

**HEYCO**

PETROLEUM PRODUCERS



**HARVEY E. YATES COMPANY**

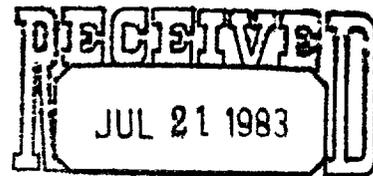
P. O. BOX 1933

SUITE 300, SECURITY NATIONAL BANK BUILDING

505/623-6601

ROSWELL, NEW MEXICO 88201

July 19, 1983



OIL CONSERVATION DIVISION  
SANTA FE

Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Mr. Joe Ramey  
Division Director & State Petroleum Engineer

Re: Request for Administrative Approval to Convert the J. A. Foster #1  
to a Salt Water Disposal Well

Dear Mr. Ramey:

Please find attached two copies of an application for a request of an administrative approval to convert the J. A. Foster #1 to a Salt Water Disposal Well located NE4/SE4 of Section 4, T-14S, R-36E, Lea County, New Mexico.

If the commission considers it necessary for the request be set for hearing, please schedule the presentation for the earliest possible date on the docket. Please contact my office of your decision at your earliest convenience. By copy of this application, the surface owner was notified by certified mail.

Sincerely yours,

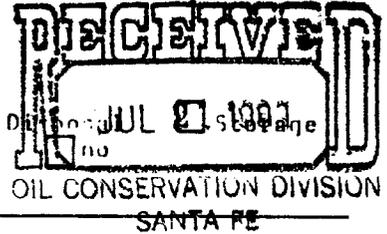
A handwritten signature in cursive script, appearing to read "Ray F. Nokes".

Ray F. Nokes  
Reservoir Engineer

RFN:mlb

Attachments

cc: Oil Conservation Division  
District I  
Hobbs, NM



APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose:  Secondary Recovery  Pressure Maintenance  Disposal  
Application qualifies for administrative approval?  yes  no
- II. Operator: Harvey E. Yates Company  
Address: P. O. Box 1933, Roswell, New Mexico 88201  
Contact party: Ray F. Nokes Phone: 1-505-623-6601
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project?  yes  no  
If yes, give the Division order number authorizing the project \_\_\_\_\_.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- \* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.  
None
- VII. Attach data on the proposed operation, including:
  1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- \* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Ray F. Nokes Title Reservoir Engineer  
Signature: *Ray F. Nokes* Date: 7/19/83

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.  
\_\_\_\_\_

## III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

## XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

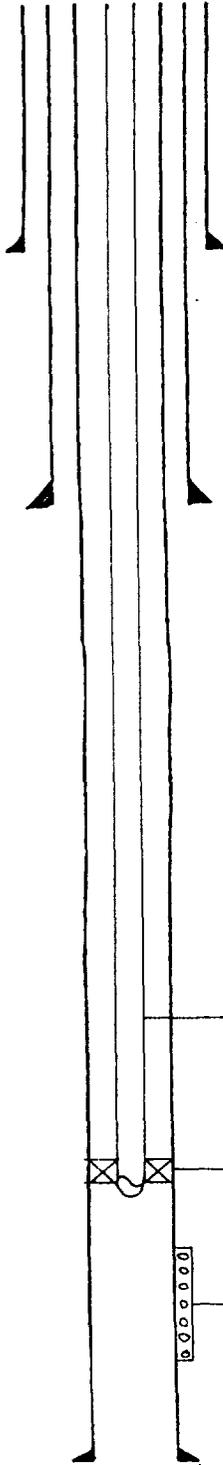
Addendum to C-108

- III. B. 1) Cisco  
2) Proposed Perfs: 10,640'-10,646'  
3) The well was originally drilled for a Pennsylvanian test.  
See attached completion schedule.  
4) The Griffin #1 located in Section 4, T-14S, R-36E is producing from the Bough "A" (10,203'-10,210'). The E. L. Richardson #1 located in Section 33, T-13S, R-36E, is producing from the Bough "A" (10,300'-10,309'). The McDonald Unit #2 located in Section 3, T-14S, R-36E is producing from the Devonian (14,556'-14,568').
- VII. 1) Average 500 BPD; Max 1500 BPD.  
2) Closed System.  
3) Average Injection Pressure: 1500 psig, Max Injection pressure 2129 psig.  
4) See attached water analysis of formation water from the McDonald Unit #2.  
5) See attached copy of report from DST #3 for test interval from the McDonald Unit #3-Y 10,810' to 10,950' reporting area formation water to be sulphur water.
- VIII. 1) Lithologic: Lime & Shale  
2) Geologic Name: Cisco  
3) Thickness: 155'  
4) Depth: 10,544' to TD
- IX. Perforate w/4 JSPF from 10,640'-10,646' and acid to open lost circulation zone during drilling. See attached completion schedule.
- X. Logs are in the New Mexico Oil Conservation Division District I office in Hobbs, New Mexico.
- XI. See attached two analysis of fresh water from offsetting fresh water wells in the area (The S. E. Foster #1 in Section 4 of T-14S, R-36E and the McClish well in Section 34, of T-13S, R-36E of Lea County, New Mexico). Complete list of water wells in area are attached.
- XII. To the best of our knowledge, there are no open faults in the disposal zone or fresh water aquifers in the area.
- XIII. See attached proof of notice printed in the Hobbs Daily News Sun Newspaper.

Well History Summary Sheet

Operator Harvey E. Yates Company Well Name & # J.A. Foster # 1 Lease #      Fee       
 District Roswell Made By Ray F. Nokes Date 7-19-83  
 Location I, 660' FEL & 1980' FSL Section 4, T-14S, R-36E, Lea Co., New Mexico  
 Spud Date 5-23-72 Compl. Date 6-20-72 P&A TD 10,699' PBD Surface  
 Type Well: Oil      Gas      Other P&A Field       
 IP NA Zone       
 Perfs.:      Total Holes       
 Stimulation       
 Cumul. Oil      MCF      Water       
 Recent Test      Lift Equipment       
 Misc.     

WELL HISTORY  
 PROPOSED SKETCH FOR DISPOSAL WELL



Surface: 13 3/8" -  
61 # Gr.  
 @ 424 Cmt. w/  
450 Sx. TOC Surface  
 Hole Size 17 1/2"  
 Max Mud Wt.      #/G  
 Intermediate:  
8 5/8" 32 #  
 Gr      @ 4540  
 Cmt w/ 2150 Sx.  
 TOC @ Surface Hole  
 Size 11 ", Max Mud  
 Wt.      #/G

2 3/8" 4.7# N-80  
 Internally Plastic Coated  
 tubing

5 1/2" Nickle Plated Baker  
 Lok-Set Packer with 1.81 ID  
 Profile On-off tool.

Perfs: 10640- 10646' (4JSPF)  
 (28 holes)

Production:      "  
     #.      Gr.  
 @      Cmt. w/  
     Sx. TOC @  
     Hole Size  
     Mx Mud Wt.  
     #/G

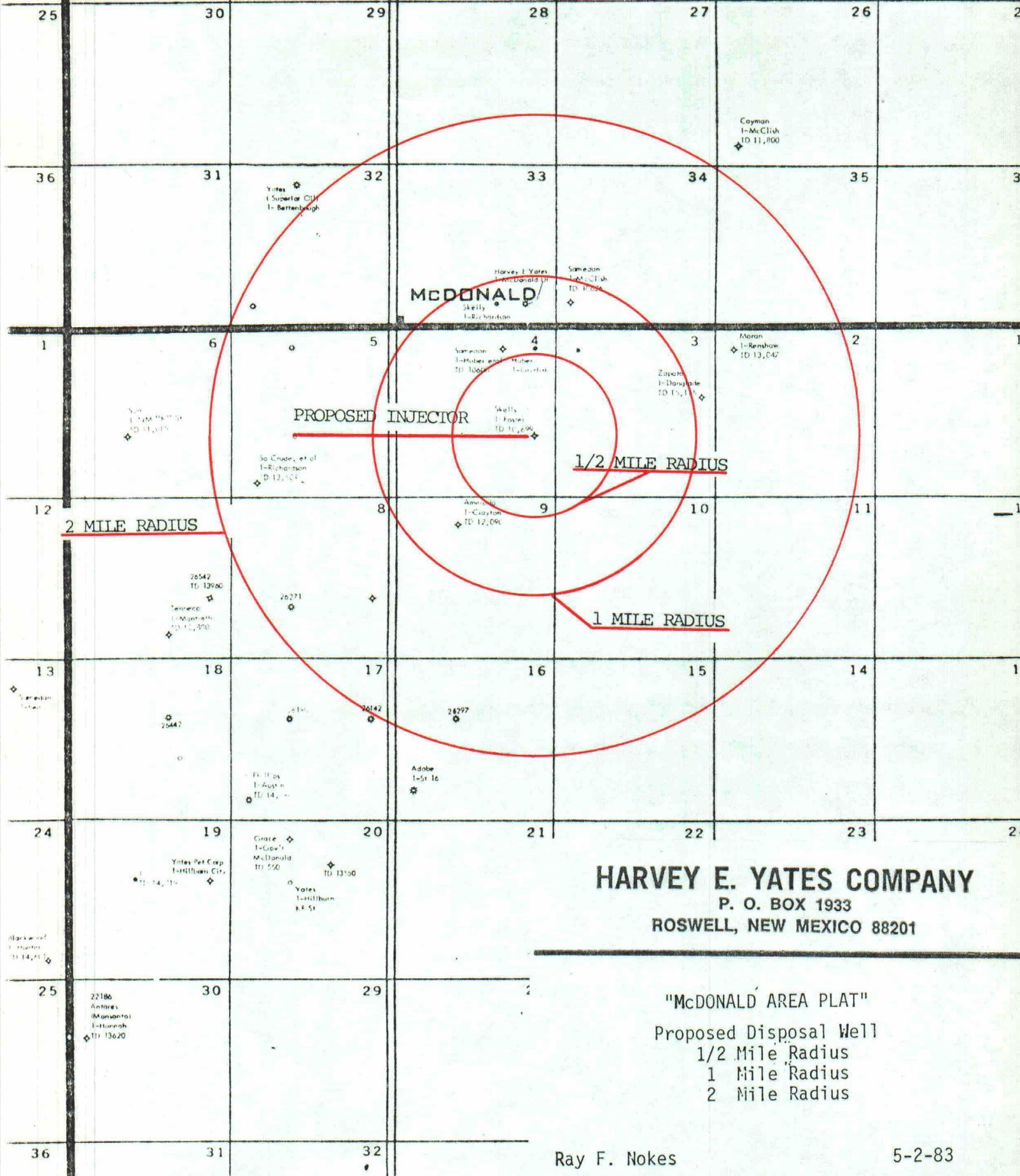
TD 10699

Tubing      "      #.      Gr. @       
 Tubing      "      #.      Gr. @       
 Packer @

SECTION V

(Maps)

Prepared by:  
Ray F. Nokes  
Reservoir Engineer  
Harvey E. Yates Company  
Roswell, NM 88201



PROPOSED INJECTOR

1/2 MILE RADIUS

2 MILE RADIUS

1 MILE RADIUS

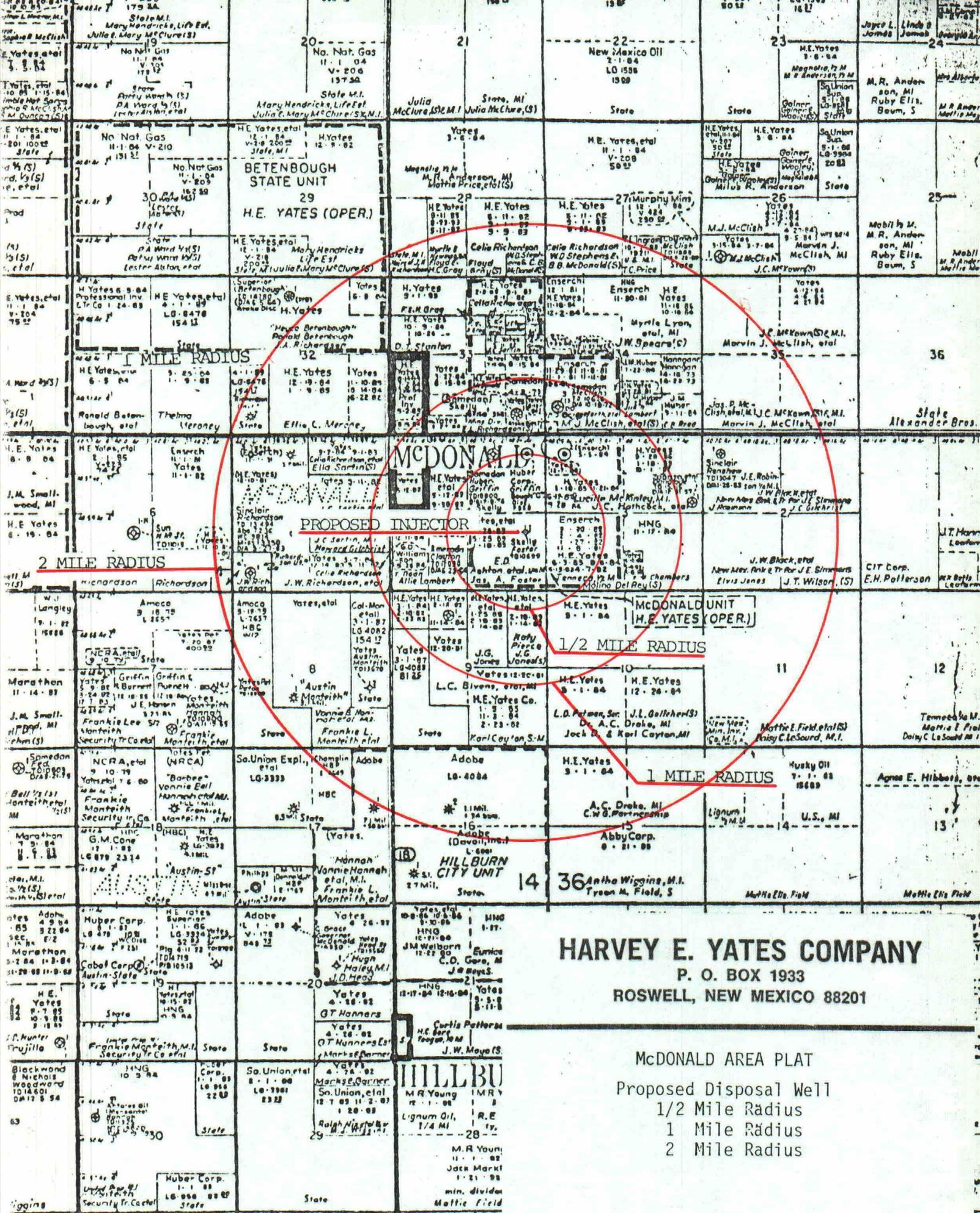
# HARVEY E. YATES COMPANY

P. O. BOX 1933

ROSWELL, NEW MEXICO 88201

## "McDONALD AREA PLAT"

Proposed Disposal Well  
 1/2 Mile Radius  
 1 Mile Radius  
 2 Mile Radius



**HARVEY E. YATES COMPANY**  
 P. O. BOX 1933  
 ROSWELL, NEW MEXICO 88201

**McDONALD AREA PLAT**

- Proposed Disposal Well
- 1/2 Mile Radius
- 1 Mile Radius
- 2 Mile Radius

SECTION VI  
Well Histories For Area Of Review

Ray F. Nokes  
Reservoir Engineer  
Harvey E. Yates Company  
P. O. Box 1933  
Roswell, New Mexico 88201

SECTION VI  
(Area Well Histories)

Well Name	J. A. Foster
Well Number	#1
Legal Location	I, 660' FEL & 1980' FSL Sec. 4, T-14S, R-36E Lea County, New Mexico
Field Pool	P & A
Spud Date	5-23-72
Completion or Recompletion Date	N/A
Type Completion	N/A
Completion Interval	N/A
TD	10,699'
PBTD	Surface
Casing Design	13-3/8" to 424' w/450 sxs 8-5/8" to 4540' w/2150 sxs
Tubing	N/A
Top of Cement	N/A

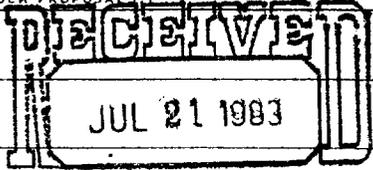
Ray F. Nokes  
Reservoir Engineer  
Harvey E. Yates Company  
P. O. Box 1933  
Roswell, New Mexico 88201

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SANTA FE		
ILE		
S.G.S.		
IND OFFICE		
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 type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	
-----	
7. Unit Agreement Name	
-----	
8. Farm or Lease Name	
J. A. Foster	
9. Well No.	
1	
10. Field and Pool, or Wildcat	
Undesignated McDonald Penn	
12. County	
Lea	



**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.)

OIL WELL  GAS WELL  OTHER

Name of Operator: Skelly Oil Company

Address of Operator: P. O. Box 1351 Midland, Texas 79701

Location of Well: UNIT LETTER I 660 FEET FROM THE East LINE AND 1980 FEET FROM THE South LINE, SECTION 4 TOWNSHIP 14 S RANGE 36 E NMPM.

15. Elevation (Show whether DF, RT, GR, etc.): 3944' GR

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
FORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SPORADIC ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
STOP OF ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <u>Test and plug and abandon</u> <input checked="" type="checkbox"/>

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.

- 1) Drilled 7-7/8" hole to 10,320' at 11 a.m. June 16, 1972.
- 2) Ran DST #1: 10,265 - 20,320' (Bough "A")
- 3) Drilled 7-7/8" hole to 10,508' at 3:35 p.m. June 18, 1972.
- 4) Ran DST #2: 10,465 - 10,508' (Cisco Dolomite).
- 5) Drilled 7-7/8" hole to TD 10,699'.
- 6) Ran Gamma Ray Caliper and Sidewall Neutron log from surface to TD; Dual Induction focused log from 4540' to TD; factor log 9600' to TD.
- 7) Ran DST #3: 10,610 - 10,699' (Cisco Reef).

As no commercially productive formations were encountered, well was ordered plugged and abandoned and was plugged as follows:

- 1) With drill pipe open-ended, spotted Class "H" cement plugs as follows:

10,544 - 10,442'	30 sacks	(Top of Cisco)
9,986 - 9,884'	30 sacks	(Hueco)
8,157 - 8,055'	30 sacks	(Top of Abo)
7,475 - 7,373'	30 sacks	(Cubb)

(Continued on Page 2)

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

(Signed) J. E. Arent

District  
Administrative Coordinator

DATE June 29, 1972

APPROVED BY Nathan E. Kegg

TITLE

DATE

COPIES OF APPROVAL, IF ANY:

J. A. Foster Well No. 1  
Page 2

6,080 - 5,978'	30 sacks	(Glorieta)
4,561 - 4,424'	40 sacks	(8-5/8" casing shoe)
34' - Surface	10 sacks	

All intervals not cemented were filled with 10# mud.

2) Set dry hole marker.

Well plugged and abandoned 12:00 midnight June 22, 1972.

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U.S.G.S.		
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  Fee

5. State Oil & Gas Lease No.  
-----

1a. TYPE OF WELL

OIL WELL  GAS WELL  DRY

b. TYPE OF COMPLETION

NEW WELL  WORK OVER  DEEPEN  PLUG BACK  DIFF. RESVR.

2. Name of Operator

Skelly Oil Company

3. Address of Operator

P. O. Box 1351, Midland, Texas 79701

4. Location of Well

UNIT LETTER I LOCATED 660 FEET FROM THE East LINE AND 1980 FEET FROM

THE South LINE OF SEC. 4 TWP. 14S RGE. 36E NMPM

15. Date Spudded  
5-23-72

16. Date T.D. Reached  
6-20-72

17. Date Compl. (Ready to Prod.)  
6-20-72

18. Elevations (DF, RKB, RT, GR, etc.)  
3944' G. R.

19. Elev. Casinghead  
-----

20. Total Depth  
10,699

21. Plug Back T.D.  
Surface

22. If Multiple Compl., How Many  
-----

23. Intervals Drilled By  
Rotary Tools  
0-10699

Cable Tools  
---

24. Producing Interval(s), of this completion - Top, Bottom, Name

Dry hole

25. Was Directional Survey Made  
No

26. Type Electric and Other Logs Run

Gamma Ray Caliper & Sidewall Neutron, Dual Induction Focused log, and FactorLog

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"	61#	424'	17-1/2"	450 sacks	None
8-5/8"	32#	4540'	11"	2150 sacks	None

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

31. Perforation record (Interval, size and number)

None

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
None	

3. PRODUCTION

4a. Date First Production  
Dry Hole

Production Method (Flowing, gas lift, pumping - Size and type pump)  
P & A

Well Status (Prod. or Shut-in)  
P & A

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.)	

4. Disposition of Gas (Sold, used for fuel, vented, etc.)

Test Witnessed By

5. List of Attachments

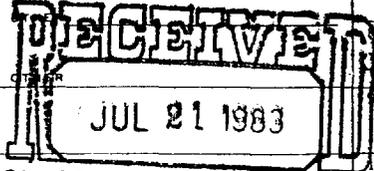
Sidewall Neutron, Gamma Ray, and Dual Induction Focused Log.

6. 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.

SIGNED (Signed) J. R. Avent

TITLE Dist. Admin. Coordinator

DATE 8-21-72



INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy <u>2152'</u>	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn _____	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates <u>3100'</u>	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen <u>3885'</u>	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres <u>4542'</u>	T. Simpson _____	T. Gallup _____	T. Ignacio Qtzte _____
T. Glorieta <u>6093'</u>	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. <u>Bough "A" 10,315'</u>
T. Blinberry _____	T. Gr. Wash _____	T. Morrison _____	T. <u>Bough "B" 10,358'</u>
T. Tubb <u>7454'</u>	T. Granite _____	T. Todilto _____	T. <u>Bough "C" 10,387'</u>
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo <u>8158'</u>	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp <u>9716'</u>	T. <u>Penrose 4054'</u>	T. Chinle _____	T. _____
T. Penn. _____	T. <u>Clearfork 6783'</u>	T. Permian _____	T. _____
T. Cisco (Bough C) <u>10,544'</u>	T. <u>Hueco 9980'</u>	T. Penn. "A" _____	T. _____

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	1735	1735	Sand & Red Bed	10521	10577	56	Shale
1735	2190	455	Red Bed and Anhy	10577	10699	122	Lime & Shale
2190	3369	1179	Anhy & Salt				
3369	3891	522	Anhy, Gypsum, & Salt				
3891	4177	286	Anhy & Gypsum				
4177	4327	150	Anhy, Gypsum, & Salt				
4327	4528	201	Anhy				
4528	4540	12	Anhy, Lime				
4540	8494	3954	Lime				
8494	9419	925	Lime & Shale				
9419	9560	141	Lime				
9560	9670	110	Lime & Shale				
9670	9800	130	Lime				
9800	10346	546	Lime & Shale				
10346	10406	60	Shale				
10406	10501	95	Lime & Shale				
10501	10508	7	Shale				
10508	10521	13	Lime & Shale				

DEVIATION AFFIDAVIT  
Date August 18, 1972

New Mexico Oil Conservation Commission

P. O. Box 1980

Hobbs, New Mexico 88240

State of Texas

County of Midland

J. R. Avent

, of lawful age, being first duly sworn deposes and says:

That he is employed by Skelly Oil Company in the capacity of District Administrative Coordinator and is fully acquainted with the facts as set forth herein.

That during the months of May and June 1972, Hondo Drilling Company ran the following Deviation Surveys for Skelly Oil Company on their J. A. Foster Well No. 1, in NE 1/4 of SE 1/4 of Section 4, NMPM, McDonald Penn Pool, Lea County, New Mexico.

SLOPE TEST DATA

<u>Depth In</u>	<u>Angle in Degrees</u>	<u>Depth In</u>	<u>Angle in Degrees</u>
428'	1/4	5353'	1-1/4
1007'	1/2	5860'	1-1/4
1507'	1/2	6100'	1-1/4
2008'	3/4	6630'	1 3/4
2669'	3/4	7100'	1-3/4
3073'	1	7634'	1-1/4
3245'	1	8155'	1-1/4
3670'	1	8425'	1-3/4
4035'	1	8750'	1-3/4
4540'	1-1/4	9549'	1-3/4
4860'	1-1/4	10,122'	2
		10,699'	1-1/2

Subscribed and sworn to before me this 18 day of August, 19 72.

G. C. Beem

Notary Public in and for said County and State

My commission expires: June 1, 1973

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

J. R. Avent  
Name

J. R. Avent

District Administrative Coordinator

Position

P. O. Box 1351, Midland, Texas 79701

Address

SECTION VII

Ray F. Nokes  
Reservoir Engineer  
Harvey E. Yates Company  
P. O. Box 1933  
Roswell, NM 88201

LABORATORY WATER ANALYSIS

No. W82-978

To Harvey L. Yates

Date 9-8-82

Box 1933

Roswell, New Mexico

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by \_\_\_\_\_

Date Rec. 9-7-82

Well No. McDonald #2 Depth \_\_\_\_\_

Formation \_\_\_\_\_

County \_\_\_\_\_ Field \_\_\_\_\_

Source \_\_\_\_\_

Resistivity 0.167 @ 74°F.

Specific Gravity 1.031

pH 7.0

Calcium (Ca) 2,100 \*MPL

Magnesium (Mg) Nil

Chlorides (Cl) 23,500

Sulfates (SO<sub>4</sub>) 2,850

Bicarbonates (HCO<sub>3</sub>) 855

Soluble Iron (Fe) Nil

Remarks Nitrate determination was not conclusive, due to the high coloration of the water.

\*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc:

By W. L. Brewer  
CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

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Address  
See Distribution

Contractor Moranco Drilling Co.  
Rig No. 2  
Spot --  
Sec. 34  
Twp. T3S  
Rng. 36E  
Field Wildcat  
County Lea  
State New Mexico  
Elevation --  
Formation Canyon

Top Choke 1/4"  
Bottom Choke 1"  
Size Hole 7 7/8"  
Size Rat Hole --  
Size & Wt. D. P. 4 1/2" XH 16.60  
Size Wt. Pipe --  
I. D. of D. C. 2 1/4"  
Length of D. C. 558 Ft.  
Total Depth 10950 Ft.  
Interval Tested 10810-10950 Ft.  
Type of Test Bottom Hole  
Conventional

Flow No. 1 30 Min.  
Shut-in No. 1 60 Min.  
Flow No. 2 60 Min.  
Shut-in No. 2 120 Min.  
Flow No. 3 -- Min.  
Shut-in No. 3 -- Min.

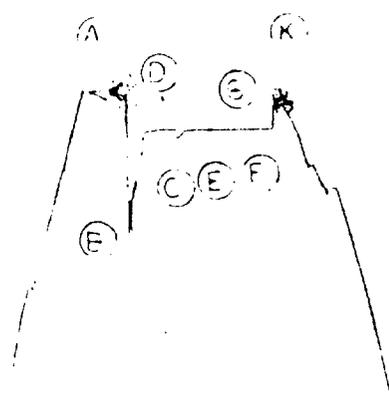
Bottom Hole Temp. 135<sup>0</sup>F  
Mud Weight 8.9  
Gravity --  
Viscosity --

Tool opened @ 10:23 A.M.

Inside recorder

PRD Make Kuster K-3  
No. 22722 Cap. 6625 @ 10794'

	Press	Corrected
Initial Hydrostatic	A	4761
Final Hydrostatic	K	4761
Initial Flow	B	2840
Final Initial Flow	C	3914
Initial Shut-in	D	4225
Second Initial Flow	E	4111
Second Final Flow	F	4222
Second Shut-in	G	4225
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--



Lynes Dist. Hobbs, N.M.  
Our Tester Greg Capes  
Witnessed By Peck Hardee

Ticket No. 40808

Date 3/18/83

No. Final Copies 32

Did Well Flow - Gas NO Oil NO Water NO

RECOVERY IN PIPE: (Test Was Reverse Circulated)

9053 Ft. Total fluid = 123.36 bbls  
558 Ft. Drilling mud with LCM = 7.92 bbls.  
8495 Ft. Slightly mud cut sulphur water with LCM = 155.44 bbls.

Blow Description:  
1st Flow:

Tool opened with strong surface blow, increased to 16 psi in 21 minutes, increased to 28 psi at the end of the flow period.

2nd Flow:

Tool opened with a 4 ounce blow, increased to 12 psi in 14 minutes, decreased to 10 psi in 23 minutes, decreased to 7 psi in 47 minutes, decreased to 6 psi at the end of the flow period.

Comments:

The test results indicate excellent permeability in the zone tested. The FSI stabilized immediately. The ISI stabilized in 45 minutes. No extrapolations could be performed.

SECTION VIII, cont.

(Fresh Water Aquifers and Area Water Wells)

On April 20, 1983 Mr. Paul Kautz, a geologist of the New Mexico District I office in Hobbs, was contacted by Ray F. Nokes of Harvey E. Yates Company, in regards to fresh water aquifers in the McDonald Unit Area. Mr. Kautz had recently studied the area and concluded that the Ogallala is prevalent in the McDonald area starting from surface, but usually is located at about 80' from surface and continued to depths of 300' in some places. The specific area of interest was in Townships 13 and 14 South of Range 36 East, Lea County, New Mexico. Mr. Kautz indicated that the thickness of the Ogallala in this specific area was not specifically defined, but if surface and intermediate casing were set through the Ogallala and protected by cement to surface that the fresh water aquifer would be protected. See Section VI for casing and cementing reports.

Mr. Frank Bradley with the New Mexico State Engineers Office in Roswell, New Mexico, was contacted on the same day as Mr. Kautz. He checked local records to determine if any fresh water wells were present in the immediate area of the McDonald Unit area. Please find attached a list of fresh water wells supplied by Mr. Bradley for the McDonald Area.

Prepared by:  
Ray F. Nokes  
Reservoir Engineer  
Harvey E. Yates Co.  
Roswell, New Mexico 88201

SECTION IX

Ray F. Nokes  
Reservoir Engineer  
Harvey E. Yates Company  
P. O. Box 1933  
Roswell, NM 88201

COMPLETION SCHEDULE

WELL: J. A. Foster #1

DATE: 7-19-83

LOCATION: I, 660' FEL & 1980' FSL, Sec. 4, T-14S, R-36E, Lea County, New Mexico.

FIELD: P & A

ELEVATION: 3944' GR  
3955' KB

TD: 10,699' PBTD: surface

<u>CASING RECORD:</u>	<u>SIZE</u>	<u>WT. &amp; GRADE</u>	<u>DEPTH</u>	<u>CEMENT</u>	<u>CEMENT TOP</u>
	13-3/8"	61#	424'	450 sxs	surface
	8-5/8"	32#	4540'	2150 sxs	surface
Plugs: 1)	34' plug to surface (10 sxs)			5) 30 sxs plug from 8055'-8157'	
2)	40 sxs plug from 4424'-4561' (8-5/8" shoe)			6) 30 sxs plug from 9884'-9986'	
3)	30 sxs plug from 5978'-6080'			7) 30 sxs plug from 10,442'-10,544'	
4)	30 sxs plug from 7373'-7475'				

FORMATION TOPS:

Cisco - 10,544'  
Hueco - 9,980'  
Abo - 8,158'

PRESENT PERFORATIONS:

None: Originally drilled 5/23/72 & P&A 6/20/72.

PRESENT PRODUCTION:

None

RECOMMENDED PROCEDURE:

- 1) MI & cut off dry hole marker & weld on casing flange.
- 2) MI & RU Completion Unit & reverse circulating unit.
- 3) Drill out plugs to a TD of 10,700' w/7-7/8" bit.
- 4) Set pipe & cement w/sufficient cement to TD to 10,500'.
- 5) Perforate 4 shots per foot from 10,640'-10,646' (28 holes).
- 6) Trip in hole w/5-1/2" Nickle Plated Baker Lok-Set, 1.81" profile on/off tool and 2-3/8" internally plastic coated tubing and set at approximately 10,575'.
- 7) Acidize w/2000 gal double, inhibited 15% HCL.
- 8) Turn over to pumper.

SECTION XI

Ray F. Nokes  
Reservoir Engineer  
Harvey E. Yates Company  
P. O. Box 1933  
Roswell, NM 88201

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES  
MIDLAND DIVISION  
HOBBS, NEW MEXICO 88240

RECEIVED  
MAY 5 1983

LABORATORY WATER ANALYSIS

No. W83-502

To Harvey E. Yates  
Box 1933  
Roswell, New Mexico  
ATTN: Mr. Ray Nokes

Date 5-3-83

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by \_\_\_\_\_ Date Rec. 5-3-83

Well No. As Marked Depth \_\_\_\_\_ Formation \_\_\_\_\_

County \_\_\_\_\_ Field \_\_\_\_\_ Source Fresh Water Supplies

	<u>Foster S.E. #1</u>	<u>McLish Well</u>	
Resistivity	<u>10.4 @ 74°F.</u>	<u>12.2 @ 74°F.</u>	
Specific Gravity	<u>1.004</u>	<u>1.002</u>	
pH	<u>7.0</u>	<u>7.1</u>	
Calcium (Ca)	<u>150</u>	<u>95</u>	<u>*MPL</u>
Magnesium (Mg)	<u>18</u>	<u>9</u>	
Chlorides (Cl)	<u>300</u>	<u>150</u>	
Sulfates (SO <sub>4</sub> )	<u>650</u>	<u>900</u>	
Bicarbonates (HCO <sub>3</sub> )	<u>170</u>	<u>195</u>	
Soluble Iron (Fe)	<u>Nil</u>	<u>Nil</u>	

Remarks: \_\_\_\_\_ \*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc:

By W. L. Brewer  
CHEMIST

NOTICE

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MAY 11 1983

AREA WATER WELLS

<u>REFERENCE FILE</u>	<u>PRIORITY</u>	<u>STATUS</u>	<u>USE</u>	<u>WELL LOCATION</u>	<u>QUARTE</u>
Roark, Buck	L-6228	NA	Dom	Sec. 33, T-13S, R-36E	330
Gray, Clifford etal	L-00494	LIC	IRR	Sec. 33, T-13S, R-36E	1110
Stanton, Donald	L-00494AE	PMT	IRR	Sec. 33, T-13S, R-36E	131
Stanton, Donald	L-07237	PMT	DOM	Sec. 33, T-13S, R-36E	1410
Richardson, Fred	L-08096	PMT	DOM	Sec. 33, T-13S, R-36E	300
Robinson, N. C.	L-01668	PMT	DOM	Sec. 33, T-13S, R-36E	311
Robinson, N. C.	L-00558	LIC	IRR	Sec. 33, T-13S, R-36E	3110
Richardson, Fred	L-00462	LIC	IRR	Sec. 33, T-13S, R-36E	321
Roark, Buck	L-06228	PMT	DOM	Sec. 33, T-13S, R-36E	330
Hilburn, R. B.	L-0058A	LIC	MTU	Sec. 33, T-13S, R-36E	3331
Robinson, N. C.	L-03422	PMT	DOM	Sec. 33, T-13S, R-36E	444
Hemann, Leon O.	L-00186	LIC	IRR	Sec. 34, T-13S, R-36E	1111
Wallis, T. V.	L-01483	PMT	DOM	Sec. 34, T-13S, R-36E	113
Hemann, Leon	L-07036	PMT	DOM	Sec. 34, T-13S, R-36E	1130
Hemann, Leon O.	L-00187	LIC	IRR	Sec. 34, T-13S, R-36E	2111
McClish M, et al	L-00223	LIC	IRR	Sec. 34, T-13S, R-36E	3111
Willingham R. E.	L-00292	LIC	IRR	Sec. 34, T-13S, R-36E	332
Willingham R. E.	L-01417	PMT	DOM	Sec. 34, T-13S, R-36E	332
Willingham R. E.	L-00293	LIC	IRR	Sec. 34, T-13S, R-36E	414
Shettle, Geo O	L-02759	PMT	DOM	Sec. 3, T-14S, R-36E	433
Beeman, Lewis	L-04460	PMT	DOM	Sec. 4, T-14S, R-36E	110
Williams, George J	L-03816	PMT	DOM	Sec. 4, T-14S, R-36E	111
Clevenger, J. H.	L-00256A	LIC	IRR	Sec. 4, T-14S, R-36E	111
Lambert, Allie L.	L-00256	LIC	IRR	Sec. 4, T-14S, R-36E	111
Cruz, Felix A	L-07134	PMT	DOM	Sec. 4, T-14S, R-36E	1110
Lambert Allie L.	L-002565	PMT	IRR	Sec. 4, T-14S, R-36E	1313
Foster, James A. Jr.	L-00082	LIC	IRR	Sec. 4, T-14S, R-36E	2111
Foster, James A. Jr.	L-00600	LIC	IRR	Sec. 4, T-14S, R-36E	2311
Lambert, Allie L.	L-00773	LIC	IRR	Sec. 4, T-14S, R-36E	3142
Richardson, S.A.	L-03850	PMT	DOM	Sec. 5, T-14S, R-36E	110
Richardson, Celia	L-02332	PMR	DOM	Sec. 5, T-14S, R-36E	222
McFarlane Drlg Co.	L-06246	PMT	DWD	Sec. 5, T-14S, R-36E	330
Richardson, S. A.	L-05165	PMT	DOM	Sec. 5, T-14S, R-36E	330
McFarland E. L. Inc.	L-05036	PMT	DWD	Sec. 5, T-14S, R-36E	330
Gilchrist, Howard	L-00680	LIC	IRR	Sec. 5, T-14S, R-36E	4133
Richardson, James	L-07041	PMT	DOM	Sec. 5, T-14S, R-36E	4440
Cayton, Karl	L-00056	LIC	IRR	Sec. 9, T-14S, R-36E	1111
Amerada Petro Corp	L-05378	PMT	DWD	Sec. 9, T-14S, R-36E	120
Cayton, Jack	L-02593	PMT	DOM	Sec. 9, T-14S, R-36E	121
Woodard, D. M.	L-05241	PMT	DOM	Sec. 9, T-14S, R-36E	200
Pierce, V. G.	L-01243	PMT	DOM	Sec. 9, T-14S, R-36E	200
Woodward, D. M.	L-01286	PMT	DOM	Sec. 9, T-14S, R-36E	211
Jones, Jack & Pat	L-00088	LIC	IRR	Sec. 9, T-14S, R-36E	211
Jones, Elvis	L-00507	LIC	IRR	Sec. 9, T-14S, R-36E	221
Cayton, Karl	L-03349	PMT	DOM	Sec. 10, T-14S, R-36E	110
Cayton, Karl	L-00233S2	LIC	IRR	Sec. 10, T-14S, R-36E	1111
Cayton, karl	L-00233	LIC	IRR	Sec. 10, T-14S, R-36E	1113
Cayton, Jack D.	L-00557	PMT	NOT	Sec. 10, T-14S, R-36E	210
Patman, L. D.	L-03758	PMT	DOM	Sec. 10, T-14S, R-36E	344
Patman, L. D.	L-00019	LIC	IRR	Sec. 10, T-14S, R-36E	4111
Patman, L. D.	L-00233E	LIC	IRR	Sec. 10, T-14S, R-36E	4111
King, Carl B. Drlg Co.	L-03634	PMT	DWD	Sec. 3, T-14S, R-36E	244
Molino Del Rey Inc.	L-00772	LIC	IRR	Sec. 3, T-14S, R-36E	3111
Molino Del Rey Inc.	L-00771	LIC	IRR	Sec. 3, T-14S, R-36E	3212
Molino Del Rey Inc.	L-00795	LIC	IRR	Sec. 3, T-14S, R-36E	3311
Molino Del Rey Inc.	L-00795	LIC	IRR	Sec. 3, T-14S, R-36E	400
Cruz, Tony	L-8400	NA	DOM	Sec. 4, T-14S, R-36E	111
Snyder, Henry	L-8225	NA	DOM	Sec. 4, T-14S, R-36E	300
Golleler, Jerry	L-8606	NA	DOM	Sec. 10, T-14S, R-36E	433

NOTE: Quarter Section Code:

- 1 - Northwest
- 2 - Northeast
- 3 - Southwest
- 4 - Southeast
- 0 - Center

**AFFIDAVIT OF PUBLICATION**

State of New Mexico,  
County of Lea.

I, \_\_\_\_\_

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

JUNE 10, 1983

and ending with the issue dated

JUNE 10, 1983

Robert L. Summers  
Publisher.

Sworn and subscribed to before

me this 10TH day of

JUNE, 1983

Ane Paulowsky  
Notary Public.

My Commission expires \_\_\_\_\_

3-24-87, 1987

(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**

June 10, 1983

Harvey E. Yates Company  
P.O. Box 1933  
Suite 300 Security  
National Bank Bldg.  
Roswell, New Mexico 88201  
Phone No. 1-505-623-6601  
Contact Party: Ray F. Nokes

Reservoir

Engineer

Harvey E. Yates Company proposes to dispose produced water into the J.A. Foster#1. The J.A. Foster#1 is located in Unit 1, 660' FEL & 1980' FSL of Section 4, Township 14 South of Range 36 East in Lea County, New Mexico.

Produced water will be injected at an estimated rate of 500 barrels per day at not higher than 2128 psig in the Cisco Dolomite at a depth of 10,640.

Interested parties must file objections or request for a hearing with the New Mexico Oil Conservation Division, P.O. Box 2088 Santa Fe, New Mexico 87501 within 15 days.

