

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: MARATHON OIL COMPANY Well: INDIAN HILLS STATE COMM Well No. 7

Contact: R. A. BIERNBAUM Title: SUPERVISOR Phone: 915-682-1626

DATE IN 7-18-94 RELEASE DATE 8-8-94 DATE OUT 9-15-94

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

Original Order: R- ☐ Secondary Recovery ☐ Pressure Maintenance

☒ SENSITIVE AREAS

☒ SALT WATER DISPOSAL

☐ WIPP

☐ Capitan Reef

☐ Commercial Operation

Data is complete for proposed well(s)? ☐ Additional Data ☐

AREA of REVIEW WELLS

☒ Total # of AOR ☐ # of Plugged Wells
☐ Tabulation Complete ☐ Schematics of P & A's
☐ Cement Tops Adequate ☐ AOR Repair Required

INJECTION INFORMATION

Injection Formation(s) SILURO-DEVONIAN

Source of Water PENN/MORROW Compatible ☒

PROOF OF NOTICE

☒ Copy of Legal Notice ☒ Information Printed Correctly
☒ Correct Operators ☒ Copies of Certified Mail Receipts
NO Objection Received ☐ Set to Hearing ☐ Date

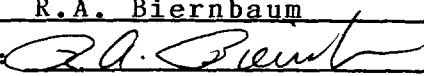
NOTES: NO WELLS IN 1/2 MILE AOR PENETRATE
PROPOSED INJECTION ZONE.

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	☐

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Marathon Oil Company
Address: P.O. Box 552 Midland, Texas 79702
Contact party: R.A. Biernbaum Phone: (915) 682 1626
- 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.
- 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: R.A. Biernbaum Title: Supervisor IBBU
Signature:  Date: 7/14/94
- * 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. Part X ---- Filed 12/18/93

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.

**Indian Hills State Comm Well No. 7
Proposed Injection Well
Attachments to C - 108**

Part III

Well Data

See attached well data sheet for Indian Hills State Comm Well No. 7

Part 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.

See attached map.

Part 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.

There are no wells within the "area of review" which penetrate the proposed disposal interval.

Part VII

See attachment.

Part VIII

See attachment.

Part IX

Describe the proposed stimulation program, if any.

The proposed injection well will be completed open hole. The proposed open hole interval will be stimulated using 15% HCl acid (± 6000 gallons).

Part X

Attach appropriate logging and test data on the well.

Forms C-103 and C-105, along with an inclination report and logs were filed on this well.

**Indian Hills State Comm Well No. 7
Proposed Injection Well
Attachments to C - 108**

Part 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.

There are no fresh water wells within a one mile radius of the proposed injection well.

Part 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.

Marathon Oil Company, as Operator of the proposed injection well, has reviewed and examined available geologic and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.



R.A. Biernbaum

Part XIII

Proof of notification

See attachments

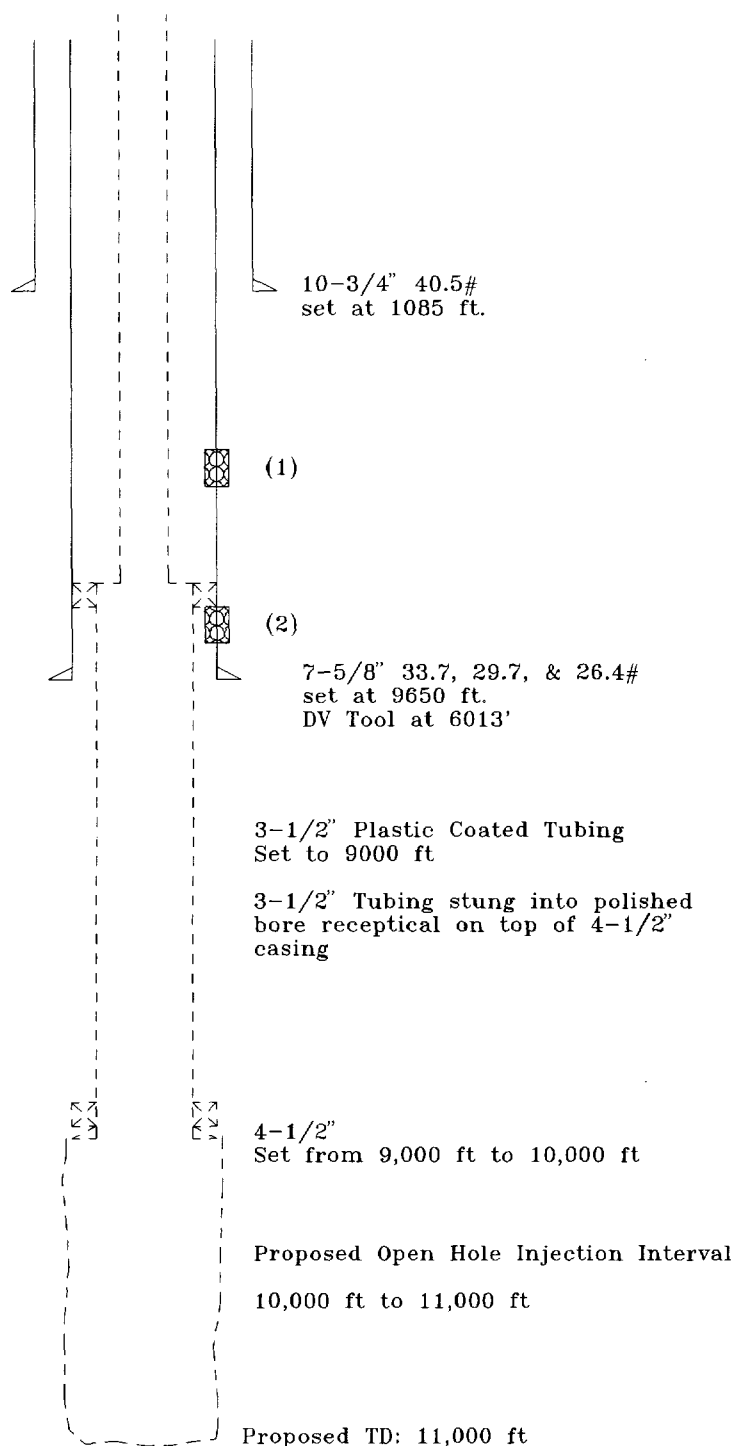
INJECTION WELL DATA SHEET

Operator: Marathon Oil Company

Lease & Well No.: Indian Hills State Comm Well No. 7

Location: 1650' FNL and 1980' FWL Section 36 T-20-S R-24-E

County and State: Eddy County, New Mexico

Surface Casing

Size: 10-3/4"
Cemented with: 1300 sxs
TOC: surface
TOC determined by: visual
Hole size: 14-3/4"

Long String Casing

Size: 7-5/8"
Cemented with: 1375 / 1260 sxs
TOC: surface
TOC determined by: circulated
Hole size: 9-7/8"

Liner Casing (Proposed)

Size: 4-1/2"
Cemented with: 300 sxs (proposed)
TOC:
TOC determined by:
Hole size: 6-1/2"

TD: 11,000 feet

Injection Interval: 10,000 feet to 11,000 feet
Open Hole

(1) Upper Penn Perforations

7672 ft to 7765 ft
Propose to squeeze with 150 sxs cement

(2) Morrow Perforations

9245 ft to 9400'
Propose to squeeze with 150 sxs cement

Tubing Data:

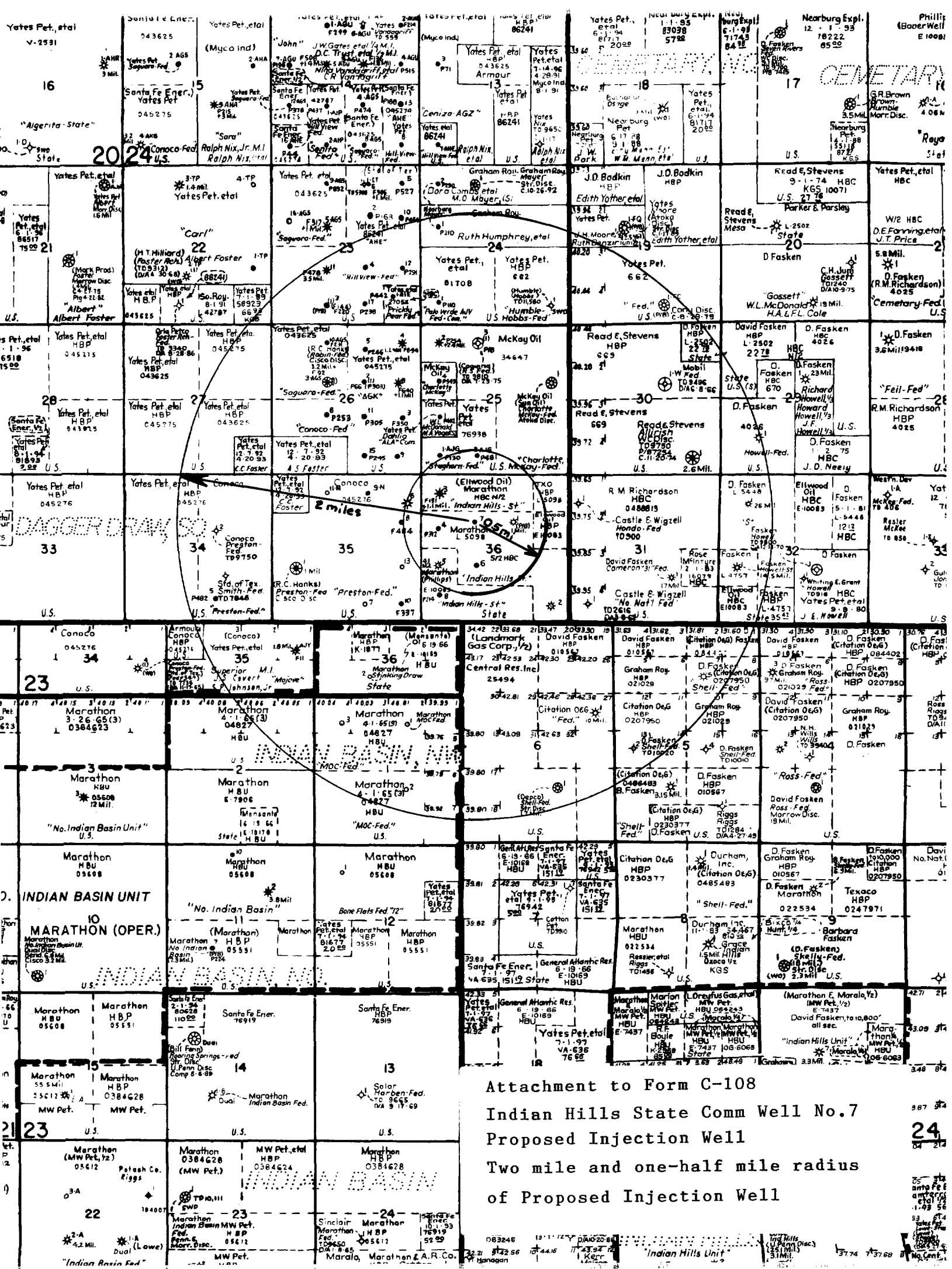
Size: 3-1/2"
Lining: Spincoat 750 (plastic coating)
Packer: Polished Bore Receptical on 4-1/2" casing
Set Depth: 9000 ft

OTHER DATA(1) Name of injection formation(s): Siluro-Devonian(2) Name of Field or Pool: Not Applicable(3) Is this a new well drilled for injection?: No.If no, for what purpose was the well originally drilled?: Originally drilled as a producer

(4) Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

Upper Penn: 7672 ft to 7765 ft. Propose to squeeze with 150 sxs.
Morrow: 9245 ft to 9400 ft. Propose to squeeze with 150 sxs.

(5) Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area:



Indian Hills State Comm Well No. 7
Proposed Injection Well
Attachment to C - 108
(Part VII)

Proposed Operations

1. *Proposed average and maximum daily rate and volume of fluids to be injected.*

Fluid: Produced Water

Average Rate: 7,500 BPD

Maximum Rate: 15,000 BPD

2. *Whether the system is open or closed.*

The proposed disposal system will be a closed system. Produced water will be gathered to a central location into closed top tanks. The water will be pumped to the proposed injection well.

3. *Proposed average and maximum injection pressure.*

Average Pressure: 1000 psi

Maximum Pressure: 2200 psi

4. *Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water.*

The source of the injection fluid will be produced water from offsetting leases.

Formations: Upper Penn
 Morrow

See attached water analysis for each of the above zones.

Indian Hills State Comm Well No. 7

Proposed Injection Well

Attachment to C - 108
(Part VII)

Proposed Operations - continued

5. *If injection is for disposal purpose 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.)*

Marathon Oil Company ran a DST test on North Indian Basin Well No. 1 (Section 9, T-21-S, R-23-E, Eddy County New Mexico) in 1963. The DST tested the interval 10,009 ft to 10,100 ft. Based on the DST, the following analysis was reported:

Specific Gravity	1.109	
pH	6.8	
Resistivity	.285	@ 94F
Chlorides (Cl)	11,000	
Sulfates (SO4)	1500	
Alkalinity (HCO3)	610	
Calcium (Ca)	1080	
Magnesium (Mg)	775	
Iron (Fe)	20	
Sodium (Na)	5359	
Sulfides (H2S)	negl.	

UPPER PENN



CABBOT LABORATORIES, INC.

3312 Bankhead Hwy
Midland, Texas 79701
(815) 689-7252
FAX & (815) 689-0130

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : Marathon Oil Company
Lease : Indian Hills State Com
Well No. : 8
Job No. : 9407010

Sample Loc. : Separator Sight Glass
Date Sampled : 08-July-1994
Attention : Noel Garza
Analysis No. : 07010-1

ANALYSIS

MG/L EQ. WT. #MEQ/L

1. pH 7.350
2. Specific Gravity 60/60 F. 1.003
3. CaCO₃ Saturation Index @ 80 F. +0.248
@ 140 F. +0.948

Dissolved Gases

4. Hydrogen Sulfide 64.8
5. Carbon Dioxide Not Determined
6. Dissolved Oxygen Not Determined

Cations

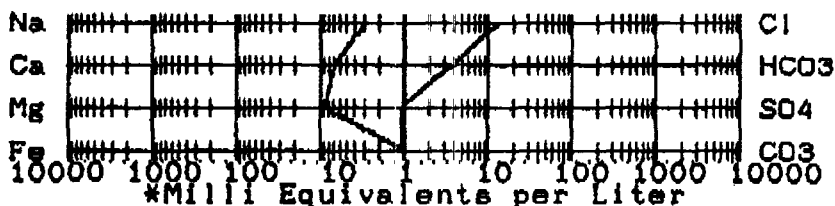
7. Calcium (Ca⁺⁺) 140 / 20.1 = 6.97
8. Magnesium (Mg⁺⁺) 109 / 12.2 = 8.93
9. Sodium (Na⁺) (Calculated) 87 / 23.0 = 2.91
10. Barium (Ba⁺⁺) Not Determined

Anions

11. Hydroxyl (OH⁻) 0 / 17.0 = 0.00
12. Carbonate (CO₃⁻) 0 / 30.0 = 0.00
13. Bicarbonate (HCO₃⁻) 244 / 61.1 = 3.99
14. Sulfate (SO₄⁻) 43 / 48.6 = 0.88
15. Chloride (Cl⁻) 496 / 35.5 = 13.97
16. Total Dissolved Solids 1,099
17. Total Iron (Fe) 0 / 18.2 = 0.02
18. Total Hardness As CaCO₃ 801
19. Resistivity @ 75 F. (Calculated) 4.997 /cm.

LOGARITHMIC WATER PATTERN

#meq/L.



Calculated Calcium Sulfate solubility in this brine is 2,259 mg/L. at 90 F.

PROBABLE MINERAL COMPOSITION

COMPOUND EQ. WT. X #meq/L = mg/L.

Ca(HCO ₃) ₂	81.04	3.99	324
CaSO ₄	68.07	0.88	60
CaCl ₂	55.50	2.09	116
Mg(HCO ₃) ₂	73.17	0.00	0
MgSO ₄	60.19	0.00	0
MgCl ₂	47.62	8.93	425
NaHCO ₃	84.00	0.00	0
NaSO ₄	71.03	0.00	0
NaCl	58.46	2.95	172

ANK:ptc

Remarks and Comments:

MORROW

CAPROCK
LABORATORIES, INC.

 3312 Bankhead Hwy.
 Midland, Texas 79701
 (915) 689-7232
 FAX # (915) 689-0130
WATER ANALYSIS REPORT**SAMPLE**
 Oil Co. : Marathon Oil Company
 Lease : Winston Federal
 Well No. :
 Job No. : 9407010

 Sample Loc. : Separator Sight Glass
 Date Sampled : 08-July-1994
 Attention : Noel Garza
 Analysis No. : 07010-2
ANALYSIS**MG/L EQ. WT. *MEQ/L**

1. pH 8.550
 2. Specific Gravity 60/60 F. 1.069
 3. CaCO₃ Saturation Index @ 80 F. -0.303
 @ 140 F. +0.617

Dissolved Gases

4. Hydrogen Sulfide 10.8
 5. Carbon Dioxide Not Determined
 6. Dissolved Oxygen Not Determined

Cations

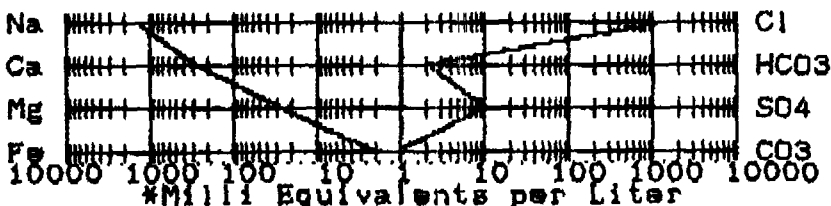
7. Calcium (Ca⁺⁺) 5,451 / 20.1 = 271.19
 8. Magnesium (Mg⁺⁺) 340 / 12.2 = 27.87
 9. Sodium (Na⁺) (Calculated) 32,958 / 23.0 = 1,432.83
 10. Barium (Ba⁺⁺) Not Determined

Anions

11. Hydroxyl (OH⁻) 0 / 17.0 = 0.00
 12. Carbonate (CO₃⁼) 0 / 30.0 = 0.00
 13. Bicarbonate (HCO₃⁻) 134 / 61.1 = 2.19
 14. Sulfate (SO₄⁼) 540 / 48.6 = 11.07
 15. Chloride (Cl⁻) 60,979 / 35.5 = 1,717.72
 16. Total Dissolved Solids 100,399
 17. Total Iron (Fe) 96 / 18.2 = 2.06
 18. Total Hardness As CaCO₃ 15,013
 19. Resistivity @ 75 F. (Calculated) 0.092 /cm.

LOGARITHMIC WATER PATTERN

*meq/L.


 Calculated Calcium Sulfate solubility in
 this brine is 2,539 mg/L. at 90 F.
PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	*meq/L	= mg/L.
Ca(HCO ₃) ₂	81.04	2.19	178	
CaSO ₄	68.07	11.07	753	
CaCl ₂	55.50	257.94	14,315	
Mg(HCO ₃) ₂	73.17	0.00	0	
MgSO ₄	60.19	0.00	0	
MgCl ₂	47.62	27.87	1,327	
NaHCO ₃	84.00	0.00	0	
NaSO ₄	71.03	0.00	0	
NaCl	58.46	1,431.91	83,710	

Analyst

Remarks and Comments:

**Indian Hills State Comm Well No. 7
Proposed Injection Well
Attachment to C - 108
(Part 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.

Injection Zone

Geological Name: Siluro - Devonian

Lithology: Dolomite / Limestone

Thickness: $\pm$ 1000 ft

Depth: 10,000 ft

Drinking Water - Overlying

Geological Name: Alluvian

Depth to bottom: 50 ft (?)

Geological Name: Lower Queen

Depth to bottom: 900 ft

Above data based upon publication: Geology and Ground Water Resources of Eddy County, New Mexico.

Drinking Water - Underlying

None

**Indian Hills State Comm Well No. 7
Proposed Injection Well
Attachment to C - 108
(Part XIII)**

Offset Operators

1. Yates Petroleum Corporation
105 South 4th
Artesia, New Mexico 88210
2. Conoco Incorporated
10 Desta Drive Suite 100 West
Midland, Texas 79705
3. McKay Oil
P.O Box 2014
Roswell, New Mexico 88202
4. Ellwood Oil
c/o Southwest Royalties, Inc.
P.O. Box 11390
Midland, Texas 79702

Surface Owners

1. State of New Mexico
State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87504-1148

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

Amy McKay

being first duly sworn, on oath says:

That she is Business Manager
of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

July 14, 19 94
_____, 19____
_____, 19____
_____, 19____
_____, 19____
_____, 19____

That the cost of publication is \$ 18.10,
and that payment thereof has been made and will
be assessed as court costs.

Amy McKay

Subscribed and sworn to before me this

18 day of July, 19 94
Edith L. Garm

My commission expires 01/18/98
Notary Public

July 14, 1994

Proposed Injection Well

Marathon Oil Company, as Operator, proposes to deepen and convert the Indian Hills State Comm Well No. 7 to water disposal service. The location of the well is 1650' FNL and 1980' FWL, Section 36, Township 20 South, Range 24 East, Eddy County New Mexico. The zone to be injected is the Siluro-Devonian from 10,000 ft to 11,000 ft with a maximum injection rate of 15,000 BWPD, and a maximum injection pressure of 2200 psig. Any interested party with objection or request of hearing should notify the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within fifteen (15) days of this notice. Any questions should be directed to R.A. Biernbaum of Marathon Oil Company at P.O. Box 552, Midland, Texas 79702 or telephone (915) 682-1626.

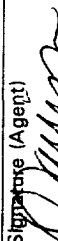
RECEIVED

VERIFIED BY _____

JUL 20 1994

MARATHON OIL COMPANY
MID-CONTINENT REGION
MIDLAND, TEXAS

Back-up

1. ☐ Complete items 3, 4 and 5. 2. ☐ Print your name and address on the reverse of this form so that we can return this card to you. 3. ☐ Attach this form to the front of the mailpiece, or on the back if space does not permit. 4. ☐ Write "Return Receipt Requested" on the mailpiece below the article number. 5. ☐ 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: FULLWOOD OIL 50 SOUTHWEST ROYALTIES P.O. BOX 11390 MIDLAND, TX 79702		4a. Article Number P 237011 203	
4b. Service Type ☐ Registered ☒ Certified ☐ Express Mail ☐ Return Receipt for Merchandise		5. Date of Delivery 7-22-94	
5. Signature (Addressee) 		6. Addressee's Address (Only if requested and fee is paid)	
6. Signature (Agent) 		7. Addressee's Address (Only if requested and fee is paid)	
PS Form 3811, December 1991 ☆ U.S.G.P.O. : 1992-307-530			

SENDER: • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • 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: CONOCO INCORPORATED 10 DESTA DRIVE SUITE 100W MIDLAND, TX 79705		4a. Article Number P 237 011 201	
		4b. Service Type ☐ Registered ☒ Certified ☐ Insured ☐ COD ☐ Express Mail ☒ Return Receipt for Merchandise	
5. Signature (Addressee)		7. Date of Delivery 7-22-94	
6. Signature (Agent) <i>Ante Gonzalez</i>		8. Addressee's Address (Only if requested and fee is paid)	
PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 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, and 4a & b.
- 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.

3. Article Addressed to:

MEKAY OIL
P.O. Box 2014
Roswell, NM 88202

4a. Article Number

P 237 011 202

4b. Service Type

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

7.25.94

5. Signature (Addressee)

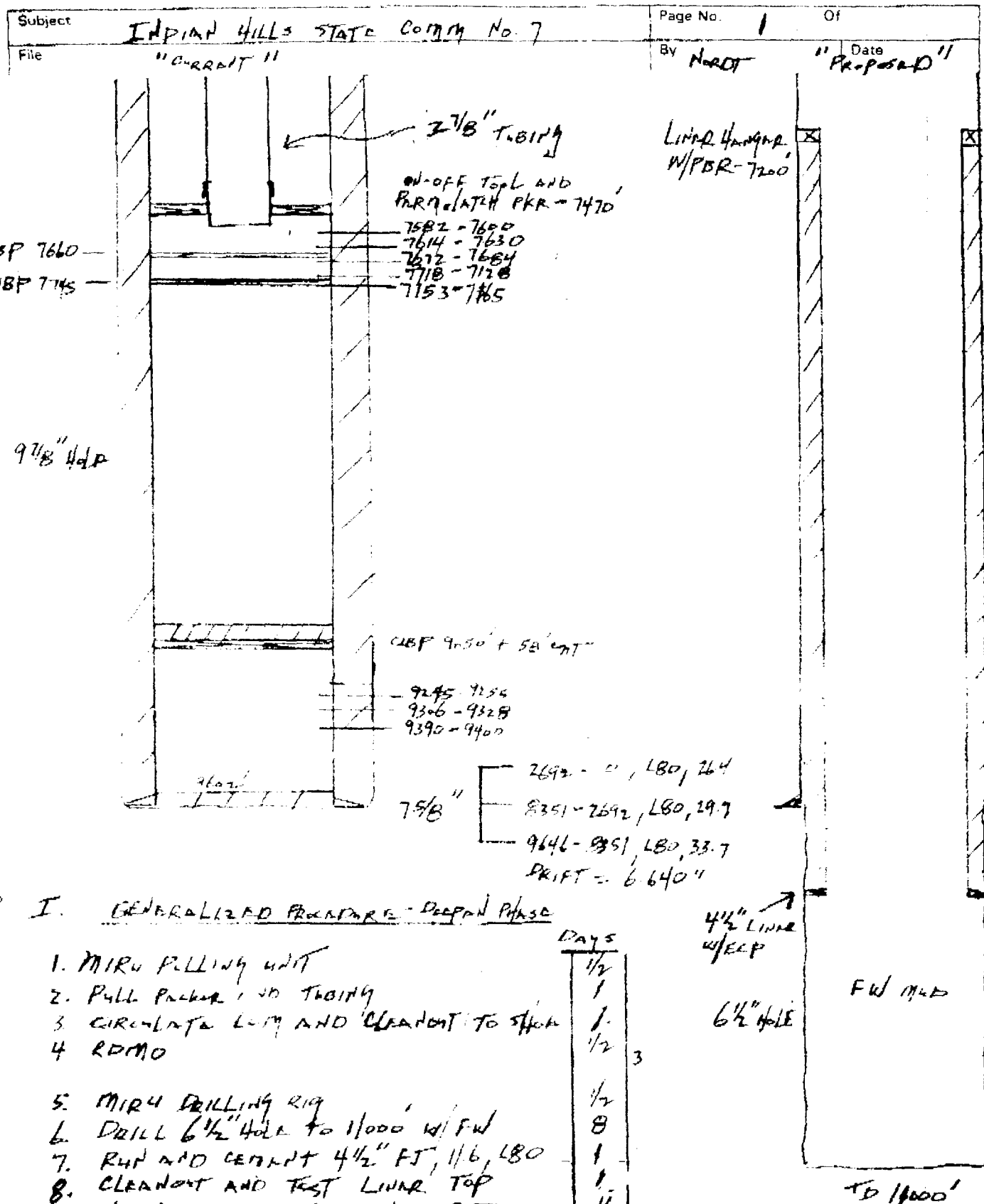
6. Signature (Agent)

[Signature]

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

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

Thank you for using Return Receipt Service.



I. GENERALIZED PROCEDURE - DEEPEN PHASE

1. MIRM PULLING UNIT
2. PULL Packer AND TUBING
3. CIRCULATE LHM AND CLEANOUT TO STOP
4. ROMO
5. MIRM DRILLING RIG
6. DRILL 6 1/2" HOLE TO 10000' W/ FW
7. RUN AND CEMENT 4 1/2" FT, 11/6, L80
8. CLEANOUT AND TEST LINER TOP
9. CLEANOUT AND TEST LINER BOTTOM
10. CLEANOUT TO TD
11. RUN 3 1/2" TUBING
12. GET FULL INJECTION HEAD
13. ROMO

DAYS	
1/2	
1	
1	
1/2	
1/2	3
1/2	
8	
1	
1	
1/2	
1/2	
1/2	
1/2	
1/2	1
1/2	16.5

OPERATOR: Marathon Oil Co.WELL NAME & NO: Indian Hills St. 16.7LOCATION: 1650 FEET FROM THE North LINE AND 1980 FEET FROM THE West LINEOF SECTION 36, TOWNSHIP 20 South, RANGE 24 East, NMPM, Eddy COUNTY, N.M.
*****2/9/95
SCHEMATIC3 1/2" Tbg @ 7470'1085'10 3/4" CSG @ 1085' w/ 13005XCement CirculatedD.V. Tool @ 6013'7200'Rematch Packer @ 7470'Upper Penn Perforations 7625'-7765'Narrow Perforations 9245'-9400'7 5/8" CSG @ 9650' w/1375/1260 SX Circulated.They will squeeze Penn Perfs7625'-7765'. Set linerat ~ 9000' covering narrowPerfs. Circulate liner.Pressure test top & bottomof liner & Run CBL.Okay by DE.4 1/2" liner 7200'-10,000'Circulated.Injection Interval - 10,000'-11,000'T.D. - 11,000'

36-28-342