

# HIGH PLAINS

WIRELINE SERVICES, INC.

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Phone 806-435-7195

RECEIVED  
J. M. HUBER CORPORATION

DEC 22 1987

MID-CONTINENT DISTRICT  
AMARILLO OFFICE

## SUBSURFACE PRESSURE SURVEY

Company Slawson Oil Producers Test Date October 5, 1987  
Lease ELLIS #1-31 Well No. \_\_\_\_\_ Field Wildcat  
Section 31 Block T31S Survey R40W County Morton State Kansas  
Producing Formation Upper Morrow Measurements Are From KB @ 6'

Elevation \_\_\_\_\_  
Shut-In Time 792 Hrs.  
Shut-In Tubing Pressure 502#  
Shut-In Casing Pressure —  
Tubing Size 2 3/8" Set at 4944'  
Packer Set at 4944'  
Perforations 5032' - 5042'  
Top of Oil None Approx. \_\_\_\_\_  
Top of Water None Approx. \_\_\_\_\_  
Temperature at 5050 ft 118 F.  
Date of Last Test N/A  
Shut-In Time, Last Test N/A  
Pressure at Datum, Last Test N/A

Depth	Time	Pressure	Δ P	Δ D	Gradient
0'	10:15A	507.1	—	—	—
1500'	10:19	531.3	24.2	1500	.016
3000'	10:23	555.6	24.3	1500	.016
4500'	10:26	579.3	23.7	1500	.016
4837'	10:28	584.4	5.1	337	.015
4937'	10:30	585.9	1.5	100	.015
5037'	10:32A	587.9	2.0	100	.020

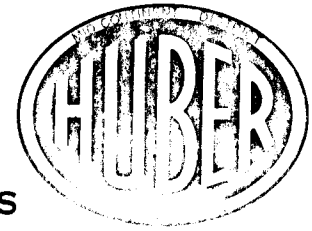
### INSTRUMENT DATA

Element RPG-3  
No. 38999 Range 0-1000 psi  
Clock Amerada  
No. A22096 Range 3 Hrs.  
Calibration Date June 15, 1987

### Remarks:

Check T.D. at perfs are clear.  
Ran to 5050'

Operator Danny Fowler



DATA SHEET FOR LOG ANALYSIS

COMPANY D.C. SLAWSON  
 WELL ELWIS NO. 1-31  
 FIELD KINSLER EXT.  
 LOCATION N/2 SW/4 - SEC. 31 - T31S - R40W  
 COUNTY MORTON STATE KS  
 FORMATION UPPER MORROW 'C'

BIT SIZE 7 1/8"  
 R M 2.0 @ 93 °F  
 R M F 1.63 @ 93 °F  
 R M C 2.58 @ 93 °F  
 DATE 7-20-87  
 BY BEE

DEPTH	Q <sub>D</sub>	Q <sub>N</sub>	Q <sub>XP</sub>	R <sub>T</sub>	R <sub>N</sub>	SW	REMARKS
5028-30	21%	32%	26.5%	11	1.045	21%	
30-32	19%	19%	19%	25	T	20%*	
32-34	21%	21%	25%	35		13%*	SW = (.62 x RN) / 1/2 (Q <sup>2.15</sup> RT)
34-36	28%	18%	24.6%	50		11%*	
36-38	27%	17%	23.6%	52		11%*	
38-40	21%	14%	18%	40		17%*	
40-42	18%	14%	16.6%	17		30%*	NEP = 12'
42-44	13%	05	13%	7		57%	AVG. Q = 21%
44-46	16%	05	13%	5		67%	AVG. SW = 17%
46-48	18%	05	18%	4.5		50%	
48-50	15%	05	15%	4.5	↓	61%	

↑

$$N_p = 7158(1-.17)(.21)(12)(.80)(.15) = 64,900.80 + 486,750 \text{ MCF} @ (602 - 7500:1)$$

3.0

$$T_c = 370.63 \text{ } ^\circ\text{R} \quad Z @ 600 \text{ psi} = 0.983$$

$$P_c = 657.65 \text{ PSI} \quad Z @ 150 \text{ psi} = 0.980$$

$$G_p = 43560(1-SW)(Q)(NEP)(DA)(B_i)(RF) = 225 \text{ MMCF ON } 80 \text{ ACRES}$$

$$= (43560)(1-.17)(.21)(12)(.160)(40.89)(.176) = 453,019,806 \text{ SCF ON } 160 \text{ ACRES}$$

$$\rightarrow 906,000 \text{ MCF ON } 320 \text{ ACRES}$$

$$\frac{40.89 - 9.4}{40.89} = 0.76$$

$$1,812 \text{ MMCF ON } 640 \text{ ACRES}$$

2.3 MMCF (CAF)

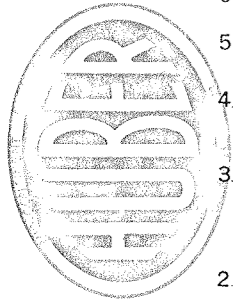
25% = 700 MCF

BBLs. OF HYDROCARBONS IN PLACE PER ACRE-FOOT = 7758 X  $\Phi$  (1 - SW).

Welex does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may be given by Welex personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees that Welex is not responsible, except where due to gross negligence or wilful misconduct, for any loss, damages, or expenses resulting from the use thereof.

(SLAWSON)

FLWIS 1-31



47 6840

20 YEARS BY MONTHS X 3 LOG CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.

MCF/M

