

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

API NO. 15- 189-21,501 ~ 0000

County STEVENS

AL NW SE Sec. 13 Twp. 31S Rge. 35 X East West

Operator: License # 5208

1930 Ft. North from Southeast Corner of Section

Name: MOBIL OIL CORPORATION

2030 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)

Address 2319 NORTH KANSAS

Lease Name EARL D. DAVIS Well # 1

City/State/Zip LIBERAL, KS 67901

Field Name WILDCAT

Purchaser: PERMIAN

Producing Formation MORROW

Operator Contact Persons: RAE KELLY

Elevation: Ground 2900 KB 2916

Phone (316) 626-1160

Total Depth 5850 PBDT 5805

Contractor: Name: UNIT DRILLING & EXPLORATION CO.

License: 9137

Wellsite Geologist: H. Y. WONG

Designate Type of Completion

New Well Re-Entry Workover

Oil SVD Temp. Abd.

Gas Inj Delayed Comp.

Dry Other (Core, Water Supply, etc.)

If OWM: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

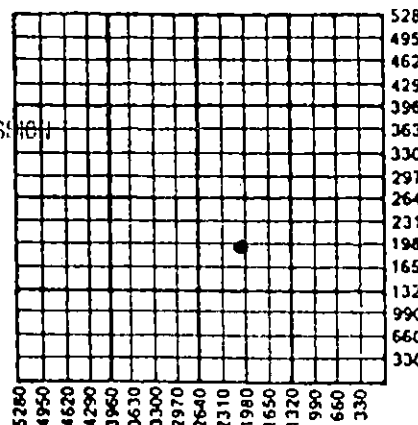
Drilling Method:

Mud Rotary Air Rotary Cable

6/30/91 7/7/91 7/18/91

Spud Date Date Reached TD Completion Date

RECEIVED
STATE CORPORATION COMMISSION
10-14-91
OCT 4 1991



Amount of Surface Pipe Set and Cemented at 1724 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ NA Feet

If Alternate II completion, cement circulated from NA

feet depth to _____ NA w/ _____ NA sz. cmt.

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-1 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 ACD-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 R. Kelly
Title ENGINEERING TECHNICIAN Date 10-11-91

Subscribed and sworn to before me this 11th day of October, 1991.

Notary Public Edith L. Cunningham

Date Commission Expires November 8, 1991

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)



81

SIDE TWO

Operator Name MOBIL OIL CORPORATION Lease Name EARL D. DAVIS Well # 1

Sec. 13 Twp. 31S Rge. 35
 East
 West

County STEVENS

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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Attach Additional Sheets.) Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Submit Copy.)	<p style="text-align: center;">Formation Description</p> <input checked="" type="checkbox"/> Log <input type="checkbox"/> Sample <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Name</th> <th style="text-align: left;">Top</th> <th style="text-align: left;">Bottom</th> </tr> </thead> <tbody> <tr><td>CHASE</td><td>2509</td><td></td></tr> <tr><td>COUNCIL GROVE</td><td>2822</td><td></td></tr> <tr><td>LANSING</td><td>4085</td><td></td></tr> <tr><td>KANSAS CITY</td><td>4428</td><td></td></tr> <tr><td>MARMATON</td><td>4748</td><td></td></tr> <tr><td>MARROW</td><td>5302</td><td></td></tr> <tr><td>CHESTER</td><td>5466</td><td></td></tr> <tr><td>ST. GENEVIEVE</td><td>5567</td><td></td></tr> <tr><td>ST. LOUIS</td><td>5648</td><td></td></tr> </tbody> </table>	Name	Top	Bottom	CHASE	2509		COUNCIL GROVE	2822		LANSING	4085		KANSAS CITY	4428		MARMATON	4748		MARROW	5302		CHESTER	5466		ST. GENEVIEVE	5567		ST. LOUIS	5648	
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CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> 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 CASING	12.250	8.625	24#	1724	CL "C" LITE	495	65:35:6 +3%CC
					CL "C"	320	+3%CC
PRODUCTIN CASING	7.875	5.500	14#	5845	CL "H"	425	50:50:2
					CL "H"	500	50:50:2+2%CC
					CL "H"	500	50:50:2+2%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			
4 SPF	5315 - 5342						
TUBING RECORD							
Size		Set At		Packer At		Liner Run	
2 7/8"		5345		5240		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First Production		Producing Method					
7/22/91		<input checked="" 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	
		761	306	0	.402		

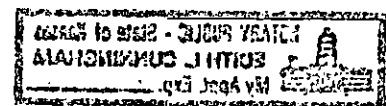
Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION

Open Hole Perforation Dually Completed Commingled

Other (Specify) _____

Production Interval: 5314 - 5342



RELEASED

ORIGINAL

NOV 09 1992

FROM CONFIDENTIAL

MOBIL EXPLORATION & PRODUCING U.S., INC.

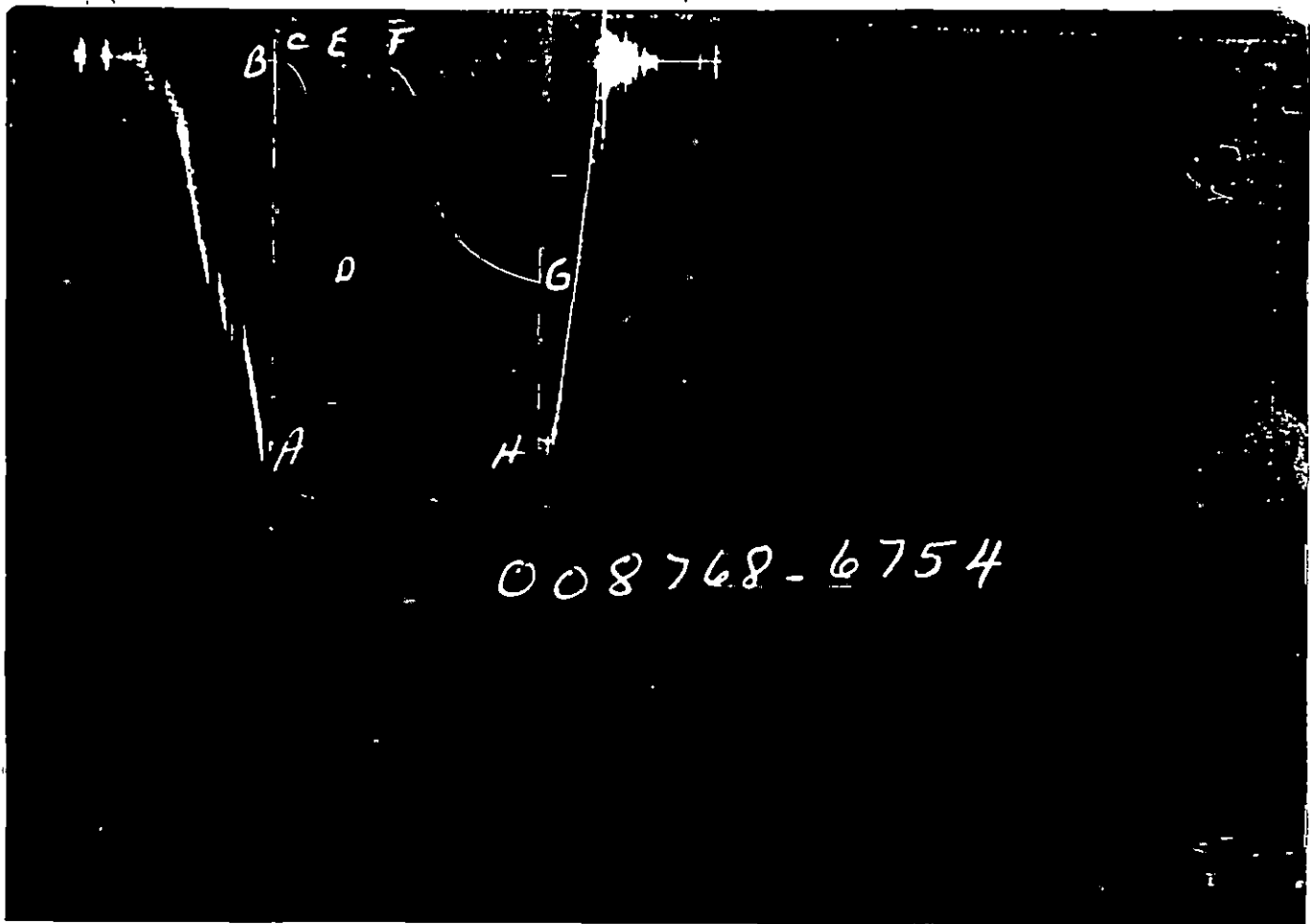
LEASE : EARL DAVIS

WELL NO. : 1

TEST NO. : 1

TICKET NO. 00876800
 12-JUL-91
 LIBERAL

LEASER NAME: EARL DAVIS
 WELL NO.: 1
 TEST NO.: 1
 LEGAL LOCATION: 13-31S-35M
 FIELD AREA:
 QUIT POST:
 COUNTY: STEVENS
 STATE: KANSAS DR
 TESTED INTERVVL: 4780.0 - 4840.0
 MOBIL EXPLORATION & PRODUCING U.S., INC.
 LEASE OWNER/COMPANY NAME



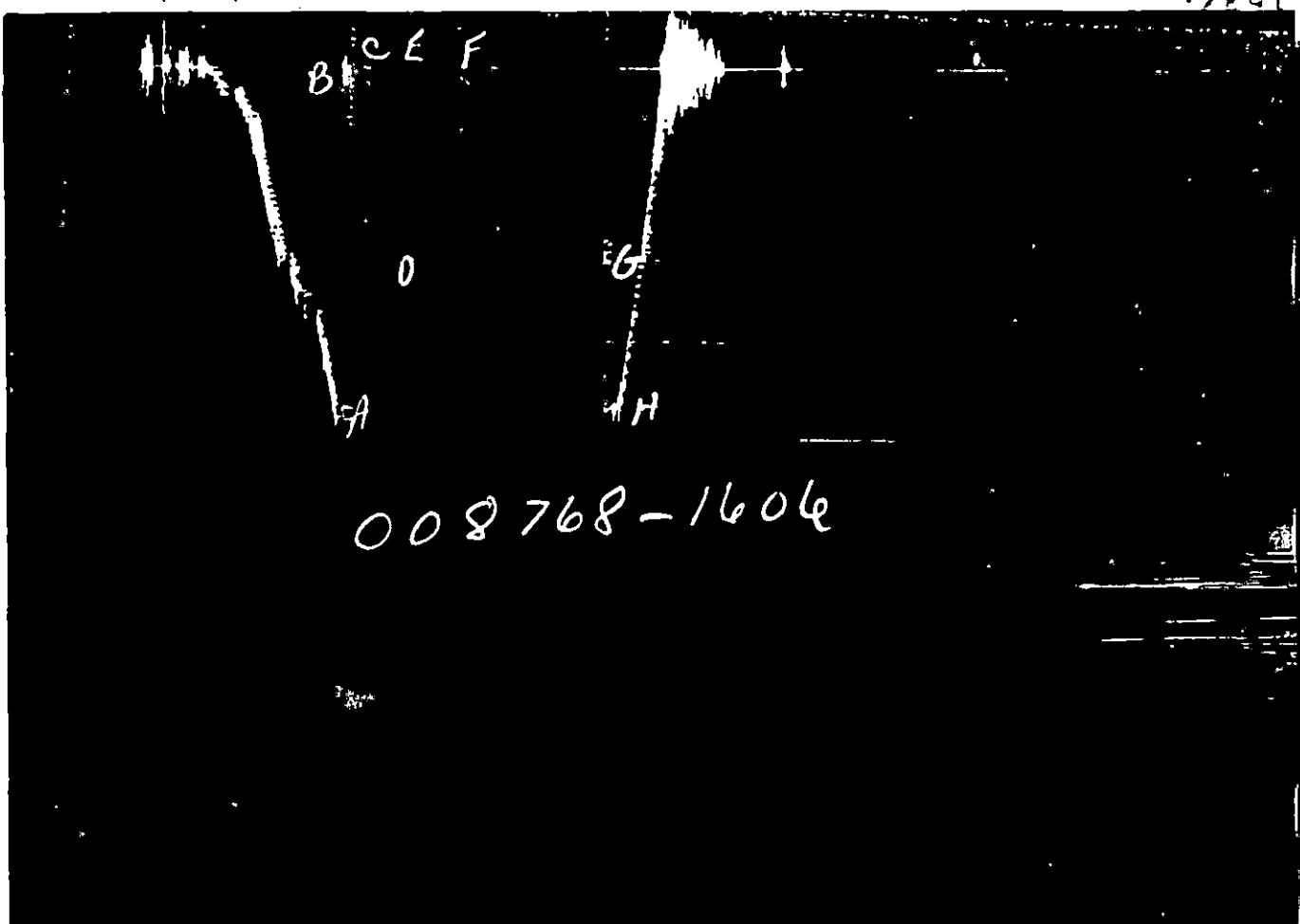
008768-6754

GAUGE NO: 6754 DEPTH: 4755.3 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2217	2232.3			
B	INITIAL FIRST FLOW	3	10.9			
C	FINAL FIRST FLOW	5	20.2	15.0	15.9	F
C	INITIAL FIRST CLOSED-IN	5	20.2			
D	FINAL FIRST CLOSED-IN	1118	1081.1	60.0	59.9	C
E	INITIAL SECOND FLOW	5	32.4			
F	FINAL SECOND FLOW	6	34.8	60.0	58.9	F
F	INITIAL SECOND CLOSED-IN	6	34.8			
G	FINAL SECOND CLOSED-IN	1261	1279.7	180.0	180.4	C
H	FINAL HYDROSTATIC	2217	2243.5			

1/201

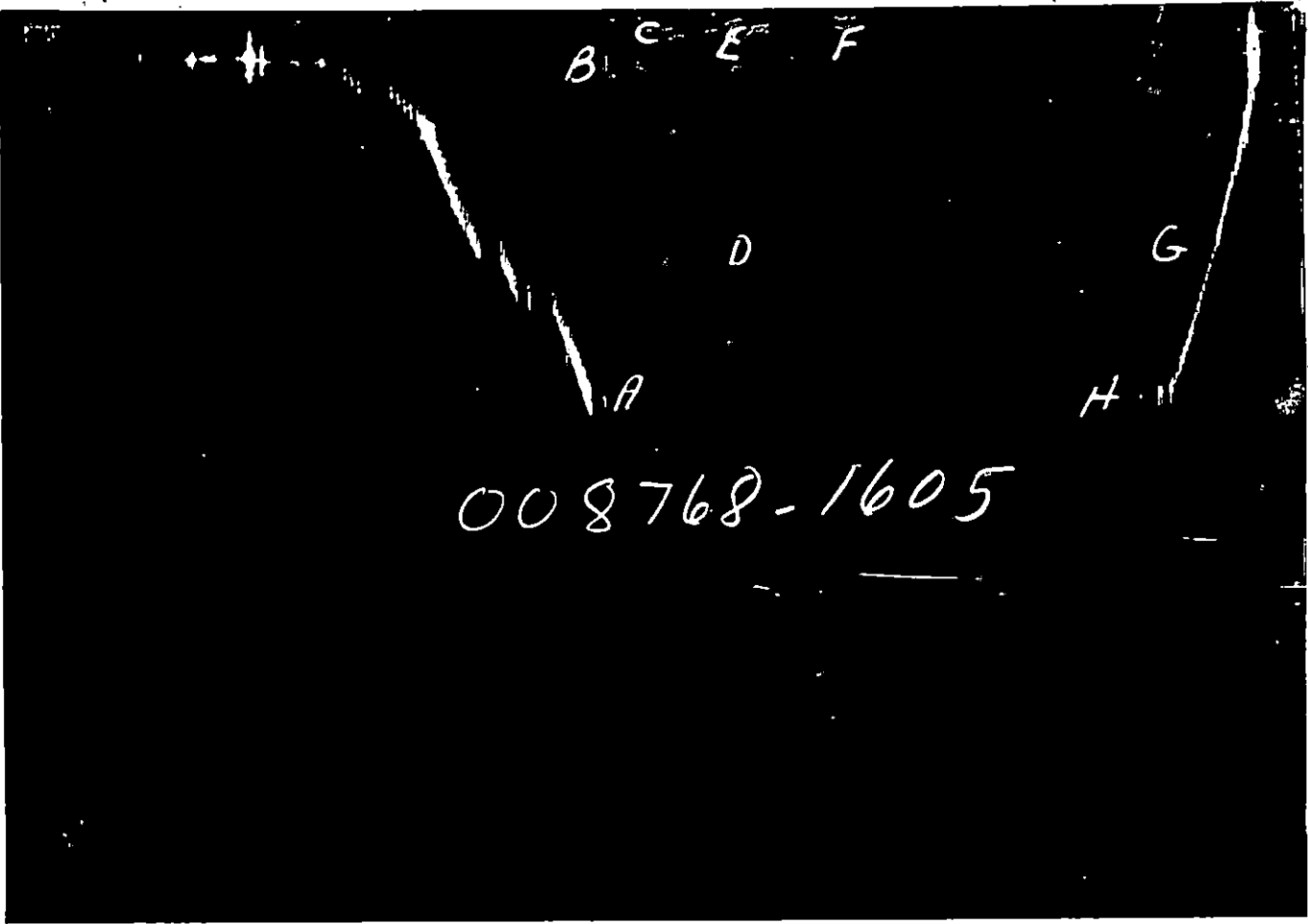
AL



008768-1606

GAUGE NO: 1606 DEPTH: 4759.4 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2208	2233.6			
B	INITIAL FIRST FLOW	26	17.0	15.0	15.9	F
C	FINAL FIRST FLOW	33	27.1			
C	INITIAL FIRST CLOSED-IN	33	27.1	60.0	59.9	C
D	FINAL FIRST CLOSED-IN	1086	1081.1			
E	INITIAL SECOND FLOW	33	50.7	60.0	58.9	F
F	FINAL SECOND FLOW	59	47.2			
F	INITIAL SECOND CLOSED-IN	59	47.2	180.0	180.4	C
G	FINAL SECOND CLOSED-IN	1283	1283.6			
H	FINAL HYDROSTATIC	2208	2241.2			



GAUGE NO: 1605 DEPTH: 4836.9 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2260	2267.0			
B	INITIAL FIRST FLOW	42	50.1			
C	FINAL FIRST FLOW	63	58.0	15.0	15.9	F
C	INITIAL FIRST CLOSED-IN	63	58.0			
D	FINAL FIRST CLOSED-IN	1130	1129.5	60.0	59.9	C
E	INITIAL SECOND FLOW	63	68.0			
F	FINAL SECOND FLOW	80	77.3	60.0	58.9	F
F	INITIAL SECOND CLOSED-IN	80	77.3			
G	FINAL SECOND CLOSED-IN	1329	1311.1	180.0	180.4	C
H	FINAL HYDROSTATIC	2260	2271.1			

EQUIPMENT & HOLE DATA

FORMATION TESTED: MARMATON

NET PAY (ft): 10.0

GROSS TESTED FOOTAGE: 60.0

ALL DEPTHS MEASURED FROM: KELLY BUSHING

CASING PERFS. (ft): _____

HOLE OR CASING SIZE (in): 7.875

ELEVATION (ft): 2899.6 GROUND LEVEL

TOTAL DEPTH (ft): 4840.0

PACKER DEPTH(S) (ft): 4774, 4780

FINAL SURFACE CHOKE (in): _____

BOTTOM HOLE CHOKE (in): 0.750

MUD WEIGHT (lb/gal): 8.90

MUD VISCOSITY (sec): 46

ESTIMATED HOLE TEMP. (°F): _____

ACTUAL HOLE TEMP. (°F): 123 @ 4835.4 ft

TICKET NUMBER: 00876800

DATE: 7-5-91 TEST NO: 1

TYPE DST: OPEN HOLE

FIELD CAMP: LIBERAL

TESTER: L.D. GRANT
H.E. REARDON

WITNESS: MELANIE HILL

DRILLING CONTRACTOR: UNIT DRILLING CO. #19

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
<u>PIT</u>	<u>1.350 @ 81 °F</u>	<u>3675 ppm</u>
<u>TOP RECOVERY</u>	<u>0.980 @ 81 °F</u>	<u>4135 ppm</u>
<u>BOTTOM RECOVERY</u>	<u>0.520 @ 81 °F</u>	<u>6891 ppm</u>
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm

SAMPLER DATA

Psig AT SURFACE: 59.3 ???

cu.ft. OF GAS: _____

cc OF OIL: TRACE

cc OF WATER: _____

cc OF MUD: 2000.0

TOTAL LIQUID cc: 2000.0

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ _____ °F

GAS/OIL RATIO (cu.ft. per bbl): _____

GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED :

56' OF MUD WITH VERY SLIGHT TRACE OF OIL

MEASURED FROM TESTER VALVE

REMARKS :

TICKET NO: 00876800
 CLOCK NO: 17524 HOUR: 24

GAUGE NO: 6754
 DEPTH: 4755.3

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	10.9			
2	3.0	12.3	1.4		
3	6.0	15.0	2.7		
4	9.0	16.7	1.7		
5	12.0	18.6	1.9		
C 6	15.9	20.2	1.6		
FIRST CLOSED-IN					
C 1	0.0	20.2			
2	1.0	22.2	2.0	1.0	1.222
3	2.0	22.9	2.7	1.7	0.957
4	3.0	27.1	7.0	2.5	0.797
5	4.0	31.4	11.3	3.2	0.697
6	5.0	35.0	14.8	3.8	0.522
7	6.0	41.1	21.0	4.4	0.560
8	7.0	45.7	25.5	4.9	0.514
9	8.0	51.5	31.4	5.3	0.475
10	9.0	57.1	36.9	5.8	0.440
11	10.0	62.8	42.6	6.1	0.413
12	12.0	75.8	55.6	6.8	0.366
13	14.0	89.9	69.7	7.4	0.329
14	16.0	108.0	87.8	8.0	0.299
15	18.0	126.8	106.7	8.4	0.274
16	20.0	150.4	130.2	8.8	0.253
17	22.0	179.0	158.9	9.2	0.236
18	24.0	218.7	198.5	9.6	0.220
19	26.0	263.0	242.9	9.9	0.207
20	28.0	315.7	295.5	10.1	0.195
21	30.0	384.9	364.7	10.4	0.184
22	35.0	574.6	554.4	10.9	0.162
23	39.9	765.9	745.7	11.3	0.145
24	45.0	898.9	878.7	11.7	0.131
25	50.0	977.1	956.9	12.0	0.120
26	55.0	1038.9	1018.7	12.3	0.110
D 27	59.9	1081.1	1060.9	12.5	0.102
SECOND FLOW					
E 1	0.0	32.4			
2	5.0	30.9	-1.4		
3	10.0	30.9	0.0		
4	15.0	30.1	-0.9		
5	20.0	30.1	0.0		
6	25.0	30.7	0.6		
7	30.0	32.1	1.4		
8	35.0	32.1	0.0		
9	40.0	32.7	0.6		
10	45.0	33.5	0.9		
11	50.0	33.5	0.0		

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
12	55.0	34.2	0.7		
F 13	58.9	34.8	0.6		
SECOND CLOSED-IN					
F 1	0.0	34.8			
2	1.0	38.1	3.3	1.0	1.862
3	2.0	38.6	3.8	2.0	1.579
4	3.0	39.2	4.4	2.9	1.417
5	4.0	42.6	7.8	3.8	1.295
6	5.0	45.3	10.6	4.7	1.203
7	6.0	48.2	13.4	5.5	1.132
8	7.0	50.9	16.1	6.4	1.069
9	8.0	53.9	19.1	7.3	1.013
10	9.0	57.7	23.0	8.1	0.968
11	10.0	61.3	26.5	8.8	0.929
12	12.0	68.4	33.7	10.3	0.859
13	14.0	77.6	42.8	11.8	0.803
14	16.0	87.6	52.8	13.2	0.753
15	18.0	97.0	62.2	14.5	0.713
16	20.0	108.9	74.1	15.8	0.676
17	22.0	120.4	85.6	17.0	0.643
18	24.0	133.6	98.8	18.2	0.615
19	26.0	149.2	114.4	19.3	0.588
20	28.0	168.0	133.2	20.4	0.565
21	30.0	190.4	155.6	21.4	0.543
22	35.0	263.0	228.2	23.8	0.497
23	40.0	364.7	329.9	26.1	0.458
24	45.0	489.8	455.0	28.1	0.425
25	50.0	621.4	586.6	30.0	0.397
26	55.0	727.1	692.3	31.7	0.373
27	60.0	819.0	784.2	33.3	0.351
28	70.0	933.8	899.0	36.2	0.316
29	80.0	1005.3	970.5	38.7	0.287
30	90.0	1060.6	1025.8	40.9	0.263
31	100.0	1105.1	1070.3	42.8	0.242
32	110.0	1139.9	1105.1	44.5	0.225
33	120.0	1168.9	1134.1	46.1	0.210
34	135.0	1207.3	1172.5	48.1	0.191
35	150.0	1238.9	1204.1	49.9	0.176
36	165.0	1261.8	1227.0	51.5	0.162
G 37	180.4	1279.7	1244.9	52.9	0.151

REMARKS:

TICKET NO: 00876800
 CLOCK NO: 17529 HOUR: 24

GAUGE NO: 1606
 DEPTH: 4759.4

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	17.0		
	2	3.0	19.4	2.4	
	3	5.0	23.5	4.1	
	4	9.0	25.3	1.8	
	5	12.0	26.3	1.0	
C	6	15.9	27.1	0.8	
FIRST CLOSED-IN					
C	1	0.0	27.1		
	2	1.0	30.0	2.9	1.0 1.215
	3	2.0	32.5	5.4	1.8 0.951
	4	3.0	35.5	8.5	2.5 0.799
	5	4.0	39.1	12.0	3.2 0.699
	6	5.0	43.8	15.7	3.8 0.620
	7	6.0	47.9	20.8	4.4 0.560
	8	7.0	52.9	25.9	4.9 0.513
	9	8.0	57.8	30.7	5.3 0.474
	10	9.0	62.7	35.6	5.7 0.441
	11	10.0	68.2	41.1	6.1 0.413
	12	12.0	79.8	52.7	6.8 0.366
	13	14.0	94.7	67.6	7.4 0.330
	14	16.0	113.9	86.8	8.0 0.299
	15	18.0	132.7	105.7	8.4 0.274
	16	20.0	158.6	131.5	8.8 0.254
	17	22.0	190.1	163.0	9.2 0.236
	18	24.0	221.8	194.7	9.5 0.220
	19	26.0	268.0	240.9	9.8 0.207
	20	28.0	330.5	303.4	10.1 0.195
	21	30.0	390.7	363.6	10.4 0.184
	22	35.0	585.4	558.3	10.9 0.162
	23	40.0	777.1	750.1	11.4 0.145
	24	45.0	899.5	872.4	11.7 0.131
	25	50.0	984.7	957.7	12.0 0.120
	26	55.0	1040.1	1013.0	12.3 0.110
D	27	59.9	1081.1	1054.0	12.5 0.102
SECOND FLOW					
E	1	0.0	50.7		
	2	5.0	41.5	-9.2	
	3	10.0	39.8	-1.6	
	4	15.0	39.8	0.0	
	5	20.0	40.8	1.0	
	6	25.0	40.8	0.0	
	7	30.0	40.8	0.0	
	8	35.0	42.1	1.3	
	9	40.0	42.9	0.8	
	10	45.0	43.9	1.0	
	11	50.0	44.5	0.7	

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
	12	55.0	44.6	0.0	
F	13	58.9	47.2	2.6	
SECOND CLOSED-IN					
F	1	0.0	47.2		
	2	1.1	51.2	4.1	1.0 1.855
	3	2.0	52.0	4.9	2.0 1.579
	4	3.0	54.5	7.3	2.9 1.415
	5	4.0	56.9	9.8	3.8 1.292
	6	5.0	59.4	12.2	4.7 1.204
	7	6.0	62.9	15.8	5.5 1.130
	8	7.0	67.2	20.0	6.4 1.065
	9	8.0	72.2	25.0	7.2 1.017
	10	9.0	74.6	27.5	8.1 0.967
	11	10.0	78.4	31.2	8.9 0.927
	12	12.0	87.0	39.8	10.3 0.860
	13	14.0	96.3	49.1	11.8 0.803
	14	16.0	107.0	59.8	13.2 0.754
	15	18.0	117.9	70.7	14.5 0.712
	16	20.0	130.2	83.1	15.8 0.676
	17	22.0	143.9	96.7	17.0 0.644
	18	24.0	160.9	113.8	18.2 0.615
	19	26.0	179.1	132.0	19.3 0.589
	20	28.0	199.9	152.8	20.4 0.565
	21	30.0	222.6	175.5	21.4 0.543
	22	35.0	303.3	256.2	23.8 0.497
	23	40.0	401.1	354.0	26.0 0.458
	24	45.0	523.7	476.5	28.1 0.425
	25	50.0	647.2	600.1	30.0 0.397
	26	55.0	747.7	700.5	31.7 0.373
	27	60.0	830.0	782.8	33.3 0.351
	28	70.0	937.3	890.1	36.1 0.316
	29	80.0	1013.5	966.3	38.6 0.287
	30	90.0	1055.3	1018.1	40.8 0.263
	31	100.0	1110.1	1063.0	42.8 0.242
	32	110.0	1146.8	1099.6	44.5 0.225
	33	120.0	1177.4	1130.2	46.1 0.210
	34	135.0	1211.9	1164.7	48.1 0.191
	35	150.0	1239.3	1192.1	49.9 0.176
	36	165.0	1263.5	1216.3	51.5 0.162
G	37	180.4	1283.6	1236.5	52.9 0.151

REMARKS:

ORIGINAL



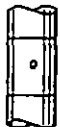



















TICKET NO: 00876800
 CLOCK NO: 13668 HOUR: 12

GAUGE NO: 1605
 DEPTH: 4836.9

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	50.1		
	2	2.9	55.7	5.6	
	3	5.0	58.8	3.1	
	4	9.0	58.8	0.0	
	5	12.0	58.8	0.0	
C	6	15.9	58.0	-0.8	
FIRST CLOSED-IN					
C	1	0.0	58.0		
	2	1.0	64.6	6.6	0.9 1.237
	3	2.0	68.7	10.7	1.8 0.951
	4	3.0	72.6	14.6	2.5 0.800
	5	4.0	76.1	18.1	3.2 0.696
	6	5.0	81.0	23.0	3.8 0.622
	7	6.0	85.8	27.8	4.3 0.562
	8	7.0	90.0	32.0	4.9 0.514
	9	8.0	95.0	37.0	5.3 0.475
	10	9.0	100.7	42.7	5.7 0.442
	11	10.0	106.5	48.5	6.1 0.412
	12	12.0	118.8	60.8	6.8 0.366
	13	14.0	134.4	76.4	7.4 0.329
	14	16.0	149.5	91.5	8.0 0.299
	15	18.0	170.2	112.2	8.4 0.275
	16	20.0	194.2	136.2	8.8 0.253
	17	22.0	223.1	165.1	9.2 0.236
	18	24.0	258.4	200.4	9.6 0.220
	19	26.0	304.5	246.5	9.9 0.207
	20	28.0	355.9	307.9	10.1 0.195
	21	30.0	428.9	370.9	10.4 0.184
	22	35.0	625.3	567.4	10.9 0.162
	23	40.0	802.0	744.0	11.4 0.145
	24	45.0	926.2	868.2	11.7 0.131
	25	50.0	1015.6	958.6	12.0 0.120
	26	55.0	1078.8	1020.8	12.3 0.110
D	27	59.9	1129.5	1071.5	12.5 0.102
SECOND FLOW					
E	1	0.0	68.0		
	2	5.0	69.3	1.3	
	3	10.0	70.1	0.8	
	4	15.0	69.9	-0.2	
	5	20.0	69.9	0.0	
	6	25.0	69.9	0.0	
	7	30.0	71.9	2.0	
	8	35.1	71.9	0.0	
	9	40.0	71.9	0.0	
	10	45.0	72.6	0.7	
	11	50.0	73.5	1.0	

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
	12	55.0	74.9	1.3	
F	13	58.9	77.3	2.5	
SECOND CLOSED-IN					
F	1	0.0	77.3		
	2	1.0	79.1	1.8	1.0 1.877
	3	2.0	80.9	3.6	1.9 1.591
	4	3.0	84.1	6.7	2.9 1.417
	5	4.0	87.0	9.7	3.8 1.298
	6	5.1	90.6	13.3	4.8 1.197
	7	6.0	93.3	15.9	5.6 1.129
	8	7.0	95.4	18.1	6.4 1.068
	9	8.0	99.8	22.5	7.2 1.014
	10	9.0	102.3	25.0	8.0 0.971
	11	10.0	105.7	28.4	8.8 0.929
	12	12.0	114.0	36.6	10.4 0.859
	13	14.0	123.0	45.7	11.8 0.802
	14	16.0	133.3	56.0	13.2 0.753
	15	18.0	143.4	66.0	14.5 0.713
	16	20.0	155.7	78.4	15.8 0.676
	17	22.0	168.2	90.8	17.0 0.644
	18	24.0	181.6	104.3	18.2 0.615
	19	26.0	198.5	121.2	19.3 0.589
	20	28.0	218.3	140.9	20.4 0.564
	21	30.0	242.7	165.4	21.4 0.543
	22	35.0	316.9	239.6	23.8 0.497
	23	40.0	419.0	341.7	26.1 0.458
	24	45.0	547.9	470.6	28.1 0.425
	25	50.0	674.5	597.2	30.0 0.397
	26	55.0	782.3	705.0	31.7 0.373
	27	60.0	866.5	789.2	33.3 0.352
	28	70.0	973.2	895.8	36.2 0.316
	29	80.0	1044.7	967.4	38.6 0.287
	30	90.0	1096.1	1018.8	40.8 0.263
	31	100.0	1140.0	1062.6	42.8 0.242
	32	110.0	1176.8	1099.5	44.5 0.225
	33	120.0	1206.6	1129.2	46.1 0.210
	34	135.0	1242.4	1165.1	48.1 0.191
	35	150.0	1271.2	1193.9	49.9 0.176
	36	165.0	1293.9	1216.6	51.5 0.162
G	37	180.4	1311.1	1233.8	52.9 0.151

REMARKS:

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	3977.5	
3		DRILL COLLARS.....	5.750	2.250	666.6	
50		IMPACT REVERSING SUB.....	6.000	2.170	1.3	4645.5
3		DRILL COLLARS.....	5.750	2.250	91.5	
5		CROSSOVER.....	6.000	2.370	1.0	
11		HANDLING SUB & CHOKE ASSEMBLY...	4.500	2.430	4.7	
13		DUAL CIP SAMPLER.....	5.000	0.750	6.6	
50		HYDROSPRING TESTER.....	5.000	0.750	5.0	4753.3
80		AP RUNNING CASE.....	5.000	2.250	4.1	4755.3
80		AP RUNNING CASE.....	5.000	2.250	4.1	4759.4
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	4774.1
70		OPEN HOLE PACKER.....	6.750	1.530	5.8	4780.0
20		FLUSH JOINT ANCHOR.....	5.000	2.370	10.0	
5		CROSSOVER.....	6.000	2.370	1.0	
3		DRILL COLLARS.....	5.750	2.250	31.5	
5		CROSSOVER.....	6.000	2.370	1.0	
5		CROSSOVER.....	6.000	2.370	1.0	
20		FLUSH JOINT ANCHOR.....	5.000	2.370	8.0	
83		HT-500 TEMPERATURE CASE.....	5.000		1.5	4835.4
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1	4836.9
		TOTAL DEPTH			4840.0	

EQUIPMENT DATA

TEMPERATURE RECORDER CHART

ORIGINAL



10° each circle

Indicated Flow Capacity $kh = \frac{001637 Q_p T}{m}$ md-ft

Average Effective Permeability $k = \frac{kh}{h}$ md

Skin Factor $S = 1.151 \left[\frac{m(P^*) - m(P_i)}{m} \cdot \text{LOG} \left(\frac{k (l/60)}{\phi \mu c r_w} \right) + 3.23 \right]$

Damage Ratio $DR = \frac{m(P^*) - m(P_i)}{m(P^*) - m(P_i) - 0.87 mS}$

Indicated Flow Rate (Maximum) $AOF = \frac{Q_p m(P^*)}{m(P^*) - m(P_i)}$ MCFD

Indicated Flow Rate (Minimum) $AOF = Q_p \sqrt{\frac{m(P^*)}{m(P^*) - m(P_i)}}$ MCFD

Approx. Radius of Investigation $r = 0.032 \sqrt{\frac{k (l/60)}{\phi \mu c}}$ 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.

MSD991

*** PRISM ***
Primary Cementing Report

Page 1

Lease: EARL D DAVIS #1 Well #: 1 Well ID: 0025965
Field: OUTPOST State: KS County: STEVENS
API #: 15-189-21501-00 Ppty ID: 1372400 OCSG #:

ORIGINAL

RELEASED

NOV 09 1992

FROM CONFIDENTIAL

=====
Cementing Job Information
=====

Date: 07/01/1991 Starting Time: 03:00 Ending Time: 04:30

Cementing Company: WESTERN District: PERRYTON, TX

Cementing Company Rating (1 to 10, 10 = Best): 10

Was top plug dropped? N
Was bottom plug dropped? Y
Did plug bump? Y
Was there full circulation while pumping? Y
Amount of cement returns to surface: 1 Bbls
Did floats hold? Y
Flow regime: LAMINAR

Was the pipe reciprocated before cementing? Y
Was the pipe reciprocated during cementing? Y
Was the pipe rotated before cementing? N
Was the pipe rotated during cementing? N
If pipe was rotated, Type of rotation equipment:
Torque on rotated pipe: ft/lbs
Rotation Speed: RPM

Job Remarks:

=====
Stage Information
=====

Stage No.: 1

Casing O.D.: 8.065 In.
Hole Size: 12.250 In.
Estimated Top of Cement for this stage: 0 Ft.
Estimated Bottom of Cement for this stage: 1724 Ft.
Time to mix and pump this stage: 1:12 (Hr:Min)
Average Pump Rate: 4.0 BPM
Maximum Pump Pressure: 900 PSIG
Foam Cement? N

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CONSERVATION DIVISION
Wichita, Kansas

Lead Composition: CLASS 'C' LITE 65:35:6 + 3% CACL2
Tail Composition: CLASS 'C' + 3% CACL2

	Lead ----	Tail ----
No. of Sacks	495	320
Slurry Yields (CuFt/Sk)	1.99	1.33
Slurry Density (Ppg)	12.4	14.8
Slurry Volume (Bbl)		
Mix Water Amount (Gal/SK)	10.97	6.32
Mix Water Type	FRESH	FRESH
Thickening Time (Hr:Min)		
12-Hr Compressive Strength (PSI)		
24-Hr Compressive Strength (PSI)		
Compressive Strength Test Temperature (F)	80	
Fluid Loss (cc)	800	800
Free Water (cc)	1.0	0.5

=====
Flush Information
=====

	Density (PPG)	Volume (Bbls)	Description -----
Preflush	8.3	20.0	H2O
Flush			
Postflush			
Displacement			
Displacement Rate:	4.0	BPM	

MSD991

Primary Cementing Report

Page 2

Lease: EARL D DAVIS #1

Well #: 1

Well ID: 0025965

ORIGINAL

Stage Remarks:

=====

Report Generated on: 09/27/91 @ 03:56 End of Report.....

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CONSERVATION DIVISION
Wichita, Kansas

ORIGINAL

Lease: EARL D DAVIS #1 Well #: 1 Well ID: 0025965
Field: OUTPOST State: KS County: STEVENS
API #: 15-189-21501-00 Pty ID: 1372400 OCSG #:

RELEASED
NOV 09 1992
FROM CONFIDENTIAL

=====
Cementing Job Information
=====

Date: 07/08/1991 Starting Time: 00:15 Ending Time: 01:15

Cementing Company: HALLIBURTON District: PERRYTON, TX

Cementing Company Rating (1 to 10, 10 = Best): 9

Was top plug dropped? Y
Was bottom plug dropped? N
Did plug bump? Y
Was there full circulation while pumping? Y
Amount of cement returns to surface: 0 Bbls
Did floats hold? Y
Flow regime: Laminar

Was the pipe reciprocated before cementing? Y
Was the pipe reciprocated during cementing? Y
Was the pipe rotated before cementing? N
Was the pipe rotated during cementing? N
If pipe was rotated, Type of rotation equipment:
Torque on rotated pipe: ft/lbs
Rotation Speed: RPM

Job Remarks:

=====
Stage Information
=====

Stage No.: 1

Casing O.D.: 5.500 In.
Hole Size: 7.875 In.
Estimated Top of Cement for this stage: 0 Ft.
Estimated Bottom of Cement for this stage: 5845 Ft.
Time to mix and pump this stage: 50 (Hr:Min)
Average Pump Rate: 4.0 BPM
Maximum Pump Pressure: 800 PSIG
Foam Cement? N

Lead Composition: CLASS 'H' 50:50:2 + 2% GEL + 1/4#/SK FLOWSEAL
Tail Composition: CLASS 'H' 50:50:2 + 2% CC

	Lead	Tail
	----	----
No. of Sacks	425	500
Slurry Yields (CuFt/Sk)	1.26	1.26
Slurry Density (Ppg)	14.2	14.2
Slurry Volume (Bbl)		
Mix Water Amount (Gal/SK)	5.75	5.75
Mix Water Type	FRESH	FRESH
Thickening Time (Hr:Min)		
12-Hr Compressive Strength (PSI)		
24-Hr Compressive Strength (PSI)		
Compressive Strength Test Temperature (F)	105	90
Fluid Loss (cc)	950	950
Free Water (cc)	1.0	0.2

=====
Flush Information
=====

Density (PPG)	Volume (Bbls)	Description
-----	-----	-----

Preflush
Flush
Postflush
Displacement

Displacement Rate: 4.0 BPM

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CONSERVATION DIVISION
Wichita, Kansas

Lease: EARL D DAVIS #1 Well #: 1 Well ID: 0025965

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Stage Remarks:

Stage No.: 2

Casing O.D.: 5.500 In.
Hole Size: 7.875 In.
Estimated Top of Cement for this stage: 0 Ft.
Estimated Bottom of Cement for this stage: 5845 Ft.
Time to mix and pump this stage: 27 (Hr:Min)
Average Pump Rate: 4.0 BPM
Maximum Pump Pressure: 700 PSIG
Foam Cement? N

Lead Composition: CLASS 'H' 50:50:2 + 2% CC
Tail Composition:

Table with 2 columns: Property, Value. Rows include No. of Sacks (500), Slurry Yields (1.26), Slurry Density (14.2), Slurry Volume (5.75), Mix Water Amount (FRESH), Thickening Time (90), 12-Hr Compressive Strength (950), 24-Hr Compressive Strength (0.2), Compressive Strength Test Temperature (90), Fluid Loss (950), Free Water (0.2).

=====
Flush Information
=====

Density Volume Description
(PPG) (Bbls)

Preflush
Flush
Postflush
Displacement

Displacement Rate: 4.0 BPM

Stage Remarks:

Report Generated on: 09/27/91 @ 03:56 End of Report.....

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CURTIS W. HARRISON
Wichita, Kansas