UNITED STATES

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells			
1. Type of Well GAS	TON, NM	5.	SF-078103
		7	Unit Agreement Name
2. Name of Operator MERIDIAN OIL			-
		8 .	Huerfano Unit Well Name & Number
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700		9.	Huerfano Unit #147 API Well No. 30-045-05732
4. Location of Well, Footage, Sec., T, R, M		10.	Field and Pool
1555'FSL, 850'FEL, Sec.23, T-26-N, R-9-W, NMPM		11.	Ballard Pictured Clif County and State San Juan Co, NM
Final Abandonment X Other - Workover 13. Describe Proposed or Completed Operations It is intended to run and cement 3 1/2" casing from			o Injection
well. The Pictured Cliffs will then be perfactored to the attached procedure.			
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		U	MAY - 4 1995
	(GON. DIV. Dist. 3
14. I hereby certify that the foregoing is true and co	rrect.		
Signed May Malheeld (PMP1) Title Regulatory	Affairs	Dat	APPROVEC
(This space for Federal or State Office use) APPROVED BY Title	Dat	— - 7	
CONDITION OF APPROVAL, if any:			APR 2 8 1995

HUERFANO UNIT #147 PC Workover Procedure I 23 26 9

San Juan County, N.M. Lat-Long: 36.470551 - 107.752197

- Comply to all NMOCD, BLM, & MOI rules & regulations. MOL and RU completion rig. NU 6" 900 series BOP w/flow tee and stripping head. NU blooie line & 2-7/8" relief line.
- 2. TOH w/1" tbg & lay down. TIH w/4-3/4" bit on 2-3/8" work string & C.O. w/air/mist to TD 2140'. TOH.
- Load hole w/500 gal 1% KCL water. Run an advanced integrated data processing GSL neutron log 2140'-1700'. Correlate log to open hole log.
- 4. Run 3-1/2"-OD 9.2# J-55 NUE tbg to TD 2140' w/Omega type latching collar above 2' tbg sub w/Texas guide shoe on bottom. Cement w/100sx 50-50 Cl"B" POZ w/2% gel & 6-1/2#/sx kolite & 10% salt & 2% Cacl. (yield=1.44 cf/sx). After cmt, break & wash lines, run 2 wiper balls & Omega wiper latching plug, followed by 100 gal 7-1/2% HCL acid. Space out using tbg subs & install 3-1/2" csg in new csg spool. Install 5000 psi rental frac valve on 3-1/2" csg.
- 5. Role hole w/1% KCL water. Run GR-CCL & coorelate to neutron log. Perf about 50' of PC interval as per Production Engineering Dept. Perf using 2-1/8" formed wire w/22 gr #307 Owen charges which make a 0.38" hole and have 20.73" of penetration.
- 6. Break down PC perfs down 3-1/2" csg w/2500 gal 15% GCL & 150% excess perf balls. Acidize @ 7 BPM w/max pressure = 6000 psi. Run junk basket to retrieve balls.
- 7. Spot & fill 2-400 bbl. frac tanks w/2% KCL water. Filter all water to 25 microns. One tank is for gel & one tank is for breakdown water. Usable gel water required for frac is 241 bbls.
- 8. Frac PC down 3-1/2" csg w/33,000 gals. of 70 quality foam using 30# gel as the base fluid & 60,000# 20/40 Arizona sand. Pump at 40 BPM. Monitor bottomhole & surface treating pressures, rate, foam quality, & sand concentration with computer van. Sand to be tagged w/ 0.4 mCi/1000# Ir-192 tracer. Max. pressure is 6000 psi & estimated treating pressure is 3000 psi. Treat per the following schedule:

	Foam Vol.	Gel Vol.	Sand Vol.
<u>Stage</u>	<u>(Gals.)</u>	(Gals.)	<u>(lbs.)</u>
Pad	8,000	2,400	
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	<u>(727)</u>	<u>(218)</u>	0
Totals	33,000	9,900	60,000#

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

* 30# J-48

(Guar Gel mix in full tank - 16,000 gal)

* 1.0 gal. Aqua Flow

(Non-ionic Surfactant mix in full tank)

* 1.0# GVW-3

(Enzyme Breaker mix on fly)

* 1.0# B - 5

(Breaker mix on fly)

HURFANITO UNIT #f12 PC - CEMENT 3-1/2" CSG, PERF PC, & FRAC

* 5.0 gal Fracfoam I

(Foamer mix on fly)

* 0.38# FracCide 20

(Bacteriacide mix on full tank)

- 9. Open well through choke manifold & monitor flow. Flow @ 20 bbl/hr, or less if sand is observed. Take pitot gauges when possible.
- 10. Change out frac valve w/tbg head. TIH w/notched collar on 1-1/4" IJ tbg & C.O. to 2135'. Monitor gas & water returns & take pitot gauges when possible.
- 11. When wellbore is sufficently clean, TOH & run after frac gamma-ray log from 2135'-1700'.
- 12. TIH w/1-1/4" tbg w/standard seating nipple one joint off bottom & again cleanout to 2410'. Use expendable check if necessary. When wellbore is sufficiently clean, land tbg @ 2050' KB. Take final water & gas samples & rates.
- 13. ND BOP & NU wellhead & tree. Rig down & release rig.

Approve:		
	Drilling Superintendent	

VENDORS:

Wireline:	Petro	326-6669
Fracturing:	Western	327-6222
RA Tagging:	Pro-Technics	326-7133
Packers:	Schlum.	325-5006
Csg Equip:	Howco	325-3575
Cmt	Howco	325-3575

PMP

Pertinent Data Sheet - HUERFANO UNIT #147 PC

Location: 1555 FSL & 850' FEL, Unit I, Section 23, T26N, R09W, San Juan County, New Mexico

Field: Ballard Pictured Cliffs Elevation: 6420' GL

TD: 2095

11' KB **PBTD:** 2095'

Completed: 12-20-54 **Spud Date:** 12-5-54

DP #: 49400A

Lease: Fed SF 078103

2095'

GWI: 62.35% NRI: 45.35% Prop#: 007971100

Initial Potential: 3060 MCF/D 611 PSI

Casing Record:

Hole Size	Csq Size	Wt. & Grade	Depth Set	Cement	Cement (Top)
12-1/4"	8-5/8"	24# J-55	99'	75 sx.	Circ Cmt
e 7-7/8"	5-1/2"	14# J-55	2049'	75 sx.	1666' @ 75% Eff.

Tubing Record:

Tbg. Size	Wt. & Grade	Depth Set
1"	1.7# CF&I	2072'

Formation Tops:

Ojo Alamo: 1260' '
Kirtland Shale: 1350'
Fruitland: 1743'
Pictured Cliffs: 2050' '

<u>Logging Record</u>: E-Log (above 5-1/2" shoe)

Stimulation: Fraced open hole 2049'-2095' w/8,600# sand in oil.

Workover History: NONE

Production history: Current Capacity = 30 MCF/D. Cumulative = 3,117 MMCF.

Pipeline: EPNG

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UNIT I SECTION 23 T26N R9W SAN JUAN COUNTY, NEW MEXICO

070 FARMINGTON, NM

