COMPANY MICHIGAN-WISCONSIN PIPELINE COMPANY WELL FOX #1 TEST NO. 1 COUNTY CLARK STATE KANSAS

25-31S-22W

JOHNSTON

Schlumberger

technical report

F.R. #10662 C

JOHNSTON
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SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0656	-	-
WEAK BLOW			
CLOSED FOR INITIAL SHUT-IN	0726	-	-
FINISHED SHUT-IN	0826	-	-
PULLED PACKER LOOSE	0915	-	-

Cushion Type	Amount	Pressure	Bottom Choke
	-		Size 15/16"

MUD DATA

Mud Type IMPERMIX SALT Wt. 9.4
Viscosity 46 Water Loss 9.6 C.C.
Resist: of Mud - @ - °F; of Filtrate - @ - °F
Chloride Content - PPM

EQUIPMENT & HOLE DATA

Type Test M.F.E. STRADDLE OPEN
Formation Tested KANSAS CITY / HOLE
Elevation - Ft.
Net Productive Interval - Ft.
Estimated Porosity - %
All Depths Measured From -
Total Depth 4494 Ft.
Main Hole/Casing Size 7 7/8"
Rat Hole/Liner Size -
Drill Collar Length 270' I.D. 2.25"
Drill Pipe Length 4119' I.D. 3.80"
Packer Depth(s) 4419', 4425', 4440' Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure 0 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas -
cc. Oil -
cc. Water 2400
cc. Mud -
Tot. Liquid cc. 2400
Gravity - °API @ - °F.
Gas/Oil Ratio - cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	.07 @ 66 °F.	66000 ppm
Recovery Mud	- @ - °F.	
Recovery Mud Filtrate	- @ - °F.	- ppm
Mud Pit Sample	- @ - °F.	
Mud Pit Sample Filtrate	- @ - °F.	- ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
MUDDY SALT WATER	240	1.18				@ °F.	@ °F.	
TOP SAMPLE						@ °F.	.08 @ 66 °F.	63000
MIDDLE SAMPLE						@ °F.	.07 @ 66 °F.	64000
BOTTOM SAMPLE						@ °F.	.07 @ 66 °F.	66000
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks:

Address SUITE 1400, FIDELITY PLAZA; OKLAHOMA CITY, OKLAHOMA 73102

Company MICHIGAN-WISCONSIN PIPELINE COMPANY Field -
Well FOX #1 Location SEC. 25-31S-22W
Test Interval 4425' TO 4440' Test # 1 Date 3-9-76

County CLARK State KANSAS Field Report No. 10662 C
Technician MULLINS (WOODWARD) Test Approved By MR. WILLIAMS CLAPPS No. Reports Requested 6x

JOHNSTON Schlumberger

BOTTOM HOLE PRESSURE AND TIME DATA

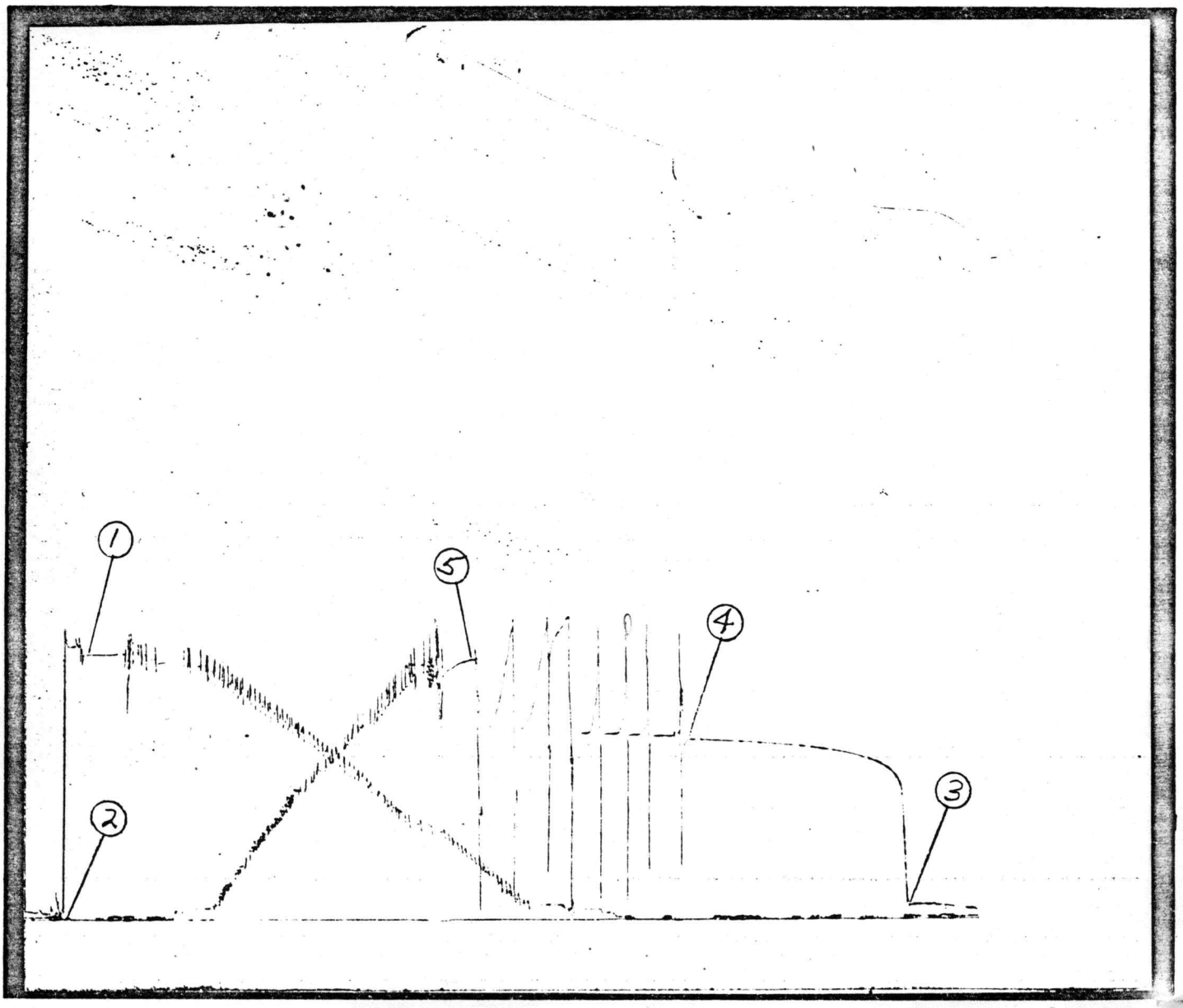
INSTRUMENT NO.: T-453 CAPACITY (P.S.I.): 7000# DEPTH 4402 FT.

PORT OPENING: INSIDE BOTTOM HOLE TEMP.: 130°F. FIELD REPORT NO. 10662 C

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	2223		
INITIAL FLOW (1)	2	8		
INITIAL FLOW (2)	3	120	30	
INITIAL SHUT-IN	4	1510	60	
SECOND FLOW (1)				
SECOND FLOW (2)				
SECOND SHUT-IN				
FINAL FLOW (1)				
FINAL FLOW (2)			-	
FINAL SHUT-IN			-	
FINAL HYDROSTATIC MUD	5	2178		

REMARKS:

6+



JOHNSTON Schlumberger

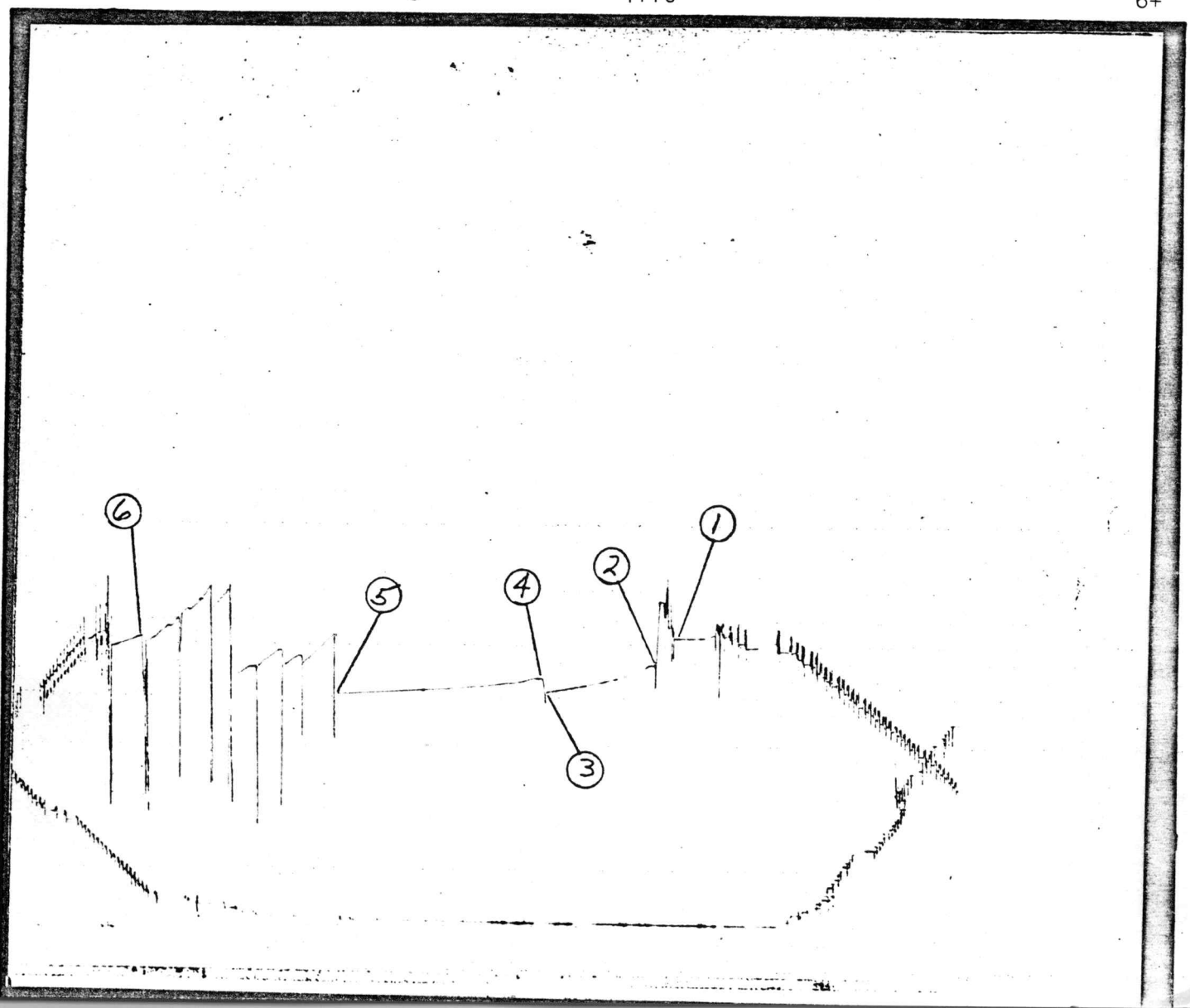
BOTTOM HOLE PRESSURE AND TIME DATA

INSTRUMENT NO.: J-313 CAPACITY (P.S.I.): 6400# DEPTH 4488 FT.

PORT OPENING: OUTSIDE BOTTOM HOLE TEMP.: 130°F. FIELD REPORT NO. 10662 C

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	2252		
INITIAL FLOW (1)				
INITIAL FLOW (2)			30	
INITIAL SHUT-IN			60	
SECOND FLOW (1)				
SECOND FLOW (2)				
SECOND SHUT-IN				
FINAL FLOW (1)				
FINAL FLOW (2)			-	
FINAL SHUT-IN			-	
FINAL HYDROSTATIC MUD	6	2205		
	2	2012		
REMARKS: BELOW STRADDLE.	3	1815		
	4	1918		
	5	1779		

6+



JOHNSTON

PRESSURE LOG*

Field Report No. 10662 C

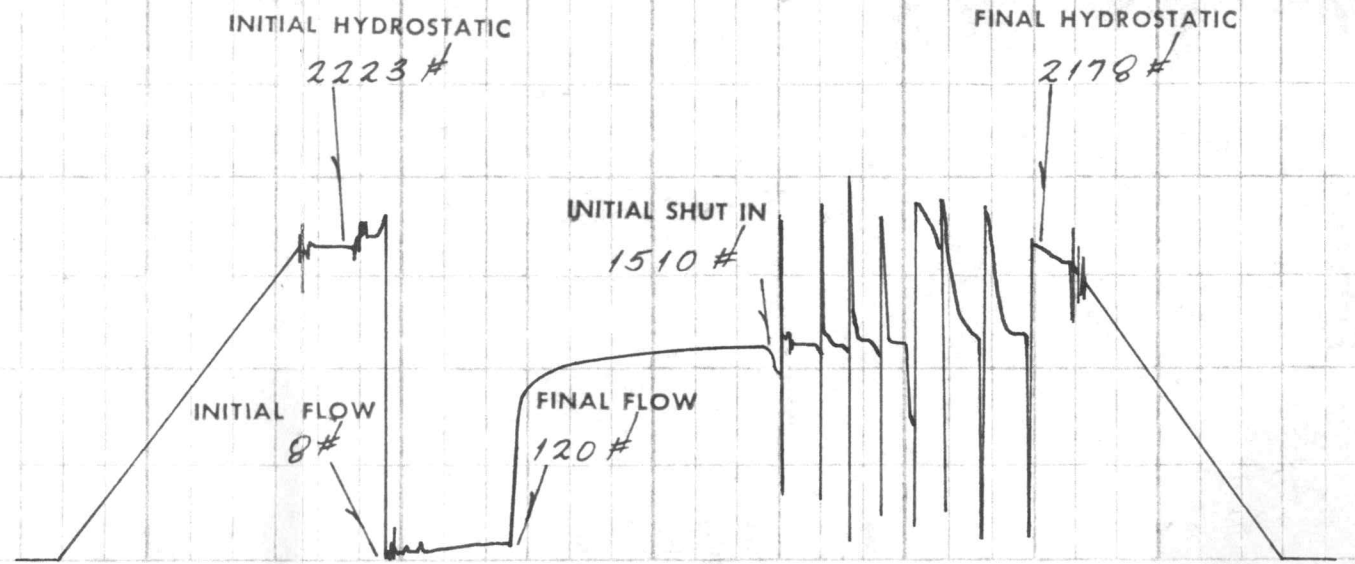
Instrument: Number T-453

Capacity 7000 p.s.i.

Depth 4402 ft.

*a continuous tracing of the original chart

1 HOUR



TIME →

0600 0656 0700 0800 0900 1000

1 HOUR

Form J-228a

COMPANY MICHIGAN-WISCONSIN PIPELINE COMPANY WELL FOX #1 TEST NO. 3 COUNTY CLARK STATE KANSAS

25-31-22W

JOHNSTON

Schlumberger

technical report

F.R. #10738 C

JOHNSTON
Schlumberger

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0622	-	12/64"
BLOW, 1" IN WATER			
CLOSED FOR INITIAL SHUT-IN	0652	-	"
FINISHED SHUT-IN	0752	-	"
RE-OPENED TOOL	0754	-	"
BLOW, 1" IN WATER FOR			
BALANCE OF TEST			
CLOSED FOR FINAL SHUT-IN	0854	-	"
FINISHED SHUT-IN	1054	-	"
EQUALIZED MUD	1057	-	"
PULLED PACKER LOOSE	1100	-	-

Cushion Type	Amount	Pressure	Bottom Choke
	-		Size 15/16"

MUD DATA

Mud Type CHEMICAL Wt. 9.6
Viscosity 49 Water Loss 7.2 C.C.
Resist: of Mud .05 @ 68 °F; of Filtrate .18 @ 64 °F
Chloride Content 34000 PPM

EQUIPMENT & HOLE DATA

Type Test M.F.E. OPEN HOLE
Formation Tested MISSISSIPPI
Elevation - Ft.
Net Productive Interval - Ft.
Estimated Porosity - %
All Depths Measured From -
Total Depth 5457 Ft.
Main Hole/Casing Size 7 7/8"
Rat Hole/Liner Size -
Drill Collar Length 248' I.D. 2.25"
Drill Pipe Length 5127' I.D. 3.80"
Packer Depth(s) 5402' & 5408' Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure 30 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas -
cc. Oil -
cc. Water 2380
cc. Mud -
Tot. Liquid cc. 2380
Gravity - °API @ - °F.
Gas/Oil Ratio - cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	.1 @ 68 °F.	46000 ppm
Recovery Mud	- @ - °F.	
Recovery Mud Filtrate	- @ - °F.	- ppm
Mud Pit Sample	.05 @ 68 °F.	
Mud Pit Sample Filtrate	.18 @ 64 °F.	34000 ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
DRILLING MUD	120	0.59				@ °F.	.04 @ 64 °F.	28000
MUDDY WATER	60	0.29				@ °F.	.1 @ 68 °F.	46000
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks:

Address SUITE 1400, FIDELITY PLAZA; OKLAHOMA CITY, OKLAHOMA 73102

Company MICHIGAN-WISCONSIN PIPELINE COMPANY Field WILD CAT
Well FOX #1 Location SEC. 25-31S-22W
Test Interval 5408' TO 5457' Test # 3 Date 3-16-76

County CLARK State KANSAS
Technician BRUNNER (WOODWARD) Test Approved By MR. R.G. HOSLAM

Field Report No. 10738 C
No. Reports Requested 12 (4x)

JOHNSTON Schlumberger

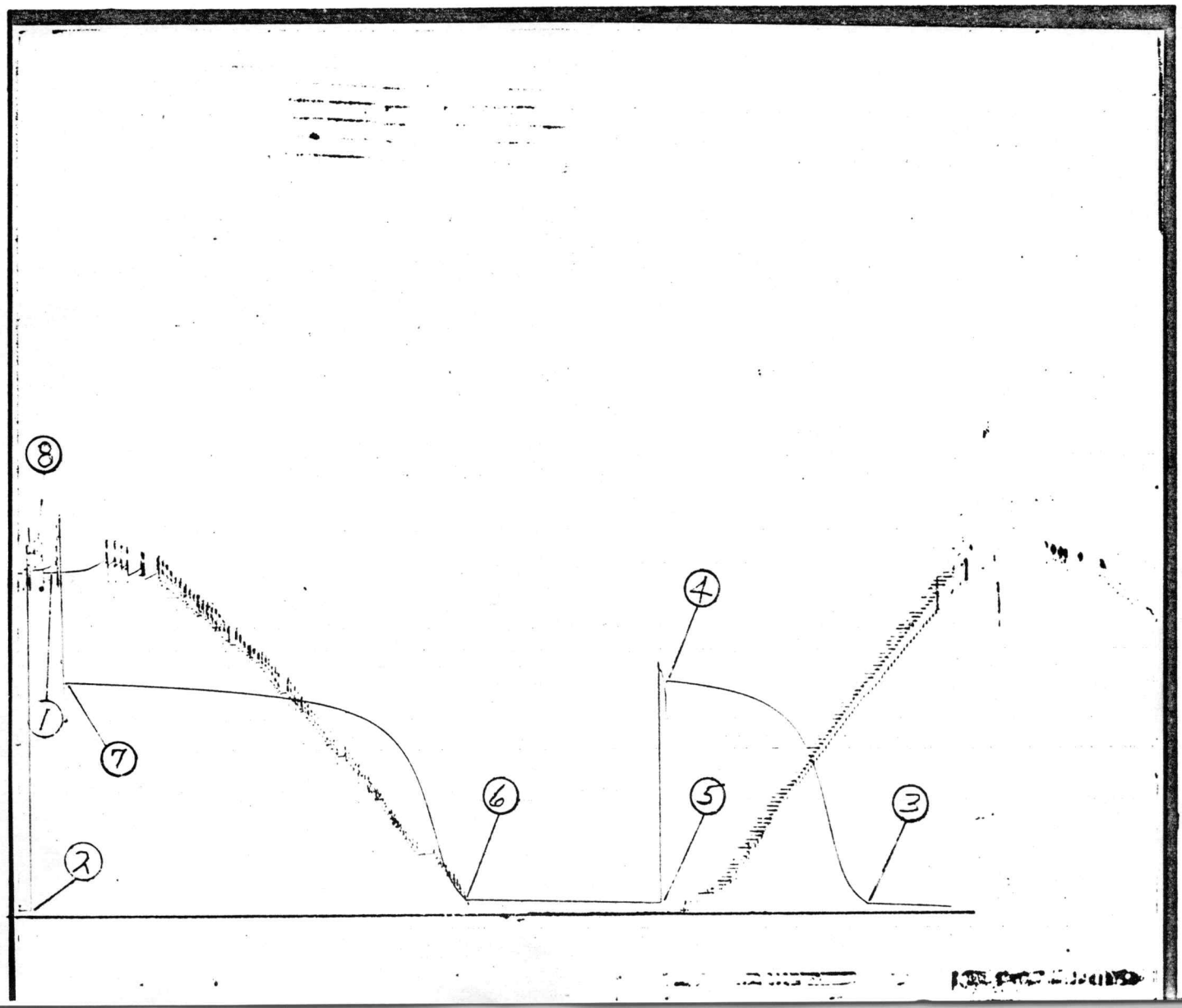
BOTTOM HOLE PRESSURE AND TIME DATA

INSTRUMENT NO.: J-113 CAPACITY (P.S.I.): 6400# DEPTH 5451 FT.

PORT OPENING: OUTSIDE BOTTOM HOLE TEMP.: 115°F. FIELD REPORT NO. 10738 C

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	2727		
INITIAL FLOW (1)	2	42		
INITIAL FLOW (2)	3	75	30	
INITIAL SHUT-IN	4	1844	60	
SECOND FLOW (1)				
SECOND FLOW (2)				
SECOND SHUT-IN				
FINAL FLOW (1)	5	92		
FINAL FLOW (2)	6	123	60	
FINAL SHUT-IN	7	1847	120	
FINAL HYDROSTATIC MUD	8	2747		

REMARKS:



JOHNSTON

PRESSURE LOG*

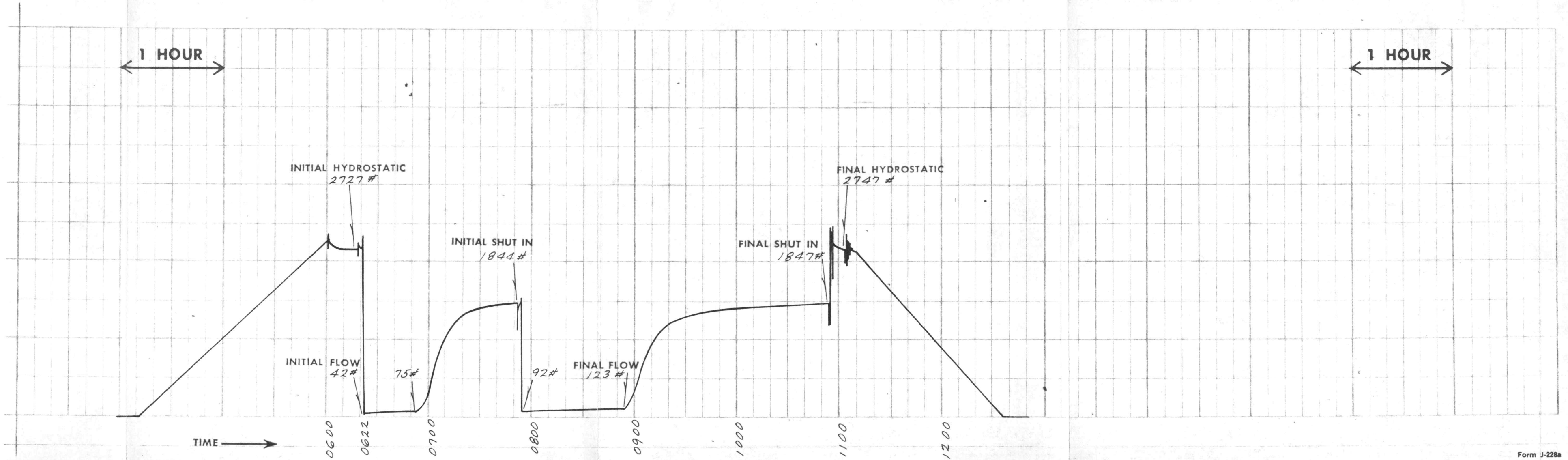
Field Report No. 10738 C

Instrument: Number J-113

Capacity 6400 p.s.i.

Depth 5451 ft.

*a continuous tracing of the original chart



Form J-228a

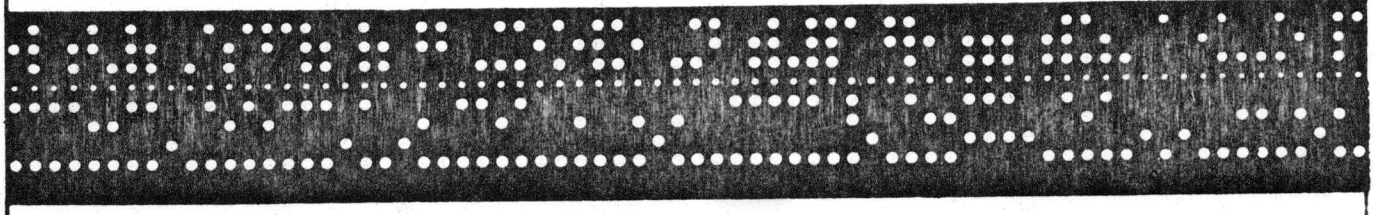
COMPANY MICHIGAN-WISCONSIN PIPELINE COMPANY WELL FOX #1 TEST NO. 2 COUNTY CLARK STATE KANSAS

25-31-22

JOHNSTON

Schlumberger

computerized data analysis



F.R. # 07453 C

JOHNSTON
Schlumberger

COMPUTERIZED DATA ANALYSIS

MARCH 23, 1976

GENTLEMEN:

THE ENCLOSED TEST APPEARS TO BE A GOOD MECHANICAL DRILL STEM TEST DURING WHICH THE TOOLS DID FUNCTION PROPERLY. THE FORMATION PRODUCED ENOUGH RESERVOIR FLUID FOR PROPER IDENTIFICATION. RESERVOIR PRESSURE DRAWDOWN WAS SUFFICIENT AND ADEQUATE SHUT-IN BUILD-UPS DID OCCUR FOR RELIABLE QUANTITATIVE ANALYSIS.

1. FLOW RATE: A FLOW RATE OF 62 BBLS/DAY OF LIQUID WAS CALCULATED FOR THIS TEST USING A PRESSURE GRADIENT OF .3653 P.S.I./FT. FOR THE RECOVERED LIQUID AND THE FINAL FLOW PRESSURE.

2. RESERVOIR PRESSURE: EXTRAPOLATION OF THE INITIAL SHUT-IN PRESSURE BUILD-UP INDICATES A MAXIMUM RESERVOIR PRESSURE OF 1471 P.S.I.G. AT RECORDER DEPTH. EXTRAPOLATION OF THE FINAL SHUT-IN PRESSURE BUILD-UP INDICATES A MAXIMUM RESERVOIR PRESSURE OF 1253 P.S.I.G. AT RECORDER DEPTH. THE DIFFERENCE BETWEEN THE INITIAL AND FINAL SHUT-IN PRESSURE OF 218 P.S.I.G. WAS PROBABLY DUE TO INSUFFICIENT SHUT-IN TIME.

3. PERMEABILITY: THE CALCULATED TRANSMISSIBILITY FACTOR OF 20.83 MD.-FT./CP. INDICATES AN AVERAGE EFFECTIVE PERMEABILITY TO LIQUID OF 5.69 MD. FOR THE REPORTED 7 FOOT TEST INTERVAL. THE CALCULATIONS WERE BASED ON A SLOPE OF 484 P.S.I./LOG CYCLE OBTAINED FROM THE FINAL SHUT-IN BUILD-UP PLOT. IT WAS ASSUMED FOR THESE CALCULATIONS: (A) THE 40.4° API AT 60° F. OIL CONTAINED 138 CU.FT./BBL. OF ORIGINAL DISSOLVED GAS (B) VISCOSITY 1.80 CP., (C) FORMATION VOLUME FACTOR 1.062 BBL/BBL. THESE FIGURES WERE OBTAINED FROM THE AVAILABLE TECHNICAL LITERATURE.

4. WELL BORE DAMAGE: THE CALCULATED DAMAGE RATIO OF .61 INDICATES THAT NO WELL BORE DAMAGE IS PRESENT AT THE TIME AND CONDITIONS OF THIS TEST.

5. RADIUS OF INVESTIGATION: THE CALCULATED RADIUS OF INVESTIGATION OF THIS TEST IS 82 FEET BASED ON AN ASSUMED POROSITY OF 10%, COMPRESSIBILITY OF 7.3×10^{-6}, AND OTHER ASSUMPTIONS MADE IN NUMBER 3 ABOVE.

6. GENERAL COMMENTS: THE FORMATION EXHIBITS THE CHARACTERISTICS OF RELATIVELY GOOD PERMEABILITY EFFECTIVE TO THE RESERVOIR FLUID AND INDICATES THE ABSENCE OF WELL BORE DAMAGE. THE MOST SIGNIFICANT FACTOR OBSERVED DURING THIS TEST, HOWEVER, WOULD BE THE PRESENCE OF AN ANOMALY. THE BREAK UPWARD IN SLOPE EXHIBITED IN THE FINAL SHUT-IN PLOT USUALLY INDICATES A DECREASE IN TRANSMISSIBILITY AWAY FROM THE WELL BORE. LOGS SHOULD BE EXAMINED AS A THINNING EFFECT OR FRACTURES COULD BE PRESENT AND WELL POTENTIAL WOULD THEN BE AFFECTED.

JOHN F. VISCARDE
RESERVOIR EVALUATION
DEPARTMENT

MICHIGAN-WISCONSIN PIPELINE COMPANY
FOX # 1; CLARK COUNTY, KANSAS
TEST # 2; 5091' TO 5116'
SECTION: 25-31S-22W

FIELD REPORT # 07453 C

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.

Reservoir Engineering Data

JOHNSTON ...found a better way

Recorder No. J-108 Field Report No. 07453 C

Damage Ratio	DR	.61		Effective Transmissibility LIQUID	$\frac{Kh}{\mu B}$	20.83	Md-ft./Cp.
Maximum Reservoir Pressure INITIAL SHUT-IN	P_o	1471	P.S.I.G.	Effective Transmissability	$\frac{Kh}{\mu B}$	-	Md-ft./Cp.
Slope of Shut-in Curve FINAL SHUT-IN	M	484	PSI/log cycle	Flow Rate LIQUID	Q	62	Bbl./day
Potentiometric Surface (Datum Plane, Sea Level)	PS	-	ft.	Pressure Gradient		.288	PSI/ft.
Productivity Index	PI	.046	Bbl./day/PSI	Gas Oil Ratio SAMPLE CHAMBER	GOR	138	CF/Bbl.
Radius of Investigation		82	ft.	K (Effective to LIQUID)		5.69	Md.

SLOPE M = 1173 - 689 = 484

Assumptions made for Calculations for Liquid Recoveries

1. Q is averaged at a constant rate.
2. P_f is formation flowing pressure at a constant rate.
3. Formation flow is taken as single phase flow.
   If gas is produced at surface, phase separation is assumed to have occurred in drill pipe.
4. Radial flow is assumed.
5. For the purpose of calculating EDR where specific reservoir parameters are not available it is assumed that:

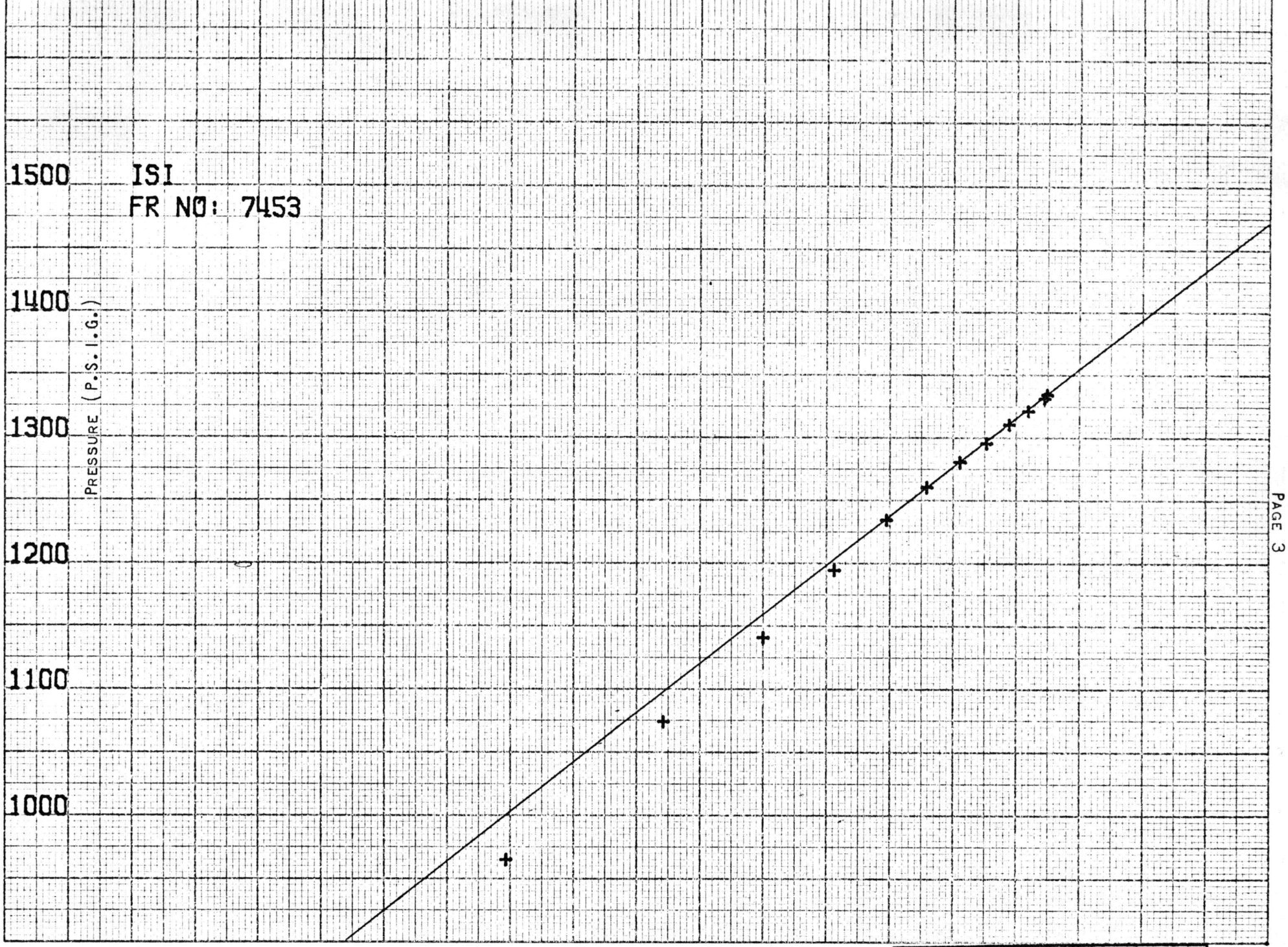
Effective permeability, K, will fall between	1 to 200 md
Formation porosity, ϕ, will fall between	0.1 to 0.3
Fluid compressibility, c, will fall between	10^{-6} to 10^{-4}
Fluid viscosity, μ, will fall between	0.05 to 50 cp.
Well bore radius, r_w, will fall between	$3\frac{7}{8}$" to $4\frac{3}{8}$"
Which gives an average value for the function log $\frac{K}{\phi\mu c r_w^2}$ of	5.5

6. Other standard radial flow, equilibrium assumptions.

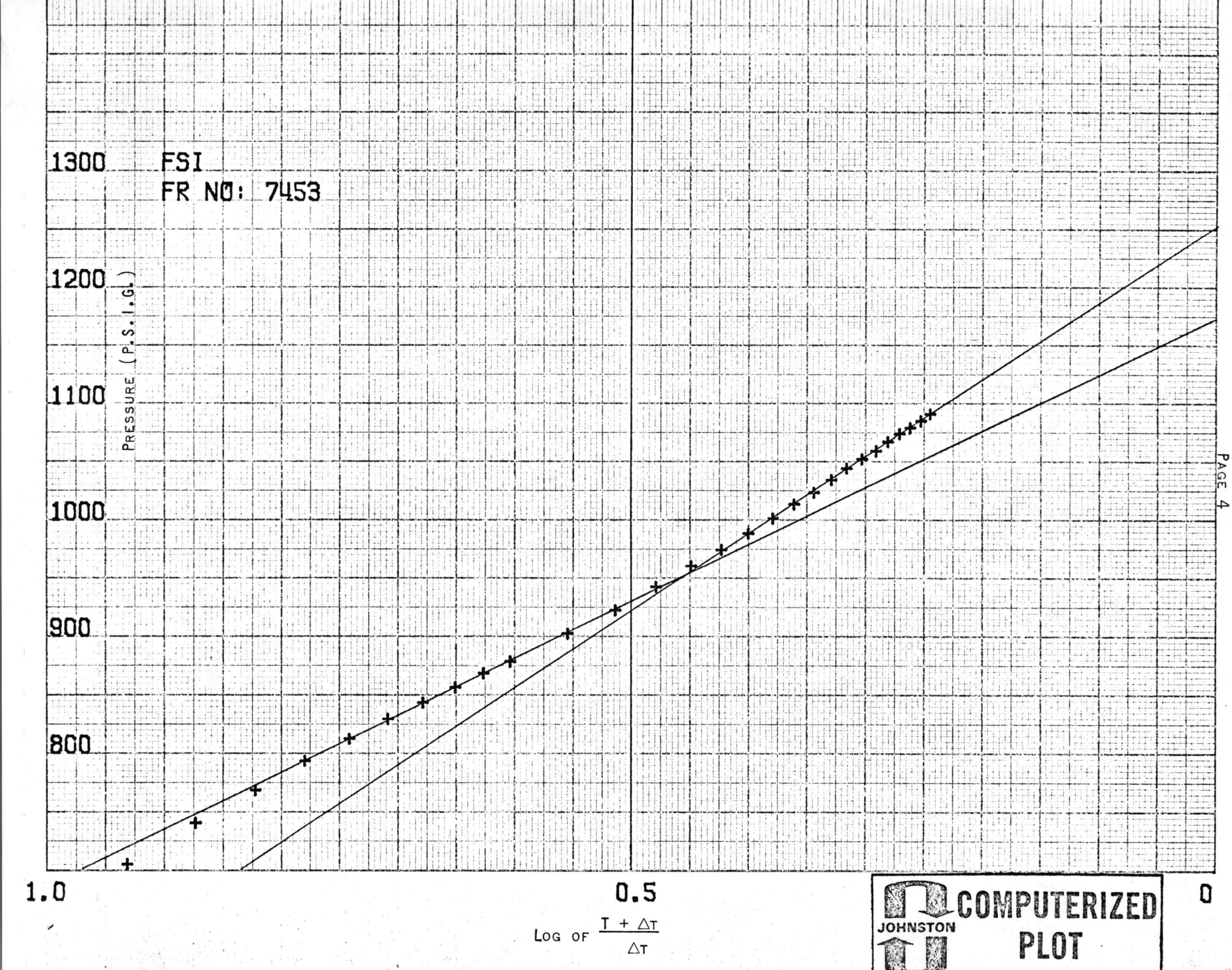
Empirical Equations:

1. $EDR = \frac{P_o - P_f}{M(\log T + 2.65)}$ where $M = \frac{P_1 - P_{10}}{\text{Log Cycle}}$
2. Transmissibility $\frac{Kh}{\mu\beta} = \frac{162.6\ Q}{M}$
3. DST $J = \frac{Q}{P_o - P_f}$ Theoretical $J = \frac{7.08 \times 10^{-3}\ Kh}{\mu\beta \ln (r_e/r_w)}$ Assumed $\ln (r_e/r_w) = 7.60$
4. P.S. = [$P_o \times 2.309$ ft./PSI] − [Recorder depth to sea level.]
5. Radius of investigation, $r_i \cong \sqrt{\frac{Kt}{40\phi\mu c}}$ where t = time in days

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.



JOHNSTON COMPUTERIZED PLOT



JOHNSTON COMPUTERIZED PLOT

JOHNSTON
Schlumberger

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0645	-	BUBBLE HOSE
GAS TO SURFACE	0709	-	"
STRONG BLOW			
CLOSED FOR INITIAL SHUT-IN	0715	-	"
FINISHED SHUT-IN	0815	-	"
RE-OPENED TOOL	0820	-	"
	0825	1 1/2#	1/4"
	0830	1#	"
	0835	1#	"
	0840	20 oz.	"
	0850	18 oz.	"
	0900	13 oz.	"
	0910	10 oz.	"
	0920	8 oz.	"
CLOSED FOR FINAL SHUT-IN	0920	8 oz.	"
PULLED PACKER LOOSE	1120	-	-

Cushion Type	Amount	Pressure	Bottom Choke Size
	-		15/16"

MUD DATA

Mud Type SALT GEL Wt. 9.5
Viscosity 58 Water Loss 8.8 C.C.
Resist: of Mud .36 @ 70 °F; of Filtrate .2 @ 70 °F
Chloride Content 32000 PPM

EQUIPMENT & HOLE DATA

Type Test M.F.E. OPEN HOLE
Formation Tested MISSISSIPPI
Elevation - Ft.
Net Productive Interval 7 Ft.
Estimated Porosity - %
All Depths Measured From -
Total Depth 5116 Ft.
Main Hole/Casing Size 7 7/8"
Rat Hole/Liner Size -
Drill Collar Length 120' I.D. 2.25"
Drill Pipe Length 4936' I.D. 3.8"
Packer Depth(s) 5085' & 5091' Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure 110 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas 1.3
cc. Oil 1500
cc. Water -
cc. Mud -
Tot. Liquid cc. 1500
Gravity - °API @ - °F.
Gas/Oil Ratio 138 cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	- @ - °F.	- ppm
Recovery Mud	- @ - °F.	
Recovery Mud Filtrate	- @ - °F.	- ppm
Mud Pit Sample	.36 @ 70 °F.	
Mud Pit Sample Filtrate	.2 @ 70 °F.	32000 ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
HEAVILY GAS AND OIL CUT						@ °F.	@ °F.	
DRILLING MUD	540	6.55	75		25 MUD	40.4@ 60 °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks:

Address SUITE 1400, FIDELITY PLAZA; OKLAHOMA CITY, OKLAHOMA 73102

Company MICHIGAN-WISCONSIN PIPELINE COMPANY Field N. SITKA
Well FOX # 1 Location SEC. 25-31S-22W
Test Interval 5091' TO 5116' Test # 2 Date 3-13-76

County CLARK State KANSAS
Technician TYSON (WOODWARD) Test Approved By -

Field Report No. 07453 C
No. Reports Requested 12 (4x)

JOHNSTON
Schlumberger

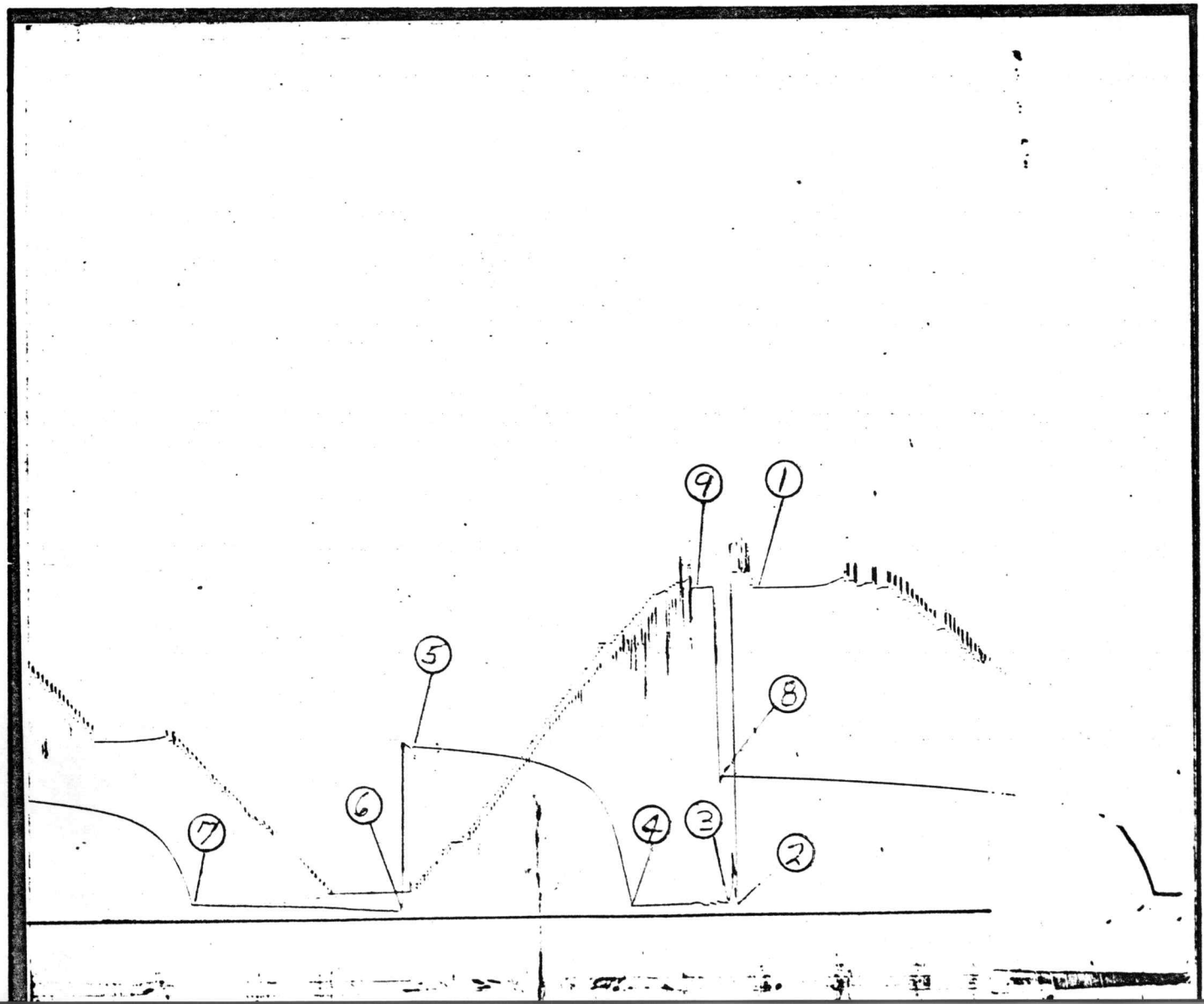
FIELD REPORT NO.: 07453 C

INSTRUMENT NO.: J-108

CAPACITY: 6400#

NO. OF REPORTS: 12-

PRESSURE DATA FROM THIS CHART IS PRESENTED ON NEXT PAGE



BOTTOM HOLE PRESSURE AND TIME DATA

JOHNSTON Schlumberger

INSTRUMENT NO.: J-108 CAPACITY(P.S.I.): 6400 DEPTH: 5110 FT.

PORT OPENING: INSIDE BOTTOM HOLE TEMP.: 110

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	2560.4		
INITIAL FLOW(1)	2	76.1		
INITIAL FLOW(2)	4	92.9	30	30
INITIAL SHUT-IN	5	1335.1	60	61
FINAL FLOW(1)	6	69.6		
FINAL FLOW(2)	7	127.9	60	60
FINAL SHUT-IN	8	1090.5	120	120
FINAL HYDROSTATIC MUD	9	2565.6		

CHART INDICATES SLIGHT TOOL PLUGGING DURING THE INITIAL FLOW PERIOD.

INCREMENTAL READINGS

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	PW - PF (P.S.I.)	COMMENTS
1		2560.4				HYDROSTATIC MUD
2	0	76.1				INITIAL FLOW(1)
3	2	105.9				FLOW POINT
	5	113.6				
	10	104.6				
	15	99.4				
	20	96.8				
	25	94.2				
4	30	92.9				INITIAL FLOW(2)
4	0	92.9				STARTED SHUT-IN
	5	689.4	7.000	0.845	596.5	
	10	965.0	4.000	0.602	872.1	
	15	1073.7	3.000	0.477	980.8	
	20	1141.0	2.500	0.398	1048.1	
	25	1195.3	2.200	0.342	1102.4	
	30	1235.4	2.000	0.301	1142.5	
	35	1261.3	1.857	0.269	1168.4	
	40	1280.7	1.750	0.243	1187.8	
	45	1296.3	1.667	0.222	1203.3	
	50	1310.5	1.600	0.204	1217.6	
	55	1322.1	1.545	0.189	1229.2	
	60	1332.5	1.500	0.176	1239.6	
5	61	1335.1	1.492	0.174	1242.1	INITIAL SHUT-IN
6	0	69.6				FINAL FLOW(1)
	5	67.1				
	10	74.8				
	15	82.6				
	20	95.5				
	25	100.7				
	30	104.6				
	35	108.5				
	40	111.0				

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	PW - PF (P.S.I.)	COMMENTS
	45	116.2				
	50	120.1				
	55	122.7				
7	60	127.9				FINAL FLOW(2)
7	0	127.9				STARTED SHUT-IN
	1	218.4	91.000	1.959	90.6	
	2	303.8	46.000	1.663	176.0	
	3	373.7	31.000	1.491	245.8	
	4	430.6	23.500	1.371	302.8	
	5	481.1	19.000	1.279	353.2	
	6	527.7	16.000	1.204	399.8	
	7	565.2	13.857	1.142	437.3	
	8	601.4	12.250	1.088	473.6	
	9	633.8	11.000	1.041	505.9	
	10	658.4	10.000	1.000	530.5	
	12	704.9	8.500	0.929	577.1	
	14	739.9	7.429	0.871	612.0	
	16	768.3	6.625	0.821	640.5	
	18	792.9	6.000	0.778	665.1	
	20	812.3	5.500	0.740	684.5	
	22	829.2	5.091	0.707	701.3	
	24	843.4	4.750	0.677	715.5	
	26	856.3	4.462	0.649	728.5	
	28	868.0	4.214	0.625	740.1	
	30	878.3	4.000	0.602	750.5	
	35	901.6	3.571	0.553	773.8	
	40	922.3	3.250	0.512	794.5	
	45	941.7	3.000	0.477	813.9	
	50	959.8	2.800	0.447	832.0	
	55	974.1	2.636	0.421	846.2	
	60	988.3	2.500	0.398	860.4	
	65	1001.3	2.385	0.377	873.4	
	70	1012.9	2.286	0.359	885.0	
	75	1023.2	2.200	0.342	895.4	
	80	1033.6	2.125	0.327	905.7	
	85	1044.0	2.059	0.314	916.1	
	90	1051.7	2.000	0.301	923.8	
	95	1059.5	1.947	0.289	931.6	
	100	1067.2	1.900	0.279	939.4	
	105	1073.7	1.857	0.269	945.8	
	110	1078.9	1.818	0.260	951.0	
	115	1085.4	1.783	0.251	957.5	
8	120	1090.5	1.750	0.243	962.7	FINAL SHUT-IN
9		2565.6				HYDROSTATIC MUD

JOHNSTON

PRESSURE LOG*

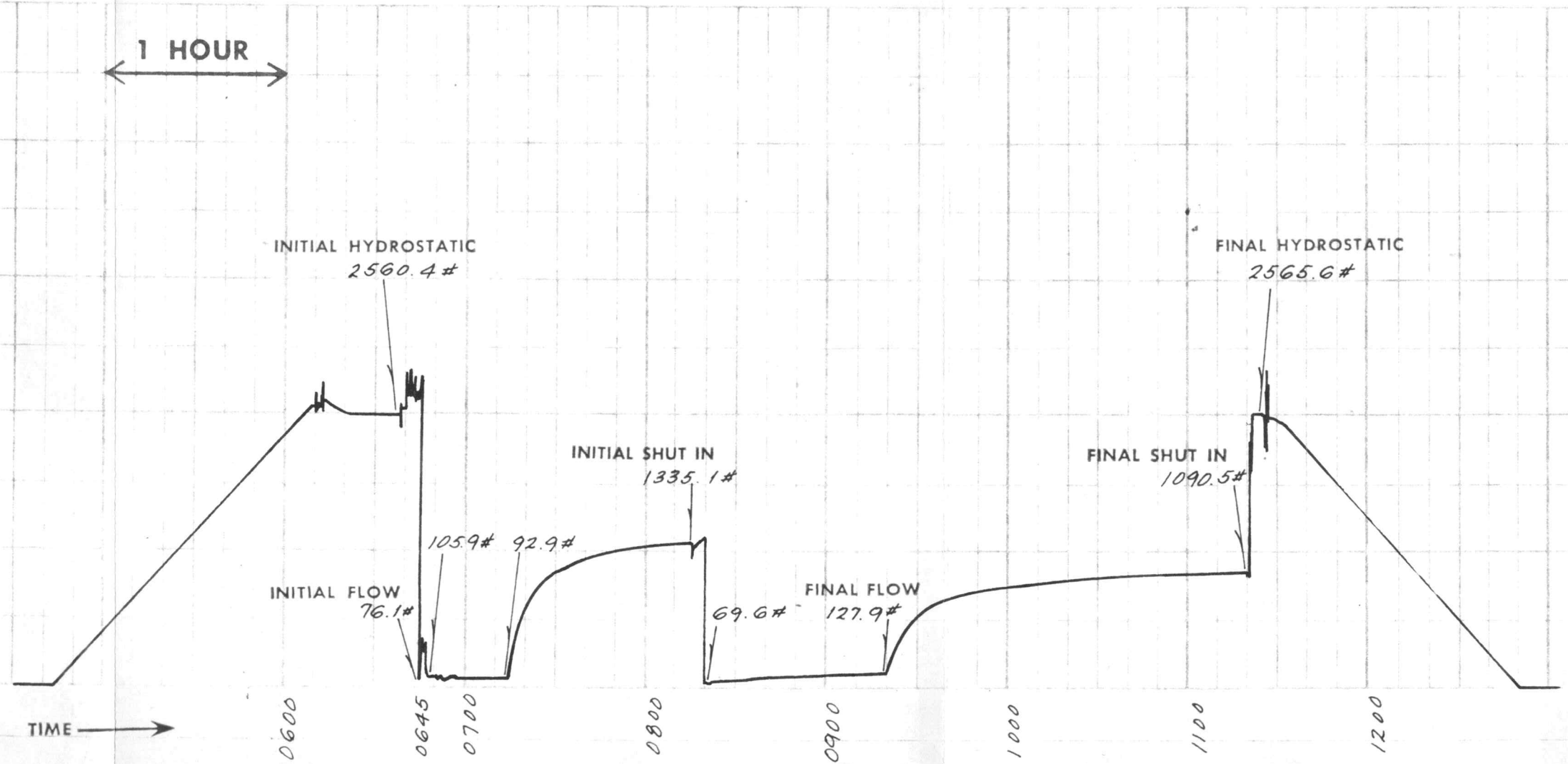
Field Report No. 07453 C

Instrument:
Number J-108

Capacity 6400 p.s.i.

Depth 5110 ft.

*a continuous tracing of the original chart



1 HOUR