

ORIGINAL

JUN 04 1991

6-4-91  
CONSERVATION DIVISION  
WICHITA, KANSAS

SIDE ONE

STATE CORPORATION COMMISSION OF KANSAS  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
ACO-1 WELL HISTORY  
DESCRIPTION OF WELL AND LEASE

API NO. 15- 039-20,874 -00-00

County DECATUR

SE SW SW Sec. 27 Twp. 4 Rge. 29  East West

330 Ft. North from Southeast Corner of Section

4320 Ft. West from Southeast Corner of Section  
(NOTE: Locate well in section plat below.)

Lease Name ALSTROM Well # #1

Field Name

Producing Formation

Elevation: Ground 2756 KB

Total Depth 5033 PBTD

Operator: License # 8981

Name: ADECO, INC. & CHAMBERS

Address 310 E. ASH

City/State/Zip OBERLIN, KS 67749

Purchaser:

Operator Contact Person: MR. LESTER CHAMBERS

Phone (913) 475-3468

Contractor: Name: RED TIGER DRILLING CO.

License: 5302

Wellsite Geologist: Paul Prigatel

Designate Type of Completion  
 New Well  Re-Entry  Workover

Oil  SWD  Temp. Abd.  
 Gas  Inj  Delayed Comp.  
 Dry  Other (Core, Water Supply, etc.)

If OWMO: old well info as follows:

Operator:

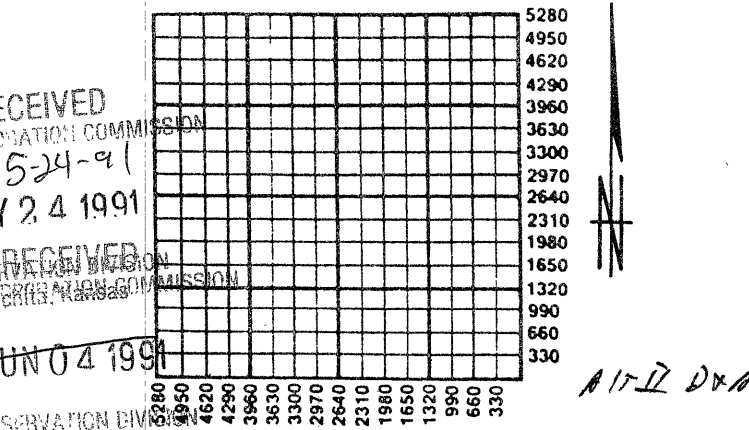
Well Name:

Comp. Date Old Total Depth

Drilling Method:  
 Mud Rotary  Air Rotary  Cable

4-25-91 5-6-91 5-7-91

Spud Date Date Reached TD Completion Date



Amount of Surface Pipe Set and Cemented at 261 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set Feet

If Alternate II completion, cement circulated from

feet depth to w/ sx cmt.

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STATE CORPORATION COMMISSION  
5-24-91

MAY 24 1991

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STATE CORPORATION COMMISSION  
WICHITA, KANSAS

JUN 04 1991

CONSERVATION DIVISION  
WICHITA, KANSAS

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form. See rule 82-3-107 for confidentiality in excess of 12 months. One copy of all wireline logs and drillers time log shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

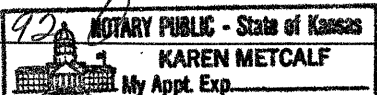
Signature Lester Chambers

Title Operator Date 5-20-91

Subscribed and sworn to before me this 20th day of May 1991.

Notary Public Karen Metcalf

Date Commission Expires 12-11-92



K.C.C. OFFICE USE ONLY  
F Letter of Confidentiality Attached  
C  Wireline Log Received  
C  Drillers Timelog Received  
Distribution  
 KCC  SWD/Rep  NGPA  
 KGS  Plug  Other  
(Specify)

SIDE TWO

Operator Name ADECO, INC. & CHAMBERS Lease Name ALSTROM Well # #1  
 Sec. 27 Twp. 4 Rge. 29  East County DECATUR  
 West

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken  Yes  No  
 (Attach Additional Sheets.)  
 Samples Sent to Geological Survey  Yes  No  
 Cores Taken  Yes  No  
 Electric Log Run  Yes  No  
 (Submit Copy.)

DST #1 - 3985-3943  
 10' SLIGHTLY-OIL-CUT-MUDY-WATER  
 705' - SALT-WATER

Formation Description		
Name	Top	Bottom
TOPEKA	3881	
LANSING	3900	
B	3924	
C	3964	
D	4018	
E	4041	
F	4070	
G		
MARMATON	4140	
ARBURLE	4450	

**CASING RECORD**  New  Used  
 Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
SURFACE	12 1/2"	8 5/8"	20	261	60-40POZ	180	2%GEL, 3%CC

PERFORATION RECORD		Acid, Fracture, Shot, Cement Squeeze Record	
Shots Per Foot	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used)	Depth

**TUBING RECORD** Size Set At Packer At Liner Run  Yes  No

Date of First Production	Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)							
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Water	Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.)  
**METHOD OF COMPLETION**  Open Hole  Perforation  Dually Completed  Commingled  
 Other (Specify) \_\_\_\_\_

Production Interval

# COPY

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STATE COMMISSION

JUN 04 1991

**ADECO, INC. AND CHAMBERS**

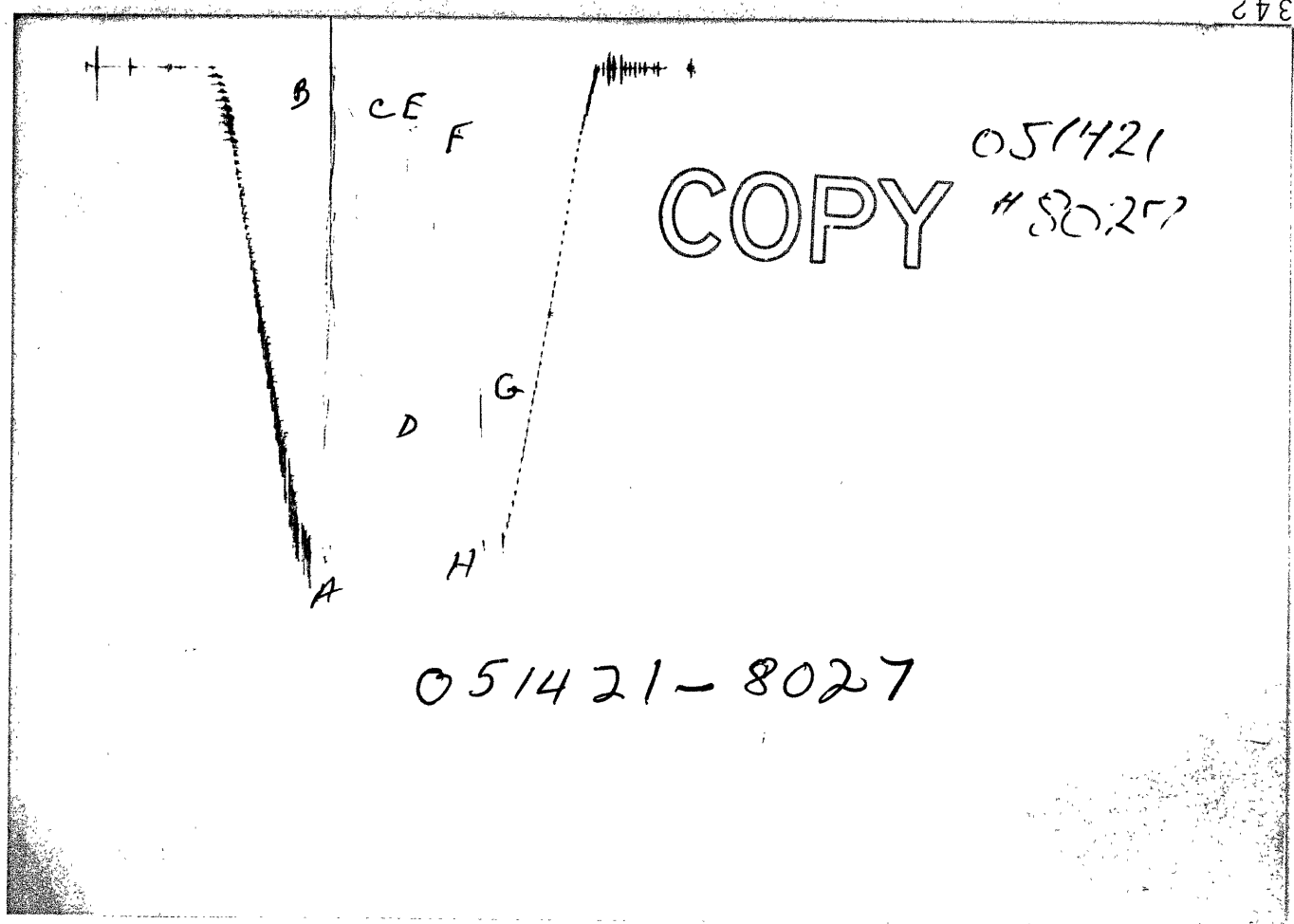
LEASE : ALSTROM

WELL NO.: 1

TEST NO.: 1

TICKET NO. 05142100  
06-MAY-91  
OBERLIN.

LEGAL LOCATION	ALSTROM	WELL NO.	1	TEST NO.	1	TESTED INTERVAL	3914.8 - 3943.0	LEASE OWNER/COMPANY NAME	ADECO, INC. AND CHAMBERS
SEC. - TWP. - RNG.	27-4S-29W								
FIELD AREA	SOUTHWEST OF OBERLIN	COUNTY	DECATUR	STATE	KANSAS	DR			

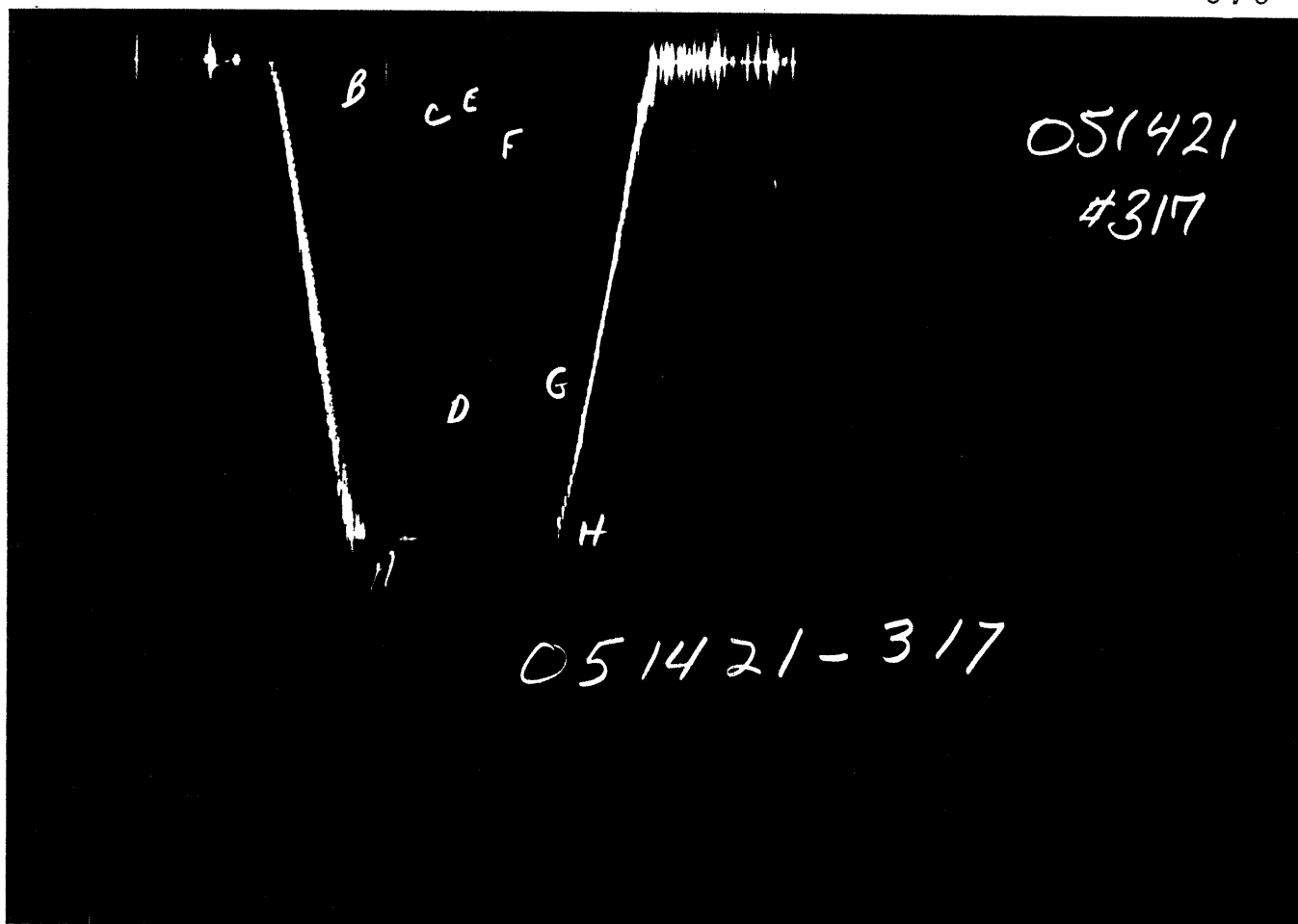


051421-8027

GAUGE NO: 8027 DEPTH: 3893.7 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1942.9			
B	INITIAL FIRST FLOW		23.7			
C	FINAL FIRST FLOW		220.8	15.0	15.3	F
C	INITIAL FIRST CLOSED-IN		220.8			
D	FINAL FIRST CLOSED-IN		1326.7	30.0	30.1	C
E	INITIAL SECOND FLOW		254.7			
F	FINAL SECOND FLOW		364.5	15.0	16.7	F
F	INITIAL SECOND CLOSED-IN		364.5			
G	FINAL SECOND CLOSED-IN		1306.0	30.0	27.9	C
H	FINAL HYDROSTATIC		1922.1			

COPY



GAUGE NO: 317 DEPTH: 3940.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1967	1953.5			
B	INITIAL FIRST FLOW	52	42.3			
C	FINAL FIRST FLOW	249	253.7	15.0	15.3	F
C	INITIAL FIRST CLOSED-IN	249	253.7			
D	FINAL FIRST CLOSED-IN	1343	1339.8	30.0	30.1	C
E	INITIAL SECOND FLOW	249	256.4			
F	FINAL SECOND FLOW	393	388.7	15.0	16.7	F
F	INITIAL SECOND CLOSED-IN	393	388.7			
G	FINAL SECOND CLOSED-IN	1323	1320.4	30.0	27.9	C
H	FINAL HYDROSTATIC	1936	1936.0			

## EQUIPMENT & HOLE DATA

FORMATION TESTED: LOWER KANSAS CITY  
 NET PAY (ft): \_\_\_\_\_  
 GROSS TESTED FOOTAGE: 28.2  
 ALL DEPTHS MEASURED FROM: KELLY BUSHING  
 CASING PERFS. (ft): \_\_\_\_\_  
 HOLE OR CASING SIZE (in): 7.875  
 ELEVATION (ft): \_\_\_\_\_  
 TOTAL DEPTH (ft): 3943.0  
 PACKER DEPTH(S) (ft): 3909, 3915  
 FINAL SURFACE CHOKE (in): \_\_\_\_\_  
 BOTTOM HOLE CHOKE (in): 0.750  
 MUD WEIGHT (lb/gal): 9.40  
 MUD VISCOSITY (sec): 48  
 ESTIMATED HOLE TEMP. (°F): 120  
 ACTUAL HOLE TEMP. (°F): 123 @ 3938.0 ft

TICKET NUMBER: 05142100  
 DATE: 4-29-91 TEST NO: 1  
 TYPE DST: OPEN HOLE  
 FIELD CAMP: BERLIN  
 TESTER: S. DOLAN  
 WITNESS: PAUL PRJATEL  
 DRILLING CONTRACTOR: RED TIGER DRILLIG #7

## FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
<u>MUD REPORT</u>	_____ @ _____ °F	<u>900</u> ppm
<u>RECOVERY</u>	_____ @ _____ °F	<u>33009</u> ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm

## SAMPLER DATA

P<sub>sig</sub> AT SURFACE: \_\_\_\_\_  
 cu.ft. OF GAS: \_\_\_\_\_  
 cc OF OIL: \_\_\_\_\_  
 cc OF WATER: \_\_\_\_\_  
 cc OF MUD: \_\_\_\_\_  
 TOTAL LIQUID cc: \_\_\_\_\_

## HYDROCARBON PROPERTIES

OIL GRAVITY (°API): \_\_\_\_\_ @ \_\_\_\_\_ °F  
 GAS/OIL RATIO (cu.ft. per bbl): \_\_\_\_\_  
 GAS GRAVITY: \_\_\_\_\_

## CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

## RECOVERED :

10' OF SLIGHTLY OIL AND WATER CUT MUD  
 805' OF SALTWATER

MEASURED FROM  
 TESTER VALVE

## REMARKS :

\_\_\_\_\_



TICKET NO: 05142100  
CLOCK NO: 13852 HOUR: 12

GAUGE NO: 8027  
DEPTH: 3893.7

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B	1	0.0	23.7		
	2	2.0	43.6	19.9	
	3	4.0	69.1	25.5	
	4	6.0	96.9	27.7	
	5	8.0	126.8	30.0	
	6	10.0	155.5	28.6	
	7	12.0	181.1	25.6	
	8	14.0	206.7	25.6	
C	9	15.3	220.8	14.1	
FIRST CLOSED-IN					
C	1	0.0	220.8		
	2	1.0	1228.2	1007.5	1.0 1.205
	3	2.0	1242.6	1021.9	1.8 0.934
	4	3.0	1252.6	1031.8	2.5 0.786
	5	4.0	1259.1	1038.3	3.2 0.686
	6	5.0	1266.1	1045.4	3.8 0.607
	7	6.0	1271.9	1051.2	4.3 0.550
	8	7.0	1276.5	1055.7	4.8 0.504
	9	8.0	1281.1	1060.3	5.2 0.465
	10	9.0	1285.5	1064.7	5.7 0.431
	11	10.0	1289.5	1068.7	6.0 0.403
	12	12.0	1296.1	1075.4	6.7 0.357
	13	14.0	1301.8	1081.1	7.3 0.321
	14	16.0	1306.3	1085.5	7.8 0.292
	15	18.0	1310.3	1089.5	8.3 0.267
	16	20.0	1314.0	1093.2	8.7 0.247
	17	22.0	1317.3	1096.5	9.0 0.229
	18	24.0	1319.5	1098.7	9.3 0.214
	19	26.0	1322.7	1102.0	9.6 0.201
	20	28.0	1324.8	1104.1	9.9 0.190
D	21	30.1	1326.7	1106.0	10.1 0.179
SECOND FLOW					
E	1	0.0	254.7		
	2	2.0	252.2	-2.5	
	3	4.0	269.4	17.2	
	4	6.0	292.6	23.2	
	5	8.0	310.7	18.1	
	6	9.9	324.6	13.9	
	7	12.0	337.8	13.2	
	8	14.0	350.3	12.5	
	9	16.0	361.9	11.6	
F	10	16.7	364.5	2.6	

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN					
F	1	0.0	364.5		
	2	1.0	1204.9	840.4	0.9 1.534
	3	2.0	1220.0	855.5	1.9 1.230
	4	3.0	1228.5	864.0	2.7 1.069
	5	4.0	1237.0	872.5	3.6 0.952
	6	5.0	1243.9	879.4	4.3 0.869
	7	6.0	1250.5	886.0	5.0 0.804
	8	7.0	1256.5	892.0	5.7 0.747
	9	8.0	1261.0	896.5	6.4 0.699
	10	9.0	1264.9	900.4	7.0 0.658
	11	10.0	1268.3	903.9	7.6 0.623
	12	12.0	1275.1	910.6	8.7 0.564
	13	14.0	1280.3	915.8	9.7 0.517
	14	16.0	1286.3	921.8	10.7 0.478
	15	18.0	1290.4	925.9	11.5 0.444
	16	20.0	1294.5	930.0	12.3 0.415
	17	22.1	1298.7	934.2	13.1 0.390
	18	24.0	1301.9	937.4	13.7 0.368
	19	26.0	1304.4	939.9	14.4 0.349
G	20	27.9	1306.0	941.5	14.9 0.332

REMARKS:



TICKET NO: 05142100  
 CLOCK NO: 18777 HOUR: 12

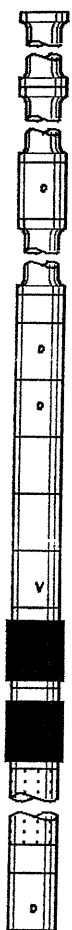
GAUGE NO: 317  
 DEPTH: 3940.0

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0 0	42.3			
2	2.0	72.6	30.3		
3	4.0	101.8	29.2		
4	6.0	131.6	29.8		
5	8.0	156.4	24.8		
6	10.0	185.7	29.3		
7	12.0	213.5	27.8		
8	14.0	239.7	26.2		
C 9	15.3	253.7	14.0		
FIRST CLOSED-IN					
C 1	0.0	253.7			
2	1.0	1251.2	1007.4	0.9	1.215
3	2.0	1270.0	1016.2	1.7	0.943
4	3.0	1277.5	1023.7	2.5	0.788
5	4.0	1283.5	1029.7	3.1	0.688
6	5.0	1288.5	1034.7	3.7	0.611
7	6.0	1292.4	1038.7	4.3	0.551
8	7.0	1297.2	1043.4	4.8	0.502
9	8.0	1301.1	1047.4	5.3	0.463
10	9.0	1304.2	1050.5	5.7	0.432
11	10.0	1307.5	1053.7	6.0	0.403
12	12.0	1313.4	1059.6	6.7	0.357
13	14.0	1317.5	1063.8	7.3	0.321
14	16.0	1322.3	1068.6	7.8	0.292
15	18.0	1325.1	1071.4	8.3	0.267
16	20.0	1328.3	1074.6	8.7	0.247
17	22.0	1331.2	1077.5	9.0	0.229
18	24.0	1333.7	1080.0	9.3	0.214
19	26.0	1335.5	1081.8	9.6	0.201
20	28.0	1337.8	1084.0	9.9	0.189
D 21	30.1	1339.8	1086.0	10.1	0.179
SECOND FLOW					
E 1	0.0	256.4			
2	2.0	262.3	5.9		
3	4.0	287.7	25.4		
4	6.0	315.4	27.7		
5	8.0	336.1	20.6		
6	10.0	346.9	10.8		
7	12.0	360.7	13.8		
8	14.0	373.3	12.6		
9	16.0	385.2	12.0		
F 10	16.7	388.7	3.5		

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN					
F 1	0.0	388.7			
2	1.0	1236.2	847.5	1.0	1.522
3	2.0	1245.7	856.9	1.9	1.237
4	3.0	1254.6	865.8	2.7	1.069
5	4.0	1261.1	872.4	3.5	0.956
6	5.0	1266.8	878.1	4.3	0.872
7	6.0	1271.5	882.8	5.0	0.804
8	7.0	1276.2	887.4	5.8	0.745
9	8.0	1280.9	892.1	6.4	0.700
10	9.0	1284.5	895.8	7.0	0.659
11	10.0	1287.1	898.3	7.6	0.625
12	12.0	1293.1	904.4	8.7	0.565
13	14.0	1297.5	908.7	9.7	0.517
14	16.0	1303.1	914.3	10.7	0.477
15	18.0	1306.7	918.0	11.5	0.445
16	20.0	1310.1	921.4	12.3	0.416
17	22.1	1313.1	924.3	13.1	0.390
18	24.0	1316.7	928.0	13.7	0.368
19	26.0	1318.5	929.7	14.4	0.349
G 20	27.9	1320.4	931.7	14.9	0.332

REMARKS:

		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3242.1	
4	FLEX WEIGHT.....	4.500	2.764	509.8	
50	IMPACT REVERSING SUB.....	6.000	3.000	1.4	3751.9
4	FLEX WEIGHT.....	4.500	2.764	127.6	
5	CROSSOVER.....	6.000	3.000	1.0	
12	DUAL CIP VALVE.....	5.000	0.870	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	3891.1
80	AP RUNNING CASE.....	5.000	2.250	4.1	3893.7
15	JAR.....	5.000	1.750	5.0	
16	VR SAFETY JOINT.....	5.000	1.000	2.8	
70	OPEN HOLE PACKER.....	6.750	1.530	5.8	3908.9
70	OPEN HOLE PACKER.....	6.750	1.530	5.8	3914.8
20	FLUSH JOINT ANCHOR.....	5.000	2.370	21.0	
83	HT-500 TEMPERATURE CASE.....	5.000		1.5	3938.0
81	BLANKED-OFF RUNNING CASE.....	5.000		4.1	3940.0
TOTAL DEPTH					3943.0



# TEMPERATURE RECORDER CHART

# 051421

-123

10° each circle

Indicated Flow Capacity	$kh = \frac{001637 Q_o T}{m}$	COPY	md-ft
Average Effective Permeability	$k = \frac{kh}{h}$		md
Skin Factor	$S = 1.151 \left[ \frac{m(P^*) - m(P)}{m} \cdot \text{LOG} \left( \frac{k (t/60)}{\phi \mu c_r r_w^2} \right) + 3.23 \right]$		
Damage Ratio	$DR = \frac{m(P^*) - m(P)}{m(P^*) - m(P) - 0.87 mS}$		
Indicated Flow Rate (Maximum)	$AOF = \frac{Q_o m(P^*)}{m(P^*) - m(P)}$		MCFD
Indicated Flow Rate (Minimum)	$AOF_s = Q_o \sqrt{\frac{m(P^*)}{m(P^*) - m(P)}}$		MCFD
Approx. Radius of Investigation	$r = 0.032 \sqrt{\frac{k (t/60)}{\phi \mu c_r}}$		ft

Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, HRS is unable to guarantee the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by HRS. HRS personnel will use their best efforts in gathering such information and their best judgment in interpreting it but customer agrees that HRS shall not be responsible for any damages arising from the use of such information except where due to HRS gross negligence or willful misconduct in the preparation of furnishing of information.