MERRION
Oil & Gas

January 2, 1996

Dave Catanach
Oil Conservation Division
P.O. Box 6429
Santa Fe, NM 87505-6429

RE: SWD-613, Eagle Mesa Unit #6 (EMU #6), Conversion to Water Injection

Dear Mr. Catanach

We request that you waive the requirement for plastic lined tubing in the subject water disposal well. The NMOCD office in Aztec concurs that the plastic coating is not necessary. While the practice is critical in the southeastern portion of the state, the groundwater is generally less corrosive in this area.

The 4 1/2" casing which will be used for the injection string is not available from the manufacturer in a plastic coated version. A special order for plastic coated 4 1/2" casing would be extremely expensive and the delivery schedule would delay the project. Smaller diameter plastic coated tubing is readily available, but this is not typical for larger sized tubular goods. The injection string is sized for the large volume of water to be injected. Smaller diameter tubing would create excessive pressure losses due to friction. For these reasons, it is not practical or economical to use plastic coated tubing in this well. If corrosion is a problem, there is significantly greater wall thickness in the larger injection string as compared to the typical 2 3/8" tubing used for injection. The greater wall thickness would provide additional protection against external corrosion as well, if the outer casing develops a leak. Therefore, we request that the plastic coating requirement be waived.

Sincerely

Connie Dinning
Engineer

610 Reilly Avenue, Farmington, New Mexico 87401-2634, 505-327-9801/505-326-5900 (Fax)

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: Merrion Oil & Gas Corp. Well: Federal 11 Y No 1

Contact: Connie Dinning Title: Engineer Phone: 505-327-9801

DATE IN 10 31 RELEASE DATE 11-15-95 DATE OUT 11-28-95

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

5 Total # of AOR 0 # of Plugged Wells

Yes Tabulation Complete N/A Schematics of P & A's

Yes Cement Tops Adequate Yes AOR Repair Required *

INJECTION FORMATION

Injection Formation(s) Entrada Compatible Analysis Yes

Source of Water or Injectate Area Production

PROOF of NOTICE

✓ Copy of Legal Notice ✓ Information Printed Correctly

✓ Correct Operators ✓ Copies of Certified Mail Receipts

No Objection Received N/A Set to Hearing _____ Date

NOTES: * P&A for Eagle Mesa #1 prior to injection

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 11-15-95

STATE OF NEW MEXICO
ENERGY, MINERALS and NATURAL
RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
PO BOX 2088
SANTA FE, NM 87504-2088

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance XX Disposal _____ Storage
Application qualifies for administrative approval? XX Yes ___ No

II. OPERATOR: Merrion Oil & Gas

ADDRESS: P.O. Box 840, Farmington, NM 87499

CONTACT PARTY: Connie Dinning PHONE: (505)327-9801

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. Attachments

IV. Is this an expansion of an existing project: ___ Yes XX 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. Attachment

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. Attachments

VII. Attach data on the proposed operation, including: Attachments

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. Attachments

IX. Describe the proposed stimulation program, if any. Attachment

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.) On File

* 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. No Fresh Water

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. Attachment

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: Connie Dinning TITLE: Engineer

SIGNATURE: _____ DATE: 10/26/95

* 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. _____

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

III. WELL DATA Attachment

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 Notice from Albuquerque Journal Attached

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.

Note: Surface land owner is BLM, no other oil & gas operators in the area of review.

APPLICATION FOR AUTHORIZATION TO INJECT SECTION III - WELL DATA

Federal 11C #1, Convert to Water Injection

A.				
1)	**Well Name**: Federal 11C #1			**Location**: 330' fsl & 330' fel, Sec 11, T19N, R4W
2)	**Casing:**			
	Size	*Depth Set*	*Hole Size*	*Cement Record*
	10 3/4"	203'	15"	250 sx
	7"	5465'	8 3/4"	825 sx, 2 stages
				1st Stg cemented to DV tool (Driller's notes)
				2nd Stg lost circulation, TOC @ 3070' from CBL
3)	**Tubing:**	4 1/2", 10.5# (casing material)		
		Set @ depth to be determined when packer assembly is made up		
		No Internal Lining		
4)	**Packer:**	Mountain States Model Arrowset IX, Retrievable Casing Packer		
		Set @ 5460'		
B.				
1)	**Name of Pool/Formation:**			Eagle Mesa Entrada
2)	**Injection Interval:**		5469' - 5569', Open Hole	
3)	**Original Purpose of Well:**			Oil Producer
4)	**No other intervals are perforated in this wellbore.** No intervals were perforated during			
		the P&A work		
5)	**There are no other producing zones in the area.** The Dakota, Gallup and Mesa Verde			
		are present as illustrated on the wellbore diagram, but they are not productive.		

MEXICO OIL CONSERVATION COMMIS

WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator: FILON EXPLORATION COMPANY	Lease: FEDERAL		Well No.: 11C
Unit Letter: P	Section: 11	Township: 19 NORTH	Range: 4 WEST	County: SANDOVAL
Actual Footage Location: 330 feet from the SOUTH line and 330 feet from the EAST line			
Ground Level Elev.: 6683.0	Producing Formation: Entrada	Pool: Un-named	Dedicated Acreage: 40

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

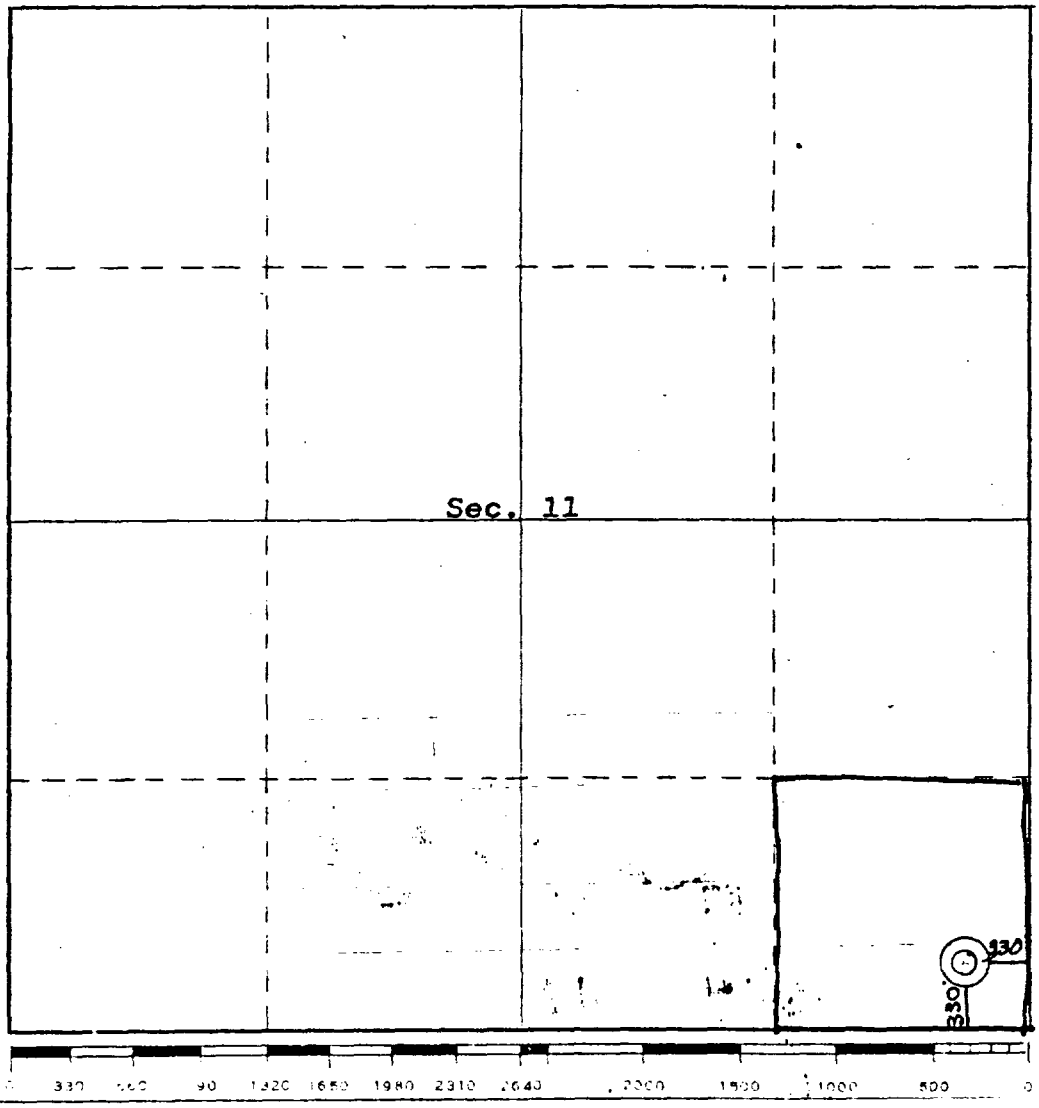
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation ILLEGIBLE

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: J. Arnold Snell

Position: Area Manager

Company: Minerals Management Inc.

Date: August 20, 1975

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

NEW MEXICO REGISTERED LAND SURVEYOR JAMES P LEESE NO 1463

Date Surveyed: 15 August, 1975

Registered Professional Engineer and/or Land Surveyor: James P. Leese

Certificate No.: 1463

Merrion Oil & Gas Corporation
Wellbore Schematic
Federal 11C-1

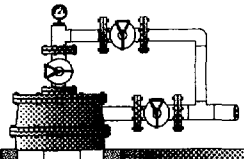
Proposed Wellbore Configuration

Location: 330' fsl & 330'fel (se se)
Sec 11, T19N, R4W NMPM
Sandoval County, New Mexico

Prepared: 10/19/95

Elevation: 6,644' GL

By: Connie Dinning



Top of Cmt @ Surface

Bit Size - 15"

10 3/4" Surface Csg @ 203' KB w/ 250sx

Mesa Verde - 750'

Bit Size 8 3/4"

Top of Cement @ 3070', Cement Bond Log

Gallup - 3,222'

2nd Stage DV tool @ 3,512' w/ 525sx 65/35 poz mix w/
2# Tuff Plug/sk & 50 sx class "B", lost circ pumping plug

4 1/2", 10.5# Casing, Set @ 5,460' (set as injection string)

Dakota - 4,477'

Tubing/Packer assembly is as follows:
1. 4 1/2"x 3 1/3" swage
2. Mountain States Model "F" seating nipple
3. Mountain States type T-2, on-off tool
4. Mountain States Model "Arrowset IX" retrievable casing packer

15' Anhydrite
10' Limestone

7" 23# Range 3 Production Csg @ 5,465' w/ 175sx class "B" w/ 4% gel &
2# tuff plug/sk, 75 sx "B" w/ 5% salf, circulated

Entrada - 5,469'
(Todilto Sandstone,
Eolian Dune Sand)
Approximately 250' Thick
Projected TD will be 5,569' KB'

TD @ 5,484'KB PBTD - Cleaned out to 5470', then circ bottoms up

Entrada, open hole completion, 5,476' - approximately 5,569' (Depending upon thickness of Entrada Formation)

Merrion Oil & Gas Corporation
Wellbore Schematic
Federal 11C-1

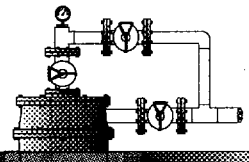
Current Wellbore Configuration

Location: 330' fsl & 330'fel (se se)
Sec 11, T19N, R4W NMPM
Sandoval County, New Mexico

Prepared: 10/19/95

Elevation: 6,644' GL

By: Connie Dinning



Top of Cmt @ Surface

Bit Size - 15"

10 3/4" Surface Csg @ 203' KB w/ 250sx

Plug #6: 20 sx Surface Csg Annulus

Plug #5: 250' - Surface w/ 47 sx

mud

Plug #4: 700' - 520' w/ 33 sx

Mesa Verde - 750'

mud

Bit Size 8 3/4"

Top of Cement @ 3070', Cement Bond Log

Gallup - 3,222'

Plug #3: 3,275' - 3,095' w/ 33 sx

2nd Stage DV tool @ 3,512' w/ 525sx 65/35 poz mix w/
2# Tuff Plug/sk & 50 sx class "B", lost circ pumping plug

Top of Cement @ DV tool, (Field notes indicated circulated to DV tool)

mud

Dakota - 4,477'

Plug #2: 4,530' - 4,350' w/ 33 sx

mud

Plug #1: 5,484' - 5,217' w/ 50 sx

Entrada - 5,469'

7" 23# Range 3 Production Csg @ 5,465' w/ 175sx class "B" w/ 4% gel &
2# tuff plug/sk, 75 sx "B" w/ 5% salf, circulated

TD @ 5,484'KB PBTD - Cleaned out to 5470', then circ bottoms up

Entrada, open hole completion, 5,476' - 5,484'
No Stimulation

Federal 11C #1, Convert to Water Injection
Wells Within Area of Review

Well Data

Well Name	*Type*	*Construction*					Spud Date	TD
		Casing Size/Grade	*Wt., lb/ft*	*Depth Set*	*Hole Size*	*Cement Record*		
Eagle Mesa Unit #1	Oil	10 3/4", J-55	40.5	207'	15"	Surface, 250 sx	9-30-94	6078'
Eagle Mesa Entrada		7",J-55	23#	5724'	8 3/4"	Stage 1 - 3850', 242 sx		TVD =
Horizontal Wellbore						Stage 2 - 3240', 450 sx		5491'
						Sqz: 1675'-1878', 40 sx		
						2106' - 2294' w/60 sx		
Location	Surface: 460' fsl & 330' fwl,			Sec 12				
	Top Prod: 228.4' fsl & 239' fwl			T19N				
	TD: 196.4' fnl & 42,8'fwl			R4W	Sandoval County, NM			
Completion	Open Hole, No Stimulation							

Well Name	*Type*	*Construction*					Spud Date	TD
		Casing Size/Grade	*Wt., lb/ft*	*Depth Set*	*Hole Size*	*Cement Record*		
Eagle Mesa Unit #2	Oil	10 3/4", J-55	40.5	228'	15"	Surface, 200 sx	3-21-95	6506'
Eagle Mesa Entrada		7",J-55	23#	5355'	8 3/4"	Total 705 sx, 2 stages		TVD =
Horizontal Wellbore		5 1/2",J-55	15.5#	5570'	8 3/4"	Cemented on 1st Stg		5435'
Location	Surface: 430' fnl & 330' fwl,			Sec 13				
	Top Prod: 765' fnl & 271' fwl			T19N				
	TD: 1656' fnl & 90' fel, Sec 14			R4W	Sandoval County, NM			
Completion	Open Hole, No Stimulation							

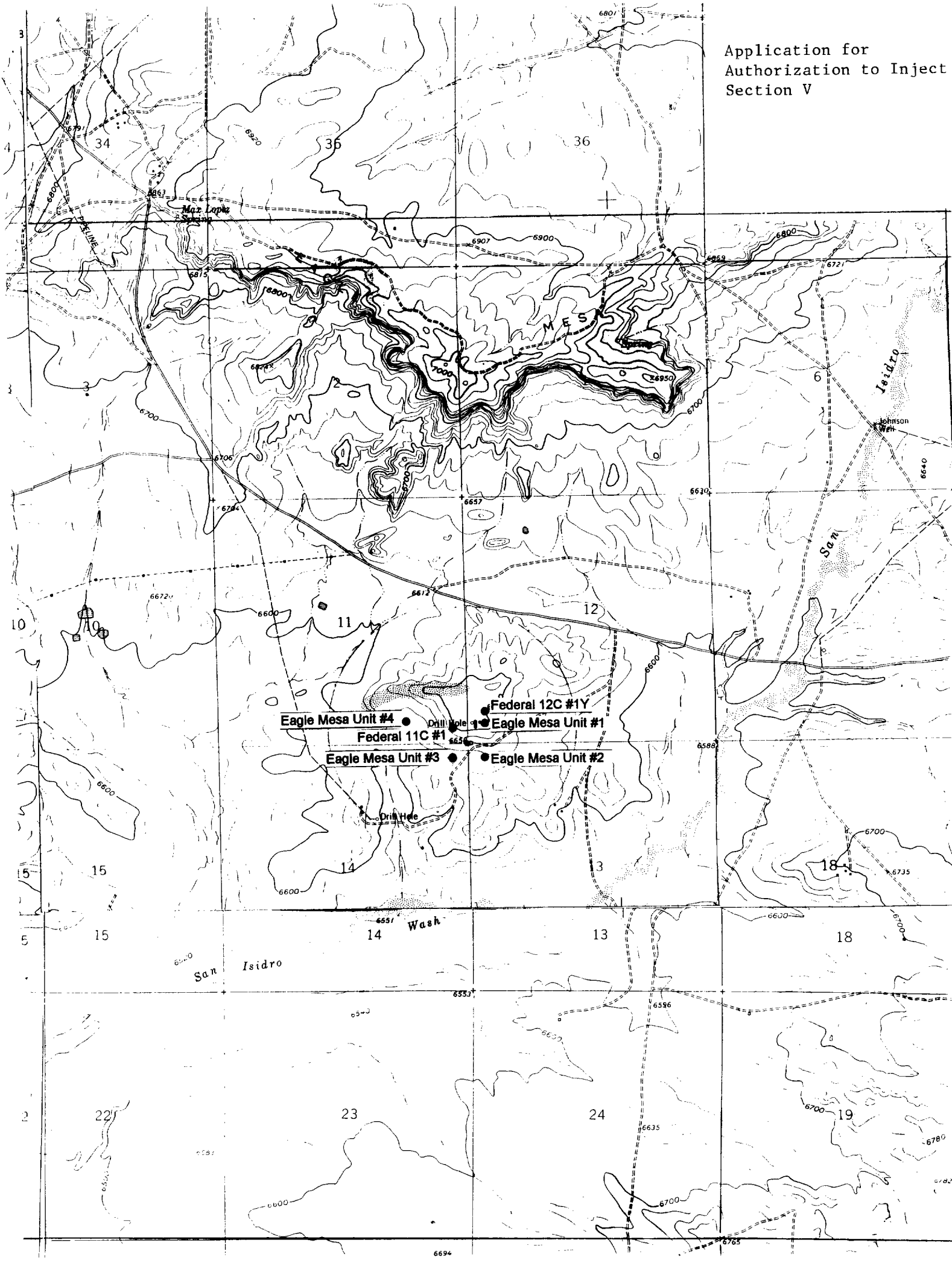
APPLICATION FOR AUTHORIZATION TO INJECT, SECTION VI

Well Name	*Type*	*Construction*					Spud Date	TD
		Casing Size/Grade	*Wt., lb/ft*	*Depth Set*	*Hole Size*	*Cement Record*		
Eagle Mesa Unit #3	Oil	10 3/4"		197'	15"	Surface, 200 sx	10-21-75	5662'
Eagle Mesa Entrada		7"		5347'	8 3/4"	2 stages		
		5 1/2"		5590'	8 3/4"	578 sx, 365 sx		
Location	330' fnl & 330' fel, Sec 14, T19N, R4W			Sandoval County, NM				
Completion	Perforated 5442' - 5460', No Stimulation							

Well Name	*Type*	*Construction*					Spud Date	TD
		Casing Size/Grade	*Wt., lb/ft*	*Depth Set*	*Hole Size*	*Cement Record*		
Eagle Mesa Unit #4	Water	8 5/8"	23#	229'	12 1/4"	150 sx	9-19-75	3700'
	Injection	5 1/2"	15.5#	3685'	7 7/8"	2 stages: 126 sx, 450 sx		
Location	460' fsl & 800' fel, Sec 11, T19N, R4W			Sandoval County, NM				
Completion	Perforated 3048' - 3177', 3206' - 3270', 3350' - 3428', 3470' - 3596', No Stimulation							

Well Name	*Type*	*Construction*					Spud Date	TD
		Casing Size/Grade	*Wt., lb/ft*	*Depth Set*	*Hole Size*	*Cement Record*		
Federal 12C #1Y	Oil (dry)	9 5/8"		187'		180 sx	10-26-95	5605'
Location	685' fsl & 330' fwl, Sec 12, T19N, R4W			Sandoval County, NM				
Completion	No Production Casing Set, Well Plugged after drilling							
	Cement Plugs in the following intervals:			5605' - 5450', 50 sx		Surface Plug, 10 sx		
				4590' - 4410', 50 sx				
				3340' - 3190', 50 sx				
				2350' - 2190', 50 sx				
				200' - 150', 30 sx				

Application for
Authorization to Inject
Section V



Application for Authorization to Inject, Section V

The map on the preceding page indicates a drill hole on the border of the 1/2 mile radius area of review. There is no record of any wellbore at this location in the Dwight's data nor in the NMOCD files in the Aztec office. Field inspection of the site yielded no further information. There was nothing to indicate that a well of any sort existed at this location.

Merrion Oil & Gas Corporation
Wellbore Schematic for Offset to Proposed Water Injection Well
Federal 12C-1Y (Operator: Jordan Oil & Gas Co.)

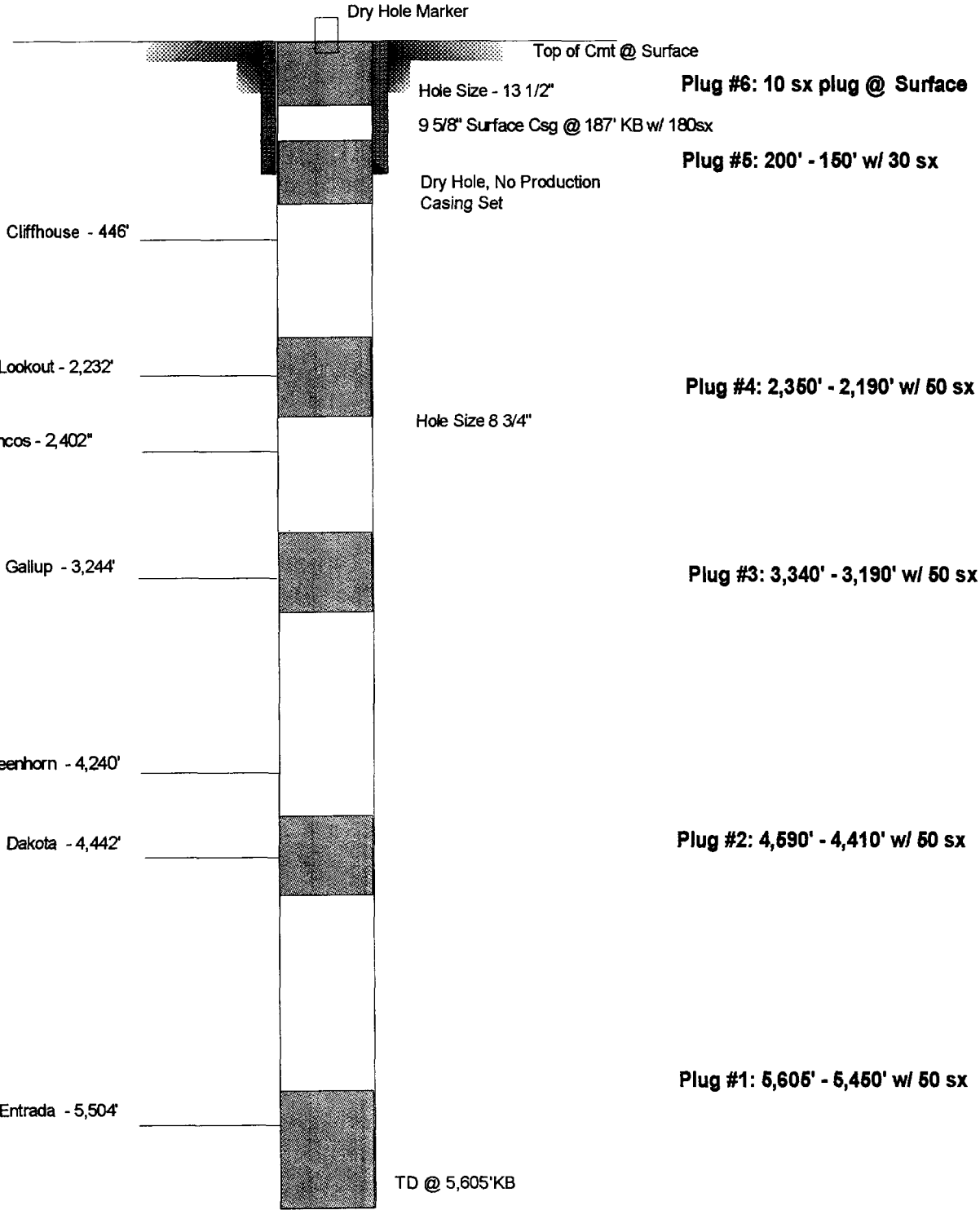
Current Wellbore Configuration According to NMOCD Records

Location: 685'fsl & 330'fwl
Sec 12, T19N, R4W NMPM
Sandoval County, New Mexico

Prepared: 10/24/95

Elevation: 6,693' GL

By: Connie Dinning



APPLICATION FOR AUTHORIZATION TO INJECT

Federal 11C #1, Convert to Water Injection

VII. Operational Data

1) **Ave Rate:** 2-3 BPM **Daily Rate:** 4000 BPD

2) **Open System**

3) **Ave. Pressure:** 700 psi **Max Pressure:** 1200 psi

4) **Reinjected produced water from same formation**

5) **Water Analysis Attached**

VIII. Geological Data

Injection Zone: Todilto Sandstone (Eolian Dune Sand)

Thickness: approx. = 250'

Top: 5469'

Overlaying this formation is a 10' layer of limestone and a 15' layer of anhydrite.

According to engineering and geological review, there are no known formations in the area of review above or below the Entrada which contain water with < 10,000 ppm TDS.

IX. Stimulation Program

The well will not be stimulated initially. However if injection volumes and pressures are not satisfactory, a fracture program may be proposed.

X. Logging and Test Data

All logs are on file with the OCD office in Aztec

XI. Fresh Water Analysis

There are no known fresh water zones in the area of review.

XII. Egineering and Geology Review to Protect Fresh Water

There is little concern over hydraulic connection with other formations because there are no known fresh water zones in the area of review. The casing/hole annulus is cemented from 3,070' to TD, and there are low permeability formations between the Entrada and the top of cement, therefore there is no reason to believe hydraulic connections are present.

PUBLIC NOTICE
Merrion Oil & Gas
P.O. Box 840
Farmington, NM 87401
Attn: Connie Dinning
Merrion Oil & Gas proposes to convert a previously plugged and abandoned, wellbore to a water disposal well to take produced water from the Eagle Mesa Entrada field. Injection Well Location: 330' fsl & 330' fel, Sec. 11, T19N, R4W, Sandoval County, NM.
Injection Formation: Entrada
Depth of Injection Zone: 5,469'
Maximum Pressure: 1,200 psi
Maximum Rate: 12,000 barrels per day
Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87504-2088 within 15 days of this notice.
Journal: October 24, 1995

STATE OF NEW MEXICO
County of Bernalillo SS

Bill Tafoya being duly sworn declares and says that he is Classified Advertising manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 1 times, the first publication being of the 24th day of October, 1995, and the subsequent consecutive publications on _____, 1995

Bill Tafoya

Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 24th day of, Oct 1995

OFFICIAL SEAL
Megan Garcia
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 5-20-98

PRICE 14.47
Statement to come at end of month.

Megan Garcia

CLA-22-A (R-1/93) ACCOUNT NUMBER C81582