



DEPTH LOGGED FROM 2000 TO
DATE LOGGED FROM 6-26-88 TO

ELEVATION GL 3339'
NB-NEW BIT KB 3362'
DCB-DIAMOND CORE BIT

GAS CHROMATOGRAPH ANALYSIS
METHANE - 1 BUTANES - 4
ETHANE - 2 PENTANES - 5
PROPANE - 3 HELIUM - 6
RESULTS IN MOLE PER CENT GAS/AIR

X X X X X CONGLOMERATE
SANDY SHALE
+ + + + + GRANITE
A A A A A GRANITE WASH

..... SAND
LIMESTONE
DOLMITE
SHALE

A A A A A CHERT
V V V V V ANHYDRITE
COAL

DRILLING RATE
U FT/MR

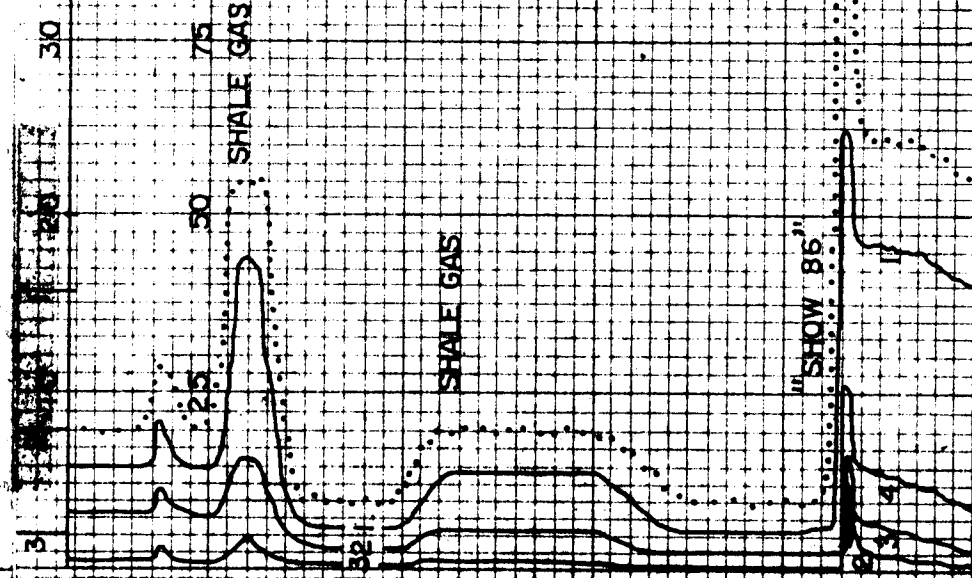
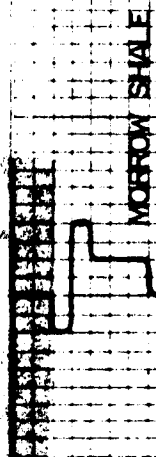
DEPTH & LITHOLOGY

LEACHED FEET

FEET

GAS FROM MUD
TOTAL GAS FROM HOT WIRE DETECTOR

REMARKS

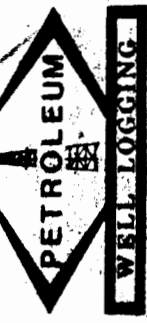


SH - BCM BLK BLKY MED
SFT CARB W/ SOM
FISS SLI SPLNTY
BCM VRY SNDY I.P.

MSTLY BLK CARB SH A/AB

SS-SUB CLR-FRSTY-OPQLT
TN-LT BRN-LT GY-MOTT, VF
F GR, SUB RND; M-CONS FRI
MSORT, TRS/STN LT GOLD
FLOUR, GOOD M-BLU STRM
CUT, WHT-LT YELL-RNG-CUT

5,000



PETROLEUM WELL LOGGING, Inc.
OKLAHOMA CITY, OKLAHOMA

WELL DUNN NO 1
FIELD KINSLER
COUNTY MORTON STATE KANSAS

DEPTH LOGGED FROM 2000 TO
DATE LOGGED FROM 6-26-88 TO

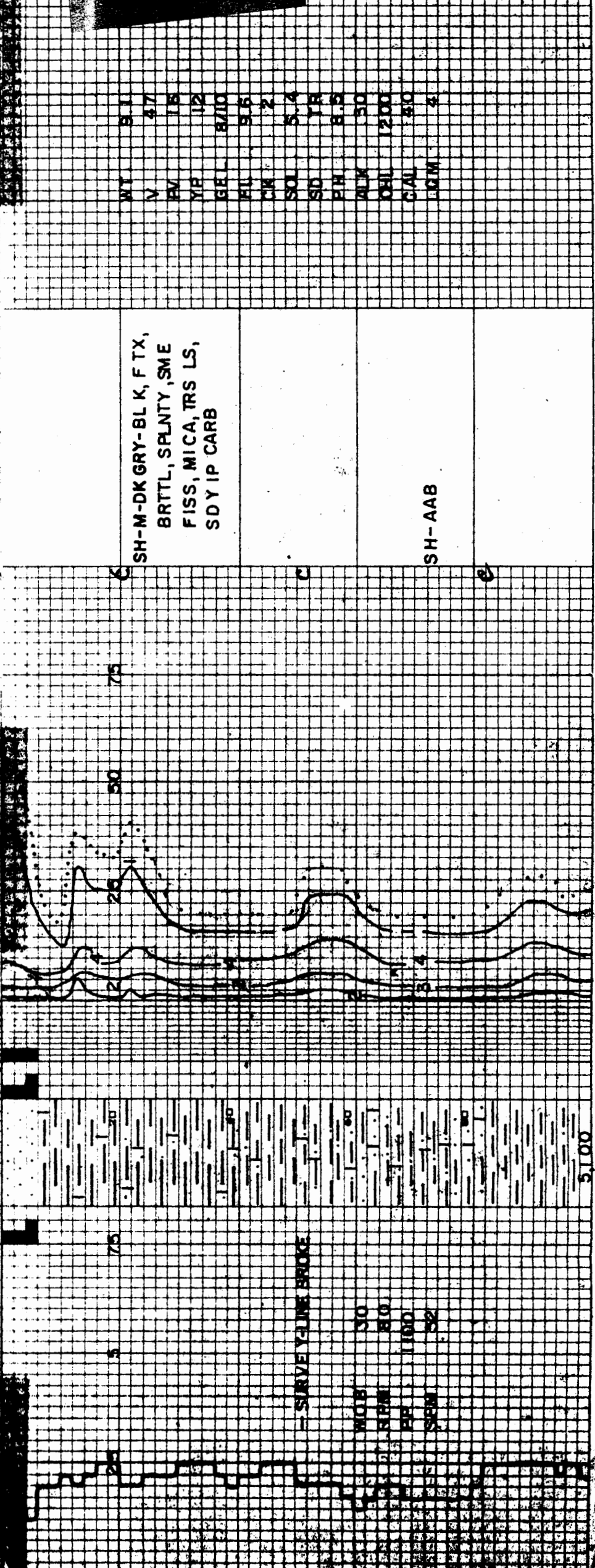
LOCATION SEC 36-31S-41W
SUPERVISING ENGINEER DAVIS-B ANDERSON UNIT NO. 41

LEGEND
 XXXX CONGLOMERATE SAND AAAA CHERT
 SANDY SHALE LIMESTONE VVVV ANHYDRITE
 BRANITE COBOLMITE
 BRANITE WASH SHALE

GAS CHROMATOGRAPH ANALYSIS
 METHANE - 1 BUTANES - 4
 ETHANE - 2 PENTANES - 5
 PROPANE - 3 HELIUM - 6
 RESULTS IN MOLE PER CENT GAS/AIR

NR-NO RETURNS
 CO-CIRCULATED OUT
 DST-DRILL STEM TEST
 ELEVATION GL 3339'
 NB-NEW BIT KB 3352'
 DST-DIAMOND CORE BIT

DRILLING RATE
 SURVEY LINE BROKE
 MOBI 50
 SERM 80
 SERM 100
 SERM 50
 SURVEY LINE BROKE
 DRILLING RATE
 SURVEY LINE BROKE



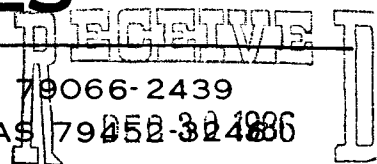
REMARKS
 SH-M-DK GRY-BL K, F TX,
 BRITTL, SPLNTY, SME
 FISS, MICA, TRS LS,
 SDY IP CARB

SH-AAB

WT 9.1
 V 4.7
 BV 1.6
 YP 1.2
 GEL 8.10
 FL 9.5
 CM 2
 SOL 5.4
 SD YR
 PH 8.5
 ALK 50
 OHL 1200
 CIAL 80
 LCM 4

PANTECHS LABORATORIES

RL



P. O. BOX 2439 TEL. 806 669-6821 PAMPA, TEXAS 79066-2439
 P. O. BOX 3246 TEL. 806 797-4325 LUBBOCK, TEXAS 79452-3246

J. M. HUBER CORP.
 PANHANDLE DISTRICT

SAMPLE DATA

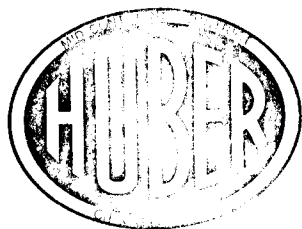
ANALYSIS RESULTS

CUSTOMER..... J.M. HUBER CORPORATION
 STATION No..... --
 OPERATOR..... J.M. HUBER CORPORATION
 LEASE..... DUNN 36-1
 PLANT..... SPEARMAN
 SAMPLE OF..... --
 PRESSURE..... 265 PSIG -SAMPLE-
 TEMPERATURE... --
 ATM. TEMP..... --
 SAMPLE DATE... 12-19-86
 TESTER..... NOT GIVEN
 SAMPLED BY.... J.M. HUBER CORPORATION
 ANALYSIS DATE. 12-23-86
 SAMPLE CYL. No. PL-813

COMPONENT		MOL %	GPM, *
NITROGEN	N2	4.62	
CARBON D.	CO2	0.20	
METHANE	C1	71.58	
ETHANE	C2	10.80	2.897
PROPANE	C3	8.84	2.470
I-BUTANE	IC4	1.07	0.360
N-BUTANE	NC4	1.97	0.641
I-PENTANE	IC5	0.33	0.127
N-PENTANE	NC5	0.35	0.134
HEXANES+	C6+	0.24	0.106

DISTRIBUTION: J.M. HUBER CORPORATION

- 3-AMARILLO, TX
MR. BATLEY
- 1-SPEARMAN, TX
MR. JERRY TROUT
- 1-BORGER, TX
MR. DOUG REED



GASOLINE CONTENT (GPM), *

PENTANES & HEAVIER....	0.367
BUTANES & HEAVIER....	1.368
PROPANE & HEAVIER....	3.838
ETHANE & HEAVIER....	6.735
26 # GASOLINE.....	0.533

HEATING VALUE, **
 (GROSS BTU/CF)

WATER VAP. SAT.....	1263
DRY GAS BASIS.....	1285

SPECIFIC GRAVITY

CALC., WATER SAT.....	0.782
CALC., DRY BASIS.....	0.785

REMARKS:

*, 14.65 PSIA & 60 F
 **, 14.65 PSIA & 60 F

PANTECHS LABORATORIES

P. O. BOX 2439 TEL. 806 669-6921 PAMPA, TEXAS 79066-2439
 P. O. BOX 3246 TEL. 806 797-4325 LUBBOCK, TEXAS 79452-3246

SAMPLE DATA

Customer..... J.M.Huber Corporation
 Station No.... --
 Operator..... J.M.Huber Corporation
 Lease..... Dunn 36-1
 Plant..... Spearman
 County/State.. Morton/ Ks
 Pressure..... 70 psig -Sample
 Temperature... --
 Atm.Temp..... --
 Sample Date... Not Given
 Tester..... --
 Sampled By.... J.M.Huber Corporation
 Analysis Date. 8-26-86
 Sample Cyl.No. #1

ANALYSIS RESULTS

COMPONENT	MOL %	GPM,*
Nitrogen N2	4.93	
Carbon D. CO2	0.29	
Methane C1	72.59	
Ethane C2	9.92	2.661
Propane C3	8.15	2.277
i-Butane iC4	1.03	0.347
n-Butane nC4	2.00	0.651
i-Pentane iC5	0.41	0.157
n-Pentane nC5	0.47	0.180
Hexanes C6	0.16	0.071
Heptanes+ C7+	0.05	0.024

DISTRIBUTION: J.M.Huber Corporation

3-Amarillo, Tx
 Mr. Batley

 1-Spearman, Tx
 Mr. Jerry Trout

 1-Borger, Tx
 Mr. Doug Reed



GASOLINE CONTENT (GPM), *

Pentanes & Heavier....	0.432
Butanes & Heavier.....	1.430
Propane & Heavier.....	3.707
Ethane & Heavier.....	6.368
26 # Gasoline.....	0.614

HEATING VALUE,** (Gross Btu/CF)

Water Vap.Sat.....	1247
Dry Gas Basis.....	1269

SPECIFIC GRAVITY

Calc.,Water Sat.....	0.776
Calc.,Dry Basis.....	0.779

REMARKS:

*, 14.65 psia & 60 F
 **, 14.65 psia & 60 F

HIGH PLAINS

WIRELINE SERVICES, INC.



P.O. Box 981
 Perryton, Texas 79070
 Phone 806-435-7195

SUBSURFACE PRESSURE SURVEY

Company J.M. Huber Corporation Test Date April 2-3, 1987
 Lease DUNN 36-1 Well No. _____ Field Kinsler
 Section _____ Block _____ Survey _____ County Morton State Kansas
 Producing Formation Upper Morrow Measurements Are From KB @ 13'
 Elevation _____

Shut-In Time 30 Hrs.
 Shut-In Tubing Pressure 457#
 Shut-In Casing Pressure ---
 Tubing Size 2 3/8" Set at 5001'
 Packer Set at 4947'
 Perforations 4994' - 5000'
 Top of Oil None Approx. _____
 Top of Water None Approx. _____
 Temperature at 4997 ft 132 F.
 Date of Last Test November 19, 1986
 Shut-In Time, Last Test N/A
 Pressure at Datum, Last Test 643.9

Depth	Time	Pressure	Δ P	Δ D	Gradient
0'	2:04 P	459.5	---	---	---
1500'	2:14	479.2	19.7	1500	.013
3000'	2:24	500.5	21.3	1500	.014
4500'	2:36	522.5	22.0	1500	.015
4797'	2:50	527.1	4.6	297	.015
4997'	2:59 P	530.1	3.0	200	.015
LEFT AT MID-PERFS FOR 24 HOURS					
4997'	2:59 P	530.1	0.0		

INSTRUMENT DATA

Element RPG-3
 No. 47238 Range 0-1500 psi
 Clock Amerada
 No. C-10915 Range 24 Hrs. SP
 Calibration Date January 4, 1987

Remarks:

Check T.D. at Not Requested

Operator Danny Fowler

HIGH PLAINS

WIRELINE SERVICES, INC.

P.O. Box 981
 Perryton, Texas 79070
 Phone 806-435-7195



SUBSURFACE PRESSURE SURVEY

Company J.M. Huber Corporation Test Date November 19, 1986
 Lease DUNN 36-1 Well No. _____ Field _____
 Section _____ Block _____ Survey _____ County Morton State Kansas
 Producing Formation _____ Measurements Are From KB @ 13'

Elevation _____
 Shut-In Time N/A
 Shut-In Tubing Pressure 556#
 Shut-In Casing Pressure --
 Tubing Size 2 3/8" Set at 5001'
 Packer Set at 4947'
 Perforations 4994' - 5000'
 Top of Oil None Approx. _____
 Top of Water None Approx. _____
 Temperature at _____ ft _____
 Date of Last Test August 18, 1986
 Shut-In Time, Last Test 6 Months
 Pressure at Datum, Last Test 686.4

Depth	Time	Pressure	Δ P	Δ D	Gradient
0'	12:02 P	557.6	---	---	---
1500'	12:08	582.6	25.0	1500	.017
3000'	12:13	608.3	25.8	1500	.017
4500'	12:18	631.8	23.5	1500	.016
4797'	12:21	640.2	8.3	297	.028
4997'	12:24	643.9	3.8	200	.019

INSTRUMENT DATA

Element RPG-3
 No. 47456 Range 0-1500 psi
 Clock Amerada
 No. A-22096 Range 3 Hrs.
 Calibration Date September 1, 1986

Remarks:

Check T.D. at Not Requested

Operator Ron Sloan

HIGH PLAINS

WIRELINE SERVICES, INC.

P.O. Box 981
 Perryton, Texas 79070
 Phone 806-435-7195

ML
RECEIVED
 AUG 19 1986

J. M. HUBER CORP.
 PANHANDLE DISTRICT

SUBSURFACE PRESSURE SURVEY

Company J.M. Huber Corporation Test Date August 18, 1986
 Lease DUNN 36-1 Well No. _____ Field _____
 Section _____ Block _____ Survey _____ County Morton State Kansas
 Producing Formation _____ Measurements Are From KB @ 13'

Elevation _____
 Shut-In Time 7th Month
 Shut-In Tubing Pressure 593#
 Shut-In Casing Pressure --
 Tubing Size 2 3/8" Set at 5001'
 Packer Set at 4947'
 Perforations 4994' - 5000'
 Top of Oil None Approx. _____
 Top of Water None Approx. _____
 Temperature at 4997 ft 129 F.
 Date of Last Test _____
 Shut-In Time, Last Test _____
 Pressure at Datum, Last Test _____

Depth	Time	Pressure	Δ P	Δ D	Gradient
0'	10:13A	594.7	---	---	---
1000'	10:20	612.1	17.4	1000	.017
2000'	10:24	629.5	17.4	1000	.017
3000'	10:27	648.5	18.9	1000	.019
4397'	10:31	675.0	26.5	1397	.019
4597'	10:34	679.5	4.5	200	.023
4797'	10:37	682.6	3.0	200	.015
4997'	10:39A	686.4	3.8	200	.019



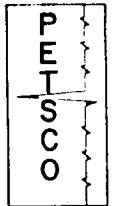
INSTRUMENT DATA

Element RPG-3
 No. 47456 Range 0-1500 psi
 Clock Amerada
 No. A-21894 Range 3 Hrs.
 Calibration Date June 1, 1986

Remarks:

Check T.D. at Not Requested

Operator Robert Hogan



P R E S S U R E G R A D I E N T S U R V E Y

Operator J.M. HUBER
Well Name DUNN 36-1

Test Date 10-28-88
Reservoir MORROW C

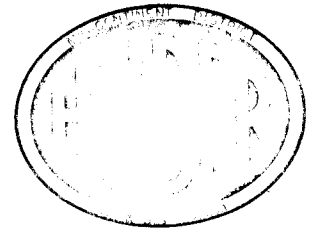
Location 36-31S-41W
County MORTON
State KANSAS
Field KINSLER

Well Status SI 77 HRS
Elevation (Ft) 3339 GL;3352 KB
Zero Point (Ft) GL + 7
Depth Datum (Ft) 4997

>>> BHP 273 psig at 4,997 (-1,658) Ft BHT 126 F at 4997 Ft <<<

>>> Fluid Levels: Oil (None) Water (None) Mud (None) <<<

Depth (Ft)	Pressure (Psig)	Pressure (Psia)	Fluid Gradient (Psi/Ft)	Pressure (K Pa)	Specific Gravity (Water = 1)
0	233.6	248.0		1 710	
4,997	273.4	287.8	.0080	1 984	.018



(4997 Ft = 1 523 Metres)

Specific Gravity Ranges of Well Bore Fluids



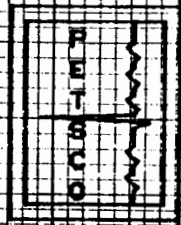
NATURAL GASES
CRUDE OILS
FORMATION WATERS
DRILLING MUDS

Tubing Pressure	234 psig DWG	Tubing Size	2 3/8	Set	5001
Casing Pressure	0 psig DWG	Packer Set	4947	Top Conn	2 3/8
Pressure Element No	51102	Tubing	-	Min ID	-
Run by	H.B.	Casing/Liner Pfs			4994-5000

Remarks:

PRESSURE GRADIENT SURVEY

J. M. HUBER
DUNN 36-1
36-315-41W
MORTON, KANSAS
10-28-88



** PETROLEUM TECHNICAL SERVICE CORP. **

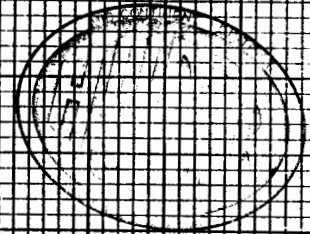
Status: SI 77 HRS

DEPTH (feet)

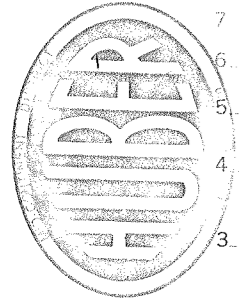
0
1000
2000
3000
4000
5000
6000
7000
8000
9000

230 240 250 260 270 280 290 300

PRESSURE (psig)



Graph Paper



47 6843

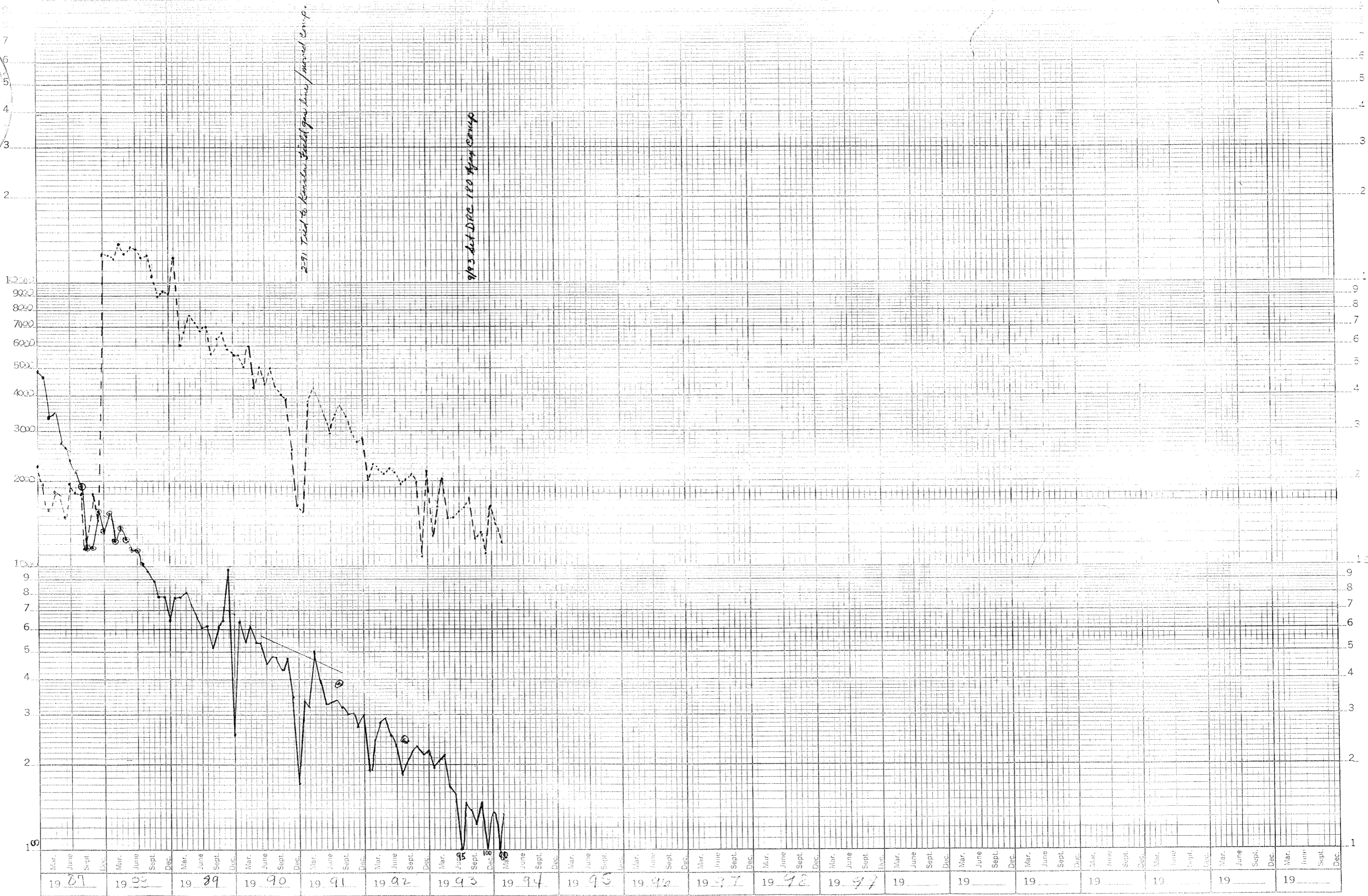
20 YEARS BY MONTHS X 3 LOG CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

1st Prod 11-25-86

Dunn # 26-1

Parachute
Phillips

Year — MCF/M ———



2-91 Trial to Resin to hold per this journal comp.

9/93 del DEC 100 MCF Comp.

STATE OF KANSAS - CORPORATION COMMISSION
 PRODUCTION TEST & GOR REPORT



Form C-5 Revised

Conservation Division
 TYPE TEST: Initial Annual Workover Reevaluation
 Date: 7-23-92
 Company: J. M. Huber Corporation Lease: Dunn Well No.: 36-1
 County: Morton Location: C NE NE Section: 36 Township: 31S Range: 41W Acres: 80
 Field: Kinsler (U. Morrow) Reservoir: Morrow Pipeline Connection: Colony Natural Gas ANGI
 Completion Date: 7-27-86 Type Completion (Describe): Single (oil) Plug Back T.D.: 5250' Packer Set At: 4947'
 Production Method: Pumping Type Fluid Production: Oil & Gas & SW API Gravity of Liquid/Oil: 38°
 Flowing Running Gas
 Casing Size: 5-1/2" Weight: 14 I.D.: 5.012 Set At: 5441' Perforations: 4994' To: 5000'
 Tubing Size: 2-3/8" Weight: 4.7 I.D.: 1.995 Set At: 5000' Perforations: To

Pretest: Starting Date: _____ Time: _____ Ending Date: _____ Time: _____ Duration Hrs.: _____
 Test: Starting Date: 7-22-92 Time: 10:00 AM Ending Date: 7-23-92 Time: 10:00 AM Duration Hrs.: 24

OIL PRODUCTION OBSERVED DATA

Producing Wellhead Pressure		Separator Pressure				Choke Size				
Casing: <u>20.0 psi</u>		Tubing: <u>-</u>								
Bbls./In.	Tank	Starting Gauge		Ending Gauge		Net Prod. Bbls.				
	Size Number	Feet	Inches	Feet	Inches	Water	Oil			
Pretest:										
Test:										
Test:	<u>400</u>	<u>15431</u>	<u>6</u>	<u>0</u>	<u>120</u>	<u>6</u>	<u>6</u>	<u>129.6</u>	<u>0</u>	<u>9.6</u>

GAS PRODUCTION OBSERVED DATA

Orifice Meter Connections			Orifice Meter Range					
Pipe Taps:	Flange Taps:	<u>✓</u>	Differential:	<u>50</u>	Static Pressure:	<u>500</u>		
Measuring Device	Run-Prover-Tester Size	Orifice Size	Meter-Prover-Tester Pressure		Diff. Press.	Gravity	Flowing	
			In. Water	In. Merc.	Psig or (Pd)	(hw) or (hd)	Gas (Gg)	Temp. (t)
Orifice Meter	<u>3"</u>	<u>1,000</u>			<u>17.0</u>	<u>8.82</u>	<u>.735</u>	<u>60</u>
Critical Flow Prover								
Orifice Well Tester								

GAS FLOW RATE CALCULATIONS (R)

Coeff. MCFD (Fb)(Fp)(OWTC)	Meter-Prover Press. (Psa)(Pm)	Extension $\sqrt{hw \times Pm}$	Gravity Factor (Fg)	Flowing Temp. Factor (Ft)	Deviation Factor (Fpv)	Chart Factor (Fd)
<u>4.912</u>	<u>31.4</u>	<u>16.64</u>	<u>1.166</u>	<u>1.000</u>		
Gas Prod. MCFD Flow Rate (R):	<u>95</u>	Oil Prod. Bbls./Day:	<u>9.6</u>	Gas/Oil Ratio (GOR) =	<u>9896</u>	Cubic Ft. per Bbl.

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct. Executed this the 23 day of July 1992

Jim Lamb For Offset Operator
James R. Kay For State
Jim Lamb For Company