

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10/1/83 TICKET #15787
CUSTOMER: IMPERIAL OIL COMPANY LEASE: ADELE
WELL: 1-30 TEST: 2 GEOLOGIST: ARMSTRONG
ELEVATION (KB): 2715 FORMATION: MARMATON
SECTION: 30 TOWNSHIP: 32S
RANGE: 29W COUNTY: MEADE STATE: KANSAS
GAUGE SN #1566 RANGE: 4300 CLOCK: 12

INTERVAL TEST FROM: 5162 FT TO: 5180 FT TOTAL DEPTH: 5180 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 5157 FT SIZE: 6 5/8 IN PACKER DEPTH: 5162 FT SIZE: 6 5/8 IN
PACKER DEPTH: . FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: EAGLE
MUD TYPE: CHEMICAL VISCOSITY: 48
WEIGHT: 9.2+ WATER LOSS (CC): 12.8
CHLORIDES (P.P.M.): 7000
JARS - MAKE: WTC SERIAL NUMBER: 422
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 190 FT I.D.: 2.2 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 4942 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 30 FT TOOL SIZE: 5 1/2 IN
ANCHOR LENGTH: 18 FT SIZE: 5 1/2 IN
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 IN

BLOW: INITIAL FLOW PERIOD GOOD TO STRONG
BLOW.
FINAL FLOW PERIOD 3 INCH BLOW BUILDING
TO STRONG.

RECOVERED: 1500 FT OF: GAS IN PIPE
RECOVERED: 30 FT OF: 3% OIL; 97% DRILLING MUD
RECOVERED: 60 FT OF: 25% GAS; 15% OIL; 60% DRILLING MUD
RECOVERED: 60 FT OF: 2% OIL; 45% DRILLING MUD; 53% WATER
RECOVERED: 125 FT OF: SALTWATER CHLORIDES 118000 PPM
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 9:00 AM
WELL TEMPERATURE: 130 °F
INITIAL HYDROSTATIC PRESSURE:
INITIAL FLOW PERIOD MIN: 60
INITIAL CLOSED IN PERIOD MIN: 120
FINAL FLOW PERIOD MIN: 60
FINAL CLOSED IN PERIOD MIN: 129
FINAL HYDROSTATIC PRESSURE

TIME STARTED OFF BOTTOM: 3:00 PM
(A) 2597 PSI
(B) 81 PSI TO (C) 106 PSI
(D) 1533 PSI
(E) 144 PSI TO (F) 144 PSI
(G) 1476 PSI
(H) 2570 PSI

WESTERN TESTING CO. INC.
PRESSURE DATA

22

DATE: 10/1/83
CUSTOMER: IMPERIAL OIL COMPANY
WELL: 1-30 TEST: 2
ELEVATION (KB): 2715 FORMATION: MARMATON
SECTION: 30 TOWNSHIP: 32S
RANGE: 29W COUNTY: MEADE STATE: KANSAS
GAUGE SN #1566 RANGE: 4300 CLOCK: 12

(A) INITIAL HYDROSTATIC PRESSURE: 2597 PSI
(B) FIRST INITIAL FLOW PRESSURE: 81 PSI
(C) FIRST FINAL FLOW PRESSURE: 106 PSI
(D) INITIAL CLOSED-IN PRESSURE: 1533 PSI
(E) SECOND INITIAL FLOW PRESSURE: 144 PSI
(F) SECOND FINAL FLOW PRESSURE: 144 PSI
(G) FINAL CLOSED-IN PRESSURE: 1476 PSI
(H) FINAL HYDROSTATIC PRESSURE: 2570 PSI
WELL TEMPERATURE: 130 °F
OPEN TOOL: 9:00 AM

	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	60 MIN	60 MIN
INITIAL CLOSED-IN PRESSURE:	120 MIN	120 MIN
SECOND FLOW PRESSURE:	60 MIN	60 MIN
FINAL CLOSED-IN PRESSURE:	120 MIN	129 MIN

PRESSURE BREAKDOWN

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	81	0	106	0	144	0	144
2	5	81	3	121	5	144	3	233
3	10	81	6	218	10	144	6	454
4	15	81	9	411	15	144	9	706
5	20	83	12	686	20	144	12	878
6	25	85	15	894	25	144	15	959
7	30	87	18	990	30	144	18	1028
8	35	91	21	1058	35	144	21	1074
9	40	94	24	1108	40	144	24	1107
10	45	99	27	1146	45	144	27	1142
11	50	102	30	1184	50	144	30	1168
12	55	104	33	1210	55	144	33	1189
13	60	106	36	1233	60	144	36	1211
14			39	1256			39	1227
15			42	1279			42	1251
16			45	1295			45	1264
17			48	1312			48	1275
18			51	1328			51	1291
19			54	1346			54	1307
20			57	1358			57	1317
21			60	1374			60	1329
22			63	1382			63	1335
23			66	1399			66	1346
24			69	1408			69	1357
25			72	1418			72	1366
26			75	1426			75	1375
27			78	1436			78	1383
28			81	1444			81	1388
29			84	1453			84	1396
30			87	1463			87	1405

TC# 15787

1566

I

(H)

(H)

(G)

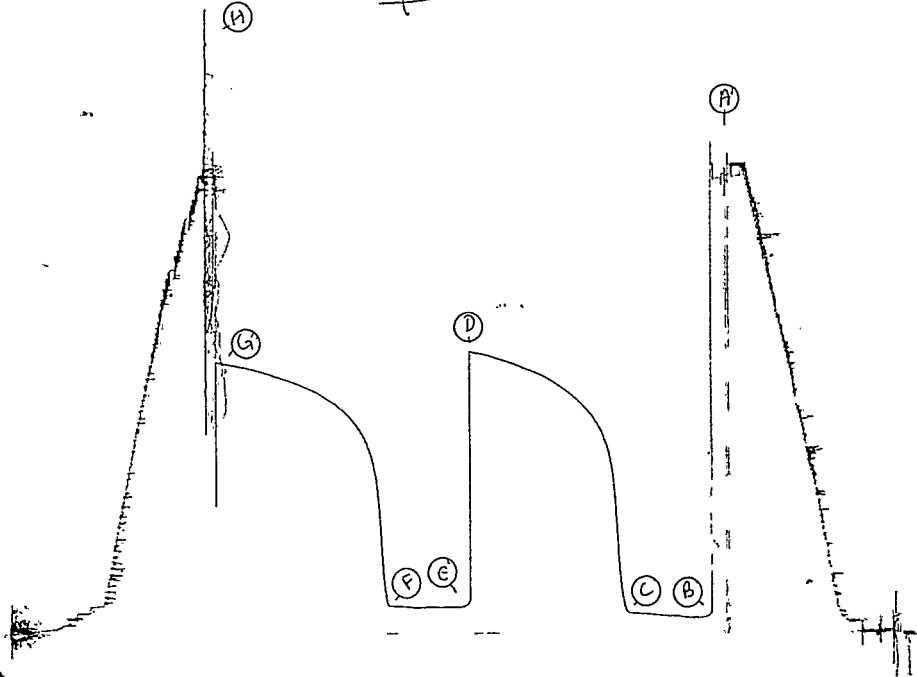
(D)

(F)

(E)

(C)

(B)



WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10/3/83
CUSTOMER: IMPERIAL OIL COMPANY
WELL: 1-30 TEST: 3
ELEVATION (KB): 2715
SECTION: 30
RANGE: 29W
GAUGE SN #1566
TICKET #15788
LEASE: ADELE
GEOLOGIST: ARMSTRONG
FORMATION: ATOKA SAND
TOWNSHIP: 32S
COUNTY: MEADE
STATE: KANSAS
RANGE: 4300
CLOCK: 12

INTERVAL TEST FROM: 5605 FT TO: 5629 FT TOTAL DEPTH: 5629 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 5600 FT SIZE: 6 5/8 IN PACKER DEPTH: 5605 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: EAGLE
MUD TYPE: CHEMICAL VISCOSITY: 45
WEIGHT: 9.3 WATER LOSS (CC): 8.0
CHLORIDES (P.P.M.): 5000
JARS - MAKE: WTC SERIAL NUMBER: 422
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 190 FT I.D.: 2.2 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 5385 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 30 FT TOOL SIZE: 5 1/2 IN
ANCHOR LENGTH: 24 FT SIZE: 5 1/2 IN
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 IN

BLOW: TWO INCH BLOW BUILDING TO STRONG
ON BOTH FLOW PERIODS.
GAS TO SURFACE DURING FINAL SHUT-IN.

RECOVERED: 45	FT	OF: DRILLING MUD
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:

REMARKS:

TIME SET PACKER(S): 10:00 AM	TIME STARTED OFF BOTTOM: 4:00 PM
WELL TEMPERATURE: 133 °F	
INITIAL HYDROSTATIC PRESSURE:	(A) 2811 PSI
INITIAL FLOW PERIOD MIN: 60	(B) 39 PSI TO (C) 39 PSI
INITIAL CLOSED IN PERIOD MIN: 120	(D) 1304 PSI
FINAL FLOW PERIOD MIN: 60	(E) 30 PSI TO (F) 30 PSI
FINAL CLOSED IN PERIOD MIN: 120	(G) 1289 PSI
FINAL HYDROSTATIC PRESSURE	(H) 2756 PSI

DATE: 10/3/83

CUSTOMER: IMPERIAL OIL COMPANY

WELL: 1-30

TEST: 3

ELEVATION (KB): 2715

FORMATION: ATOKA SAND

SECTION: 30

TOWNSHIP: 32S

RANGE: 29W

COUNTY: MEADE

STATE: KANSAS

GAUGE SN #1566

RANGE: 4300

CLOCK: 12

(A) INITIAL HYDROSTATIC PRESSURE: 2811 PSI
(B) FIRST INITIAL FLOW PRESSURE: 39 PSI
(C) FIRST FINAL FLOW PRESSURE: 39 PSI
(D) INITIAL CLOSED-IN PRESSURE: 1304 PSI
(E) SECOND INITIAL FLOW PRESSURE: 30 PSI
(F) SECOND FINAL FLOW PRESSURE: 30 PSI
(G) FINAL CLOSED-IN PRESSURE: 1289 PSI
(H) FINAL HYDROSTATIC PRESSURE: 2756 PSI
WELL TEMPERATURE: 133 °F
OPEN TOOL: 10:00 AM

	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	60 MIN	60 MIN
INITIAL CLOSED-IN PRESSURE:	120 MIN	120 MIN
SECOND FLOW PRESSURE:	60 MIN	60 MIN
FINAL CLOSED-IN PRESSURE:	120 MIN	120 MIN

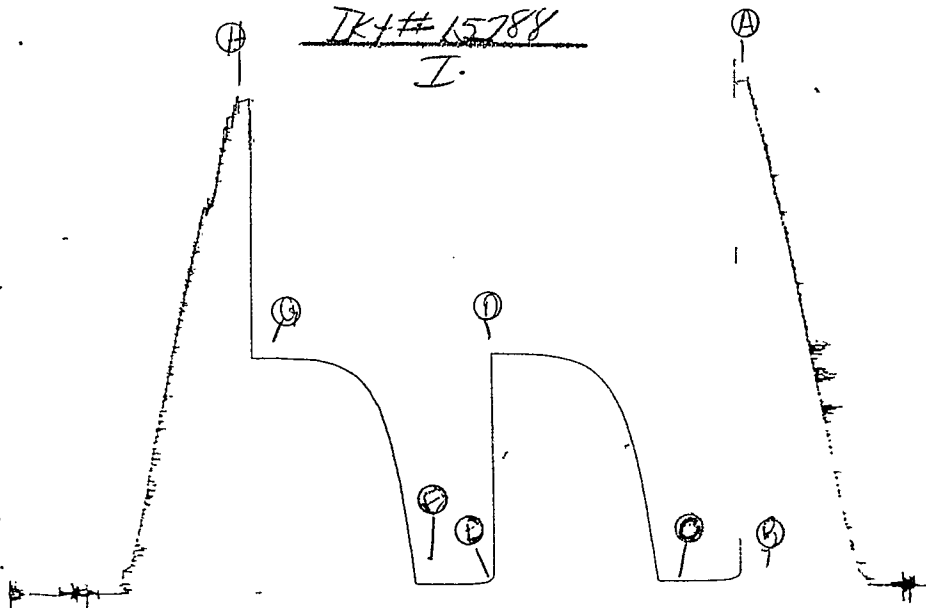
PRESSURE BREAKDOWN

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	39	0	39	0	30	0	30
2	5	39	3	153	5	30	3	169
3	10	39	6	273	10	30	6	342
4	15	39	9	372	15	30	9	470
5	20	39	12	492	20	30	12	588
6	25	39	15	590	25	30	15	675
7	30	39	18	688	30	30	18	756
8	35	39	21	779	35	30	21	850
9	40	39	24	861	40	30	24	916
10	45	39	27	931	45	30	27	990
11	50	39	30	992	50	30	30	1035
12	55	39	33	1036	55	30	33	1073
13	60	39	36	1079	60	30	36	1109
14			39	1117			39	1140
15			42	1148			42	1167
16			45	1168			45	1191
17			48	1193			48	1202
18			51	1210			51	1215
19			54	1227			54	1229
20			57	1240			57	1240
21			60	1248			60	1248
22			63	1257			63	1255
23			66	1266			66	1264
24			69	1270			69	1268
25			72	1276			72	1274
26			75	1281			75	1277
27			78	1285			78	1278
28			81	1288			81	1279
29			84	1294			84	1280
30			87	1296			87	1281

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
31			90	1297			90	1282
32			93	1298			93	1284
33			96	1299			96	1285
34			99	1300			99	1286
35			102	1301			102	1287
36			105	1302			105	1288
37			108	1303			108	1288
38			111	1303			111	1288
39			114	1304			114	1289
40			117	1304			117	1289
41			120	1304			120	1289

42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89

TK4# 15788
I.



WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10/4/83
CUSTOMER: IMPERIAL OIL COMPANY
WELL: 1-30 TEST: 4
ELEVATION (KB): 2715
SECTION: 30
RANGE: 29W COUNTY: MEADE STATE: KANSAS
GAUGE SN #1566 RANGE: 4300 CLOCK: 12

TICKET #15789
LEASE: ADELE
GEOLOGIST: M. ARMSTRONG
FORMATION: MORROW SAND
TOWNSHIP: 32S

INTERVAL TEST FROM: 5638 FT TO: 5661 FT TOTAL DEPTH: 5661 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 5633 FT SIZE: 6 5/8 IN PACKER DEPTH: 5638 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: EAGLE #1
MUD TYPE: CHEMICAL VISCOSITY: 50
WEIGHT: 9.1+ WATER LOSS (CC): 8.0
CHLORIDES (P.P.M.): 5000
JARS - MAKE: WTC SERIAL NUMBER: 422
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 190 FT I.D.: 2.2 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 5418 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 30 FT TOOL SIZE: 5 1/2 O.D. IN
ANCHOR LENGTH: 23 FT SIZE: 5 1/2 O.D. IN
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 IN

BLOW: STRONG

RECOVERED: 15 FT OF: SLIGHTLY GASSY DRILLING MUD
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 6:00 A.M.
WELL TEMPERATURE: 133 °F
INITIAL HYDROSTATIC PRESSURE:
INITIAL FLOW PERIOD MIN: 60
INITIAL CLOSED IN PERIOD MIN: 120
FINAL FLOW PERIOD MIN: 90
FINAL CLOSED IN PERIOD MIN: 120
FINAL HYDROSTATIC PRESSURE

TIME STARTED OFF BOTTOM: 12:30 P.M.

(A) 2844 PSI
(B) 63 PSI TO (C) 63 PSI
(D) 955 PSI
(E) 70 PSI TO (F) 70 PSI
(G) 701 PSI
(H) 2800 PSI

WESTERN TESTING CO., INC.
PRESSURE DATA

DATE: 10/4/83

TICKET #15789

CUSTOMER: IMPERIAL OIL COMPANY

LEASE: ADELE

WELL: 1-30

TEST: 4

GEOLOGIST: M. ARMSTRONG

ELEVATION (KB): 2715

FORMATION: MORROW SAND

SECTION: 30

TOWNSHIP: 32S

RANGE: 29W

COUNTY: MEADE

STATE: KANSAS

GAUGE SN #1566

RANGE: 4300

CLOCK: 12

(A) INITIAL HYDROSTATIC PRESSURE: 2844 - PSI
(B) FIRST INITIAL FLOW PRESSURE: 63 PSI
(C) FIRST FINAL FLOW PRESSURE: 63 PSI
(D) INITIAL CLOSED-IN PRESSURE: 955 PSI
(E) SECOND INITIAL FLOW PRESSURE: 70 PSI
(F) SECOND FINAL FLOW PRESSURE: 70 PSI
(G) FINAL CLOSED-IN PRESSURE: 701 PSI
(H) FINAL HYDROSTATIC PRESSURE: 2800 PSI
WELL TEMPERATURE: 133 °F
OPEN TOOL: 6:00 A.M.

	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	60 MIN	60 MIN
INITIAL CLOSED-IN PRESSURE:	120 MIN	120 MIN
SECOND FLOW PRESSURE:	90 MIN	90 MIN
FINAL CLOSED-IN PRESSURE:	120 MIN	120 MIN

PRESSURE BREAKDOWN

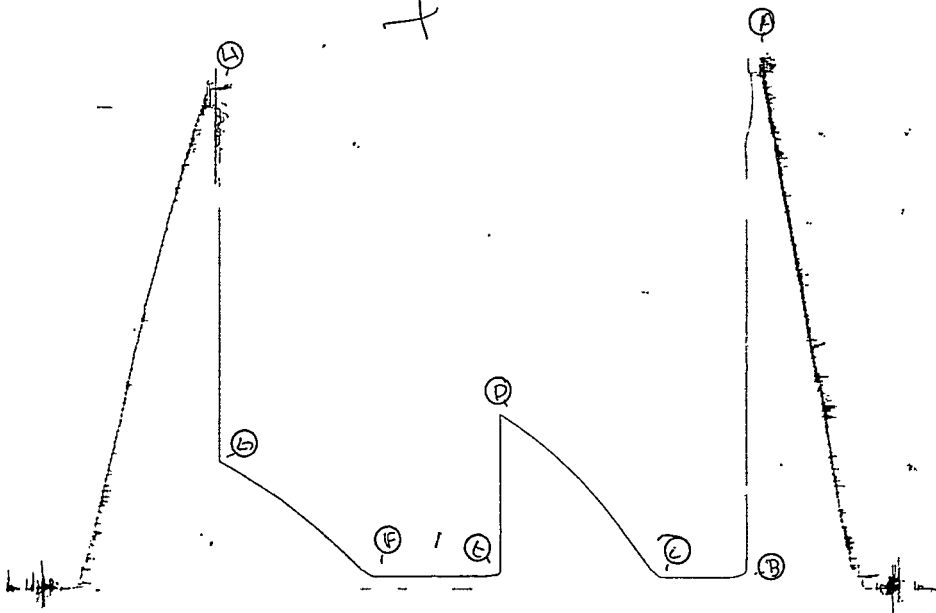
PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	63	0	63	0	70	0	70
2	5	63	3	80	5	70	3	74
3	10	63	6	100	10	70	6	91
4	15	63	9	123	15	70	9	104
5	20	63	12	156	20	70	12	123
6	25	63	15	184	25	70	15	145
7	30	63	18	218	30	70	18	168
8	35	63	21	248	35	70	21	186
9	40	63	24	276	40	70	24	208
10	45	63	27	307	45	70	27	232
11	50	63	30	339	50	70	30	253
12	55	63	33	368	55	70	33	272
13	60	63	36	394	60	70	36	292
14			39	424	65	70	39	312
15			42	451	70	70	42	329
16			45	477	75	70	45	350
17			48	504	80	70	48	368
18			51	528	85	70	51	387
19			54	551	90	70	54	403
20			57	578			57	420
21			60	605			60	438
22			63	624			63	453
23			66	648			66	472
24			69	667			69	490
25			72	687			72	503
26			75	710			75	517
27			78	730			78	528
28			81	747			81	548
29			84	766			84	558
30			87	786			87	575

*PRESSURE BREAKDOWN - CONT. TICKET #15789

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
31			90	804			90	588
32			93	822			93	602
33			96	839			96	618
34			99	856			99	631
35			102	872			102	646
36			105	887			105	658
37			108	902			108	671
38			111	916			111	684
39			114	931			114	693
40			117	946			117	699
41			120	955			120	701
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								

tick # 15789

I



WESTERN TESTING CO., INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10/5/83
CUSTOMER: IMPERIAL OIL COMPANY
WELL: 1-30 TEST: 5
ELEVATION (KB): 2715
SECTION: 30
RANGE: 29W
GAUGE SN #1566
FORMATION: MORROW
TOWNSHIP: 32S
COUNTY: MEADE
STATE: KANSAS
CLOCK: 12

TICKET #15790
LEASE: ADELE
GEOLOGIST: ARMSTRONG

INTERVAL TEST FROM: 5662 FT TO: 5705 FT TOTAL DEPTH: 5705 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 5657 FT SIZE: 6 5/8 IN PACKER DEPTH: 5662 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: EAGLE
MUD TYPE: CHEMICAL
WEIGHT: 9.4

VISCOSITY: 50
WATER LOSS (CC): 7.2

CHLORIDES (P.P.M.): 6000

JARS - MAKE: WTC

SERIAL NUMBER: 422

DID WELL FLOW? NO

REVERSED OUT? NO

DRILL COLLAR LENGTH: 190 FT I.D.: 2.2 IN

WEIGHT PIPE LENGTH: FT I.D.: IN

DRILL PIPE LENGTH: 5442 FT I.D.: 3.8 IN

TEST TOOL LENGTH: 30 FT TOOL SIZE: 5 1/2 IN

ANCHOR LENGTH: 43 FT SIZE: 5 1/2 IN

SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN

MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 IN

BLOW: INITIAL FLOW PERIOD 1/2 INCH BLOW
BUILDING TO 3 INCHES.
FINAL FLOW PERIOD STRONG BLOW.

RECOVERED: 20 FT OF: SLIGHTLY GAS CUT DRILLING MUD
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 2:00 AM
WELL TEMPERATURE: 133 °F
INITIAL HYDROSTATIC PRESSURE:
INITIAL FLOW PERIOD MIN: 30
INITIAL CLOSED IN PERIOD MIN: 66
FINAL FLOW PERIOD MIN: 60
FINAL CLOSED IN PERIOD MIN: 123
FINAL HYDROSTATIC PRESSURE

TIME STARTED OFF BOTTOM: 6:30 AM

(A) 2824 PSI
(B) 48 PSI TO (C) 48 PSI
(D) 946 PSI
(E) 44 PSI TO (F) 44 PSI
(G) 1765 PSI
(H) 2806 PSI

TICKET #15790

LEASE: ADELE

GEOLOGIST: ARMSTRONG

FORMATION: MORROW

TOWNSHIP: 32S

COUNTY: MEADE

STATE: KANSAS

RANGE: 4300

CLOCK: 12

PSI

PSI

PSI

PSI

PSI

PSI

PSI

PSI

'F

TIME - GIVEN TIME - ACTUAL

30 MIN 30 MIN

60 MIN 66 MIN

60 MIN 60 MIN

120 MIN 123 MIN

PRESSURE BREAKDOWN

[illegible]

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
31							90	1695
32							93	1712
33							96	1719
34							99	1727
35							102	1736
36							105	1740
37							108	1747
38							111	1753
39							114	1755
40							117	1759
41							120	1761
42							123	1765
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								

tel# 15790

1566

I

