

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: MBR SHARP DRILLING Well: IRON HORSE No. 1
Contact: KEITH McRAMEY Title: CONSULTANT Phone: 505-746-4754
DATE IN 8-27-97 RELEASE DATE 9-11-97 DATE OUT _____

Proposed Injection Application is for: _____ WATERFLOOD _____ Expansion _____ Initial

Original Order: R- _____ _____ Secondary Recovery _____ Pressure Maintenance

SENSITIVE AREAS

X **SALT WATER DISPOSAL** _____ Commercial Well

_____ WIPP _____ Capitan Reef

Data is complete for proposed well(s)? YES Additional Data Req'd _____

AREA of REVIEW WELLS

<u>2</u> Total # of AOR	<u>0</u> # of Plugged Wells
<u>467</u> Tabulation Complete	Schematics of P & A's
<u>465</u> Cement Tops Adequate	AOR Repair Required

INJECTION FORMATION

Injection Formation(s) FRESHY CANYON Compatible Analysis YES

Source of Water or Injectate AREA DELAWARE PRODUCTION

PROOF of NOTICE

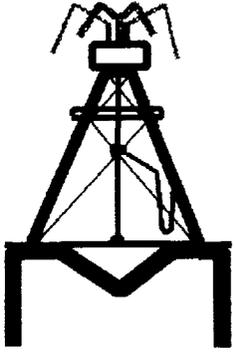
<u>✓</u> Copy of Legal Notice	<u>✓</u> Information Printed Correctly
<u>✓</u> Correct Operators	<u>✓</u> Copies of Certified Mail Receipts
<u>NO</u> Objection Received	Set to Hearing _____ Date

NOTES: _____

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? YES

COMMUNICATION WITH CONTACT PERSON:

1st Contact:	_____ Telephoned	_____ Letter	_____ Date	Nature of Discussion _____
2nd Contact:	_____ Telephoned	_____ Letter	_____ Date	Nature of Discussion _____
3rd Contact:	_____ Telephoned	_____ Letter	_____ Date	Nature of Discussion _____



SWD

9/11/71 678

KEITH E. MCKAMEY

CONSULTING SERVICES

1702 WASHINGTON

ARTESIA, NM 88210

505-746-4754

Data/Fax 505-746-8699

Geological Reservoir Engineering

Hydrofracturing
Environmental GIS Solutions

Sampling/Work Plans/Spatial Database
Drafting/Design

Utility Layout/Maintenance/House Plans

August 25, 1997

Mr. David Catanach
Oil Conservation Division
2040 Pacheco St.
Santa Fe, NM 87505

AUG 27

Subject: C-108 Application for Authorization to Inject

Dear Sirs:

With reference to a conversation with Bonnie in the Hobbs OCD office, I am forwarding a C-108 application for your approval. Attached you will find a copy of the "Proof Of Notice" required to begin the approval procedure. You will notice that one of the three offset operators have not returned their receipt (see Universal Resources, Sender receipt #Z359210648). This is the lessee of record according to the State's Central Records Office. Bonnie advised me that I have made the effort required under the Proof of Notice since it has been thirteen days from the date notification had been sent.

If there are any questions concerning this application, please call my office.

Sincerely,

Keith E. McKamey
Geological Engineering Consultant
Agent for TMBR Sharp Drilling, Inc.

cc: Att: Bonnie
Oil Conservation Division-Hobbs
P. O. Box 1980
Hobbs, NM 88240

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR: TMBR Sharp Drilling
ADDRESS: F. C. Drawer 10970, Midland, TX 79702
CONTACT PARTY: Jeff Phillips PHONE: 699-5050
- III. WELL DATA: Complete the data required on the reverse side of this form for each well processed 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.
- 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/1 or less) overlying the proposed injection zone as well as any such sources 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: Keith McKamey TITLE: Geological Engineer
SIGNATURE: Keith E. McKamey Agent for TMBR Sharp Drilling DATE: 8-8-97

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

to CCD 7-94

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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, PO Box 2088, Santa Fe, NM 87504-2088 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.

III. TABULAR WELL DATA

Application for Authorization to Inject:
 TMBR Sharp Drilling (formerly Marshall & Winston)
 #1 Iron House; 2100' FNL & 990' FEL, 1-19S-35E

A. Well Data

Name & Location	Surface Casing	Intermediate Casing	Production Casing	Injection Tubing	Injection Packer
TMBR Sharp Drilling (formerly Marshall & Winston) Iron House #1 2100' FNL & 990' FEL, Sec. 1-19S-35E, Lea Co., NM	20", set at 155', with 150 sx Prem Plus "C" w/2% KCL + 1/4#/sx Flocele, circ. 20 sxs to pit (22" hole)	8 5/8", 32# ST&C, set at 1849', with 250 sx Prem Plus w/2% CaCl, 1050 sx HLC w/ 5# sx Salt + 4# sx Flocele, circ. 140 sxs cmt. to pit (12 1/4" hole)	7", 29#, J-55, ST&C set at 6400' (7 7/8" hole), Cement with 380 sx of lead cement and 85 sx of Premium 50/50 poz, 2% gel. This job calculates 50% excess circulating approximately 100 sx to surface	2 7/8", 6.5#, J-55, set at 5875'	Baker Loc-set Retrievable packer with Baker Model "FL" on/off tool set at 5875'

B. Reservoir Data

Injection Formation	Field Name	Proposed Injection Interval	Original Intent	Other Perf. Zones	Productive Zones
Brushy Canyon (Delaware)	Wildcat	(+/-)5973' to (+/-)6346' (5973-94, 6032-46, 6201-40, 6336-46); 84' @ 2 SPF =168 holes	Water Injection	None	Next Higher: none Next Lower: none

VII. Proposed Injection Operations

Injection Rate	Injection System	Injection Pressure	Injection Fluid
Average = 30 bwpd Maximum = 150 bwpd	Closed	Average = 3000# psi Maximum = .6 x 6200'=3700# psi	Produce water

Formation Water Analysis	Well Name	Amount measured from nearby wells
Delaware 6000'	State Lea, 17-18S-35E, (ref. 1982 Survey of Resistivities of Water)	.246 DST = 17,000 PPM Chlorides

VIII. Geologic Data

Injection Zone Name	Description	Fresh Water Sources
Brushy Canyon	<p>Injection zone will be into the lenticular sand lenses in the Brushy Canyon Formation. These sand lenses are stratigraphic, horizontally limited, and are very fine grained siltstones. The Brushy Canyon Sands are overlain by the San Andres Dolomite/Limestone and underlain by the Bone Spring Limestone both zones of which are considered low porosity and low permeability.</p> <p>Net Pay - 84' Gross Thickness - 373' T/Brushy Canyon 5960' B/ Brushy Canyon 6398' Average Porosity 15% Average Permeability .4 to .5 md.</p>	<p>There are no known underground sources of drinking water above or below the Brushy Canyon Formation</p>

IX. Proposed Stimulation Program

The Brushy Canyon intervals will be treated with 4200 gallons of Ferchek SC acid which includes 7 1/2% HCL acid containing fines suspension agents, clay stabilizers, and LST agents.

X. Logging Data

Copies of the open hole logs have been sent to the NMOCD by Marshall & Winston when the well was drilled.

XI. Fresh Water Analysis

There is no known underground sources of fresh water within a 1 mile radius of the proposed location.

XII. Proof Of Notice

A copy of this application has been furnished to the land owner (State of New Mexico Land Department).

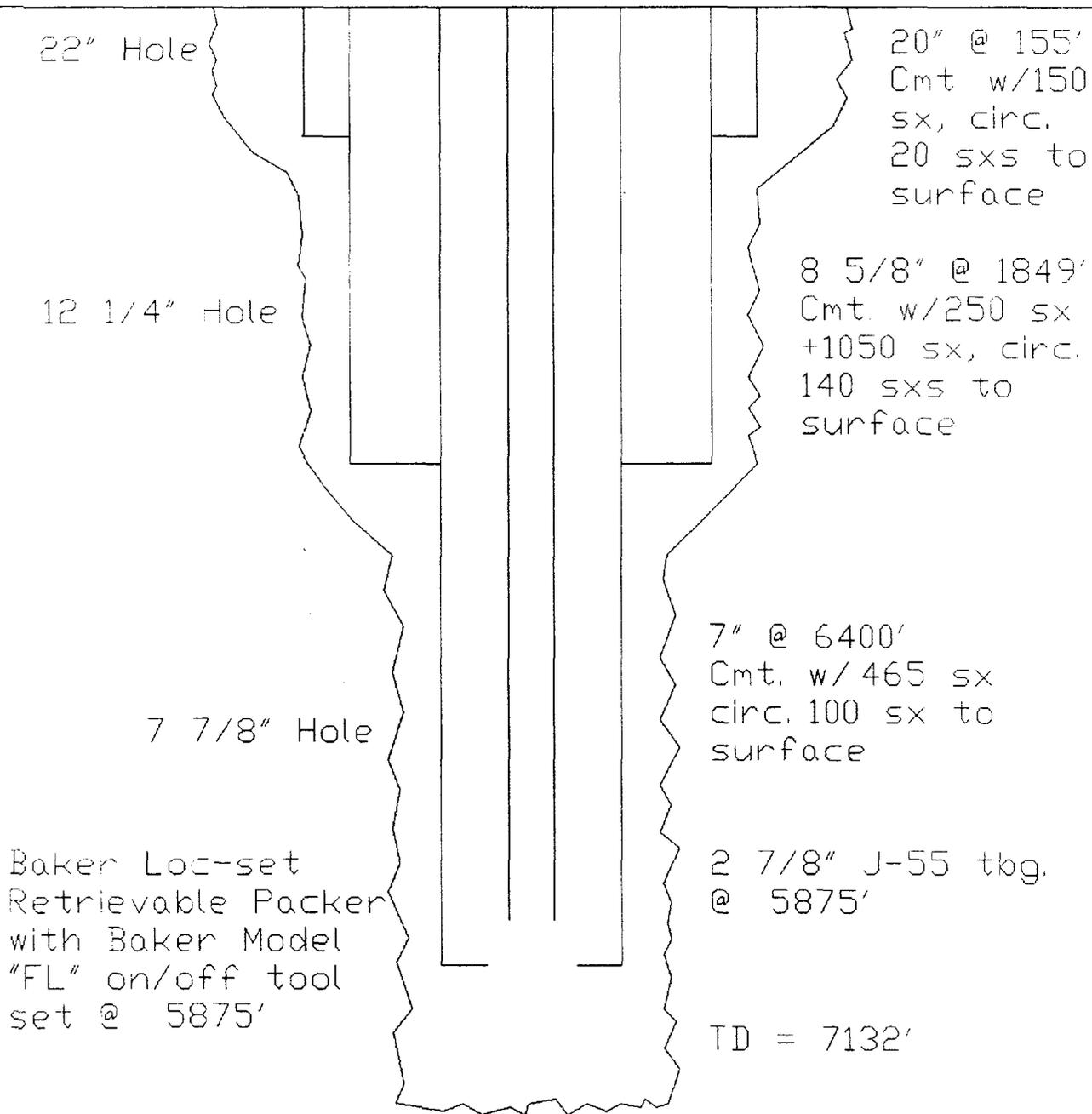
ATTACHMENT 1

(Schematic)

TMBR Sharp Drilling #1 Iron House

(Formerly Marshall & Winston)

2100' FNL & 990' FEL; 1-19S-35E



VI. WELLS WITHIN THE AREA OF REVIEW

Injection Candidate:

TMBR Sharp Drilling (formerly Marshall & Winston Inc.)

Iron House #1; 2100' FNL & 990' FEL, 1-19S-35E

Operator	Well Name	Location	Date Spud (Orig. Intent)	Present TD Original TD	Casing	Depth	Size	Producing Perfs. (Zone)
TMBR Sharp Drilling (formerly Marshall & Winston)	Iron House #1	2100' FNL & 990' FEL, Sec. 1-19S- 35E, Lea Co., NM	8-30-93 (Oil)	7132' 7700'	20"	149'	150 sx	Well never Perforated Brushy Cany. Proposed Inj. Interval 5973' - 6346'
					8 5/8"	1849'	1300 sx	
					7"	6400'	465 sx	
Ralph Lowe	Ohio St. #1	990' FNL & FEL, Sec. 1- 19S-35E, Lea Co., NM	8-3-58 (Oil), P&A 11-20-58 Re-Entered 5-5-63 (Brine)	12,020' 12,200'	13 3/8"	316'	450 sx	2140'/10 holes 2270'/10 holes (Red Beds)
					9 5/8"	4275'	2700 sx	
TMBR Sharp	State #1	1750' FNL & 2100' FEL, Sec. 1- 19S-35E, Lea Co., NM	1-9-97	7280'	8 5/8"	1872'	911 sx	5471-83' Grayburg Sands
					5 1/2"	5690'	465 sx	

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

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 a supplement thereof for a period.

of 1 weeks.

Beginning with the issue dated August 14 1997 and ending with the issue dated August 14 1997

Kathi Bearden
Publisher

Sworn and subscribed to before me this 15th day of August 1997

Godi Henson
Notary Public.

My Commission expires October 18, 2000
(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
August 14, 1997
Disposal Well Notice #1 from
House St. 2100' FNL & 990'
FEL, 1-19S-35E Lea CO,
NM, Brushy Canyon Zone,
5973-6346' Max. Injection
rate-150 BWPD Max. Injec-
tion Pressure-3700#
Operator
Tribe Sharp Drilling, Inc.
P.O. Drawer 10970
Midland, TX 79702
915-685-3050
Att: Mr. Jeff Phillips
Objections or requests must
be filed within 15 days. OGD
P.O. Box 2088, Santa Fe, NM
87504-2088
#15360

01102249000 01510123
Keith McKamey Consulting
1702 Washington St.
Artesia, NM 88210

Z 359 210 650

Z 359 210 649

Z 359 210 648

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to <i>Yates Petroleum</i>	
Street & Number <i>105 S. 4th</i>	
Post Office, State, & ZIP Code <i>Antonita, NM 88210</i>	
Postage	\$ <i>55</i>
Certified Fee	<i>135</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	<i>110</i>
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ <i>300</i>
Postmark or Date	

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to <i>Marathon Oil Co.</i>	
Street & Number <i>P.O. Box 552</i>	
Post Office, State, & ZIP Code <i>Midland, TX 79702</i>	
Postage	\$ <i>55</i>
Certified Fee	<i>135</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	<i>110</i>
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ <i>300</i>
Postmark or Date	

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to <i>Universal Resources Corp</i>	
Street & Number <i>79 S. State Street</i>	
Post Office, State, & ZIP Code <i>Salt Lake City, Utah 84111</i>	
Postage	\$ <i>55</i>
Certified Fee	<i>135</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	<i>110</i>
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ <i>300</i>
Postmark or Date	

PS Form 3800, April 1995

PS Form 3800, April 1995

Thank you for using Return Receipt Service.

Thank you for using Return Receipt Service.

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

1. Addressee's Address
2. Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:
Marathon Oil Co.
P.O. Box 552
Midland, TX 79702

4a. Article Number
2359210649

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
AUG 15 1997

8. Addressee's Address (Only if requested and fee is paid)

5. Received By: (Print Name)
JOANN GRIGGS

6. Signature: (Addressee or Agent)
JOANN GRIGGS

PS Form 3811, December 1994 102595-97-B-0179 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

1. Addressee's Address
2. Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:
Yates Petroleum
105 S. 4th
Antonita, NM 88210

4a. Article Number
2359210650

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
8-14-97

8. Addressee's Address (Only if requested and fee is paid)

5. Received by: **JOANN GRIGGS**

6. Signature: (Addressee or Agent)
JOANN GRIGGS

PS Form 3811, December 1994 102595-97-B-0179 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Arrived in today's mail

8-25-97

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Universal Resources Corp.
79 S. State Street
Salt Lake City, Utah
84111

4a. Article Number
2359210648

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
8-18-97

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)
X [Signature]

Thank you for using Return Receipt Service.



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

9/4/97

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

GOVERNOR

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

RE: Proposed:

- MC _____
- DHC _____
- NSL _____
- NSP _____
- SWD _____ X
- WFX _____
- PMX _____

Gentlemen:

I have examined the application for the:

TMBR Sharp Drilling Iron House #1-H 1-19s-35e
 Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Once packer in place test backside to 300psi for 30min
provide chart to Hobbs OCO office. Show test on C/O.S

Yours very truly,

Chris Williams
Supervisor, District 1

/ed