### UNITED STATES

# DEPARTMENT OF THE INTERIOR DEPARTMENT OF LAND MANAGEMENT

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9.	Huerfano Unit #288 API Well No.
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10.	Field and Pool
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AUG 1 7 1995 /s/ Ken Townsend DISTRICT MANAGER

### HUERFANO UNIT #288 DK Workover Procedure G 10 25 10

San Juan County, N.M. Lat-Long: 36.418777 - 107.880310

- 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" & 7/8" rods & insert pump. TOH w/2-7/8" tbg (w/tbg anchor).
- Spot and fill 4-400 bbl. frac tanks w/1% KCL water. Filter all water to 25 microns. Three tanks are for gel & one tank for breakdown water. Usable water required for frac is 809 bbls.
- 4. Run 4-1/2" pkr on 2 jts 2-7/8" N-80 tbg w/shaved collars to protect wellhead. Fracture treat DK down 4-1/2" csg w/109,000 gals. of 70 quality foam using 30# gel as the base fluid & 210,000# 20/40 Brady sand. Pump at 60 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 5000 psi. Treat per the following schedule:

	Foam Vol.	Gel Vol.	Sand Vol.
<u>Stage</u>	<u>(Gals.)</u>	(Gals.)	(lbs.)
Pad	35,000	10,500	
1.0 ppg	10,000	3,000	10,000
2.0 ppg	20,000	6,000	40,000
3.0 ppg	20,000	6,000	60,000
4.0 ppg	20,000	6,000	80,000
5.0 ppg	4,000	1,200	20,000
Flush	<u>(4,218)</u>	(1265)	0
Totals	109,000	32,700	210,000#

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:

	e remember additives per 100	o ganons.
*	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. <b>0#</b> B - 5	(Breaker mix on fly)
*	5.0 gal Fracfoam I	(Foamer mix on fly)
*	0.38# FracCide 20	(Bacteriacide mix on full tank)

- 5. Open well through choke manifold & monitor flow. Flow @ 20 bbl/hr, or less if sand is observed. Take pitot gauges when possible.
- 6. Release pkr & TOH. TIH w/3-7/8" bit on 2-7/8" tbg & clean out to 6550' w/air/mist.
- 7. Monitor gas & water returns & take pitot gauges when possible.
- 8. When wellbore is sufficently clean, <u>Take final water & gas samples & rates.</u> TOH & run after frac gamma-ray log from 6550'-6200'.

## HUERFANO UNIT #288 DK - FRAC EXISTING DAKOTA WELL

- 9. TIH w/2-3/8" production tbg (as pulled from well) & land @ 6474' KB. Run insert pump & 7/8" & 1" rods.
- 10. ND BOP & NU wellhead & tree. Rig down & release rig.

Approve:		
	Drilling Superintendent	

### **VENDORS**:

 Wireline:
 Basin
 327-5244

 Fracturing:
 Western
 327-6222

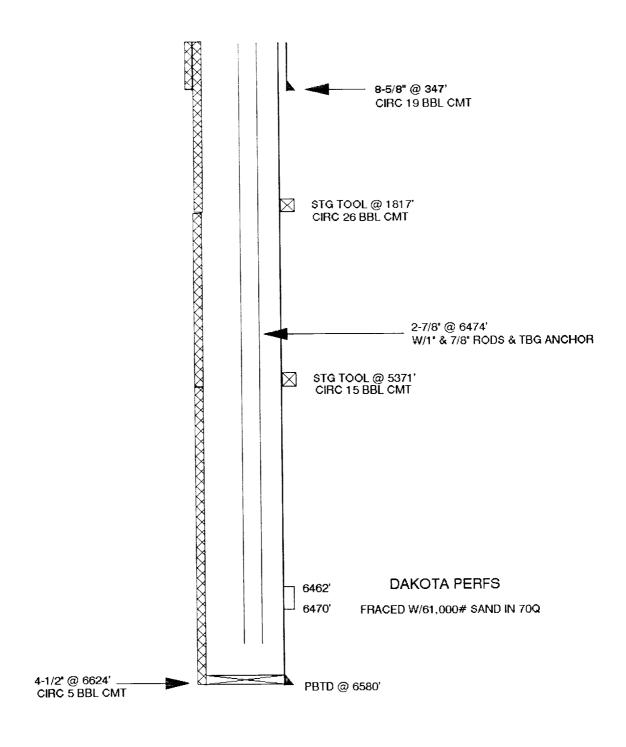
 RA Tagging:
 Pro-Technics
 326-7133

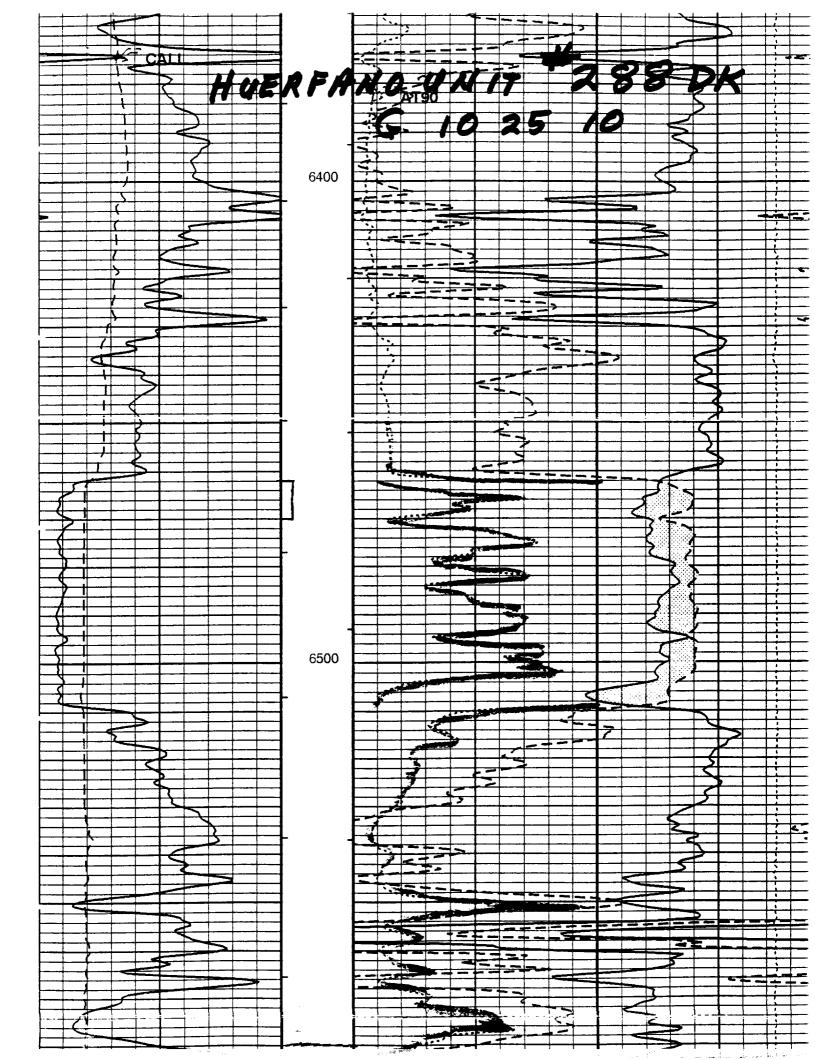
 Packers:
 Schlum.
 325-5006

**PMP** 

### HUERFANO UNIT #288 DK

UNIT G SECTION 10 T25N R10W SAN JUAN COUNTY, NEW MEXICO





### Pertinent Data Sheet - HUERFANO UNIT #288 DK

Location: 1450' FNL & 1720' FEL, Unit G Section 10, T25N, R10W, San Juan County, New Mexico

Field: Basin Dakota

Elevation:

6689' GL

TD: 6624'

13' KB

PBTD: 6580'

Completed: 1/4/95

Spud Date: 9/18/94

**DP #: 4**3066A

Lease: Fed: SF 078124

**GWI:** 100% **NRI:** 78.125% **Prop#:** 007970903

Initial Potential: Initial Gauge = TSTM SIBHP=1978 psi @ 6400'

### Casing Record:

Hole Size	Csq Size	Wt. & Grade	Depth Set	<u>Cement</u>	Cement (Top)
12-1/4"	8-5/8"	24# K-55	347'	301 cf.	Circ 19 Bbl Cmt
7/7-8"	4-1/2"	11.6# N-80	6624'	413 cf.	Circ 5 Bbl Cmt
,,, ,	,	Stage Tool @	5371'	1474 cf	Circ 15 Bbl Cmt
		Stage Tool @	1817'	714 cf	Circ 26 Bbl Cmt
		Marker Jt @	6554'		

### **Tubing Record:**

Tbg. Size	Wt. & Grade	<u>Depth Set</u>	
2-7/8"	6.5# J-55	6474'	w/slimhole couplings
	1" & 7/8" rods		

### Formation Tops:

Ojo Alamo:	1013'
Kirtland Shale:	1150'
Fruitland:	1778'
Pictured Cliffs:	1922'
Mesaverde	3477'
Gallup	5423'
Dakota	6460'

Logging Record: Induction, Neutron Density, CBL, After frac GR, & Core: 6460'-6520'

Stimulation: Perfed DK @ 6462'-70' w/4 spf & fraced w/61,000# sand in 70Q foam. After frac log showed sand went down to "wet" interval. Total 32-0.48" holes.

Workover History: 2/24/95: TOH w/2-3/8" tbg. TIH w/2-7/8" tbg (w/slimhole couplings), & set tbg w/anchor @ 6401'. Ran 1" & 7/8" rods & started pumping unit on 2/27/95.

3/31/95: MIRU. Checked for fill - none. Lowered tbg & landed @ 6474' w/tbg anchor. Ran rods & put well back on pumping unit.

<u>Production History:</u> DK 1st delivered 4/13/95. Started pumping unit 2/27/95. Utilized wellhead compressor during April & May 1995. Shut down pumping unit & compressor on 5/25/95 due to low stablized production of only 70 MCF/D & 75 BWPD. Fluid level shots indicated that the well was pumped down. Well made 25 MCF/D & 75 BWPD without the compressor. Well is currently shut-in pending evaluation.

Pipeline: EPNG