

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Expires August 31, 1985

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—" for such proposals.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐
2. NAME OF OPERATOR  
Merrion Oil & Gas Corporation
3. ADDRESS OF OPERATOR  
P. O. Box 840, Farmington, NM 87499
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

1980' FSL and 330' FWL

L

14. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6,825' GR

5. LEASE DESIGNATION AND SERIAL  
NM 12012
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME  
Media Entrada Unit
8. FARM OR LEASE NAME  
Media Entrada Unit
9. WELL NO.  
3
10. FIELD AND POOL OR WILDCAT
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec 14, T19N, R3W
12. COUNTY OR PARISH 13. STATE  
Sandoval NM

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

NOTICE OF INTENTION TO:

- TEST WATER SHUT-OFF ☐ PULL OR ALTER CASING ☐  
FRACTURE TREAT ☐ MULTIPLE COMPLETE ☐  
SHOOT OR ACIDIZE ☐ ABANDON\* ☐  
REPAIR WELL ☐ CHANGE PLANS ☒ (Other) ☐

Convert to Injection

SUBSEQUENT REPORT OF:

- WATER SHUT-OFF ☐ REPAIRING WELL ☐  
FRACTURE TREATMENT ☐ ALTERING CASING ☐  
SHOOTING OR ACIDIZING ☐ ABANDONMENT\* ☐  
(Other) ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

We plan to convert the subject well to injection to expand the existing secondary recovery project in the Media Entrada Unit. This proposal is in accordance with the field-wide plan approved by your office on 4-20-90. Attached for your approval is the 9 point NTL-2B application. Also enclosed for your information is the State C-108 permit application. If additional information is required, please contact George Sharpe at 327-9801.

RECEIVED  
OCT 5 1990  
OIL CON. DIV.  
DIST. 3

18. I hereby certify that the foregoing is true and correct

SIGNED George F. Sharpe

TITLE Reservoir Engineer

DATE May 29, 1990

(This space for Federal or State office use)

APPROVED BY Don Wood  
CONDITIONS OF APPROVAL, IF ANY:

AREA MANAGER  
TITLE RIO PUERCO RESOURCE AREA  
NMOCD

DATE JUN 5 1990

\*See Instructions on Reverse Side

MERRION OIL & GAS CORPORATION

MEDIA ENTRADA UNIT NO. 3

NTL-2B APPLICATION FOR APPROVAL  
TO INJECT PRODUCED WATER

LOCATION: 1980' FSL & 330' FWL                      ELEVATION: 6842' KB  
          Section 14, T19N, R3W                      6825' GL  
          Sandoval County, New Mexico

PREPARED BY: George F. Sharpe                      DATE: 5/25/90

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1) Injection Well  
Media Entrada Unit #3  
1980' FSL 330' FWL  
Sec. 14, T19N, R3W  
Lease: NM 12012

2) Proposed Injection Rate:  $\pm$  2500 BPD  
Source: Entrada Produced Water (Analysis Attached)

<u>Production Well</u>	<u>Location</u>	<u>Lease</u>	<u>Formation</u>
Media Entrada Unit #6	SESE Sec 15 19N3W	NM0-58122	Entrada

3) Injection Formation = Entrada 5220'-30'

4) Entrada water analysis attached

5) The Morrison Formation at a depth of  $\pm$  4450' and the Mesaverde Formation at a depth of  $\pm$  390' both contain water with a TDS of less than 10000 ppm. Mesaverde water is produced from one well and is used for ranching in the area. However, neither formation is used as a drinking water source.

6) Attached are wellbore schematics showing the current and proposed hole, casing and cementing detail for the subject well.

7) TD = 5351'  
Current PBTD = 5300'  
Proposed PBTD = 5260'

8) The well is to be completed with 2 3/8" plastic lined tubing and a Baker Lok-set Retrievable packer set @  $\pm$  5150'. The annulus will be protected with inhibited fluid. The anticipated operating conditions are:

	<u>Average</u>	<u>Maximum</u>
Injection Rate (BPD)	1500	3000
Tubing Pressure (psi)	500	1000

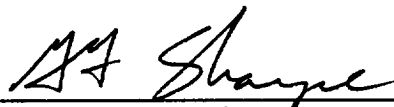
Media Entrada Unit #3  
Injection

-2-

Application for Water

9) Rates and pressures will be monitored daily. The tubing casing annulus and packer will be pressure tested prior to commencing injection and at least once every 5 years thereafter.

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



---

George F. Sharpe  
Petroleum Engineer

5-30-90

---

Date

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : MERRION OIL & GAS

Date : 01-09-1990

Location: Media - Entrada #6 (on 9-13-89)

Specific Gravity:	<u>Sample 1</u>
Total Dissolved Solids:	1.013
pH:	17838
IONIC STRENGTH:	7.50
	0.351

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca <sup>+2</sup> )	14.4	288
Magnesium	(Mg <sup>+2</sup> )	8.80	107
Sodium	(Na <sup>+1</sup> )	256	5890
Iron (total)	(Fe <sup>+2</sup> )	0.014	0.400
Barium	(Ba <sup>+2</sup> )	0.003	0.200

<u>ANIONS:</u>			
Bicarbonate	(HCO <sub>3</sub> <sup>-1</sup> )	7.20	439
Carbonate	(CO <sub>3</sub> <sup>-2</sup> )	0	0
Hydroxide	(OH <sup>-1</sup> )	0	0
Sulfate	(SO <sub>4</sub> <sup>-2</sup> )	116	5550
Chloride	(Cl <sup>-1</sup> )	157	5560

SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		<u>Calcium</u>	<u>Calcium</u>
		<u>Carbonate</u>	<u>Sulfate</u>
86°F	30°C	0.21	-9.4
120°F	49°C	1.1	-9.4

**MEDIA ENTRADA UNIT NO. 3**  
**PRESENT WELLBORE SKETCH**  
 8/3/89

15" Hole Size

*Mesquite*  
*Csg Leaks*  
 556-590  
 1000-1327

8-3/4" Hole Size

*Gallup*  
*Csg leaks*  
 2562-3225

TOC @ 3,340'

10-3/4", 40#/ft cmt'd w/  
 140 sx  
 217'

7", 20 and 23#/ft,  
 cmt'd w/ 300 sx (bottom 601' is  
 23#)

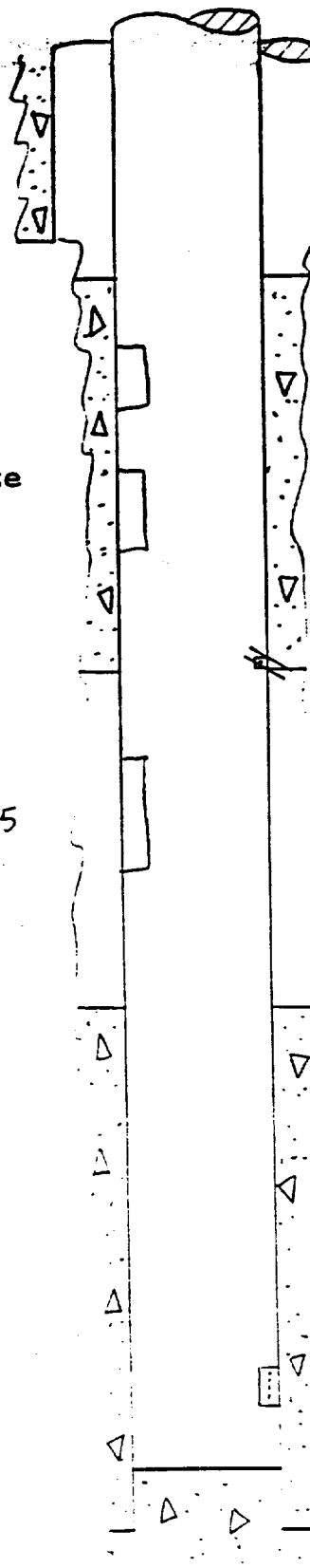
1,786' - 1,817' csg leak sqz'd  
 w/ 150 sxs Cl "G" + 6% gel (247  
 ft<sup>3</sup>) and 150 sx Cl "G" w/ 1% D65  
 + 1% CaCl (163 ft<sup>3</sup>)

2 Sqz holes @ 2,240'

Entrada perfs  
 5,206' - 54' (96 holes)

PBTD @ ± 5,300'

7" @ 5,340'  
 TD @ 5,351'



MEDIA ENTRADA UNIT NO. 3  
FUTURE WELLBORE SKETCH  
8/3/89

6FS  
5-21-90

1980' FSL 330' FWL  
Sec 14 19N 3W  
Sandoval Co, NM

KB-6842'  
GL-6825'

Formation Tops:

Mesaverde 380'  
Gallup 2790'  
Dakota 4202'  
Morrison 4456'  
Entrada 5218'

TOC @ 3,340'

2 3/8" P.L. Tbg @ 5240'

Lockset Retrievable Pkr  
@ ± 5150'

4 1/2" 10.5# csg @ 5300'  
Cement w/ 600 sx, G  
w/ 75% D65  
5#/sk gilsonite

4 1/2" capacity = .0895 ft<sup>3</sup>/ft  
4 1/2"-7" annulus = .1106 ft<sup>3</sup>/ft

15" hole  
10-3/4", 40#/ft cmt'd w/  
140 sx  
217'

8 3/4" hole  
7", 20 and 23#/ft,  
cmt'd w/ 300 sx (bottom 601' is  
23#)

1,786' - 1,817' csg leak sqz'd  
w/ 150 sxs Cl "G" + 6% gel (247  
ft<sup>3</sup>) and 150 sx Cl "G" w/ 1% D65  
+ 1% CaCl (163 ft<sup>3</sup>)

2 Sqz holes @ 2,240'

New Entrada Perfs:  
5220-30

Old Entrada perfs - Squeezed  
5,206' - 54' (96 holes)

PBTD @ ± 5,300' 5260'

7" @ 5,340'  
TD @ 5,351'

**MERRION OIL & GAS CORPORATION**

**MEDIA ENTRADA UNIT NO. 3**

**CONVERSION TO INJECTION**

LOCATION: 1980' FSL & 330' FWL ELEVATION: 6842' KB  
Section 14, T19N, R3W 6825' GL  
Sandoval County, New Mexico

PREPARED BY: George Sharpe DATE: 5/21/90

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- 1) MIRU. NU BOPs. Pick up and RIH with  $\pm$  5300' of Plastic Coated 2-3/8", 4.7#, EUE tubing. Tag PBTD at 5300'.
- 2) Pull to 5260'. Spot cement plug w/40 sx Class "G" with 2% CaCl from 5260' to 5060'. Pull to 5050' and reverse clean. Squeeze away small volume of cement at low pressure to seal off perforations. WOC.
- 3) POOH. RIH with 6-1/8" bit and DOC. Clean out hole to 5300' PBTD. POOH.
- 4) Pick up and RIH with 4-1/2" casing guide, 1 joint of 4-1/2", 10.5#, J-55 casing, 4-1/2" float collar, and 5260' of 4-1/2" casing. Land at PBTD. (7" ID = 6.241, 4-1/2" casing coupling = 5.93", annular capacity = .1106 ft<sup>3</sup>/ft.)
- 5) Establish circulation. Cement liner with 600 sx Class "G" with 0.75% D65 friction reducer and 2#/sk gilsonite lost circulation material (15.6 ppg, 1.19 cu ft/sk). Drop wiper plug and displace with  $\pm$  103 bbls water. WOC.
- 6) If no cement returns to surface, run temperature log to determine top of cement. Perforate and squeeze as necessary.
- 7) RIH with 4-1/2" casing scraper on 2-3/8" PC tubing. Clean out hole to float collar.
- 8) Pull to 5200'. Spot 500 gal 15% HCl down tubing. POOH.
- 9) Run GR-CCL log for correlation. RIH with 3-1/8" casing guns and perforate 5220'-30' with 4 SPF (10-22-71 GR-Density Log). POOH.
- 10) Bullhead acid away down casing with  $\pm$  50 bbl produced water.
- 11) RIH with 2-3/8" mule shoe, XN nipple, 3 joints tubing, and 4-1/2" Lockset retrievable packer on 2-3/8" PC tubing. Set packer at  $\pm$  5150' (tubing tail should extend at least 10' below perfs).

- 12) Test casing to 1000 psi. Release packer and circulate inhibited packer fluid. Set packer and test casing to 1000 psi for 15 minutes for UIC test. Record results on round chart. (Notify NMOCD 24 hours prior to UIC test.)
- 13) Nipple down BOPs. NU Tree. RDMOL.

GFS/eg

APPROVED: \_\_\_\_\_

DATE: \_\_\_\_\_



MERRION OIL & GAS CORPORATION

610 REILLY AVE. • P. O. Box 840  
FARMINGTON, NEW MEXICO 87499

May 30, 1990

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

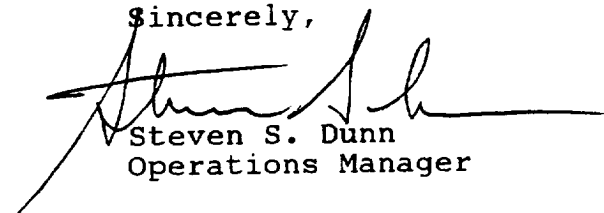
RE: C-108 Injection Permit Application  
Media Entrada Unit #3  
Section 14, T19N, R3W  
Sandoval County, New Mexico

Dear Mr. Stogner:

We are planning on converting the Media Entrada Unit #3 to injection to expand an existing secondary recovery waterflood in the Entrada formation. Attached is a Form C-108 for the proposed conversion.

If additional information is required, please contact Mr. George Sharpe at (505) 327-9801.

Sincerely,



Steven S. Dunn  
Operations Manager

GFS/lis

CC: Well File  
Dan Wood-BLM, Albuquerque, NM  
Frank Chavez-NMOCD, Aztec, NM  
Lasrich Company-Sandy, Utah  
Cherry Dental Service, Ltd.-Decatur, Georgia  
Pat Hegarty

# APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: Merrion Oil & Gas Corporation

Address: P. O. Box 840, Farmington, New Mexico 87499

Contact party: George F. Sharpe Phone: (505) 327-9801

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 R-5017

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: George F. Sharpe Title: Reservoir Engineer

Signature: *George F. Sharpe* Date: May 24, 1990

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.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate division district office.

FORM C-108  
OIL CONSERVATION DIVISION

Media Entrada Unit #3  
Application for Authorization to Inject

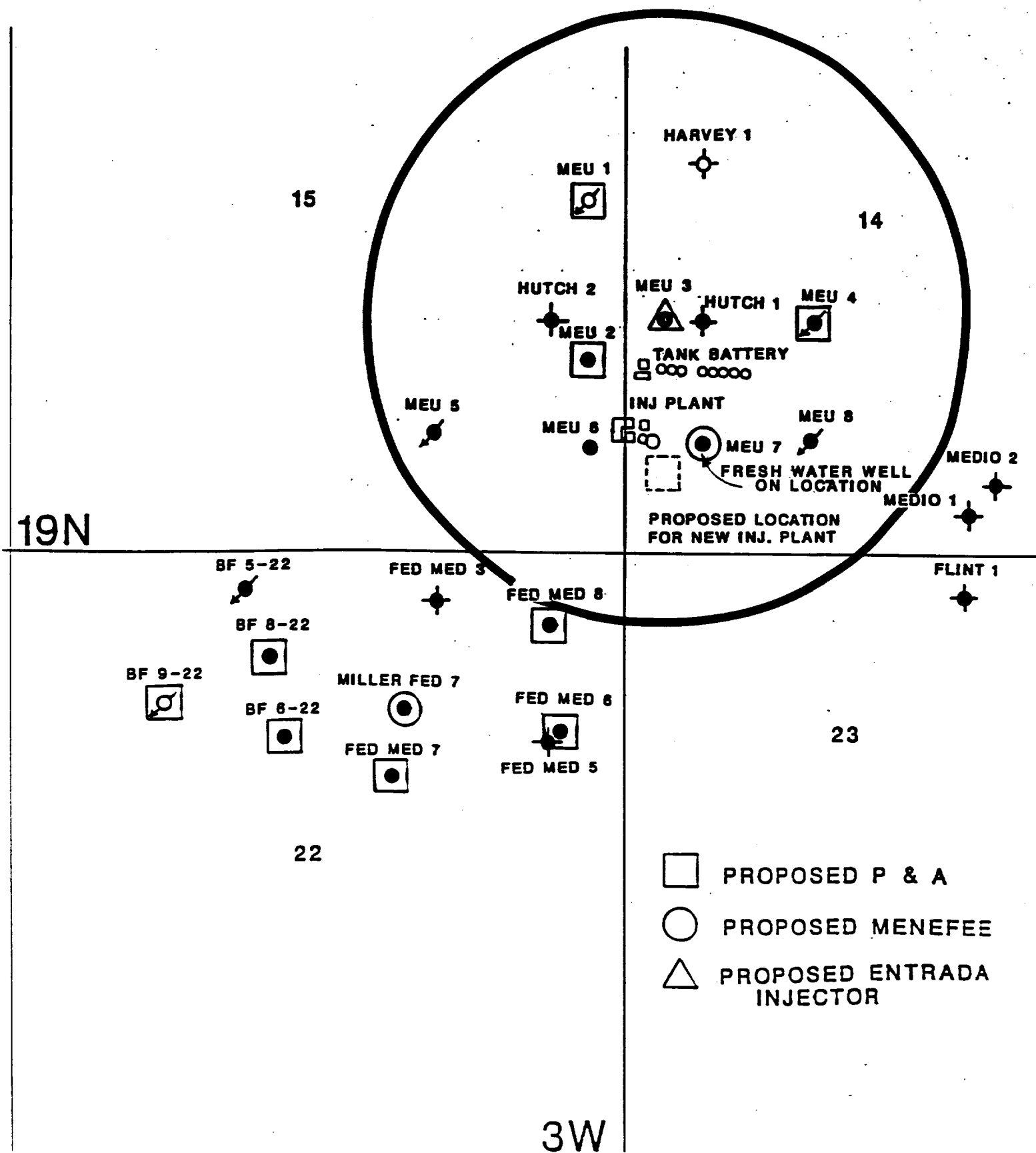
5/24/90

- I. Secondary Recovery Project
- II. Merrion Oil & Gas Corporation  
P. O. Box 840, Farmington, New Mexico 87499  
Contact: George Sharpe (505) 327-9801
- III. Well Data Sheet Attached for Media Entrada Unit #3
- IV. Expansion of Existing Project (NMOCD Order R-5017)
- V. Map Attached
- VI. Well Data Summary Sheet Attached  
Wellbore Schematics Attached
- VII. Operating Data:
- 1) Average injection rate = 1500 BPD  
Maximum injection rate = 3000 BPD
  - 2) Closed system = (ie. reinjection of produced water).  
However, tanks vented to atmosphere.
  - 3) Average injection pressure = 500 psi  
Maximum injection pressure = 1000 psi
  - 4) Reinjection of Entrada produced water - TDS = 17800  
ppm, analysis attached
- VIII. Geologic Information
- Top Entrada: 5218'  
Thickness: +- 200'  
Lithology: ss, grey-white, medium-coarse grained,  
subround-rounded, friable, porous
- Overlying Aquifers: Mesaverde Formation +- 390' top  
Morrison Formation +- 4450' top.  
(Although these are not used for drinking water in  
the area, the TDS is less than 10,000 ppm).
- Underlying Aquifer: None

FORM C-108 OIL CONSERVATION DIVISION  
Page Two  
May 24, 1990

- IX. No stimulation planned.
- X. Existing Well - Logs previously submitted and on file at district office.
- XI. A Mesaverde water well on same location as Media Entrada Unit #7 is used for ranching. Well is currently inactive, so no water analysis available.
- XII. Extensive seismic data acquired in this field would suggest no fault communication between any stratigraphic horizon.
- XIII. Proof of Notice Attached
- XIV. Certification - Signed on Original

# PROPOSED WELLWORK MEDIA FIELD



## INJECTION WELL DATA SHEET

SIDE 1

OPERATOR LEASE  
 Merrion Oil & Gas Corporation NM 12012  
WELL NO. PORTAGE LOCATION SECTION TOWNSHIP RANGE  
 Media Entrada Unit #3 1980' FSL, 330' FWL Sec 14 19N 3W

Schematic

Attached

Tabular DataSurface Casing

Size 10 3/4" Cemented with 140 cu.  
 TBC Surf feet determined by circulation  
 Hole size 15"

Intermediate Casing

Size 7" Cemented with 300 cu.  
 TBC 3340' feet determined by calculation  
 Hole size 8 3/4"

Liner string

Proposed liner  
to surface

Size 4 1/2" Cemented with 600 cu.  
 TBC Surf feet determined by circulation  
 Hole size 7" casing  
 Total depth 5351'

Injection interval

5220' feet to 5230' feet perfd  
 (perforated or open-hole, indicate which)

## INJECTION WELL DATA SHEET

Side 2

## INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with plastic coated set in a  
 (material)  
Baker lockset retrievable packer at 5150' feet  
 (brand and model)  
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Entrada
- Name of Field or Pool (if applicable) Media Entrada
- Is this a new well drilled for injection? ☐ Yes ☒ No  
 If no, for what purpose was the well originally drilled? Entrada Producer
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plunging detail (sacks of cement or bridge plug(s) used) no
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.  
Undesignated Mesaverde - 390' top  
Media Gallup - 2800' top

MEDIA ENTRADA UNIT NO. 3  
PRESENT WELLBORE SKETCH  
8/3/89

15" Hole Size

Mesa Verde  
Csg Leaks  
556-590  
1000-1327

8-3/4" Hole Size

Gallup  
Csg leaks  
2562-3225

TOC @ 3,340'

10-3/4", 40#/ft cmt'd w/  
140 sx  
217'

7", 20 and 23#/ft,  
cmt'd w/ 300 sx (bottom 601' is  
23#)

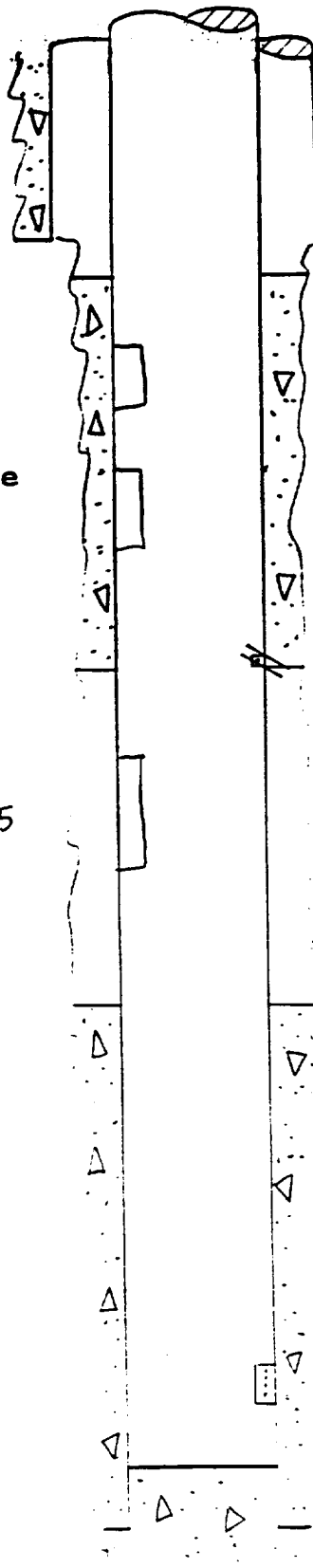
1,786' - 1,817' csg leak sqz'd  
w/ 150 sxs Cl "G" + 6% gel (247  
ft<sup>3</sup>) and 150 sx Cl "G" w/ 1% D65  
+ 1% CaCl (163 ft<sup>3</sup>)

2 Sqz holes @ 2,240'

Entrada perfs  
5,206' - 54' (96 holes)

PBTD @ ± 5,300'

7" @ 5,340'  
TD @ 5,351'



MEDIA ENTRADA UNIT NO. 3  
FUTURE WELLBORE SKETCH  
8/3/89

6FS  
5-21-90

1980 FSL 330' FWL  
Sec 14 19N 3W  
Sandoval Co, NM

KB-6842'  
GL-6825'

Formation Tops:

Mesaverde 380'  
Gallup 2790'  
Dakota 4202'  
Morrison 4456'  
Entrada 5218'

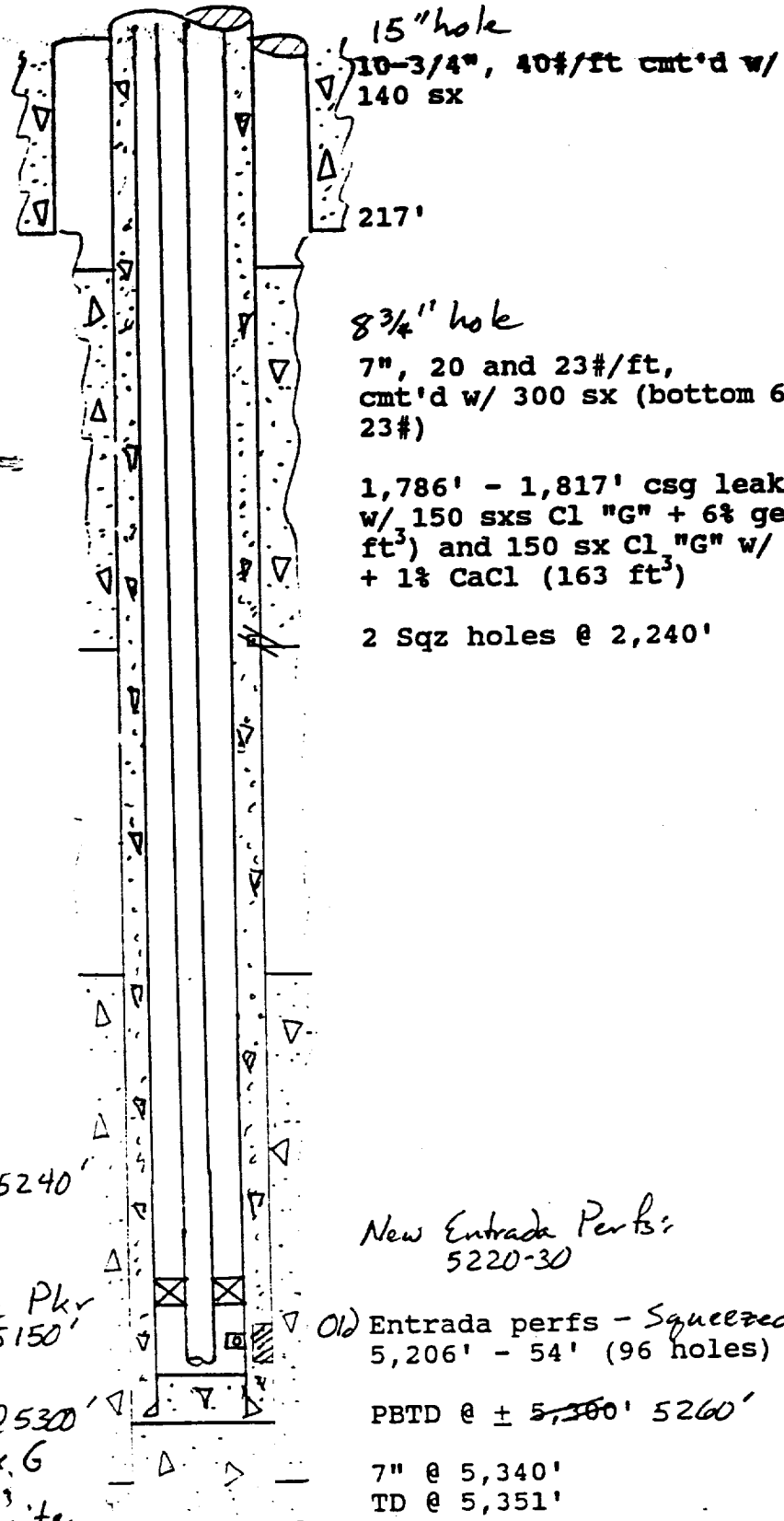
TOC @ 3,340'

2 3/8" P.L. +bg @ 5240'

Lockset Retrievable Pk  
@ ± 5150'

4 1/2" 10.5# csg @ 5300'  
Cement w/ 600 sx, G  
w/ 75% D65  
5#/sk gilsonite

4 1/2" capacity = .0895 ft<sup>3</sup>/ft  
4 1/2"-7" annulus = .1106 ft<sup>3</sup>/ft



8 3/4" hole

7", 20 and 23#/ft,  
cmt'd w/ 300 sx (bottom 601' is  
23#)

1,786' - 1,817' csg leak sqz'd  
w/ 150 sxs Cl "G" + 6% gel (247  
ft<sup>3</sup>) and 150 sx Cl "G" w/ 1% D65  
+ 1% CaCl (163 ft<sup>3</sup>)

2 Sqz holes @ 2,240'

New Entrada Perfs:  
5220-30

Old Entrada perfs - Squeezed  
5,206' - 54' (96 holes)

PBTD @ ± 5,300' 5260'

7" @ 5,340'  
TD @ 5,351'



**MERRION OIL & GAS CORPORATION**

**MEDIA ENTRADA UNIT NO. 3**

**CONVERSION TO INJECTION**

**LOCATION:** 1980' FSL & 330' FWL  
Section 14, T19N, R3W  
Sandoval County, New Mexico

**ELEVATION:** 6842' KB  
6825' GL

**PREPARED BY:** George Sharpe

**DATE:** 5/21/90

- 
- 1) MIRU. NU BOPs. Pick up and RIH with  $\pm$  5300' of Plastic Coated 2-3/8", 4.7#, EUE tubing. Tag PBTD at 5300'.
  - 2) Pull to 5260'. Spot cement plug w/40 sx Class "G" with 2% CaCl from 5260' to 5060'. Pull to 5050' and reverse clean. Squeeze away small volume of cement at low pressure to seal off perforations. WOC.
  - 3) POOH. RIH with 6-1/8" bit and DOC. Clean out hole to 5300' PBTD. POOH.
  - 4) Pick up and RIH with 4-1/2" casing guide, 1 joint of 4-1/2", 10.5#, J-55 casing, 4-1/2" float collar, and 5260' of 4-1/2" casing. Land at PBTD. (7" ID = 6.241, 4-1/2" casing coupling = 5.93", annular capacity = .1106 ft<sup>3</sup>/ft.)
  - 5) Establish circulation. Cement liner with 600 sx Class "G" with 0.75% D65 friction reducer and 2#/sk gilsonite lost circulation material (15.6 ppg, 1.19 cu ft/sk). Drop wiper plug and displace with  $\pm$  103 bbls water. WOC.
  - 6) If no cement returns to surface, run temperature log to determine top of cement. Perforate and squeeze as necessary.
  - 7) RIH with 4-1/2" casing scraper on 2-3/8" PC tubing. Clean out hole to float collar.
  - 8) Pull to 5200'. Spot 500 gal 15% HCl down tubing. POOH.
  - 9) Run GR-CCL log for correlation. RIH with 3-1/8" casing guns and perforate 5220'-30' with 4 SPF (10-22-71 GR-Density Log). POOH.
  - 10) Bullhead acid away down casing with  $\pm$  50 bbl produced water.
  - 11) RIH with 2-3/8" mule shoe, XN nipple, 3 joints tubing, and 4-1/2" Lockset retrievable packer on 2-3/8" PC tubing. Set packer at  $\pm$  5150' (tubing tail should extend at least 10' below perms).

- 12) Test casing to 1000 psi. Release packer and circulate inhibited packer fluid. Set packer and test casing to 1000 psi for 15 minutes for UIC test. Record results on round chart. (Notify NMOCD 24 hours prior to UIC test.)
- 13) Nipple down BOPs. NU Tree. RDMOL.

GFS/eg

APPROVED: \_\_\_\_\_

DATE: \_\_\_\_\_

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : MERRION OIL & GAS

Date : 01-09-1990

Location: Media - Entrada #6 (on 9-13-89)

	<u>Sample 1</u>
Specific Gravity:	1.013
Total Dissolved Solids:	17838
pH:	7.50
IONIC STRENGTH:	0.351

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca <sup>+2</sup> )	14.4	288
Magnesium	(Mg <sup>+2</sup> )	8.80	107
Sodium	(Na <sup>+1</sup> )	256	5890
Iron (total)	(Fe <sup>+2</sup> )	0.014	0.400
Barium	(Ba <sup>+2</sup> )	0.003	0.200

<u>ANIONS:</u>			
Bicarbonate	(HCO <sub>3</sub> <sup>-1</sup> )	7.20	439
Carbonate	(CO <sub>3</sub> <sup>-2</sup> )	0	0
Hydroxide	(OH <sup>-1</sup> )	0	0
Sulfate	(SO <sub>4</sub> <sup>-2</sup> )	116	5550
Chloride	(Cl <sup>-1</sup> )	157	5560

SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		<u>Calcium</u>	<u>Calcium</u>
		<u>Carbonate</u>	<u>Sulfate</u>
86°F	30°C	0.21	-9.4
120°F	49°C	1.1	-9.4

WELL DATA SUMMARY  
MEDIA ENTRADA UNIT #3 AREA OF REVIEW

WELL:	HARVEY FED 1	HUTCHISON FED 1	HUTCHISON FED 2	MEU 1	MEU 2	MEU 3	MEU 4	MEU 5	MEU 6	MEU 7	MEU 8
LOCATION:	SNW 14 19N 3W	NWSW 14 19N 3W	NESE 15 19N 3W	SENE 15 19N 3W	NESE 15 19N 3W	NWSW 14 19N 3W	NESW 14 19N 3W	SWSE 15 19N 3W	SESE 15 19N 3W	SWSW 15 19N 3W	SESW 15 19N 3W
CURRENT STATUS:	P&A	P&A	P&A	SHUT IN ENTRADA INJECTOR	SHUT IN ENTRADA PRODUCER	SHUT IN ENTRADA PRODUCER	SHUT IN ENTRADA INJECTOR	ACTIVE ENTRADA INJECTOR	ACTIVE ENTRADA PRODUCER	SHUT IN ENTRADA PRODUCER	ACTIVE ENTRADA INJECTOR
SPUD DATE:	2-7-54	7-3-53	11-18-53	11-29-71	2-18-72	10-10-71	6-30-69	3-10-72	4-14-69	3-26-69	5-18-69
KB ELEV:	6813	6788	6788	6795	6621	6842	6866	6846	6820	6850	6886
TD:	5292	9684	5202	5300	5320	5351	5346	5380	5283	5310	5344
PBTD:	SURF	SURF	SURF	5260	5280	5300	5306	5300	5258	5299	5311
SURFACE CASING:											
SIZE	10-3/4"	10-3/4"	9-5/8"	10-3/4"	10-3/4"	10-3/4"	8-5/8"	10-3/4"	8-5/8"	8-5/8"	8-5/8"
DEPTH	478'	452'	470'	210'	208'	217'	210'	236'	208'	200'	213'
SX CMT	500	550	475	140	140	140	140	140	175	150	175
TOC	SURF	SURF	SURF	SURF	SURF	SURF	SURF	SURF	SURF	SURF	SURF
PRODUCTION CASING:											
SIZE	NA	7"	7"	7"	7"	7"	5-1/2"	7"	4-1/2"	4-1/2"	4-1/2"
DEPTH		5478'	5200'	5300'	5320'	5340'	5346'	5300'	5283'	5310'	5344'
SX CMT		100	500	310	350	300	548	300	300	300	300
TOC		4330'	3580'	3500'	SURF	3340'	2214'	2800'	3683'	1600'	3744'
		CUT @ 2490'	CUT @ 800'								
FORMATION TOPS:											
LEWIS	SURF	SURF	SURF	SURF	SURF	SURF	SURF	SURF	SURF	SURF	SURF
MESAVERDE	300	290	340	334	350	380	402	385	350	390	404
GALLUP	3215	3165	3162	2752	2760	2790	2824	2852	2814	2798	2798
DAKOTA	4190	4209	4174	4284	4170	4202	4250	4224	4186	4216	4272
MORRISON	4440	4440	4432	4422	4434	4456	4451	4444	4436	4466	4515
ENTRADA	5231	5214	5199	5192	5218	5218	5282	5282	5218	5248	5290
CMT THRU ENTRADA?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
COMMENTS:				PLAN TO P&A	PLAN TO P&A	PLAN TO CONVERT TO INJECTION	PLAN TO P&A			PLAN TO RECOMPLETE IN MENEFE	