Spudded		16. Date T.D. Reached		17. Date Compl. (Ready to Prod.)		18. Elevations (DF, RKB, RT, GR, etc.)	
3/11/77		3/29/77		4/23/77		3858 DF	
19. Elev. Casinghead		20. Total Depth					
3848		8889					
21. Plug Back T.D.		22. If Multiple Compl., How Many		23. Intervals Drilled By		24. Producing Interval(s), of this completion - Top, Bottom, Name	
				Rotary Tools <input checked="" type="checkbox"/> Cable Tools <input type="checkbox"/>		25. Was Directional Survey Made	
						No	
26. Type Electric and Other Logs Run						27. Was Well Cored	
						No	
28. CASING RECORD (Report all strings set in well)							
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED		
13 3/8"	48.0	349	17 1/2"	450 sks circulated	None		
9 5/8"	36.0	3318	12 1/2"	1750 sks circulated	None		
5 1/2"	15.5-20#	8528	8 3/4"	1400 sks	None		
29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					3 1/2"	8527	8492'
31. Perforation Record (Interval, size and number)				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
Open Hole 8535-8889'				DEPTH INTERVAL 8535-8889 AMOUNT AND KIND MATERIAL USED 3000-15%			
33. PRODUCTION							
Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in)	
		None - SWD well					
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)	
34. Disposition of Gas (Sold, used for fuel, vented, etc.)						Test Witnessed By	
35. List of Attachments							

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

TITLE President

DATE 4/26/77

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U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	
Unknown	

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- SWD	7. Unit Agreement Name
2. Name of Operator	None
Araho, Inc.	8. Farm or Lease Name
3. Address of Operator	State
P. O. Box 5456, Midland, Texas 79701	9. Well No.
4. Location of Well	2 SWD
UNIT LETTER F 2310 FEET FROM THE W LINE AND 1650 FEET FROM	10. Field and Pool, or Wildcat
THE N LINE, SECTION 2 TOWNSHIP 17S RANGE 36E NMPM.	Not applicable
15. Elevation (Show whether DF, RT, GR, etc.)	12. County
3858 DF	Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐
OTHER ☐

PLUG AND ABANDON ☐
CHANGE PLANS ☐
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐
COMMENCE DRILLING OPNS. ☐
CASING TEST AND CEMENT JOBS ☐
OTHER Completion ☒
ALTERING CASING ☐
PLUG AND ABANDONMENT ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

4/9/77 to 4/23/77

1. Ran 3½" OD 9.2# K-55 10 rd thd NU tubing Cond. A. When we lacked 4 jts from being to packer setting depth, 8500', tubing parted 3 jts from top. Found that this joint had bad threads and they had pulled out of the collar. Fished tubing and packer out of hole.

Ran the following tubing string in hole:

Bottom: 1 jt 3½" OD 9.2# 10rd thd K-55 NU Tubing tail joint	31.30
1-5½" x 2 3/8" EUE Halliburton Type G-4 Packer run with plastic coating in tension	5.20
305 jts 3½" 9.2# 10 rd thd K-55 NU Tubing Cond. A Plastic coated	8483.42
Packer set at	8492.02'

Tail pipe bottomed at 8527.92'.

2. Acidized open hole section 8510-8889' w/3000 gals regular acid/

3. Annulus between 5½ and 3½" tubing loaded w/fluid before acidizing. No communication.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Larry R. Bruno

TITLE President

DATE 4/26/77

SUPERVISOR DISTRICT 1

APR 28 1977

TITLE

DATE

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LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
5. State Oil & Gas Lease No. Unknown

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- SWD	7. Unit Agreement Name None
2. Name of Operator Araho, Inc.	8. Farm or Lease Name State
3. Address of Operator P. O. Box 5456, Midland, Texas 79701	9. Well No. 2 SWD
4. Location of Well UNIT LETTER F 2310 FEET FROM THE W LINE AND 1650 FEET FROM THE N LINE, SECTION 2 TOWNSHIP 17S RANGE 36E NMPM.	10. Field and Pool, or Wildcat Not Applicable
15. Elevation (Show whether DF, RT, GR, etc.) 3858 DF	12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	
		OTHER Drill out packer, bridge plugs, cement and drill new hole. <input checked="" type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

From 3/17/77 to 3/25/77:

- Cleaned out 5½" casing from 4232'-8510'.
- From 3/25/77 to 3/29/77 - Deepened hole from 8510' to 8889'.
- Prep to run 3½" tubing and packer.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED <u>Earek R. Grund</u>	TITLE <u>President</u>	DATE <u>3/30/77</u>
APPROVED BY <u>[Signature]</u>	TITLE <u>SUPERVISOR DISTRICT 1</u>	DATE <u>APR 4 1977</u>

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LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease
State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>

5. State Oil & Gas Lease No.
Unknown

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- SWD	7. Unit Agreement Name
2. Name of Operator	None
3. Address of Operator	8. Farm or Lease Name
P. O. Box 5456, Midland, Texas 79701	State
4. Location of Well	9. Well No.
UNIT LETTER F 2310 FEET FROM THE W LINE AND 1650 FEET FROM	2 SWD
THE N LINE, SECTION 2 TOWNSHIP 17S RANGE 36E NMPM.	10. Field and Pool, or Wildcat
	Not Applicable
15. Elevation (Show whether DF, RT, GR, etc.)	12. County
3858 DF	Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- Waiting on rig 1/15-3/10/77
- 3/11/77 Nippled up BOP. Drilled cement plug out of 9 5/8" csg from surface to 15'. Ran 8 3/4" bit to 4231', top of 5 1/2" csg.
- 3/12-15/77 Ran 5 1/2" csg to 4213'. Casing parted while circulating and rotating our till 4213'. Fished out casing. Ran 8 3/4" bit to top of 5 1/2" csg at 4231'. Washed over 5 1/2" casing at 4231' w/7 5/8" wash pipe to 4260'.
- 3/16/77 Ran 5 1/2" csg w/1 jt 7 5/8" csg on bottom. Got over 5 1/2" csg @ 4231' and ran 7 5/8" jt of csg to 4252' and cemented w/200 sks Class "C" cement w/2% gel and 2% CaCl₂. Good returns through out. Now WOC.
- After WOC 18 hrs, will drill out w/4 5/8" bit and clean out to 8538' and deepen to 8850-8900 feet.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Larry R. Drumm TITLE President DATE 3/17/77

SIGNED Larry R. Drumm TITLE SUPERVISOR DISTRICT DATE MAR 22 1977

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 1980 - HOBBS

88240

LAND COMMISSIONER

PHIL R. LUCERO

March 11, 1977



STATE GEOLOGIST

EMERY C. ARNOLD

DIRECTOR

JOE D. RAMEY

Araho, Inc.

P. O. Box 5456

Midland, Texas 79701

Re: State No. 2 SWD-F

1650/N & 2310/W

Sec. 2, T-17-S, R-36-E

Lea County, New Mexico

Gentlemen:

Ninety days have elapsed since approval of Commission Form C-101, Notice of Intention to Drill, for the subject well and to date no progress reports, Forms C-103, have been received. Therefore, Commission approval of Form C-101 has now expired and no drilling operations are to be initiated or continued without further notice to and approval by the Commission. Pending such approval this will be considered an abandoned location.

Yours very truly,

OIL CONSERVATION COMMISSION

Jerry Sexton
Supervisor, District 1

JS/mc
cc-OCC, Santa Fe

CORRECTED FORM

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

NO. COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5A. Indicate Type of Lease	
STATE <input checked="" type="checkbox"/>	FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.	
Unknown	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well DRILL <input type="checkbox"/> DEEPEN <input checked="" type="checkbox"/> PLUG BACK <input type="checkbox"/>		None	
OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Water disposal <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Farm or Lease Name	
2. Name of Operator		State	
Araho, Inc.		9. Well No.	
3. Address of Operator		2 SWD well	
P. O. Box 5456, Midland, Texas 79701		10. Field and Pool, or Wildcat	
4. Location of Well UNIT LETTER <u>F</u> LOCATED <u>2310</u> FEET FROM THE <u>West</u> LINE AND <u>1650</u> FEET FROM THE <u>North</u> LINE OF SEC. <u>2</u> TWP. <u>17S</u> RGE. <u>36E</u> NMPM		Not applicable	
12. County		Lea	
19. Proposed Depth		19A. Formation	
8900		ABO	
20. Rotary or C.T.		Rotary	
21. Elevations (Show whether DF, RT, etc.)		21B. Drilling Contractor	
3858 DF		Cactus Drilling Co.	
21A. Kind & Status Plug. Bond		22. Approx. Date Work will start	
Blanket		June 20, 1976	

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17½	13 3/8	48.0	349	450	Circulated
12 1/4	9 5/8	36.0	3318	1750	Circulated
8 3/4	5 1/2	17.0	8528	1400	3000'
	2 7/8 tbg.	6.7	5800		

will set packer at 5800' and dispose of water through perforations at 5845-5968; 8378-8443; 8443-80; and open hole interval 8528-8900'.

Clean out well to 8528-4200' tie in existing 5½" casing with 4241' of 5½" casing and 1 jt. 7 5/8" casing and cement with 200 sacks cement. Clean out to 8528 and 4 3/4" hole to 8900'.

RECEIVED
MAR 24 1977
OIL CONSERVATION COMMISSION

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed Carl R. Bruno Title Vice-President Date June 7, 1976

(This space for State Use)

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT 1 DATE JUN 23 1976

CONDITIONS OF APPROVAL, IF ANY: This approval is for deepening, only. Water is not to be injected until approval is obtained after logging.

CORRECTED FORM

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5A. Indicate Type of Lease	
STATE <input checked="" type="checkbox"/>	FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.	
Unknown	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well DRILL <input type="checkbox"/> DEEPEN <input checked="" type="checkbox"/> PLUG BACK <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER water disposal <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		None	
2. Name of Operator		8. Farm or Lease Name	
Araho, Inc.		State	
3. Address of Operator		9. Well No.	
P. O. Box 5456, Midland, Texas 79701		2 SWD well	
4. Location of Well		10. Field and Pool, or Wildcat	
UNIT LETTER <u>F</u> LOCATED <u>2310</u> FEET FROM THE <u>West</u> LINE AND <u>1650</u> FEET FROM THE <u>North</u> LINE OF SEC. <u>2</u> TWP. <u>17S</u> RGE. <u>36E</u> NMPM		Not applicable	
		12. County	
		Lea	
		19. Proposed Depth	
		8900	
		19A. Formation	
		ABO	
		20. Rotary or C.T.	
		Rotary	
21. Elevations (Show whether DF, RT, etc.)		21A. Kind & Status Plug. Bond	
3858 DF		Blanket	
		21B. Drilling Contractor	
		Cactus Drilling Co.	
		22. Approx. Date Work will start	
		June 20, 1976	

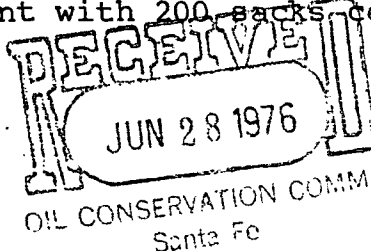
23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17½	13 3/8	48.0	349	450	Circulated
12 1/4	9 5/8	36.0	3318	1750	Circulated
8 3/4	5 1/2	17.0	8528	1400	3000'
	2 7/8 tbq.	6.7	5800		

will set packer at 5800' and dispose of water through perforations at 5845-5968; 8378-8443; 8443-80; and open hole interval 8528-8900'.

Clean out well to 8528-4200' tie in existing 5½" casing with 4241' of 5½" casing and 1 jt. 7 5/8" casing and cement with 200 sacks cement. Clean out to 8528 and 4 3/4" hole to 8900'.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed Earl R. Bruno Title Vice-President Date June 7, 1976

(This space for State Use)

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT I DATE JUN 25 1976

CONDITIONS OF APPROVAL, IF ANY: This approval is for deepening, only. Water is not to be injected until approval is obtained after hearing.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

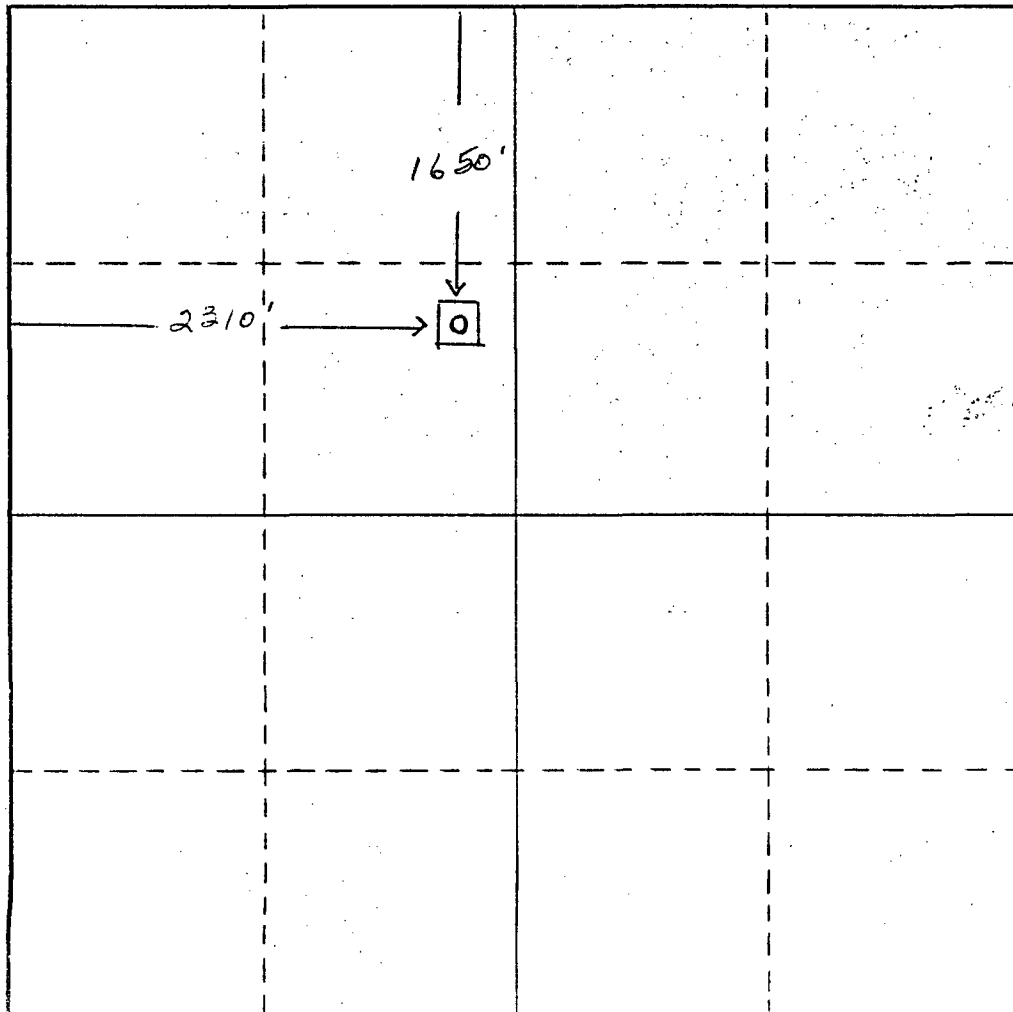
Operator Araho, Inc.			Lease State SWD		Well No. 2
Unit Letter F	Section 2	Township 17S	Range 36E	County Lea	
Actual Footage Location of Well: 2310 feet from the West line and 1650 feet from the North line					
Ground Level Elev. 3858 DF	Producing Formation Dry Hole		Pool None	Dedicated Acreage: 1 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Euse R. Bruno

Name

Vice-President

Position

Araho, Inc.

Company

May 11, 1976

Date

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Plate No.

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company MARATHON OIL COMPANY		Address 1982 NOV 13 AM 10-29 P. O. BOX 2107, HOBBS, NEW MEXICO			
Lease STATE B 1286 A	Well No. 2	Unit Letter F	Section 2	Township 17 S	Range 36 E
Date Work Performed 11-7-- - 11-12-62	Pool Lovington Abo	County Lea			

THIS IS A REPORT OF: (Check appropriate block)

- ☐ Beginning Drilling Operations ☐ Casing Test and Cement Job ☐ Other (Explain):
☒ Plugging ☐ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

TD 6085'

Removed well head connections and installed BOP. Pulled 2 7/8" tubing and locator seal assembly. Dropped Baker C.I. Trip Bob into Baker Model N production packer at 5522'. Spotted 100' cement plug from 5422' to 5522'. Latched onto 5 1/2" liner at 3229'. Pulled 9 5/8" x 5 1/2" liner hanger, 24 joints 5 1/2" casing, 5 1/2" x 7 5/8" change over nipple, and 1 joint of 7 5/8" casing. Spotted 150' cement plug from 4166' to 4316', 75' in cut off 5 1/2" casing to 75' above cut off 5 1/2" casing. Spotted 100' cement plug from 3270', 3370', 50' outside 9 5/8" casing and 50' up into 9 5/8" casing. Spotted 25' cement plug in top of 9 5/8" casing. Removed BOP, National Type E head and 10" 900 series x 9 5/8" 8-R casing flange. Welded 3/8" plate on top of 9 5/8" casing and installed permanent well marker. Well P & A

Dist: NMOC D. V. Kitley T. O. Webb
Com. Pub. Lands T. A. Steele L. H. Davis
J. A. Grimes C. M. Lynch File

Witnessed by L. H. Davis	Position Foreman	Company Marathon Oil Company
------------------------------------	----------------------------	--

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev.	TD	PBTD	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	
Perforated Interval(s)				
Open Hole Interval		Producing Formation(s)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Approved by <i>W. L. Clement</i>	Name <i>W. L. Clement</i>
Title	Position Asst. Superintendent
Date	Company

NUMBER OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
PRODUCTION OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company Marathon Oil Company		Address Box 2107, Hobbs, New Mexico	
Lease State B 1286 A	Well No. 2	Unit Letter F	Section 2
		Township 17 S	Range 36 E
Date Work Performed 11-2-59 thru 1-4-60	Pool Lovington Abo	County Lea	

THIS IS A REPORT OF: (Check appropriate block)

- ☐ Beginning Drilling Operations
 ☐ Casing Test and Cement Job
 ☒ Other (Explain):
☐ Plugging
 ☐ Remedial Work
 Convert to Salt Water Disposal Well

Detailed account of work done, nature and quantity of materials used, and results obtained.

Drilled cement from 0' to 25' & cement contaminated mud from 25' to 83'. Drilled bridge 1682-1701'. Tagged plug at 3205'. Drilled cement contaminated mud from 3205-3222' & cem. from 3222-3235'. Drilled cement 3235-3335'. Drilled cement 4146-4203'. Tagged top of 5 1/2" cut off at 4198'. Milled into 5 1/2" casing to 4212' & drilled out cement to 4619'. Drilled cement & metal 4619' to 4661'. Washed over top of 5 1/2"; went in hole with outside casing cutter & cut off 5 1/2" casing at 4241', recovering one piece 43.35' long. Ran 1 joint 7 5/8" casing, 24 joints 5 1/2" casing & 9 5/8" x 5 1/2" Brown Oil Tool Type C liner hanger; set liner from 3229' to 4273'. Cleaned out hole 6085'. Set C.I. bridge plug at 6055'. Rigged up Halliburton & mixed 5 sacks reg. cement. Spotted 25' cement plug 6055-6030'. Perforated 5 1/2" casing 5845-5968' in lower San Andres. Treated thru perms. 5845-5968' with 500 gallons Spearhead acid followed by 5000 gallons non-emulsifying acid. Treated thru perms. 5845-5968' with 20,000 gallons regular acid. Formation would not take salt water by gravity. Tried pumping into formation for 31 days with maximum of 226 bbls. salt water pumped in 24 hours with maximum pump pressure of 1075#. Disconnected pump. Well temporarily shut-in.

NMOCC J. A. Grimes T. O. Webb
Com. of Pub. Lands D. V. Kitley L. H. Davis

Witnessed by L. H. Davis	Position Foreman	Company Marathon Oil Company
------------------------------------	----------------------------	--

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

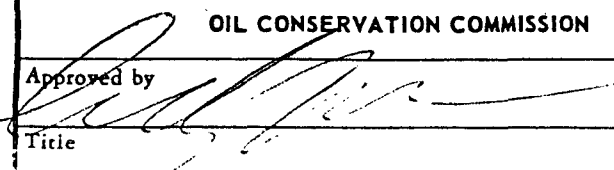
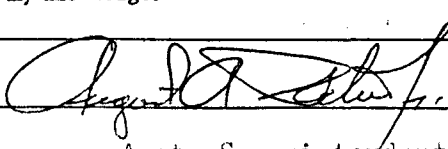
D F Elev.		T D	P B T D S	Producing Interval	Completion Date
Tubing Diameter		Tubing Depth	Oil String Diameter	Oil String Depth	
Perforated Interval(s)					
Open Hole Interval			Producing Formation(s)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Approved by 	Name 
Title	Position Asst. Superintendent
Date	Company Marathon Oil Company

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS NOTICES

Submit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
NOTICE OF INTENTION TO PLUG WELL	X	NOTICE OF INTENTION TO PLUG BACK		NOTICE OF INTENTION TO SET LINER	
NOTICE OF INTENTION TO SQUEEZE		NOTICE OF INTENTION TO ACIDIZE		NOTICE OF INTENTION TO SHOOT (Nitro)	
NOTICE OF INTENTION TO GUN PERFORATE		NOTICE OF INTENTION (OTHER)		NOTICE OF INTENTION (OTHER)	

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICOHobbs, New Mexico
(Place)10-12-62
(Date)

Gentlemen:

Following is a Notice of Intention to do certain work as described below at the

MARATHON OIL COMPANY

STATE B 4286 "A"

Well No. 2

F

(Company or Operator)

Lease

(Unit)

SE 1/4 NW
(40-acre Subdivision)

1/4 of Sec. 2

T. 17 S.

R. 36 E.

NMPM.

Lovington Abo

Pool

Lea

County.

TD 6085

FULL DETAILS OF PROPOSED PLAN OF WORK
(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

Plan to plug and abandon well as follows: (1) Drop Baker trip plug and seat in Model "N" packer at 5522'. (2) Place 100' cement plug in 5 1/2" casing from 5522' to 5422'. (3) Pull 5 1/2" liner from 3229' to 4273'. (4) Place 150' cement plug from 4166' to 4316'. (5) Place 100' cement plug 3270' to 3370', place 25' cement plug from surface to 25'. (6) Cut off 9 5/8" casing below ground level and install permanent well marker.

Dist:

NMOCC

Com. of Pub. Lands

J. A. Grimes

D. V. Kitley

T. O. Webb

L. H. Davis

Approved....., 19.....
Except as follows:

MARATHON OIL COMPANY

Company or Operator

By.....

Position.....

Superintendent

Send Communications regarding well to:

Approved
OIL CONSERVATION COMMISSION

By.....

Name.....

Marathon Oil Company

Title.....

Address.....

Box 2107, Hobbs, New Mex.

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS NOTICES

HOBBS OFFICE OCC

Submit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
NOTICE OF INTENTION TO PLUG WELL		NOTICE OF INTENTION TO PLUG BACK		NOTICE OF INTENTION TO SET LINER	
NOTICE OF INTENTION TO SQUEEZE		NOTICE OF INTENTION TO ACIDIZE	X	NOTICE OF INTENTION TO SHOOT (Nitro)	
NOTICE OF INTENTION TO GUN PERFORATE	X	NOTICE OF INTENTION (OTHER)		Convert to NOTICE OF INTENTION (OTHER) SWD Well	X

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICOHobbs, New Mexico
(Place)October 28, 1959
(Date)

Gentlemen:

Following is a Notice of Intention to do certain work as described below at the The Ohio Oil Company's

State "B" 4286 "A"
(Company or Operator)

Well No. 2 in F (Unit)

Lessee

SE 1/4 NW 1/4 of Sec. 2, T. 17-S, R. 36-E, NMPM, Lovington - Abo Pool

Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK
(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

Total Depth 8530'; 5 1/2" csg. at 8528' with 1400 sacks; 9 5/8" csg. at 3318' with 1750 sacks and 13 3/8" csg. at 349' with 450 sacks. Plugged and abandoned as follows: Bridge plug set at 6320' with 10' cement on top of plug. Cement plug 6115' - 6205' in 5 1/2" csg.; cut off 5 1/2" csg. at 4200' and pulled 5 1/2" csg. Cement plug 4145' - 4245'; cement plug 3270' - 3370' and cement plug 0' - 25'. Proposed work is to drill out cement plugs 0' - 25', 3270' - 3370' and 4145' - 4245'. Clean out to approx. 6000'. Set Baker C.I. bridge plug at 6000' with 10' cement on top of plug. Set retainer type packer on 2 1/2" tbg. at approx. 5500' and perf. lower San Andres section. Treat perf. with 5,000 gal. acid and run injectivity tests. Connect up salt water gathering system to disposal well. Application to convert State B - 4286 "A" Well No. 2, to a salt water disposal well approved by New Mexico Oil Conservation Commission Order R-1500, Dated October 19, 1959.

OCT 29 1959

Approved....., 19.....
Except as follows:Approved
OIL CONSERVATION COMMISSIONBy.....
Title..... Engineer District 7NAME CHANGED
THE OHIO OIL COMPANY
Company or Operator

By.....

Position..... Asst. Supt.
Send Communications regarding well to:

Name..... The Ohio Oil Company

Address..... Box 2107, Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

HOBBS OFFICE OCC

MISCELLANEOUS REPORTS ON WELLS

1955 FEB 3 PM 1:35

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL	X	REPORT ON RECOMPLETION OPERATION		REPORT ON (Other)	

January 11, 1955
(Date)Hobbs, New Mexico
(Place)

Following is a report on the work done and the results obtained under the heading noted above at the

THE CHIO OIL COMPANY

(Company or Operator)

State B-1786-1

(Lease)

Lee C. Casey Casing Pullers

(Contractor)

Well No. 2 in the SE 1/4 of Sec. 2

T. 17 N., R. 36 E., NMPM, Pool, County.

The Dates of this work were as follows: 1-10-55 to 1-20-55

Notice of intention to do the work (was ~~not~~) submitted on Form C-102 on November 24, 54
(Cross out incorrect words)and approval of the proposed plan (was ~~not~~) obtained.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Plugged and abandoned as follows:

Bridge plug set at 6320' with 10' cement on top. Cement plug 6115-6205' in 5 1/2" casing; shot casing off at 4200' and removed same; cement plug 4245-4245' (45' in 5 1/2", 55' in 8 1/4" open hole); cement plug 3270-3370' (50' in 8 1/4" open hole, 50' in 9 5/8" cas.). Cemented 0-25' in 9 5/8" casing; placed 1" pipe well-marker in hole with marker extending 4" above ground level. All intervals between cement plugs filled with mud and leaded fluid.

Witnessed by B. C. Howard
(Name)THE CHIO OIL COMPANY
(Company)Treasurer
(Title)

Approved:

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name M. L. Armstrong

Position

Representing

Address

(Title)

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS NOTICES

Submit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
NOTICE OF INTENTION TO PLUG WELL	X	NOTICE OF INTENTION TO PLUG BACK		NOTICE OF INTENTION TO SET LINER	
NOTICE OF INTENTION TO SQUEEZE		NOTICE OF INTENTION TO ACIDIZE		NOTICE OF INTENTION TO SHOOT (Nitro)	
NOTICE OF INTENTION TO GUN PERFORATE		NOTICE OF INTENTION (OTHER)		NOTICE OF INTENTION (OTHER)	

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Hobbs, New Mexico

Nov. 24, 1954

(Place)

(Date)

Gentlemen:

Following is a Notice of Intention to do certain work as described below at the.....

The Ohio Oil Company's

State B-4286 "A"

Well No. 2

in F

(Company or Operator)

(Unit)

SE 1/4 NW 1/4 of Sec. 2, T. 17-S, R. 36-E, NMPM, Lovington-Paddock Pool

Lea

County.

FULL DETAILS OF PROPOSED PLAN OF WORK
(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

Plan to plug and abandon well according to the following procedure:

1. A 25' cement plug from 0' to 25'.
2. A 100' cement plug from 3270' to 3370' (50' in 9-5/8" pipe & 50' in 8-5/8" hole)
3. A 100' cement plug from 4230' to 4330' (50' in 8-5/8" open hole & 50' in 5 1/2" csg.)
4. A 50' cement plug from 6140' to 6190' (above perforations in Paddock)
5. Bridge plug @ 6320' with 10' cement to 6310' (P.B.T.D. of well)
6. All intervals between plugs filled w/mud laden fluid
7. Cut off and salvage 5 1/2" @ approximately 4280'
8. Set a 4" pipe marker in cement to extend 4' above G.L.

Approved....., 19.....
Except as follows:

The Ohio Oil Company

Company or Operator

By D. L. Province

Position Field Superintendent

Send Communications regarding well to:

Approved
OIL CONSERVATION COMMISSION

By.....

Name.....

Distribution:

O. V. Henry

H. J. Brunt

New Mexico O.C.C.(2) NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

(Form C-103)
(Revised 7/1/52)

MAIN OFFICE CCC
HOBBS OFFICE CCC
MISCELLANEOUS REPORTS ON WELLS

1954 SEP 13 AM 10:02

Submit this report in TRIPPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other) Shut off water	<input checked="" type="checkbox"/>

September 8, 1954
(Date)

Hobbs, New Mexico
(Place)

Following is a report on the work done and the results obtained under the heading noted above at the

THE OHIO OIL COMPANY

(Company or Operator)

State B 4286 A

(Lease)

Darrell W. Smith

(Contractor)

Well No. 2 in the SE 1/4 NW 1/4 of Sec. 2

T. 17 S., R. 36 E., NMPM, Lovington-Abo Pool, Lea County.

The Dates of this work were as follows: July 27, 1954 to August 14, 1954

Notice of intention to do the work (was) (~~xxxx~~) submitted on Form C-102 on July 19, 1954,
(Cross out incorrect words)

and approval of the proposed plan (was) (~~xxxx~~) obtained.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Total depth 8464'; new PBTD 6310'. Attempted to squeeze Abo formation to shut off water; squeeze attempt unsuccessful because formation was too tight. Set bridge plug at 6320' and cemented with one sack. PBTD 6310'. Perf. in Padlock 6186-6194' and 6202-6265 with 6 shots; acidized thru perforations with 3000 gals. Ran 2 3/8 tbg to 6245'6". Swabbed at intervals, for 9 days, recovering small amount of fluid, approximately 65% water & 35% oil. Swabbed dry on 8-13-54 and well shut in. COMPLETED FINAL REPORT

Witnessed by

Clyde Kent

THE OHIO OIL COMPANY

(Company)

Foreman

(Title)

Approved:

OIL CONSERVATION COMMISSION

S. G. Stanley

(Name)

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name

Position

Representing

Address

Superintendent

The Ohio Oil Company

Box 2107, Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

OFFICE OCC

HOBBS OFFICE OCC

MISCELLANEOUS NOTICES

Submit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
NOTICE OF INTENTION TO PLUG WELL		NOTICE OF INTENTION TO PLUG BACK		NOTICE OF INTENTION TO SET LINER	
NOTICE OF INTENTION TO SQUEEZE		NOTICE OF INTENTION TO ACIDIZE		NOTICE OF INTENTION TO SHOOT (Nitro)	
NOTICE OF INTENTION TO GUN PERFORATE		NOTICE OF INTENTION (OTHER)		NOTICE OF INTENTION (OTHER) SHUT OFF WATER	X

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Hobbs, New Mexico

July 19, 1954

(Place)

(Date)

Gentlemen:

Following is a Notice of Intention to do certain work as described below at the

State B 4286 "A"

The Ohio Oil Company

(Company or Operator)

Well No.

2

in

F

(Unit)

SE

NW

1/4 of Sec. 2

T 17 S

R 36 E

NMPM,

Lovington-Abo

Pool

(40-acre Subdivision)

Lea

County.

FULL DETAILS OF PROPOSED PLAN OF WORK

(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

Total Depth 8530' P.B. 8464' Lime, Dolomite, Shale. Plan to move in work over rig and pull tubing, drill out cement to approximately 8487'. Set Baker retainer at approximately 8360' and squeeze off perforations from 8487' to 8378' with Diesel cement to shut off water.

JUL 20 1954

Approved....., 19.....
Except as follows:

Approved
OIL CONSERVATION COMMISSION

By.....

Title.....

The Ohio Oil Company

Company or Operator

By.....

Position..... Superintendent

Send Communications regarding well to:

Name..... The Ohio Oil Company

Address.....

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto

TOOLS USED

Rotary tools were used from surface feet to T.D. 8530 feet and from P.B. 8464 feet to feet.
Cable tools were used from feet to feet and from feet to feet.

PRODUCTION

Put to Producing April 28, 1954
OIL WELL: The production during the first 24 hours was 202 barrels of liquid of which 100 % was
was oil; % was emulsion; % water; and % was sediment. A.P.I.

Gravity 36.4

GAS WELL: The production during the first 24 hours was M.C.F. plus barrels of
liquid Hydrocarbon. Shut in Pressure lbs.

Length of Time Shut in

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

Southeastern New Mexico

Northwestern New Mexico

T. Anhy. <u> </u>	T. Devonian <u> </u>	T. Ojo Alamo <u> </u>
T. Salt <u> </u>	T. Silurian <u> </u>	T. Kirtland-Fruitland <u> </u>
B. Salt <u> </u>	T. Montoya <u> </u>	T. Farmington <u> </u>
T. Yates <u> </u>	T. Simpson <u> </u>	T. Pictured Cliffs <u> </u>
T. 7 Rivers <u> </u>	T. McKee <u> </u>	T. Menefee <u> </u>
T. Queen <u> </u>	T. Ellenburger <u> </u>	T. Point Lookout <u> </u>
T. Grayburg <u> </u>	T. Gr. Wash <u> </u>	T. Mancos <u> </u>
T. San Andres <u> </u>	T. Granite <u> </u>	T. Dakota <u> </u>
T. Glorieta <u>6095</u>	T. <u> </u>	T. Morrison <u> </u>
T. Drinkard <u> </u>	T. <u> </u>	T. Penn. <u> </u>
T. Tubbs <u> </u>	T. <u> </u>	T. <u> </u>
T. Abo <u>8355-8360</u>	T. <u> </u>	T. <u> </u>
T. Penn. <u> </u>	T. <u> </u>	T. <u> </u>
T. Miss. <u> </u>	T. <u> </u>	T. <u> </u>

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	355	355	Sand, Red Rock .				
355	3095	2739	Red Bed, Anhy. Gyp, Salt.				
3094	4359	1265	Shale, Anhy., Lime.				
4359	4619	260	Lime, Sand.				
4619	6195	1576	Lime.				
6195	6200	5	(Cored.)				
6200	6210	10	(Cored.)				
6210	6216	6	(Cored.)				
6216	6225	9	(Cored.)				
6225	6239	14	(Cored.)				
6239	6245	6	(Cored.)				
6245	6246	1	Lime.				
6246	6266	20	(Cored.)				
6266	6296	30	(Cored.)				
6296	8410	2114	Lime, Dolomite.				
8410	8530	120	Lime, Dolomite, Shale.				

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

May 11, 1954

Company or Operator The Ohio Oil Company

Address Box 2107, Hobbs, New Mexico

Name

Position or Title Superintendent

AREA 640 ACRES
LOCATE WELL CORRECTLYThe Ohio Oil Company
(Company or Operator)

State B 4286 "A"

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico HOBBS OFFICE OCC

ORIGINAL

WELL RECORD

1954 MAY 13 AM 7:27

8S 11-24A

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in QUINTUPLICATE.

Well No. 2, in SE 1/4 of NW 1/4, of Sec. 2, T. 17 S. R. 36 E, NMPM.

Lovington-Abo

Pool,

Lea

County.

Well is 1650 feet from North line and 2310 feet from West line

of Section 2. If State Land the Oil and Gas Lease No. is

Drilling Commenced February 23, 1954. Drilling was Completed April 10, 1954

Name of Drilling Contractor Company tools, Rig #2

Address Hobbs, New Mexico

Elevation above sea level at Top of Tubing Head. The information given is to be kept confidential until

1954 MAY 17 PM 1:48

OIL SANDS OR ZONES

No. 1, from to No. 4, from

No. 2, from to No. 5, from

No. 3, from to No. 6, from

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet

No. 2, from to feet

No. 3, from to feet

No. 4, from to feet

CASING RECORD

SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
13-3/8	48	New	328	Baker Guide Shoe			
9-5/8	36	New	3334	Baker Guide Shoe			
5-1/2	17	New	8508	Baker float collar & guide shoe			
Tbg. 2-3/8	4.7	New	8434				

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHOD USED	OTHER MUD GRAVITY	AMOUNT OF MUD USED
17 1/2"	13-3/8	349	450	B J Cementing		
12"	9-5/8	3318	1750	" "		
8-3/4"	5-1/2	8528	1400	" "		
Tbg.	2-3/8	8452		top. end		

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

Acidized w/750 gallons mud acid from 8446-8480 and w/1000 gal. reg. 15% acid from 8446-8480. Perforated casing from 8446-8480 w/204 - 1/2" holes, and from 8443-8378 w/260 - 1/2" holes.

Result of Production Stimulation Well flowed 202 B/O in 24 hrs. on 18/64" choke

GOR 406:1

Depth Cleaned Out

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

HOBBS OFFICE OCC

It is necessary that Form C-104 be approved before this form can be approved and an initial allowable be assigned to any completed Oil or Gas well. Submit this form in QUADRUPLICATE.

1954 APR 29 AM 9:34

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator The Ohio Oil Company Lease State B 4286 "A"

Address Box 2107, Hobbs, New Mexico Box 3128, Houston 1, Texas
(Local or Field Office) (Principal Place of Business)

Unit F, Well(s) No. 2, Sec. 2, T. 17 S, R. 36 E, Pool Lovington-Abo - 5A

County Lea Kind of Lease: State

If Oil well Location of Tanks 2200' from West line, 1100' from North line of Sec. 2-17-36

Authorized Transporter Texas-New Mexico Pipe Line Company Address of Transporter
Box 1510, Midland, Texas
(Local or Field Office) (Principal Place of Business)

Per cent of Oil or Natural Gas to be Transported 100 Other Transporters authorized to transport Oil or Natural Gas
from this unit are None

REASON FOR FILING: (Please check proper box)

NEW WELL ☒ CHANGE IN OWNERSHIP ☐

CHANGE IN TRANSPORTER ☐ OTHER (Explain under Remarks) ☐

REMARKS:

This well will produce in same tank battery with Well No. 1.
(Two (2) new 500 barrel tanks.)

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 28th day of April 19 54

Approved APR 29 1954, 19

OIL CONSERVATION COMMISSION

By A. J. Stanley

Title

The Ohio Oil Company

By Ph. [Signature]

Title Superintendent

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

REQUEST FOR (OIL) - (GAS) ALLOWABLE

New Well

HOBBS OFFICE 0007

This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15.025 psia at 60° Fahrenheit.

Hobbs, New Mexico

April 28, 1954

(Place)

(Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

The Ohio Oil Company

State B 4286 "A"

2

SE

NW

(Company or Operator)

F

2

17 S

(Lease)

36 E

Well No.

2

in

1/4

1/4

Sec.

T.

R.

NMPM,

Lovington-Abo

Pool

(Unit)

Lea

County. Date Spudded.

2-23-1954

Date Completed.

4-27-1954

Please indicate location:

	X		

Elevation. 3858' D.F. Total Depth. 8530' P.B. 8463'

Top oil/gas pay. 8378-8463

note

Top of Prod. Form

Abo

Casing Perforations: 8378-8463

or

Depth to Casing shoe of Prod. String.

Natural Prod. Test.

BOPD

based on. bbls. Oil in. Hrs. Mins.

Test after acid of 1/4

202

BOPD

Based on. bbls. Oil in. 24 Hrs. Mins.

Gas Well Potential.

Size choke in inches.

10/64"

Date first oil run to tanks or gas to Transmission system: 4-27-1954

Transporter taking Oil or Gas: Texas-New Mexico Pipe Line Company

Remarks:

I hereby certify that the information given above is true and complete to the best of my knowledge.

Approved. APR 29 1954, 19

The Ohio Oil Company

(Company or Operator)

OIL CONSERVATION COMMISSION

By:

Superintendent

(Signature)

By:

Title Engineer District

Title

Send Communications regarding well to:

Name The Ohio Oil Company

Address The Ohio Oil Company, Hobbs, New Mexico

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

HOBBS OFFICE OCC

MISCELLANEOUS REPORTS ON WELLS 1954 APR 15 AM 9:05

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other)	

April 14, 1954
(Date)Hobbs, New Mexico
(Place)

Following is a report on the work done and the results obtained under the heading noted above at the

The Ohio Oil Company

(Company or Operator)

State B 4286 "A"

(Lease)

Company Tools, Rig #2

(Contractor)

Well No. 2 in the SE 1/4 NW 1/4 of Sec. 2

T 17 S, R. 36 E, NMPM., Lovington-Abo Pool, Lea County.

The Dates of this work were as follows:

Notice of intention to do the work (was) (was not) submitted on Form C-102 on _____, 19____

(Cross out incorrect words)

and approval of the proposed plan (was) (was not) obtained.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Total Depth 8530' P. B. 8487 Lime Dolomite. Ran 202 joints of 5 1/2" OD 17# casing set @ 8528'. Cemented w/1400 sks sloe set cement w/2% gel preceded by 20 bbls smentox treated water. Used two plug. Pump pressure 500#, final pressure 2500#. Bled back to 1000#. Plug pumped down at 4:55 p. m. 4-11-1954. Ran temperature survey found top of cement @ 4280'. Cement set 48 hrs. Tested casing w/1000# pressure for 30 min. Test ok.

Witnessed by F. A. Nunley
(Name)The Ohio Oil Company
(Company)Drilling Foreman
(Title)

Approved:

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name: M. C. ...

Position: Superintendent

Representative: The Ohio Oil Company

Address: Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

Submit this report in **TRIPLICATE** to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF	<input checked="" type="checkbox"/>	REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other)	

March 8, 1954

Hobbs, New Mexico

(Date)

(Place)

Following is a report on the work done and the results obtained under the heading noted above at the

The Ohio Oil Company

State B 4286 "A"

(Company or Operator)

(Lease)

Company Tools, Rig #2

(Contractor)

T. 17 S, R. 36 E, NMPM, Lovington-Abo

Pool,

Lea

County.

The Dates of this work were as follows:

Notice of intention to do the work (was) (was not) submitted on Form C-102 on _____, 19____.

(Cross out incorrect words)

and approval of the proposed plan (was) (was not) obtained.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Total Depth 3457' Lime and Anhydrite. Ran 79 joints of 9-5/8" OD 36# Grade J-55 casing set @ 3318'. Cemented w/1750 sacks of slo-set cement w/3% gel preceded w/20 barrels smentox treated using 2 plug system. Pump pressure 400#, final pump pressure 1200#. Plug pumped down @ 9:30 a. m. 3-2-54. Circulated estimated 50 sacks. Tested casing w/1000# pressure for 30 minutes. Test ok. Top of cement 3265'.

Witnessed by F. A. Nunley

(Name)

The Ohio Oil Company

(Company)

Drilling Foreman

(Title)

Approved:

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name

Position

Superintendent

Representing

The Ohio Oil Company

Address Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF	X	REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other)	

FEBRUARY 26, 1954
(Date)

HOBBS, NEW MEXICO
(Place)

Following is a report on the work done and the results obtained under the heading noted above at the

THE OHIO OIL COMPANY
(Company or Operator)

STATE B 4286 "A"
(Lease)

COMPANY TOOLS, Rig #2
(Contractor)

Well No. 2 in the SE 1/4 NW 1/4 of Sec. 2

T. 17 S., R. 36E., NMPM., LOVINGTON-ABO Pool, LEA County.

The Dates of this work were as follows:

Notice of intention to do the work (was) (was not) submitted on Form C-102 on _____, 19____,
(Cross out incorrect words)
and approval of the proposed plan (was) (was not) obtained.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

SPUDDED IN AT 12:00 N 2-23-54.
TOTAL DEPTH 355' RED BED. RAN 8 JOINTS OF 13-3/8" OD
48# GRADE H-40 CASING SET AT 349'. CEMENTED W/450
SACKS REGULAR CEMENT PRECEDED BY 20 BBLs SMENTOX TREAT-
ED WATER. CIRCULATED OUT ESTIMATED 75 SKS. PUMPING
PRESSURE 200#, FINAL PRESSURE 400#. PLUG PUMPED DOWN
AT 12:00 N, 2-24-54. TESTED CASING W/900# PRESSURE FOR
30 MIN. TEST OK. DRILLED PLUG AT 12:00 N, 2-25-54.
TOP OF CEMENT 322'.

Witnessed by F. A. NUNLEY
(Name)

THE OHIO OIL COMPANY
(Company)

DRLG. FOREMAN
(Title)

Approved: OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name: J. C. Brown

Position: SUPERINTENDENT

Representing: THE OHIO OIL COMPANY

Address: Box 2100, Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

RECEIVED
FEB 22 1954
(Form C-101)
(Revised 7/1/53)

NOTICE OF INTENTION TO DRILL OR RECOMPLETE

Notice must be given to the District Office of the Oil Conservation Commission and approval obtained before drilling or recompletion begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in **QUINTUPPLICATE**. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

HOBBS, NEW MEXICO
(Place)

FEBRUARY 19, 1954
(Date)

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Gentlemen:

You are hereby notified that it is our intention to commence the (Drilling) ~~(Recompletion)~~ of a well to be known as

THE OHIO OIL COMPANY

(Company or Operator)

STATE B 4286 "A"

(Lease)

, Well No. 2

, in F

(Unit)

The well is

located 1650 feet from the NORTH line and 2310 feet from the WEST line of Section 2, T. 17 S, R. 36 E, NMPM.

(GIVE LOCATION FROM SECTION LINE)

LOVINGTON-ABO

Pool,

LEA

County

If State Land the Oil and Gas Lease is No.

B 4286

If patented land the owner is

Address

We propose to drill well with drilling equipment as follows:

The status of plugging bond is

Drilling Contractor

COMPANY TOOLS RIG #2

We intend to complete this well in the

ABO FORMATION

formation at an approximate depth of

8500

feet.

CASING PROGRAM

We propose to use the following strings of Casing and to cement them as indicated:

Size of Hole	Size of Casing	Weight per Foot	New or Second Hand	Depth	Sacks Cement
17 1/2"	13-3/8"	48	NEW	300	300
12"	9-5/8"	40	NEW	3300	2000
8-3/4"	5-1/2"	17	NEW	8500	2000

If changes in the above plans become advisable we will notify you immediately.

ADDITIONAL INFORMATION (If recompletion give full details of proposed plan of work.)

Approved: FEB 24 1954, 19
Except as follows:

Sincerely yours,

THE OHIO OIL COMPANY
(Company or Operator)

By

Position: SUPERINTENDENT

Send Communications regarding well to

Name: THE OHIO OIL COMPANY

Address: P. O. Box 107, Hobbs, New Mexico

OIL CONSERVATION COMMISSION

By

ED

State B 4286 "A" Well No. 2 - Lea County, New Mexico

DST #1, from 8310' to 8435'. 1" x 3/4" chokes, and 750' water blanket. Tool open 2 hrs., very weak blow of air immediately, decreasing and dying in 1 hr. and 45 min. Took 15 min. S.I. Recovered 750' water blanket and 60' of slightly gas cut mud. Pressures: Initial flowing - 450#, final flowing - 450#, water blanket - 450#, 15 min. S.I. 525#, hydrostatic - 4550#.

DST #2, from 8435' to 8480, 3/4" x 1" chokes, 750' water blanket. Tool open 4 hrs., fair blow immediately, increasing to fairly strong blow in 30 min. lasting thruout test. Gas to surface in 96 min., no fluid to surface. Pulled 6 stands and reversed out to test tank. Recovered water blanket 750' and 75' heavily oil and gas cut mud and 3000' oil. Recovered below reverse circulating sub, 120' gas cut drlg. mud and water. Pressures: Initial flowing - 450#, final flowing - 1550#, 15 min. S.I. - 3000#, hydrostatic (in) - 4500# (out) 4450#.

Coring Record - Paddock

Core No. 1 - from 6195' to 6245' recovered 50' (100%)

Coring time - 13 hr. 2 min.

Average per foot - 15 1/2 min/ft.

6195' - 6200', Gray, fine xln dolomite, dense, barren, very sli fractured w/thin white anhydrite inclusions, sli odor, sli staining on fractures.

6200' - 6210', Gray, fine xln dolomite, sli horizontal & vertical irregular fractures w/sli bleeding of dark brown oil & gas, very sli pp porosity, stylitic, thin white anhydrite inclusions scattered thruout, good odor, uneven staining thruout.

6210' - 6216', Gray, fine xln dolomite, sli horizontal & vertical fractures, sli bleeding of oil & gas in fractures, dense, no porosity, numerous thin white anhydrite inclusions, sli odor.

6216' - 6225', Gray, fin xln dolomite, dense & barren.

6225' - 6239' Gran, fine xln dolomite w/numerous vertical & horizontal shale partings bleeding oil & gas, very sli pp porosity, scattered thin white anhydrite inclusions thruout.

6239' - 6245', Gray, fine xln dolomite, dense, no porosity, very sli bleeding of oil & gas along vertical & horizontal shale partings.

Core No. 2 - from 6246' to 6296' recovered 50' (100%)

Coring time - 11 hr. 57 min.

Average per foot - 14.3 min/ft.

6246' - 6266' Gray to tan, fine xln dolomite, w/sli to fair pp porosity bleeding oil & gas. Scattered horizontal & vertical fracturing also bleeding oil & gas, stylitic w/numerous shale partings thruout, good odor, uneven staining thruout, scattered thin white anhydrite inclusions thruout.

6266' - 6296', Same as above except dense w/very sli bleeding of oil & gas along fractures.

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Re- 4-10-77 Re- 5-3-77

WELL CLASS:		INT.	UD	FIN	U
FORMATION	DATUM	FORMATION	DATUM	FORMATION	DATUM
TD 8889' (ABRE)				PSD	

CONTR Pool OPR'S ELEV 3858' DF PD 8900' RT

Acid (8528-8889') 3000 gals
COMPLETION ISSUED

5-2-10 NM
IC 30-025-70098-76

