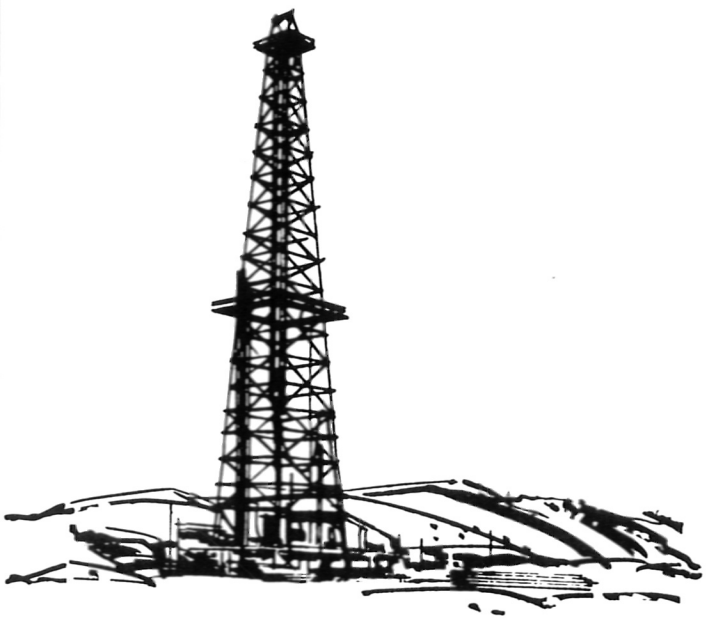
LYNES

BRIGHT NAME IN THE OIL PATCH

Inflatable and Conventional Packer Tools



DRILL STEM TEST
TECHNICAL SERVICE REPORT

Chevron Standard Ltd.
SOBC WM E. Porcupine YT I-13 DST # 7
66o 10' 137o 45'

NOMENCLATURE (Definition of Symbols)

Q	=	average production rate during test, bbls./day
Q_g	=	measured gas production rate during test, MCF/day
k	=	permeability, md
h	=	net pay thickness, ft. (when unknown, test interval is chosen)
μ	=	fluid viscosity, centipoise
Z	=	compressibility factor
T_f	=	reservoir temperature, ° Rankine
m	=	slope of final SIP buildup plot, psig/cycle (psig²/cycle for gas)
b	=	approximate radius of investigation, feet
r_w	=	wellbore radius, feet
t_o	=	total flowing time, minutes
P_o	=	Extrapolated maximum reservoir pressure, psig
P_f	=	final flowing pressure, psig
P.I.	=	productivity index, bbls./day/psi
$P.I._t$	=	theoretical productivity index with damage removed, bbl./day/psi
D.R.	=	damage ratio
E.D.R.	=	estimated damage ratio
AOF	=	absolute open flow potential, MCF/D
AOF_t	=	theoretical absolute open flow if damage were removed
$\bar{Z}$	=	subsea depth
W	=	water gradient based on salinity
H_w	=	potentiometric surface

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

DEFINITION OF SYMBOLS

Recorder Depth 5990 ft. Subsea depth ..... ft. Ticket No. 2928 Hour Recorder No. 5118

t_o = 3 Mins. Initial Shut-In Pressure				Second Flow Pressure		t_o = 123 Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
0	----	557				0	----	1129	
3	2.000	2140				10	13.300	1901	
6	1.500	2282				20	7.150	1998	
9	1.333	2335				30	5.100	2055	
12	1.250	2364				40	4.075	2095	
15	1.200	2379				50	3.460	2127	
18	1.167	2394				60	3.050	2152	
21	1.143	2404				70	2.757	2175	
24	1.125	2421				80	2.537	2192	
27	1.111	2441				90	2.366	2209	
30	1.100	2454				100	2.230	2222	
						110	2.118	2234	
						120	2.025	2247	

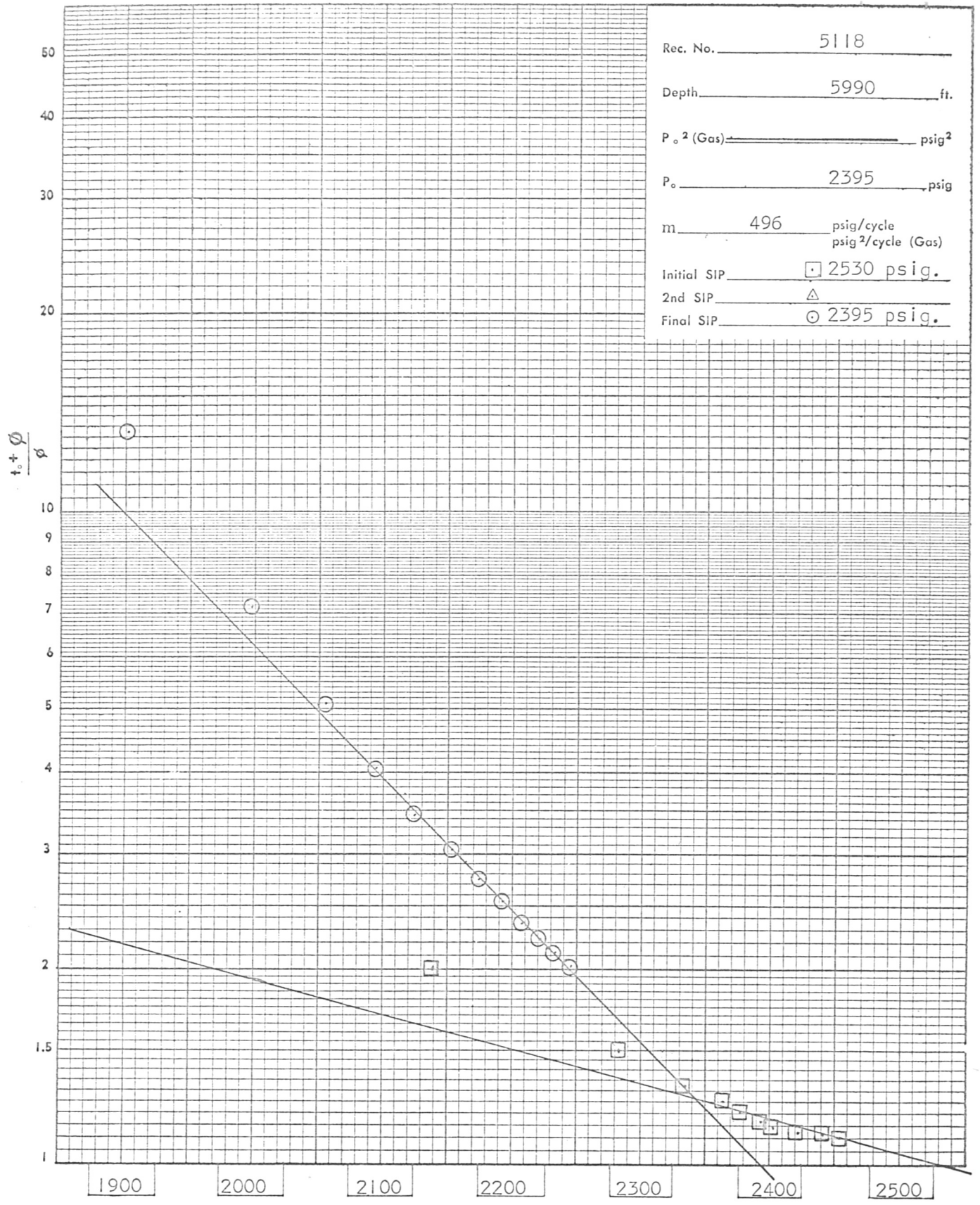
Recorder Depth ..... ft. Subsea depth ..... ft. Ticket No. ..... Hour Recorder No. .....

t_o = Mins. Initial Shut-In Pressure				Second Flow Pressure		t_o = Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ Ø	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)

Interval of Pressure Readings (Mins.) ISIP 3 2nd Flow Press. FSIP 10

Remarks: DST # 7

PRESSURE DATA



DST # 7

PRESSURE EXTRAPOLATION PLOT

LYNES UNITED SERVICES LTD.

TEST DATA				GENERAL INFORMATION	
Test No.	7	Lynes Test			
Formation		T.D. 8004	Ft.	Company	Chevron Standard Ltd.
Interval Tested	5982	Ft. to 6060	Ft.	Address	
Feet of Net Pay Tested	78		Ft.		
Type of Test	Inflatable Straddle				
Cushion	nil	Amount	Ft.	Well Name	SOBC WM E. Porcupine YT I - 13
Started in Hole at	1215 Hrs.	Tool Open at 4:48	Hrs.	Well Number	66° 02' 35.00 137° 46' 58.00
Pre-Flow	3 Mins.	Initial Shut-in 30	Mins.	K.B. Elevation	1666 Sub-Sea Elevation
2nd Flow	Mins.	Second Shut-in	Mins.	Area	Province Yukon
Final Flow	120 Mins.	Final Shut-in 120	Mins.	Company Rep.	Mr. Hansen
Remarks:				Tester	Pat McDonnell
				Contractor	G.P. Rig No. 14
				Ticket No.	2928 Date April 28/71
Blow:	Gas in 10 minutes to surface.			Service Reports To:	
					8 - above address

GAS BLOW MEASUREMENTS				MUD AND HOLE DATA	
Measured with				Mud Type	
				Weight	10.8 Viscosity 195 Water Loss 6.4
				Filter Cake	2/32" Bottom Hole Temperature
Time	Surface Choke	Reading Inches	Cubic Feet/Day	Drill Pipe Size	4 1/2" FH Weight
				Drill Collars	5"H90 I.D. 2 3/4" Feet Run 434.04
	1/4		12.7 Mcf/d	Main Hole or Casing Size	8 3/4"
				Rathole or Liner Size	No. of Feet
				Bottom Hole Choke Size	3/4"
	see flow chart below.			Surface Choke Size	
				Packer Rubber Size	7 5/8 x 66"
				REMARKS	Shut-in pressures suggest average permeability within the interval tested.

RECOVERY	
TOTAL FLUID RECOVERED	2510 Ft. Consisting of:
190 Ft. of	gas cut mud
2320 Ft. of	salty water
Ft. of	
Ft. of	
Test was/was not Reverse Circulated	no
Oil Recovery A.P.I.	Water Specific Gravity
Salinity	39,300 PPM

PRESSURE READINGS				
	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside ___
	Recorder No. 5118	Recorder No. 5811	Recorder No. 5812	Recorder No.
	Capacity 6000	Capacity 6000	Capacity 8200	Capacity
	Depth 5990	Depth 5990	Depth 6075	Depth
NUMBER KEY:				
1 - INITIAL HYDROSTATIC	3650	3667	3575	
2 - PRE-FLOW	557	576		
3 - INITIAL SHUT-IN	2454	2447		
4a - 2nd INITIAL FLOW				
4b - 2nd FINAL FLOW				
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW	441	447		
6 - FINAL FLOW	1129	1135		
7 - FINAL SHUT-IN	2247	2254		
8 - FINAL HYDROSTATIC	3598	3629	3914	

Chevron Standard Ltd. — Company

SOBC WM E. Porcupine YT I-13 — Well Name and Description

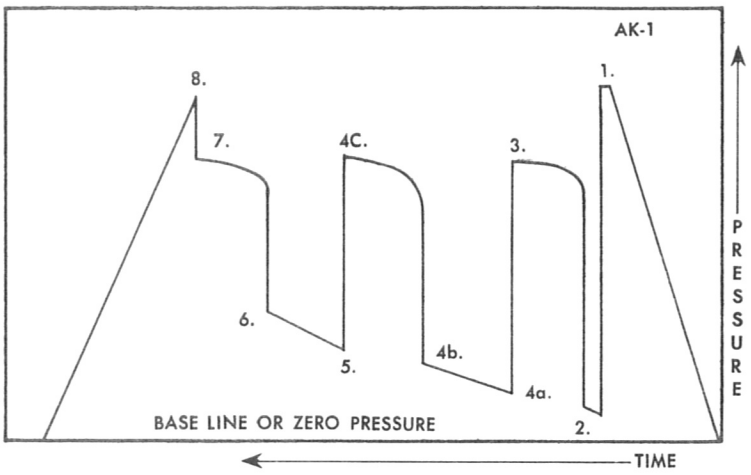
#7 — Test No.

April 28/71 — Date of Test

LYNES

GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

AK-1 recorders. Read from right to left.

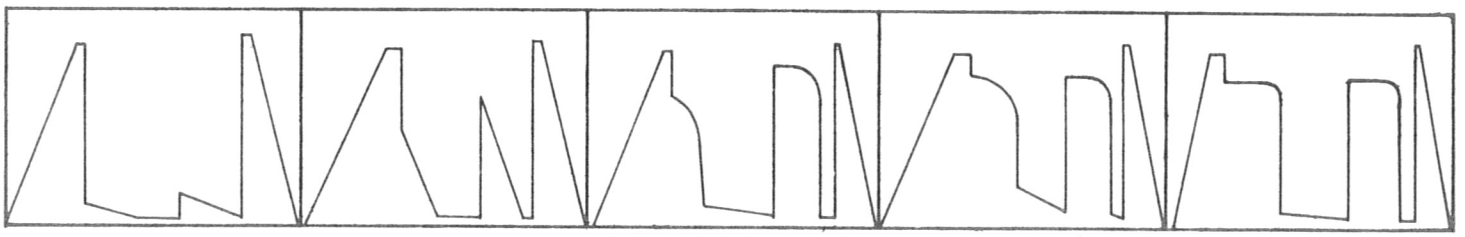


K-3 recorders. Read from left to right.

1. INITIAL HYDROSTATIC MUD PRESSURE
2. PRE-FLOW
3. INITIAL SHUT-IN
4a. 2nd INITIAL FLOW
4b. 2nd FINAL FLOW
4c. 2nd SHUT-IN
5. 3rd INITIAL FLOW
6. FINAL FLOW
7. FINAL SHUT-IN
8. FINAL HYDROSTATIC MUD PRESSURE

N.B. When only two shut-in and flow periods are run, 4a, 4b and 4c are omitted.

Typical charts for visual field analysis ranging from very low to high permeability.



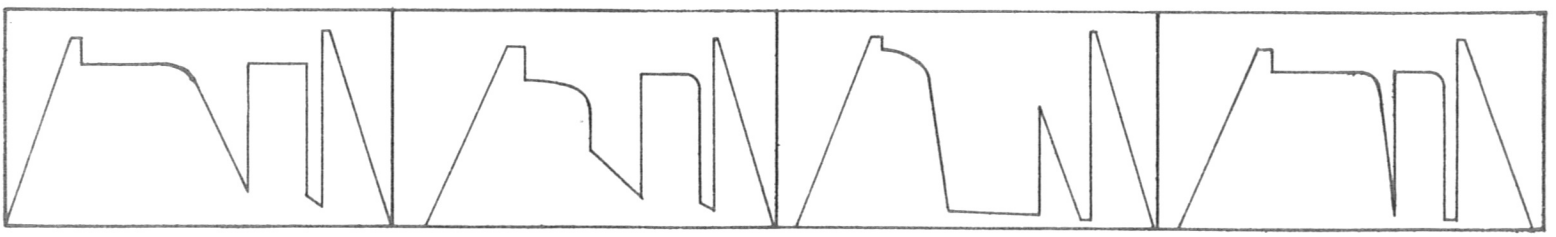
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200' ft).

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.

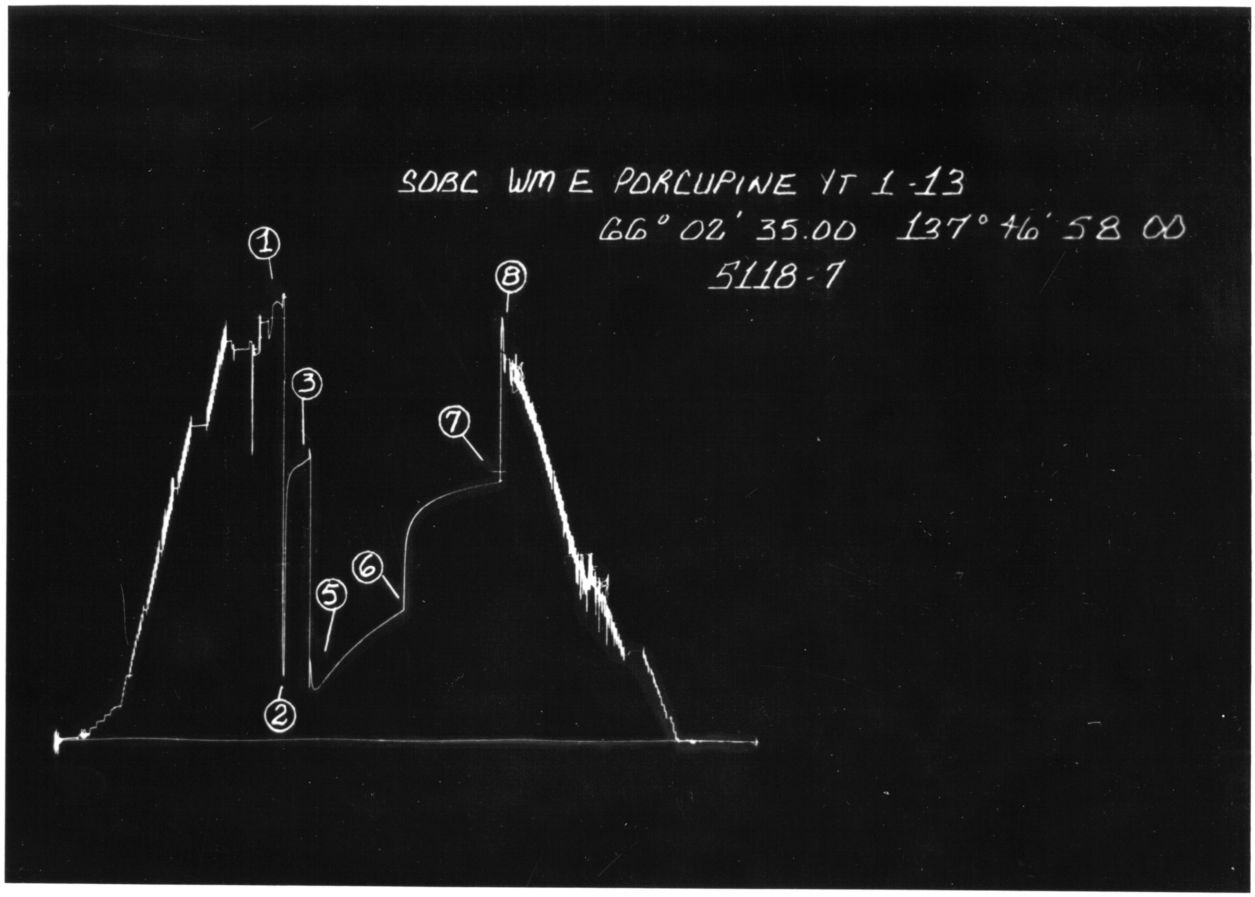


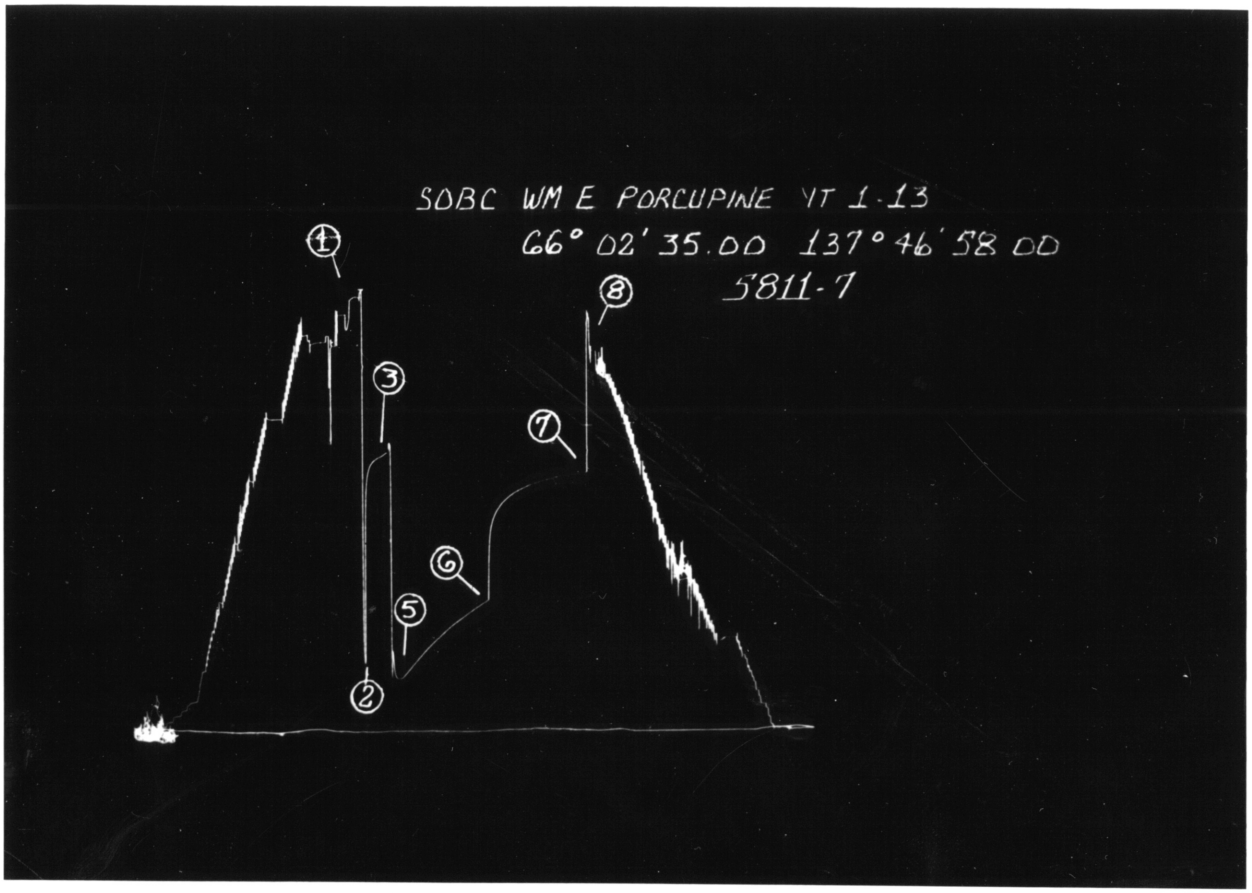
Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.

Tight hole chamber tester. Permeability very difficult to interpret unless the recovery is less than chamber length. Flow pressure builds up rapidly if recovery is large, similar to a shut-in.


SOBC WM E PORCUPINE YT 1-13
66° 02' 35.00 137° 46' 58 00
5118-7
1
2
3
5
6
7
8


SOBC WM E PORCUPINE YT 1-13
66° 02' 35.00 137° 46' 58 00
5811-7
1
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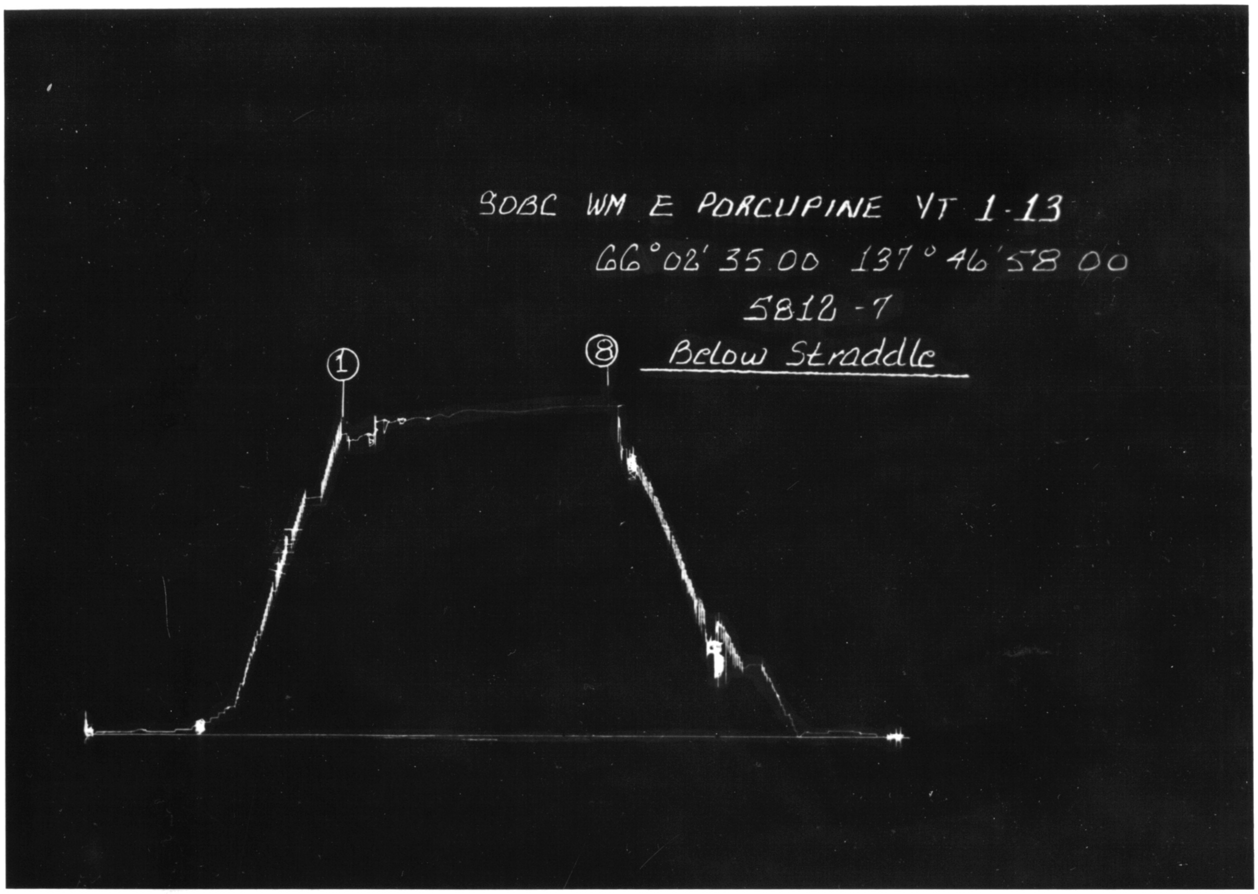
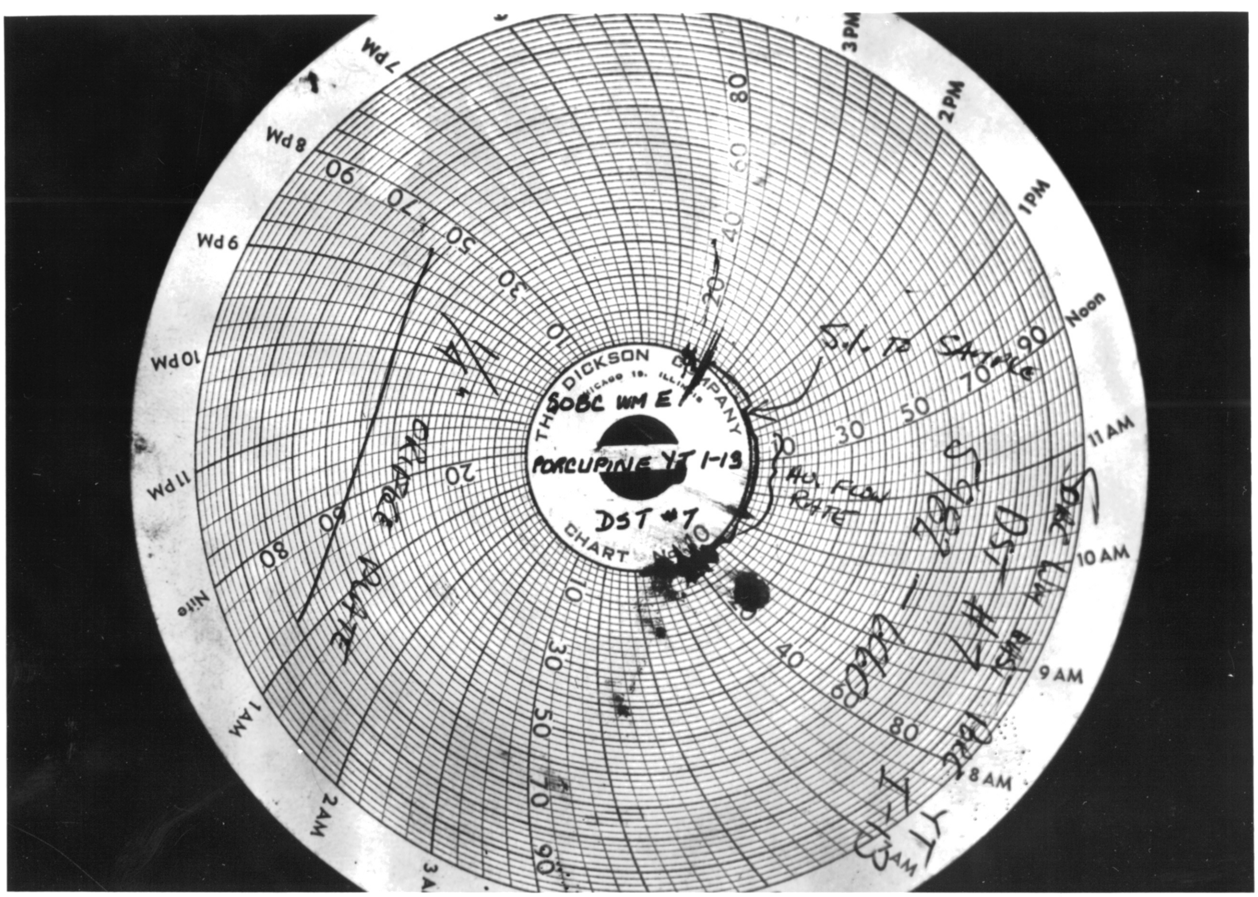

SOBC WM E PORCUPINE YT 1-13
66°02'35.00 137°46'58.00
5812-7
Below Straddle


THE DICKSON COMPANY
SOBC WM E
PORCUPINE YT 1-13
DST #7
CHART No.