submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

1. **Type of Well**
GAS

2. **Name of Operator**
MERIDIAN OIL

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. **Location of Well, Footage, Sec., T, R, M**
990'FSL, 990'FEL Sec.36, T-27-N, R-10-W, NMPM

5. **Lease Number**
NM-03017

6. **If Indian, All. or Tribe Name**

7. **Unit Agreement Name**
Huerfano Unit

8. **Well Name & Number**
Huerfano Unit 258

9. **API Well No.**

10. **Field and Pool**
Basin Ft Coal/
Fulcher Kutz PC

11. **County and State**
San Juan Co, NM

12. **CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA**

Type of Submission	Type of Action	
_x_ Notice of Intent	___ Abandonment	___ Change of Plans
	_x_ Recompletion	___ New Construction
___ Subsequent Report	_x_ Plugging Back	___ Non-Routine Fracturing
	___ Casing Repair	___ Water Shut off
___ Final Abandonment	___ Altering Casing	___ Conversion to Injection
	___ Other -	

13. **Describe Proposed or Completed Operations**

It is intended to plug back the Gallup formation in this well, open and stimulate the Pictured Cliffs and Fruitland Coal formations, and commingle per the attached procedure. Application is being made to the Oil Conservation Division for commingling, and for non-standard location for the Fruitland coal.

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OIL CON. DIV.
DIST. 3

14. **I hereby certify that the foregoing is true and correct.**

Signed [signature] (MP) Title Regulatory Affairs Date 12/15/93

(This space for Federal or State Office use)
APPROVED BY _____ Title _____ Date _____
CONDITION OF APPROVAL, if any:

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Hold C-104 for NSL

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Meridian Oil Inc.	Huerfano Unit (NM-03017)	258

Unit Letter	Section	Township	Range	County
P	36	27-N	10-W	SAN JUAN

Actual Footage Location of Well:
990 feet from the SOUTH line and 990 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
5496	Fruitland Coal/PC	Basin /Fulcher Kutz	300.2/160 Acres

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

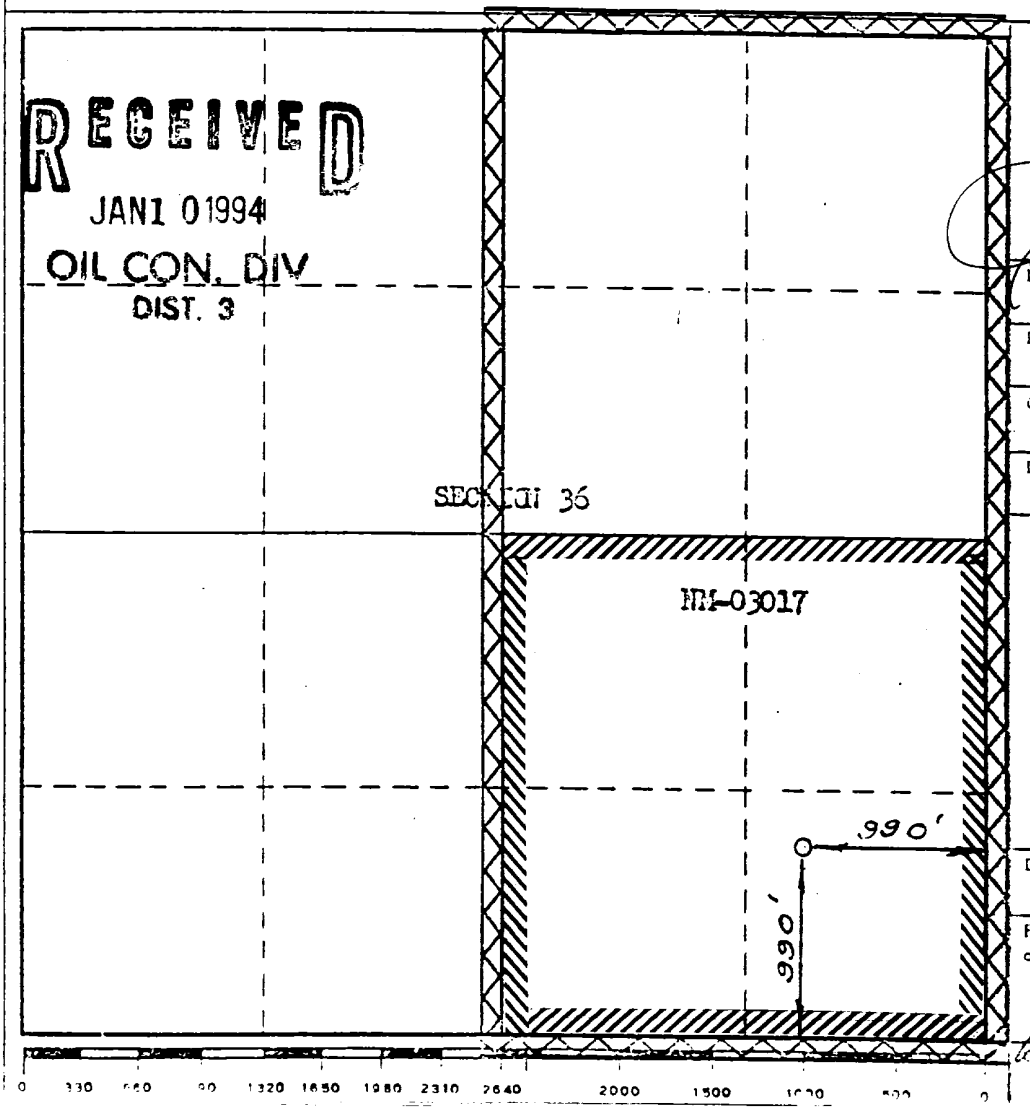
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 Unitization

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.



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DIST. 3

CERTIFICATION

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

Name: Peggy Bradfield

Position: Regulatory Affairs

Company: Meridian Oil Inc.

Date: 12-15-93

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.

Date Surveyed: DECEMBER 11, 1973

Registered Professional Engineer and/or Land Surveyor

Certificate No. 1760

Huerfano Unit #258 FRTC
FRTC RECOMPLETION
P 36 27 10
San Juan County, N.M.

PLUGGING:

1. Comply to all NMOCD, BLM, & MOI rules & regulations. MOL and RU P & A rig. NU 6" 900 series BOP, flow tee and stripping head. NU blooie line and 2-7/8" relief line.

2. Hot oil tbg if necessary. Set blanking plug in S.N. @ 6064' in 2-3/8" tbg & pressure test to 3000 psi. TOH w/196 Jts 2-3/8" tbg.

3. Run 5-1/2" gauge ring on sand line to 5672' (50' above top Gallup). TIH w/4-1/2" cmt ret on tested 2-3/8" tbg & set @ 5672'.

4. Establish rate & sq Gallup perfs w/ 61 sx Cl "G" cmt. This will fill perfs & 4-1/2" csg to 5672' w/100% excess cmt.

5. Sting out of cmt ret & spot 4 sx cmt on top ret. Spot hole w/ 30 bbl mud: 15# sodium bentonite w/non-fermenting polymer, 8.4# gal weight, & 40 qs vis or greater. TOH.

6. W/ tbg @ 3856' (50' below top Mesaverde), spot 11 sx cmt. This will fill inside csg from 3856' to 3756' (50' above top Mesaverde) w/50% excess cmt.

7. Spot hole w/ 24 bbl mud: 15# sodium bentonite w/non-fermenting polymer, 8.4# gal weight, & 40 qs vis or greater. TOH.

8. Set top drillable BP @ 2284' & top w/1 sx sand. Run CBL from 2200' to top of cmt in 4-1/2" csg & cased hole Neutron log from 2280'-2000' & correlate to open hole Density log.

9. Release P & A rig.

COMPLETION:

10. MOL and RU completion rig. NU 6" 900 series BOP, flow tee and stripping head. NU blooie line and 2-7/8" relief line.

11. Spot and fill 3 - 400 bbl. frac tanks with 2% KCL water. Filter all water to 25 microns. Two tanks are for gel & one tank for breakdown water. Usable gel water required for frac is 411 bbls.

12. TIH w/2-3/8" tbg to 2282'. Roll hole w/2% KCL water & pressure test csg to 1000 psi for 15 min.

LOWER FRTC & PC:

13. Perf PC @ 2248'-55' w/1 spf. Total 7 holes. Perf PC w/3-1/8" HCG w/10 gr Owen 316 charges which have an average penetration in Berea of 14.7".

14. Perf lower FRTC @ 2228'-33' & 2181'-89' w/4 spf. Perforate FRTC using 3-1/8" hollow steel carrier guns loaded w/Owen HSC 13 gm. charges phased at 90 degrees & 4 spf. Avg. perf dia.= 0.48". Average penetration is 18" in Berea. Total 52 holes.

15. TIH w/4-1/2" pkr & 2-7/8" NUE N-80 rental tbg w/shaved collars & set @ 1900'. W/ 500 psi on backside, breakdown PC & FRTC perforations from 2181'-2255' w/2000 gal. 15% HCL acid & 150 7/8" 1.3 sp gr RCN perf balls. (1 gal/1000 corrosion inhibitor). Lower pkr to 2260' to knock off perf balls. Reset pkr @ 2000'.

16. Load backside w/2% KCL water & pressure to 500 psi. Monitor & record backside pressure during frac. Fracture treat PC & lower FRTC down frac string with 57,000 gals. of 70 quality foam using 30# gel as the base fluid & 90,000# 20/40 Arizona sand. Pump at 40 BPM. Monitor bottomhole and surface treating pressures, rate, foam quality, & sand concentration with computer van. Sand to be tagged with 0.4 mCi/1000# Ir-192 tracer. Max. pressure is 6000 psi and estimated treating pressure is 3200 psi. Frac string friction @ 40 BPM is 1300 psi. Treat per the following schedule:

Stage	Foam Vol. (Gals.)	Gel Vol. (Gals.)	Sand Vol. (lbs.)
Pad	20,000	6,000	----
1.0 ppg	10,000	3,000	10,000
2.0 ppg	10,000	3,000	20,000
3.0 ppg	10,000	3,000	30,000
4.0 ppg	5,000	1,500	20,000
5 0 ppg	2,000	600	10,000
Flush	(486)	146	
Totals	57,000	17,100#	90,000#

Treat frac fluid with the following additives per 1000 gallons:

* 30# LGC8 (Gel)
* 3.0 gal. AQF2 (Non-ionic Surfactant)
* 1.0# GVW3 (Enzyme Breaker)
* 1.0# B-5 (Breaker)

17. Open well through choke manifold and monitor flow. Flow @ 20 bbl/hr, or less if sand is observed. Take pitot gauges when possible. TOH w/pkr & frac string.

18. Set 4-1/2" ret BP @ 2160' on wireline & top w/1 sx sand. Pressure test csg to 1000 psi for 15 min.

19. Fill 2 - 400 bbl. frac tanks with 2% KCL water. Filter all water to 25 microns. One tank is for gel & one tank for breakdown water. Usable gel water required for frac is 407 bbls.

UPPER FRTC:

20. Production Engineering will pick upper FRTC perfs using CNL log. Perf upper FRTC w/4 spf. Perforate using 3-1/8" hollow steel carrier guns loaded w/Owen HSC 13 gm. charges phased at 90 degrees & 4 spf. Avg. perf dia.= 0.48". Average penetration is 18" in Berea. Estimated

total feet of perfs is 15 feet @ about 2090'-2105'.

21. TIH w/4-1/2" pkr & 2-7/8" NUE N-80 rental tbg w/shaved collars & set @ 1800'. W/ 500 psi on backside, breakdown upper FRTC perforations from w/2000 gal. 15% HCL acid & 60 7/8" 1.3 sp gr RCN perf balls. (1 gal/1000 corrosion inhibitor). Lower pkr to 2120' to knock off perf balls. Reset pkr @ 2000'.

22. Fracture treat upper FRTC down frac string with 37,000 gals. of 70 quality foam using 30# gel as the base fluid & 60,000# 20/40 Arizona sand. Pump at 40 BPM. Monitor bottomhole and surface treating pressures, rate, foam quality, & sand concentration with computer van. Sand to be tagged with 0.4 mCi/1000# Ir-192 tracer. Max. pressure is 6000 psi and estimated treating pressure is 3200 psi. Frac string friction @ 40 BPM is about 1300 psi. Treat per the following schedule:

Stage	Foam Vol. (Gals.)	Gel Vol. (Gals.)	Sand Vol. (lbs.)
Pad	12,000	3,600	----
1.0 ppg	5,000	1,500	5,000
2.0 ppg	10,000	3,000	20,000
3.0 ppg	5,000	1,500	15,000
4.0 ppg	5,000	1,500	20,000
Flush	(486)	146	
Totals	37,000	11,100#	60,000#

Shut well in after frac for six hours to allow the gel to break.
Treat frac fluid with the following additives per 1000 gallons:

* 30# LGC8 (Gel)
* 3.0 gal. AQF2 (Non-ionic Surfactant)
* 1.0# GVW3 (Enzyme Breaker)
* 1.0# B-5 (Breaker)

23. Open well through choke manifold and monitor flow. Flow @ 20 bbl/hr, or less if sand is observed. Take pitot gauges when possible. TOH w/pkr & frac string.

24. TIH w/ret head on 2-3/8" tbg & C.O. w/air/mist to ret BP @ 2160'. Take pitot gauges when possible. When well is sufficiently clean, retrieve BP & TOH.

25. TIH w/notched collar on 2-3/8" tbg & C.O. to 2280'. Monitor gas and water returns and take pitot gauges when possible.

26. When wellbore is sufficiently clean, TOH and run after frac gamma-ray log from 2280'-1800'.

27. TIH w/4-1/2" pkr on 2-3/8" tbg & set @ 2290'. Blow both tbg(PC) & csg(FRTC). Take water & gas samples & rates. TOH.

28. TIH with 2-3/8" tbg with standard seating nipple one joint off bottom and again cleanout to 2280'. When wellbore is sufficiently clean, land tbg at 2200'KB. Take final water and gas samples & rates.

29. Replace any bad valves on wellhead. ND BOP and NU wellhead & tree. Rig down & release rig.

Approve: _____
J. A. Howieson

VENDORS:

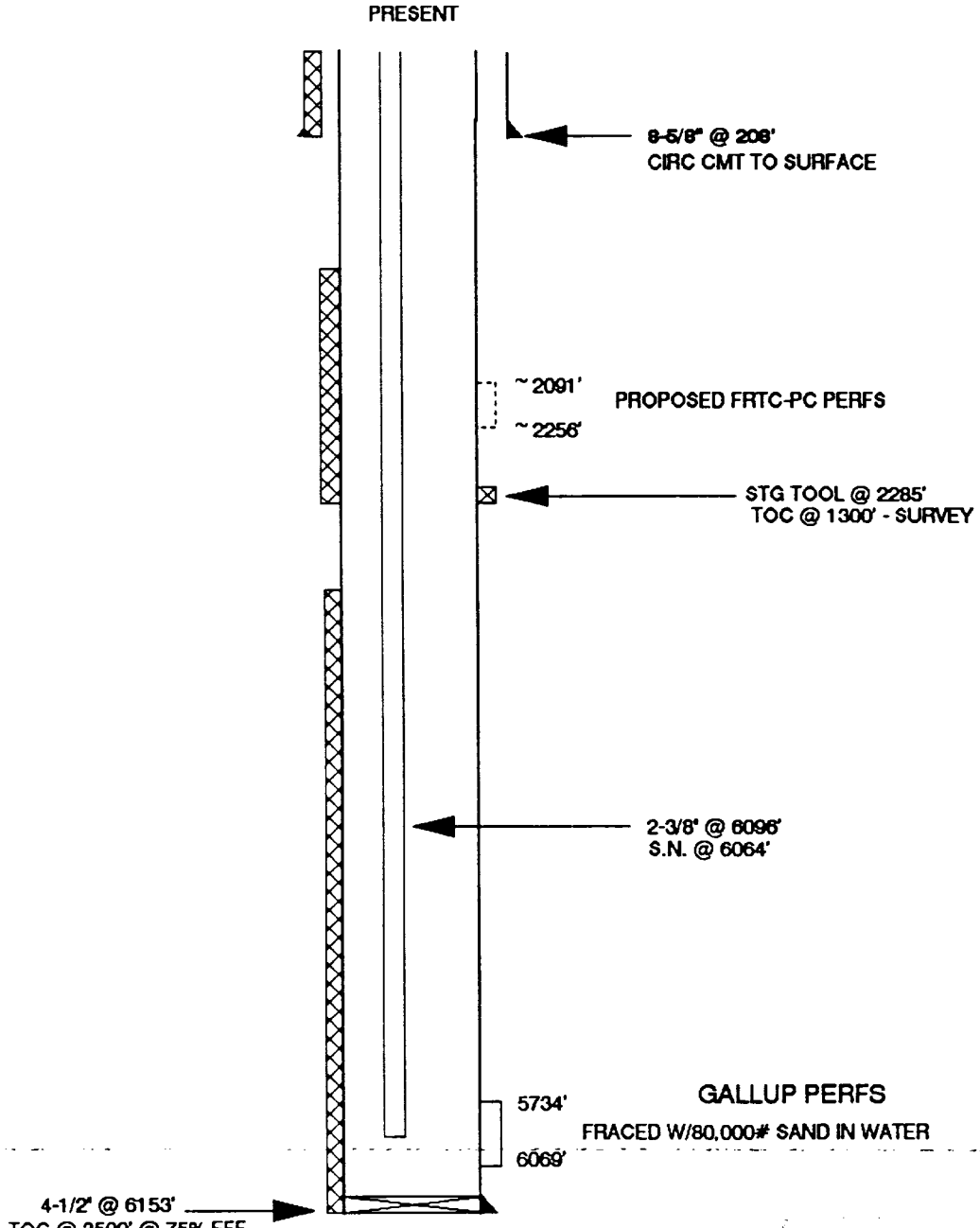
Wireline:	Blue Jet	325-5584
Fracturing:	Western	327-6222
RA Tagging:	Pro-Technics	326-7133

PMP

HUERFANO UNIT #258 GALLUP

UNIT P SECTION 36 T27N R10W

SAN JUAN COUNTY, NEW MEXICO



Pertinent Data Sheet - HUERFANO UNIT #258 FRTC

Location: 990'FSL 990' FEL SEC. 36 T27N R10W, SAN JUAN COUNTY, N.M.

Field: Basin Fruitland Coal

Elevation: 6495' **TD:** 6153'
13'KB **PBTD:** 6137'
LEASE: Federal NM-03017
DP#: GL=45079A
GWI: 66.06%
NRI: 51.39%

Completed: 11-29-74

Initial Potential:
AOF= 428 MCF/D, Q= 411 MCF/D, SICP= 764 psi

Casing Record:

Hole Size	Csg. Size	Wt. & Grade	Depth Set	Cement	Top/Cmt
12-1/4"	8-5/8"	24# J-55	208'	183 cf	Circ Cmt
7-7/8"	4-1/2"	10.5# J-55	6153'	803 cf	3509' @ 75% Eff.
		Stage Tool @	2285'	363 cf	1300' - Survey

Tubing Record: 2-3/8" 4.7# J-55 6096' 196 Jts
S.N. @ 6064'

Formation Tops:

Ojo Alamo	1295'
Kirtland	1470'
Fruitland	1985'
Pictured Cliffs	2244'
Cliffhouse	3806'
Point Lookout	4680'
Gallup	5722'

Logging Record: Induction Log, Density Log

Stimulation: Perf Gal @ 5734', 5822', 5926', 5988', 6010', 6048', 6086', 6090' w/1 spf & fraced w/80,000# sand in water.

Workover History: 1-2-85: Cut paraffin. 1-3-86: Cut paraffin & swabbed well in.

Production History: First Delivery = 2-1-75. Cumulative= 169 MMCF & 7,242 BO. Capacity = 0 MCF/D. Bradenhead = 0 psi. Tbg pressure = 8 psi. Csg pressure = 457 psi. Line Pressure = 143 psi.

Pipeline: EPNG

PMP