

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
970' FSL, 1150' FEL, Sec. 8, T-26-N, R-9-W, NMPM

5. Lease Number
SF-077980A
6. If Indian, All. or
Tribe Name
7. Unit Agreement Name
Huerfano Unit
8. Well Name & Number
Huerfano Unit #232
9. API Well No.
30-045-21119
10. Field and Pool
Basin Fruitland Coal
11. County and State
San Juan Co, NM

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

Type of Submission

☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment

Type of Action

☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other - Stimulate
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut off
☐ Conversion to Injection

13. Describe Proposed or Completed Operations

It is intended to fracture stimulate the existing Fruitland Coal formation of the subject well according to the attached procedure and wellbore diagram.

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

Signed Nancy Olthman (PMP1) Title Regulatory Administrator Date 7/1/96

(This space for Federal or State Office use)

APPROVED BY _____ Title _____

CONDITION OF APPROVAL, if any:

Date

APPROVED

JUL 02 1996

DISTRICT MANAGER

HUERFANO UNIT #232 FRTC
Workover Procedure
P 8 26 9
San Juan County, N.M.
Lat-Long: 36.498123 - 107.806274

1. 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. Lower tbg to tag fill. If fill is above 2172, C.O. w/air/mist to 2200'. Set blanking plug in S.N. of 2-3/8" tbg @ 2130' & pressure test tbg to 2000 psi. TOH w/69 jts 2-3/8" tbg.
3. Spot and fill 3-400 bbl. frac tanks w/1% KCL water. Filter all water to 25 microns. Two tanks are for gel & one tank for breakdown water. Usable water required for frac is 396 bbls.
4. TIH w/4-1/2" pkr on 2-7/8" 6.5# N-80 w/^{Buttress}shaved collars (3.5" O.D. 2.441" I.D.) rental frac string & set @ 1900'. (Run 2 jts 2-3/8" N-80 on top of pkr). Load backside w/1% KCL water. Pressure backside to 300 psi & monitor during frac job.
5. Fracture treat FRTC down frac string w/55,000 gals. of 70 quality foam using 30# gel as the base fluid & 100,000# 20/40 Arizona sand. Pump at 45 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 folowing schedule:

| <u>Stage</u> | <u>Foam Vol. (Gals.)</u> | <u>Gel Vol. (Gals.)</u> | <u>Sand Vol. (lbs.)</u> |
|--------------|------------------------------|-----------------------------|-----------------------------|
| Pad | 15,000 | 4,500 | --- |
| 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 | 10,000 | 3,000 | 40,000 |
| Flush | (462) | (139) | 0 |
| Totals | 55,000 | 16,500 | 100,000# |

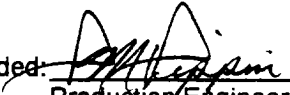
Shut well in after frac for six hours in an attempt to allow the gel to break. Treat frac fluid w/the following additives per 1000 gallons:


| | |
|----------------------|--|
| * 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# GVV-3 | (Enzyme Breaker mix on fly) |
| * 1.0# B - 5 | (Breaker mix on fly) |
| * 5.0 gal Fracfoam I | (Foamer mix on fly) |
| * 0.38# FracCide 20 | (Bacteriacide mix on full tank) |

6. Open well through choke manifold & monitor flow. Flow @ 20 bbl/hr, or less if sand is observed. Take pitot gauges when possible.
7. Release pkr & TOH w/frac string. TIH w/3-7/8" bit on 2-3/8" tbg & clean out to 2200' w/air/mist.
8. Monitor gas & water returns & take pitot gauges when possible.
9. When wellbore is sufficently clean, TOH & run after frac gamma-ray log from 2200'-1600'.

HUERFANO UNIT #232 FRTC - FRAC EXISTING FRTC

10. TIH w/2-3/8" tbg w/standard seating nipple one joint off bottom & again cleanout to 2200'. When wellbore is sufficiently clean, land tbg @ 2100' KB. Take final water & gas samples & rates.
11. ND BOP & NU wellhead & tree. Rig down & release rig.

Recommended:  6/25/96
Production Engineer

Approved: W.S.  6/25/96
Drilling Superintendent

VENDORS:

| | | |
|-------------|--------------|----------|
| Wireline: | Basin | 327-5244 |
| Fracturing: | Western | 327-6222 |
| RA Tagging: | Pro-Technics | 326-7133 |
| Packers: | Schlum. | 325-5006 |

PMP

Pertinent Data Sheet - HUERFANO UNIT #232 FRTC

Location: 970' FSL & 1150' FEL, Unit P, Section 8, T26N, R09W, San Juan County, New Mexico

Field: Basin Fruitland Coal **Elevation:** 6495' GL
10' KB **TD:** 6100'
PBTD: 2200'

Completed: 1/8/73 **Spud Date:** 12/5/72
Recompleted: 11/18/90

DP #: 44857B
Lease: Fed: SF-077980A
GWl: 66.06%
NRI: 51.59%
Prop#: 071120217

Initial Potential: Pitot Gauge FRTC = 21 MCF/D

Casing Record:

| <u>Hole Size</u> | <u>Csg Size</u> | <u>Wt. & Grade</u> | <u>Depth Set</u> | <u>Cement</u> | <u>Cement (Top)</u> |
|------------------|-----------------|------------------------|------------------|---------------|---------------------|
| 12-1/4" | 8-5/8" | 24# KS | 209' | 182 cf | Circ Cmt |
| 7-7/8" | 4-1/2" | 10.5# KS | 6100' | 344 cf | 4967' @ 75% Eff. |
| | | Stage Tool @ | 2355' | 346 cf | 1250' - Survey |

Tubing Record:

| <u>Tbg. Size</u> | <u>Wt. & Grade</u> | <u>Depth Set</u> | |
|------------------|------------------------|------------------|--------|
| 2-3/8" | 4.70# J-55 | 2163' | 69 Jts |
| | | SN @ 2130' | |

Formation Tops:

| | |
|------------------|---------|
| Ojo Alamo: | 1255' ' |
| Kirtland Shale: | 1410' |
| Fruitland: | 1995' |
| Pictured Cliffs: | 2198' ' |

Logging Record: Density, Induction, Cased Hole Neutron

Stimulation: Perfed GL 5846'-6020' & fraced 1st stg w/35,000# sand in water & Perfed upper GL 5654'-5808' & fraced 2nd stg w/45,000# sand in water.

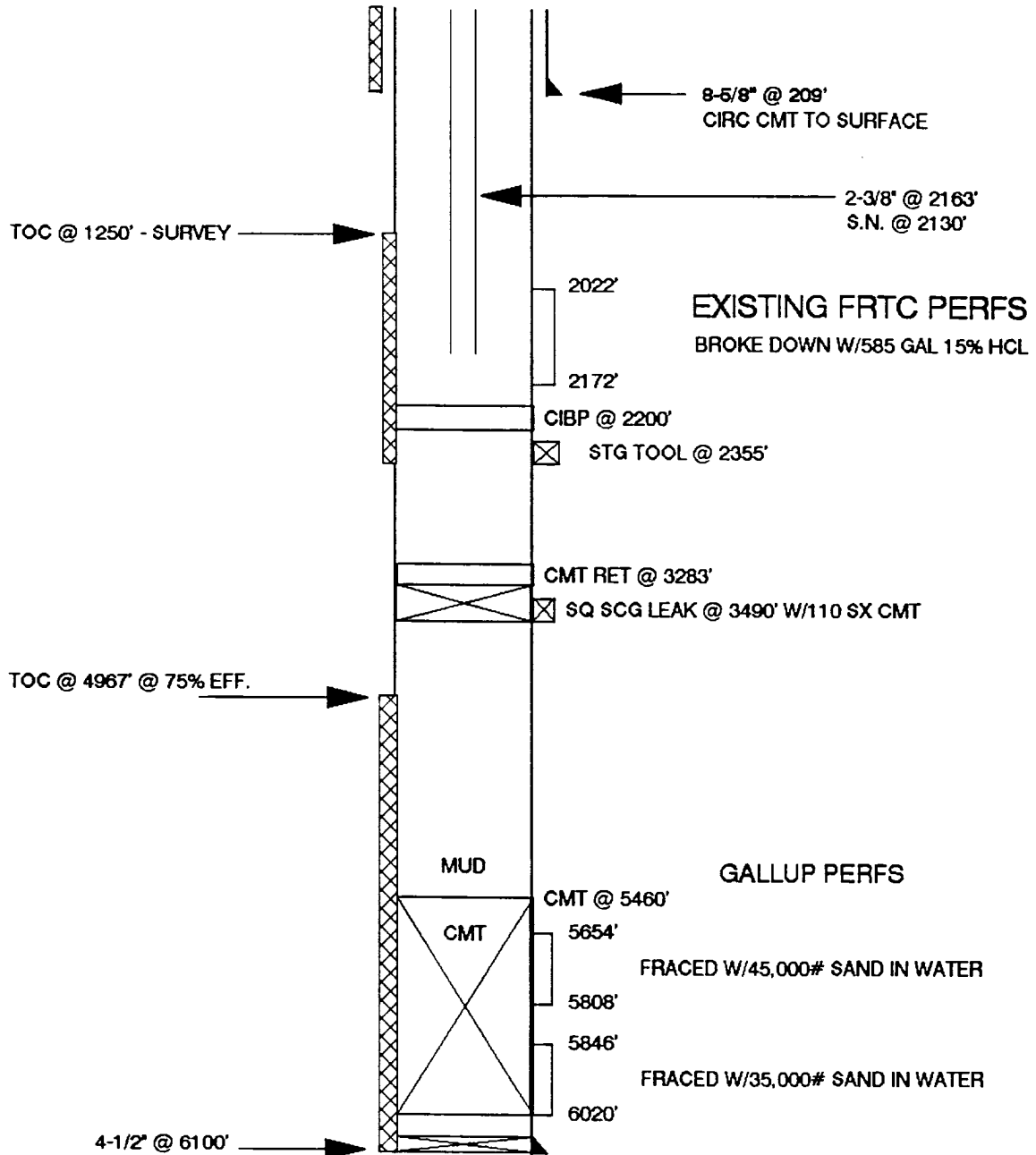
Workover History: 11/18/90: Plug back to 2200'. Spotted 135 gal 15% HCL. Perfed FRTC @ 2022'-29', 2032'-50', 2080'-87', 2130'-43', 2166'-72' w/2 spf & broke down w/460 gal 15% HCL.

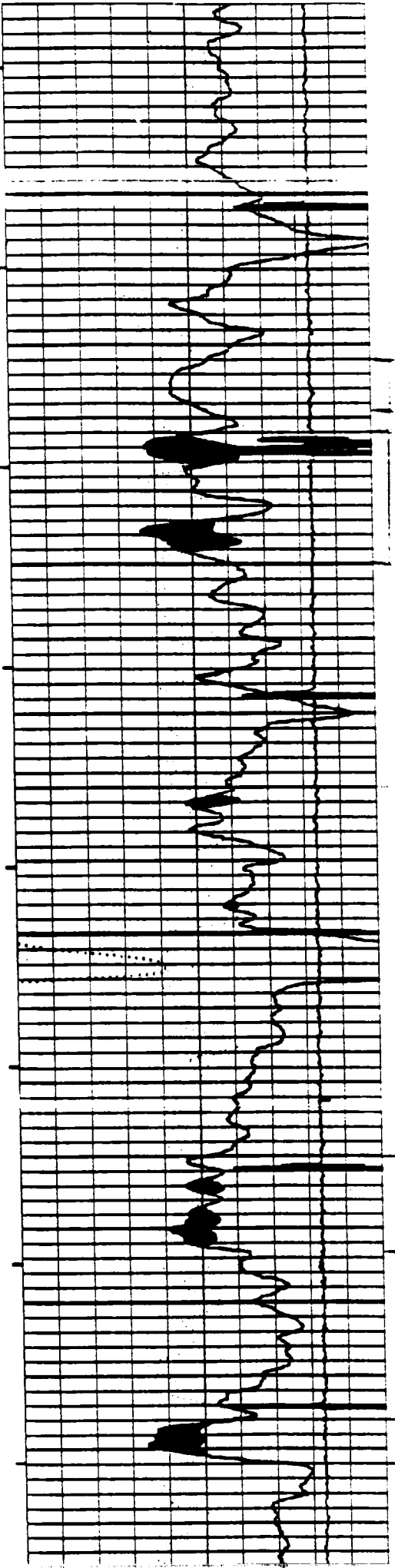
Production history: FRTC not 1st delivered. Gallup cum = 161 MMCF. FRTC SIBHP=557 psi @ 2160'.

Pipeline: EPNG

HUERFANO UNIT #232 FRTC

UNIT P SECTION 8 T26N R9W
SAN JUAN COUNTY, NEW MEXICO





2000

2100

