



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 9486

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 262-5861

Elevation 2210 K13 Formation LANG-KL Eff. Pay Ft.

District WAKEENEY Date 10/31/85 Customer Order No.

COMPANY NAME PETROLEUM INC

ADDRESS 300 W DOUGLAS, SUITE 800 WICHITA KS

LEASE AND WELL NO. #1 LANG 'O' COUNTY ELLIS STATE KS Sec 20 Twp 13S Rge 20W

Mail Invoice To SAME #1 LANG "O" No. Copies Requested REG

Co. Name Address Mail Charts To SAME No. Copies Requested REG

Address

Formation Test No. 1 Interval Tested From 3487 ft. to 3520 ft. Total Depth 3520 ft.

Packer Depth 3482 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 3487 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3510 ft. Recorder Number 13630 Cap. 4625

Bottom Recorder Depth (Outside) 3513 ft. Recorder Number 6234 Cap. 4500

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor JOHN O FARMER Drill Collar Length 28 I. D. 2.25 in.

Mud Type STARCH Viscosity 42 Weight Pipe Length 888 I. D. 2.76 in.

Weight 9.8 Water Loss 11-2 cc. Drill Pipe Length 257750 I. D. 3.8 in.

Chlorides 37,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.

Jars: Make Serial Number Anchor Length 33 ft. Size 5 1/2 OD in.

Did Well Flow? NO Reversed Out NO 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 XH in.

Blow: 1 WEAK LOW BUILDING BLOW TO 1 1/2" IN BUCKET

2 WEAK BUILDING TO FAIL BLOW OFF BOTTOM IN 23 MIN.

Recovered 60 ft. of SLIGHTLY GAS HEAVY OIL W/ WATERY MUD

Recovered 240 ft. of FREE GAS IN PIPE

Recovered ft. of 5% GAS, 25% OIL, 30% WATER, 40% MUD

Recovered ft. of

Recovered ft. of Chlorides 49,000 P.P.M. Sample Jars used 1 Remarks:

Time On Location 3:00 A.M. Time Pick Up Tool 5:45 A.M. Time Off Location 12:30 A.M.

Time Set Packer(s) 7:00 P.M. Time Started Off Bottom 10:45 A.M. Maximum Temperature 114

Initial Hydrostatic Pressure (A) 1780 P.S.I.

Initial Flow Period Minutes 15 (B) 68 P.S.I. to (C) 68 P.S.I.

Initial Closed In Period Minutes 30 (D) 226 P.S.I.

Final Flow Period Minutes 60 (E) 68 P.S.I. to (F) 68 P.S.I.

Final Closed In Period Minutes 120 (G) 703 P.S.I.

Final Hydrostatic Pressure (H) 1711 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Ken Franklin Signature of Customer or his authorized representative

Western Representative Job Atty

FIELD INVOICE

Table with 2 columns: Item, Amount. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, TOTAL.

Thank you 0125.

WESTERN TESTING CO., INC.

Pressure Data

Date 10-31-85

Test Ticket No. 9486

Recorder No. 13630

Capacity 4625

Location _____ Ft.

Clock No. _____ Elevation _____

Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1793</u> P.S.I.	Open Tool	<u>7:00 A</u>	<u>M 10:45 A</u>
B First Initial Flow Pressure	<u>54</u> P.S.I.	First Flow Pressure	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>54</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>218</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>57</u> P.S.I.	Final Closed-in Pressure	<u>120</u> Mins.	_____ Mins.
F Second Final Flow Pressure	<u>60</u> P.S.I.			
G Final Closed-in Pressure	<u>707</u> P.S.I.			
H Final Hydrostatic Mud	<u>1761</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: _____ Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 38 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>54</u>	0	<u>54</u>	0	<u>57</u>	0	<u>60</u>
P 2 5	<u>↓</u>	3	<u>59</u>	5	<u>↓</u>	3	<u>62</u>
P 3 10	<u>↓</u>	6	<u>67</u>	10	<u>↓</u>	6	<u>68</u>
P 4 15	<u>54</u>	9	<u>78</u>	15	<u>57</u>	9	<u>76</u>
P 5 20		12	<u>93</u>	20	<u>↓</u>	12	<u>86</u>
P 6 25		15	<u>109</u>	25	<u>↓</u>	15	<u>96</u>
P 7 30		18	<u>129</u>	30	<u>57</u>	18	<u>110</u>
P 8 35		21	<u>156</u>	35	<u>↓</u>	21	<u>122</u>
P 9 40		24	<u>195</u>	40	<u>57</u>	24	<u>139</u>
P10 45		27	<u>218</u>	45	<u>58</u>	27	<u>153</u>
P11 50		30		50	<u>58</u>	30	<u>174</u>
P12 55		33		55	<u>59</u>	33	<u>205</u>
P13 60		36		60	<u>60</u>	36	<u>237</u>
P14 65		39		65		39	<u>273</u>
P15 70		42		70		42	<u>310</u>
P16 75		45		75		45	<u>348</u>
P17 80		48		80		48	<u>393</u>
P18 85		51		85		51	<u>432</u>
P19 90		54		90		54	<u>476</u>
P20 95		57		95		57	<u>514</u>
100		60		100		60	<u>548</u>

WESTERN TESTING CO., INC.
Pressure Data

Date _____

Test Ticket No. 9486

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	_____ P.S.I.	Open Tool	_____ M	_____
B. First Initial Flow Pressure	_____ P.S.I.	First Flow Pressure	_____ Mins.	_____ Mins.
C. First Final Flow Pressure	_____ P.S.I.	Initial Closed-in Pressure	_____ Mins.	_____ Mins.
D. Initial Closed-in Pressure	_____ P.S.I.	Second Flow Pressure	_____ Mins.	_____ Mins.
E. Second Initial Flow Pressure	_____ P.S.I.	Final Closed-in Pressure	_____ Mins.	_____ Mins.
F. Second Final Flow Pressure	_____ P.S.I.			
G. Final Closed-in Pressure	_____ P.S.I.			
H. Final Hydrostatic Mud	_____ P.S.I.			

PRESSURE BREAKDOWN

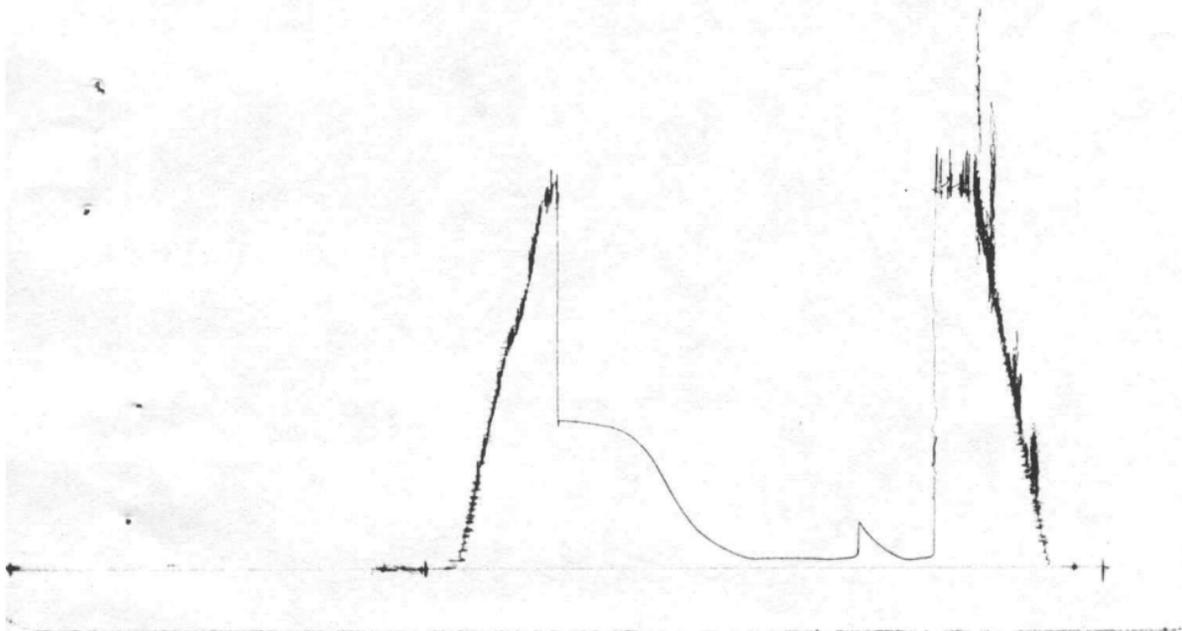
Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press.	Point Minutes	Press.	Point Minutes
P 1	105	63		63
P 2	110	66		66
P 3	115	69		69
P 4	120	72		72
P 5	125	75		75
P 6	130	78		78
P 7	135	81		81
P 8	140	84		84
P 9	145	87		87
P10	150	90		90
P11	155	93		93
P12	160	96		96
P13	165	99		99
P14	170	102		102
P15	175	105		105
P16	180	108		108
P17	185	111		111
P18	190	114		114
P19	195	117		117
P20	200	120		120

581
607
626
644
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TKT # 9486

DSI#1
TK#9486
BOT

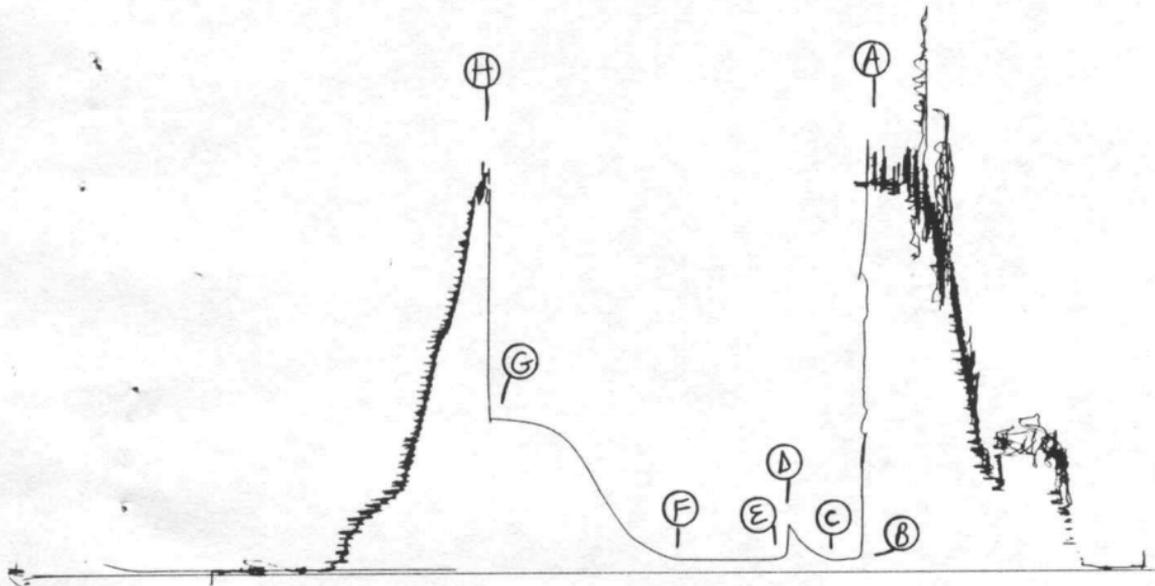
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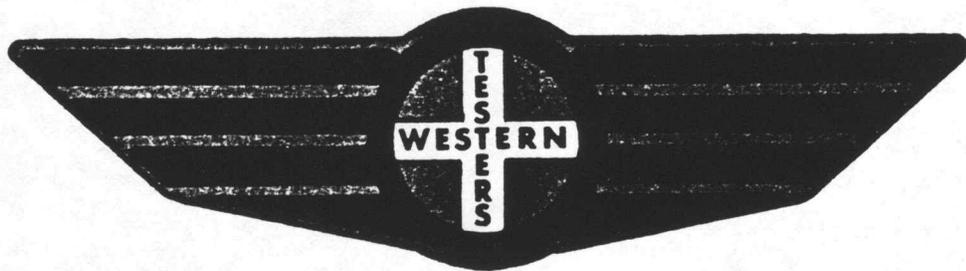
TKT # 9486

DSI # 1
TK# 9486
TOP

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10-31-85
CUSTOMER: PETROLEUM INC.
WELL: 1
ELEVATION (KB): 2210
SECTION: 20
RANGE: 20W
GAUGE SN #13630

TEST: 1
FORMATION: LANSING/KANSAS CITY
TOWNSHIP: 13S
COUNTY: ELLIS
RANGE: 4625

TICKET #9486
LEASE: LANG "0"
GEOLOGIST: KEN HAMLIN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 3487 FT TO: 3520 FT TOTAL DEPTH: 3520 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3482 FT SIZE: 6 3/4 IN Packer DEPTH: 3487 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN Packer DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: JOHN O FARMER
MUD TYPE: STARCH VISCOSITY: 42
WEIGHT: 9.8 WATER LOSS (CC): 11.2
CHLORIDES (P.P.M.): 37000

JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 28 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: 888 FT I.D.: 2.7 IN
DRILL PIPE LENGTH: 2550 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 33 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: INITIAL FLOW PERIOD WEAK SLOW
BUILDING BLOW TO 1 1/2" IN BUCKET.
FINAL FLOW PERIOD WEAK BLOW BUILDING
TO FAIR BLOW OFF BOTTOM IN 23 MINUTES.

RECOVERED: 60 FT OF: SLIGHTY GAS HEAVY OIL CUT WATERY MUD
RECOVERED: FT OF: (5% GAS, 25% OIL, 30% WATER, 40% MUD).
RECOVERED: 240 FT OF: FREE GAS ABOVE FLUID.
RECOVERED: FT OF: CHLORIDES 40000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 7:00 AM TIME STARTED OFF BOTTOM: 10:45 AM
WELL TEMPERATURE: 114 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1793 PSI
INITIAL FLOW PERIOD MIN: 15 (B) 54 PSI TO (C) 54 PSI
INITIAL CLOSED IN PERIOD MIN: 27 (D) 218 PSI
FINAL FLOW PERIOD MIN: 60 (E) 57 PSI TO (F) 60 PSI
FINAL CLOSED IN PERIOD MIN: 111 (G) 707 PSI
FINAL HYDROSTATIC PRESSURE (H) 1761 PSI



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO: 9487

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 262-5861

Elevation 2210 KB Formation LANS-KL Eff. Pay Ft.

COMPANY NAME PETROLEUM INC

ADDRESS 300 W DOUGLAS SUITE 800, WICHITA KS

LEASE AND WELL NO. #1 LANG "0" COUNTY ELLIS STATE KS Sec 20 Twp 13S Rge 20W

Mail Invoice To SAME #1 LANG "0" No. Copies Requested REC

Mail Charts To GANDIE No. Copies Requested REC

Formation Test No. 2 Interval Tested From 3520 ft. to 3542 ft. Total Depth 3542 ft.

Packer Depth 3515 ft. Size 6 3/4 in. Packer Depth --- ft. Size --- in.

Packer Depth 3520 ft. Size 6 3/4 in. Packer Depth --- ft. Size --- in.

Depth of Selective Zone Set ---

Top Recorder Depth (Inside) 3532 ft. Recorder Number 13630 Cap. 4625

Bottom Recorder Depth (Outside) 3535 ft. Recorder Number 6234 Cap. 4500

Below Straddle Recorder Depth --- ft. Recorder Number --- Cap. ---

Drilling Contractor JOHN O FARMER Drill Collar Length 27 I. D. 2.25 in.

Mud Type STARBU Viscosity 39 Weight Pipe Length 888 I. D. 2.76 in.

Weight 9.8 Water Loss 11.2 cc. Drill Pipe Length 2610-2584 I. D. 3.8 in.

Chlorides 37,000 P.P.M. Test Tool Length 21 ft. Tool Size 5/200 in.

Jars: Make --- Serial Number --- Anchor Length 22 ft. Size 5/200 in.

Did Well Flow? NO Reversed Out NO 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 BLOW OFF BOTTOM IN 1 MIN.

" " " " " 10 MIN.

Recovered 120 ft. of FREE GAS IN PIPE

Recovered 890 ft. of SLIGHTLY MUD CUT GAS AND OIL CUT WATER

Recovered 0/07 ft. of GAS = 14%, OIL = 17%, WATER = 63%, MUD = 6%

Recovered --- ft. of

Recovered --- ft. of

Chlorides 86,000 P.P.M. Sample Jars used 6 Remarks:

Time On Location 6:00 A.M. Time Pick Up Tool 6:45 P.M. Time Off Location 3:00 A.M.

Time Set Packer(s) 8:15 A.M. Time Started Off Bottom 12:00 P.M. Maximum Temperature 118

Initial Hydrostatic Pressure (A) 1883 P.S.I.

Initial Flow Period Minutes 15 (B) 147 P.S.I. to (C) 147 P.S.I.

Initial Closed In Period Minutes 30 (D) 441 P.S.I.

Final Flow Period Minutes 60 (E) 249 P.S.I. to (F) 373 P.S.I.

Final Closed In Period Minutes 120 (G) 441 P.S.I.

Final Hydrostatic Pressure (H) 1826 P.S.I.

COMPANY TERMS

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All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Ken Hamer Signature of Customer or his authorized representative

Western Representative Jack Allright

Thank you

0125

FIELD INVOICE

Table with 2 columns: Item Name and Amount. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL.

WESTERN TESTING CO., INC.

Pressure Data

Date 10-31-85 Test Ticket No. 9487
 Recorder No. 13630 Capacity 4625 Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature 118 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1901</u> P.S.I.	<u>8:15 A</u> M	<u>12:00 A</u>
B First Initial Flow Pressure	<u>140</u> P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>181</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>436</u> P.S.I.	<u>60</u> Mins.	<u>55</u> Mins.
E Second Initial Flow Pressure	<u>247</u> P.S.I.	<u>120</u> Mins.	<u>117</u> Mins.
F Second Final Flow Pressure	<u>373</u> P.S.I.		
G Final Closed-in Pressure	<u>441</u> P.S.I.		
H Final Hydrostatic Mud	<u>1826</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 4 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Initial Shut-In
 Breakdown: 11 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 12 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 40 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>140</u>	0	<u>181</u>	0	<u>247</u>	0	<u>373</u>
P 2 5	<u>143</u>	3	<u>323</u>	5	<u>249</u>	3	<u>396</u>
P 3 10	<u>166</u>	6	<u>378</u>	10	<u>262</u>	6	<u>411</u>
P 4 15	<u>181</u>	9	<u>403</u>	15	<u>283</u>	9	<u>419</u>
P 5 20		12	<u>415</u>	20	<u>301</u>	12	<u>424</u>
P 6 25		15	<u>423</u>	25	<u>318</u>	15	<u>427</u>
P 7 30		18	<u>430</u>	30	<u>332</u>	18	<u>429</u>
P 8 35		21	<u>432</u>	35	<u>343</u>	21	<u>430</u>
P 9 40		24	<u>434</u>	40	<u>353</u>	24	<u>431</u>
P10 45		27	<u>435</u>	45	<u>361</u>	27	<u>432</u>
P11 50		30	<u>436</u>	50	<u>368</u>	30	<u>433</u>
P12 55		33		55	<u>373</u>	33	<u>434</u>
P13 60		36		60		36	<u>434</u>
P14 65		39		65		39	<u>435</u>
P15 70		42		70		42	<u>435</u>
P16 75		45		75		45	<u>436</u>
P17 80		48		80		48	<u>436</u>
P18 85		51		85		51	↓
P19 90		54		90		54	↓
P20 95		57		95		57	↓
100		60		100		60	<u>437</u>

WESTERN TESTING CO., INC.
Pressure Data

Test Ticket No. 9487

Date _____ Recorder No. _____ Capacity _____ Location _____ Ft.
Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	P.S.I.	Open Tool		M
B. First Initial Flow Pressure	P.S.I.	First Flow Pressure	_____ Mins.	_____ Mins.
C. First Final Flow Pressure	P.S.I.	Initial Closed-in Pressure	_____ Mins.	_____ Mins.
D. Initial Closed-in Pressure	P.S.I.	Second Flow Pressure	_____ Mins.	_____ Mins.
E. Second Initial Flow Pressure	P.S.I.	Final Closed-in Pressure	_____ Mins.	_____ Mins.
F. Second Final Flow Pressure	P.S.I.			
G. Final Closed-in Pressure	P.S.I.			
H. Final Hydrostatic Mud	P.S.I.			

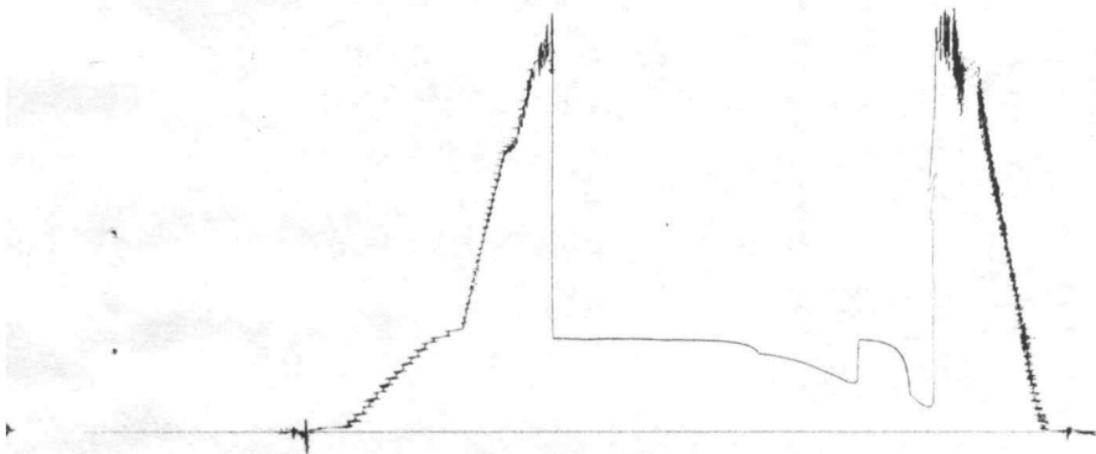
PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
	of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
	final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1	105	63		105		63	437	
P 2	110	66		110		66	↓	
P 3	115	69		115		69	437	
P 4	120	72		120		72	438	
P 5	125	75		125		75	↓	
P 6	130	78		130		78	↓	
P 7	135	81		135		81	438	
P 8	140	84		140		84	439	
P 9	145	87		145		87	↓	
P10	150	90		150		90	439	
P11	155	93		155		93	↓	
P12	160	96		160		96	439	
P13	165	99		165		99	440	
P14	170	102		170		102	↓	
P15	175	105		175		105	440	
P16	180	108		180		108	↓	
P17	185	111		185		111	440	
P18	190	114		190		114	441	
P19	195	117		195		117	↓	
P20	200	120		200		120	↓	

TKT # 9487

DST#2
TK#9487
BOT

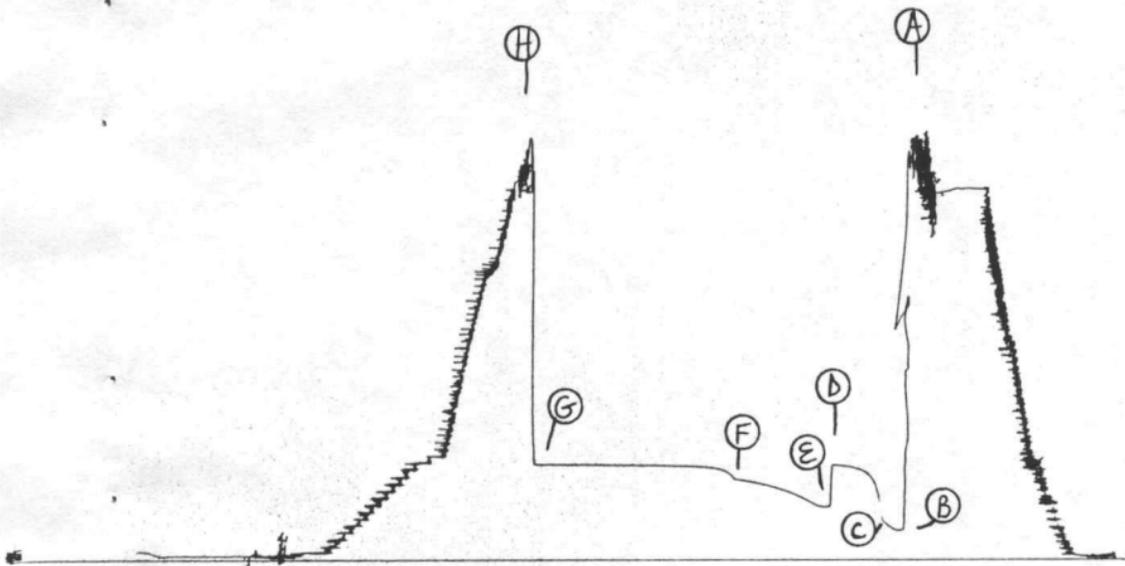
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TKT # 9487

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DST#2
TK#9487
~~300~~
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WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10-31-85
CUSTOMER: PETROLEUM INC.
WELL: 1
ELEVATION (KB): 2210
SECTION: 20
RANGE: 20W
GAUGE SN #13630

TEST: 2
FORMATION:
TOWNSHIP: 13S
COUNTY: ELLIS
RANGE: 4625

TICKET #9487
LEASE: LANG "O"
GEOLOGIST: KEN HAMLIN
LANSING/KANSAS CITY
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 3520 FT TO: 3542 FT TOTAL DEPTH: 3542 FT
DEPTH OF SELECTIVE ZONE:
PACKER DEPTH: 3515 FT SIZE: 6 3/4 IN PACKER DEPTH: 3520 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: JOHN O FARMER
MUD TYPE: STARCH VISCOSITY: 39
WEIGHT: 9.8 WATER LOSS (CC): 11.2
CHLORIDES (P.P.M.): 37000

JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 27 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: 888 FT I.D.: 2.7 IN
DRILL PIPE LENGTH: 2584 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 22 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: INITIAL FLOW PERIOD STRONG BLOW;
OFF BOTTOM IN 1 MINUTE.
FINAL FLOW PERIOD STRONG BLOW;
OFF BOTTOM IN 10 MINUTES.

RECOVERED: 120 FT OF: FREE GAS ABOVE FLUID.
RECOVERED: 890 FT OF: SLIGHTLY MUD CUT GAS & OIL CUT WATER
RECOVERED: FT OF: (14% GAS; 17% OIL; 63% WATER; 6% MUD).
RECOVERED: FT OF: CHLORIDES 86000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 8:15 PM
WELL TEMPERATURE: 118 °F
INITIAL HYDROSTATIC PRESSURE:
INITIAL FLOW PERIOD MIN: 15
INITIAL CLOSED IN PERIOD MIN: 30
FINAL FLOW PERIOD MIN: 55
FINAL CLOSED IN PERIOD MIN: 117
FINAL HYDROSTATIC PRESSURE

TIME STARTED OFF BOTTOM: 12:00 AM
(A) 1901 PSI
(B) 140 PSI TO (C) 181 PSI
(D) 436 PSI
(E) 247 PSI TO (F) 373 PSI
(G) 441 PSI
(H) 1826 PSI



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N° 9488

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 2210 KB Formation LANS-KC Eff. Pay Ft.

District WAKEENEY Date 10/1/85 Customer Order No.

COMPANY NAME PETROLEUM INC.

ADDRESS 300 W DOUGLAS, SUITE 800, WICHITA KS 67202

LEASE AND WELL NO #1 LANG 'O' COUNTY ELLIS STATE KS Sec 20 Twp 13S Rge 20W

Mail Invoice To GAME #1 LANG "O" Co. Name Address No. Copies Requested REC

Mail Charts To GAME Address No. Copies Requested REC

Formation Test No. 3 Interval Tested From 3540 ft. to 3585 ft. Total Depth 3585 ft.

Packer Depth 3535 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Packer Depth 3540 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3575 ft. Recorder Number 13630 Cap. 4625

Bottom Recorder Depth (Outside) 3578 ft. Recorder Number 6234 Cap. 4500

Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor JOHN O FARMER Drill Collar Length 27 I. D. 2.25 in.

Mud Type STAREH Viscosity 39 Weight Pipe Length 888 I. D. 2.76 in.

Weight 9.5 Water Loss 9.6 cc. Drill Pipe Length 260 1/4 I. D. 3.2 in.

Chlorides 32,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.

Jars: Make — Serial Number — Anchor Length 45 ft. Size 5 1/2 OD in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 3/8 in. Tool Joint Size 4 1/2 XH in.

Blow: 1 WEAT INCREASING BLOW TO 2" IN BUCKET

2 " " " " 5" " " "

Recovered 120 ft. of SLIGHTLY OIL CUT WATERY MUD

Recovered — ft. of

Recovered — ft. of

Recovered — ft. of

Recovered — ft. of

Chlorides 50,000 P.P.M. Sample Jars used 2 Remarks:

Time On Location 12:30 A.M. Time Pick Up Tool 1:15 P.M. Time Off Location 8:00 A.M.

Time Set Packer(s) 2:15 P.M. Time Started Off Bottom 6:00 P.M. Maximum Temperature 118

Initial Hydrostatic Pressure (A) 1986 P.S.I.

Initial Flow Period Minutes 15 (B) 79 P.S.I. to (C) 79 P.S.I.

Initial Closed In Period Minutes 30 (D) 772 P.S.I.

Final Flow Period Minutes 60 (E) 91 P.S.I. to (F) 113 P.S.I.

Final Closed In Period Minutes 120 (G) 772 P.S.I.

Final Hydrostatic Pressure (H) 1917 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] Signature of Customer or his authorized representative

Western Representative [Signature] 0125

Thank You

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test \$550, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, TOTAL.

WESTERN TESTING CO., INC.

Pressure Data

Date 11-1-85 Recorder No. 13630 Capacity 4625 Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature 118 °F
 Test Ticket No. 9488

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1856</u>	P.S.I.	<u>2:15 P</u> M	<u>6:00 P</u>
B First Initial Flow Pressure	<u>71</u>	P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>81</u>	P.S.I.	<u>30</u> Mins.	<u>24</u> Mins.
D Initial Closed-in Pressure	<u>765</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>87</u>	P.S.I.	<u>120</u> Mins.	_____ Mins.
F Second Final Flow Pressure	<u>110</u>	P.S.I.		
G Final Closed-in Pressure	<u>760</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1851</u>	P.S.I.		

** Plugging*

PRESSURE BREAKDOWN

** First Flow Pressure* Breakdown: 4 Inc. of 5 mins. and a final inc. of 0 Min.
Initial Shut-In Breakdown: 9 Inc. of 3 mins. and a final inc. of 0 Min.
** Second Flow Pressure* Breakdown: 12 Inc. of 5 mins. and a final inc. of 0 Min.
Final Shut-In Breakdown: 39 Inc. of 3 mins. and a final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>71</u>	0	<u>81</u>	0	<u>87</u>	0	<u>110</u>
P 2 5	<u>71</u>	3	<u>673</u>	5	<u>87</u>	3	<u>355</u>
P 3 10	<u>81</u>	6	<u>708</u>	10	<u>90</u>	6	<u>565</u>
P 4 15	<u>81</u>	9	<u>726</u>	15	<u>92</u>	9	<u>612</u>
P 5 20		12	<u>740</u>	20	<u>112</u>	12	<u>642</u>
P 6 25		15	<u>749</u>	25	<u>111</u>	15	<u>662</u>
P 7 30		18	<u>756</u>	30	<u>106</u>	18	<u>676</u>
P 8 35		21	<u>762</u>	35	<u>115</u>	21	<u>685</u>
P 9 40		24	<u>765</u>	40	<u>130</u>	24	<u>692</u>
P10 45		27		45	<u>128</u>	27	<u>701</u>
P11 50		30		50	<u>115</u>	30	<u>707</u>
P12 55		33		55	<u>111</u>	33	<u>712</u>
P13 60		36		60	<u>110</u>	36	<u>717</u>
P14 65		39		65		39	<u>721</u>
P15 70		42		70		42	<u>724</u>
P16 75		45		75		45	<u>727</u>
P17 80		48		80		48	<u>730</u>
P18 85		51		85		51	<u>733</u>
P19 90		54		90		54	<u>735</u>
P20 95		57		95		57	<u>737</u>
100		60		100		60	<u>739</u>

WESTERN TESTING CO., INC.
Pressure Data

Date _____ Test Ticket No. _____
 Recorder No. _____ Capacity _____ Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature _____ °F

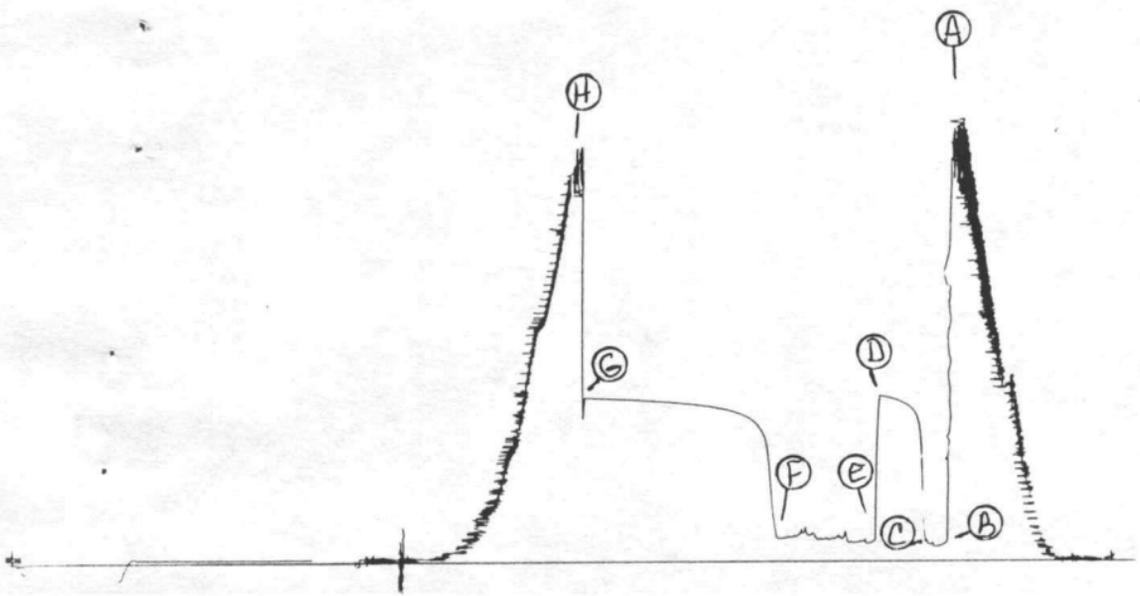
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud _____	P.S.I. _____	Open Tool _____	_____ M _____	
B First Initial Flow Pressure _____	P.S.I. _____	First Flow Pressure _____	_____ Mins. _____	_____ Mins.
C First Final Flow Pressure _____	P.S.I. _____	Initial Closed-in Pressure _____	_____ Mins. _____	_____ Mins.
D Initial Closed-in Pressure _____	P.S.I. _____	Second Flow Pressure _____	_____ Mins. _____	_____ Mins.
E Second Initial Flow Pressure _____	P.S.I. _____	Final Closed-in Pressure _____	_____ Mins. _____	_____ Mins.
F Second Final Flow Pressure _____	P.S.I. _____			
G Final Closed-in Pressure _____	P.S.I. _____			
H Final Hydrostatic Mud _____	P.S.I. _____			

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 105	_____	63	_____	105	_____	63	741
P 2 110	_____	66	_____	110	_____	66	743
P 3 115	_____	69	_____	115	_____	69	745
P 4 120	_____	72	_____	120	_____	72	747
P 5 125	_____	75	_____	125	_____	75	748
P 6 130	_____	78	_____	130	_____	78	749
P 7 135	_____	81	_____	135	_____	81	750
P 8 140	_____	84	_____	140	_____	84	751
P 9 145	_____	87	_____	145	_____	87	752
P10 150	_____	90	_____	150	_____	90	753
P11 155	_____	93	_____	155	_____	93	754
P12 160	_____	96	_____	160	_____	96	755
P13 165	_____	99	_____	165	_____	99	756
P14 170	_____	102	_____	170	_____	102	757
P15 175	_____	105	_____	175	_____	105	758
P16 180	_____	108	_____	180	_____	108	759
P17 185	_____	111	_____	185	_____	111	760
P18 190	_____	114	_____	190	_____	114	760
P19 195	_____	117	_____	195	_____	117	
P20 200	_____	120	_____	200	_____	120	

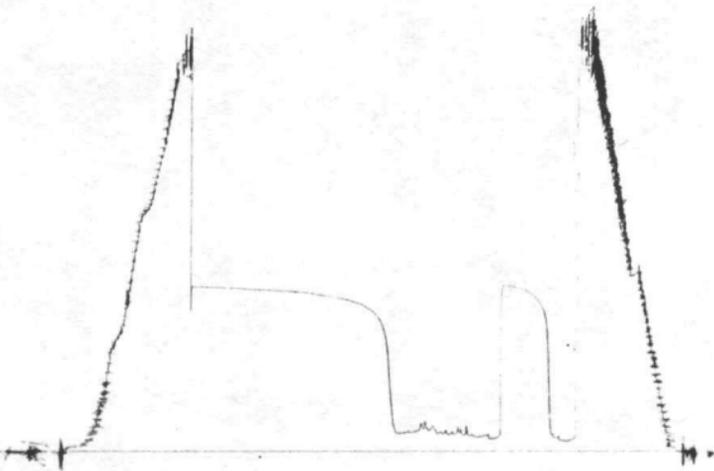
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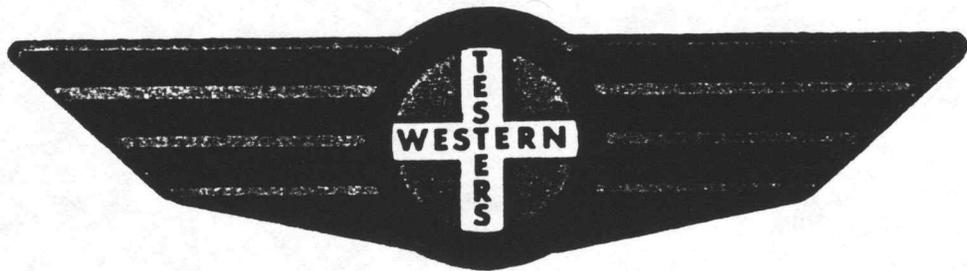


4kt. #9488
0

QST#3
TK#9488
BOT



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY PETROLEUM, INC. LEASE & WELL NO. #1 LANG "O" SEC. 20 TWP. 13S RGE. 20W TEST NO. 3 DATE 11/1/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 11-1-85
CUSTOMER: PETROLEUM INC.
WELL: 1 TEST: 3
ELEVATION (KB): 2210 FORMATION: LANSING/KANSAS CITY
SECTION: 20 TOWNSHIP: 13S
RANGE: 20W COUNTY: ELLIS STATE: KANSAS
GAUGE SN #13630 RANGE: 4625 CLOCK: 12

INTERVAL TEST FROM: 3540 FT TO: 3585 FT TOTAL DEPTH: 3585 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3535 FT SIZE: 6 3/4 IN PACKER DEPTH: 3540 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: JOHN O FARMER
MUD TYPE: STARCH VISCOSITY: 39
WEIGHT: 9.5 WATER LOSS (CC): 9.6
CHLORIDES (P.P.M.): 32000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 27 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: 888 FT I.D.: 2.7 IN
DRILL PIPE LENGTH: 2604 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 45 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: INITIAL FLOW PERIOD WEAK BLOW
INCREASING TO 2 INCHES IN BUCKET.
FINAL FLOW PERIOD WEAK BLOW
INCREASING TO 5 INCHES IN BUCKET.

RECOVERED: 120 FT OF: SLIGHTLY OIL CUT WATERY MUD.
RECOVERED: FT OF: CHLORIDES 50000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: SOME PLUGGING ACTION ON BOTH FLOW PERIODS.

TIME SET PACKER(S): 2:15 PM TIME STARTED OFF BOTTOM: 6:00 PM
WELL TEMPERATURE: 118 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1856 PSI
INITIAL FLOW PERIOD MIN: 15 (B) 71 PSI TO (C) 81 PSI
INITIAL CLOSED IN PERIOD MIN: 24 (D) 765 PSI
FINAL FLOW PERIOD MIN: 60 (E) 87 PSI TO (F) 110 PSI
FINAL CLOSED IN PERIOD MIN: 114 (G) 760 PSI
FINAL HYDROSTATIC PRESSURE (H) 1851 PSI



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 9490

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 262-5861

Elevation 2210 KB Formation LANS-KC Eff. Pay Ft.

District WAKEENEY Date 11/2/85 Customer Order No.

COMPANY NAME PETROLEUM INC.

ADDRESS 300 W DOUGLAS, SUITE 800 WICHITA KS 67202

LEASE AND WELL NO. #1 LANG '0' COUNTY ELLIS STATE KS Sec 20 Twp. 13S Rge. 20W

Mail Invoice To SAME #1 LANG '0' Co. Name Address No. Copies Requested REC

Mail Charts To SAME Address No. Copies Requested REC

Formation Test No. 4 Interval Tested From 3615 ft. to 3698 ft. Total Depth 3698 ft.

Packer Depth 3610 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Packer Depth 3615 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set —

Top Recorder Depth (Inside) 3688 ft. Recorder Number 13630 Cap. 4625

Bottom Recorder Depth (Outside) 3691 ft. Recorder Number 6234 Cap. 4500

Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor JOHN O FAIRMER Drill Collar Length 27 I. D. 2.25 in.

Mud Type STARCH Viscosity 40 Weight Pipe Length 888 I. D. 2.76 in.

Weight 9.7 Water Loss 11.6 cc. Drill Pipe Length 2738-2679 I. D. 3.8 in.

Chlorides 36,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.

Jars: Make — Serial Number — Anchor Length 83 ft. Size 5 1/2 OD in.

Did Well Flow? NO Reversed Out 1/0 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 x 4 in.

Blow 1 WEAK STEADY BLOW ON SURFACE.

2 FLUSHED TOOL WEAK BLOW ON SURFACE DIED IN 7 MIN

Recovered 30 ft. of VERY SLIGHTLY OIL SPOTTED WATERY MUD

Recovered — ft. of 35% WATER, 65% MUD

Recovered — ft. of

Recovered — ft. of

Recovered — ft. of

Chlorides 35,000 P.P.M. Sample Jars used 1 Remarks:

Time On Location 11:00 A.M. Time Pick Up Tool 11:30 A.M. Time Off Location 4:30 P.M.

Time Set Packer(s) 145 P.M. Time Started Off Bottom 2:30 P.M. Maximum Temperature 120

Initial Hydrostatic Pressure (A) 1895 P.S.I.

Initial Flow Period (B) 15 Minutes (C) 91 P.S.I. to (D) 91 P.S.I.

Initial Closed In Period (D) 30 Minutes (E) 124 P.S.I.

Final Flow Period (E) 30 Minutes (F) 170 P.S.I. to (G) 170 P.S.I.

Final Closed In Period (G) 30 Minutes (H) 407 P.S.I.

Final Hydrostatic Pressure (H) 1837 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Ken Vanlin Signature of Customer or his authorized representative

Western Representative Jack Albert 01/25

Handwritten signature

FIELD INVOICE

Table with 2 columns: Item and Amount. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL. Amounts are listed in dollars, with a total of \$550.00.

WESTERN TESTING CO., INC.
Pressure Data

Date 11-2 Test Ticket No. 9490
 Recorder No. 13630 Capacity _____ Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1895</u> P.S.I.			
B First Initial Flow Pressure	<u>87</u> P.S.I.	First Flow Pressure	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>87</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>124</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>99</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>217</u> P.S.I.			
G Final Closed-in Pressure	<u>405</u> P.S.I.			
H Final Hydrostatic Mud	<u>1830</u> P.S.I.			

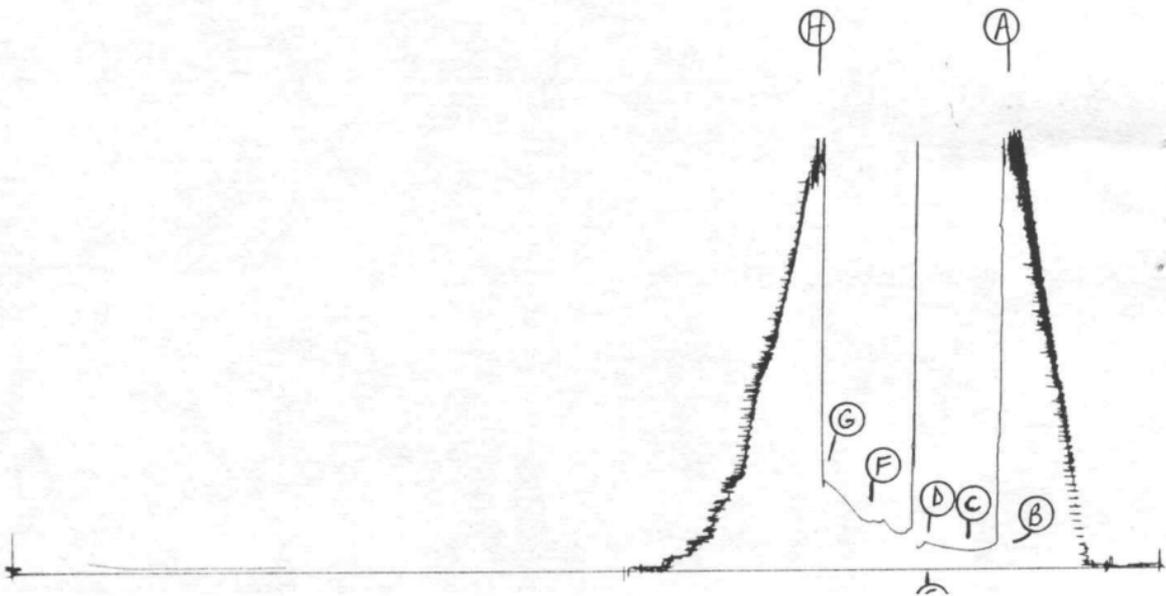
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>4</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>7</u> Inc.		Breakdown: <u>11</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>87</u>	0	<u>87</u>	0	<u>99</u>	0	<u>217</u>
P 2 5	<u>87</u>	3	<u>88</u>	5	<u>99</u> F.T.	3	<u>222</u>
P 3 10	<u>87</u>	6	<u>91</u>	10	<u>171</u>	6	<u>233</u>
P 4 15	<u>87</u>	9	<u>94</u>	15	<u>169</u> OK	9	<u>256</u>
P 5 20		12	<u>98</u>	20	<u>200</u>	12	<u>284</u>
P 6 25		15	<u>102</u>	25	<u>215</u>	15	<u>311</u>
P 7 30		18	<u>108</u>	30	<u>217</u>	18	<u>337</u>
P 8 35		21	<u>113</u>	35		21	<u>360</u>
P 9 40		24	<u>121</u>	40		24	<u>382</u>
P10 45		27	<u>124</u>	45		27	<u>400</u>
P11 50		30		50		30	<u>405</u>
P12 55		33		55		33	
P13 60		36		60		36	
P14 65		39		65		39	
P15 70		42		70		42	
P16 75		45		75		45	
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	

TKT # 9490

DSI #4
TK# 9490
TOP

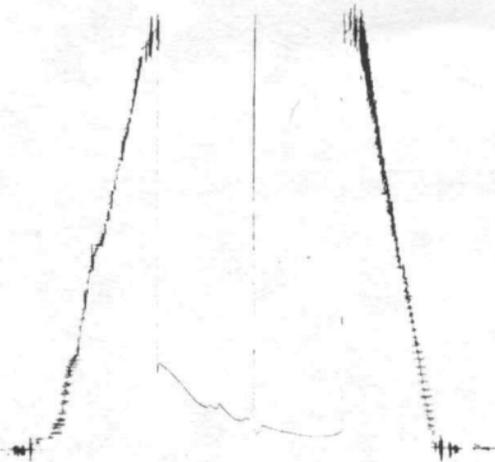
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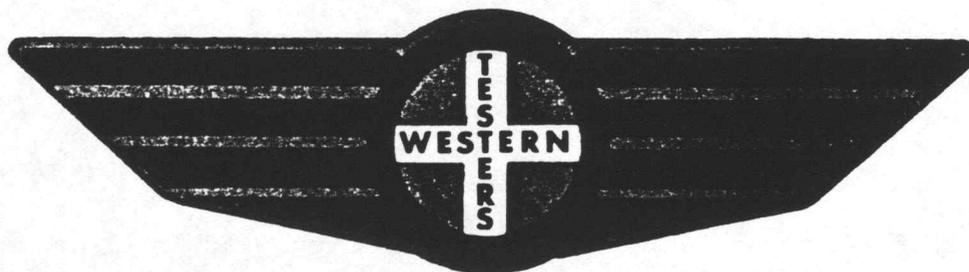
TKT # 9490

VST#4
TK#9490
BOT

O



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 11-2-85
CUSTOMER: PETROLEUM INC.
WELL: 1
ELEVATION (KB): 2210
SECTION: 20
RANGE: 20W
GAUGE SN #13630

TEST: 4
FORMATION: LANSING/KANSAS CITY
TOWNSHIP: 13S
COUNTY: ELLIS
RANGE: 4625

TICKET #9490
LEASE: LANG "0"
GEOLOGIST: KEN HAMLIN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 3615 FT TO: 3698 FT TOTAL DEPTH: 3698 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3615 FT SIZE: 6 3/4 IN Packer DEPTH: 3615 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN Packer DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: JOHN O FARMER
MUD TYPE: STARCH VISCOSITY: 40
WEIGHT: 9.7 WATER LOSS (CC): 11.6
CHLORIDES (P.P.M.): 36000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 27 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: 888 FT I.D.: 2.76 IN
DRILL PIPE LENGTH: 2679 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 83 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: INITIAL FLOW PERIOD WEAK STEADY
BLOW ON SURFACE. FINAL FLOW PERIOD
FLUSHED TOOL; WEAK BLOW ON SURFACE;
DIED IN 7 MINUTES.

RECOVERED: 30 FT OF: VERY SLIGHTLY OIL SPOTTES WATERY MUD
RECOVERED: FT OF: (35% WATER; 65% MUD).
RECOVERED: FT OF: CHLORIDES 35000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 1:45 PM TIME STARTED OFF BOTTOM: 2:30 PM
WELL TEMPERATURE: 120 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1895 PSI
INITIAL FLOW PERIOD MIN: 15 (B) 87 PSI TO (C) 87 PSI
INITIAL CLOSED IN PERIOD MIN: 27 (D) 124 PSI
FINAL FLOW PERIOD MIN: 30 (E) 99 PSI TO (F) 217 PSI
FINAL CLOSED IN PERIOD MIN: 30 (G) 405 PSI
FINAL HYDROSTATIC PRESSURE (H) 1830 PSI



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N° 9491

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 262-5861

Elevation 2210 KB Formation MARM Eff. Pay Ft.

District WAKEENEY Date 11/3/85 Customer Order No.

COMPANY NAME PETROLEUM INC

ADDRESS 300 W DOUGLAS, SUITE 800 WICHITA KS 67202

LEASE AND WELL NO #1 LANG 'O' COUNTY ELLIS STATE KS Sec. 20 Twp. 13S Rge. 20W

Mail Invoice To SAME #1 LANG "O" No. Copies Requested 12EG

Mail Charts To SAME Address No. Copies Requested 12EG

Formation Test No. 5 Interval Tested From 3794 ft. to 3827 ft. Total Depth 3827 ft.

Packer Depth 3789 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 3794 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3817 ft. Recorder Number 13630 Cap. 4625

Bottom Recorder Depth (Outside) 3820 ft. Recorder Number 6234 Cap. 4500

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor JOHN O FARMER Drill Collar Length 27 I. D. 2.25 in.

Mud Type STARCH Viscosity 40 Weight Pipe Length 888 I. D. 2.76 in.

Weight 9.6 Water Loss 13.6 cc. Drill Pipe Length 2858 I. D. 3.8 in.

Chlorides 34,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 OD in.

Jars: Make Serial Number Anchor Length 33 ft. Size 5 1/2 OD in.

Did Well Flow? NO Reversed Out NO 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 x # in.

Blow: 1 WEAK SLOW INCREASING BLOW TO 1" IN BUCKET

2 NO BLOW - FLUSHED TOOL - GOOD SURGE, NO HELP

Recovered 30 ft. of SLIGHTLY OIL SPOTTED WATERY MUD

Recovered ft. of 45% WATER - 55% NMD

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides 57,000 P.P.M. Sample Jars used 1 Remarks: PLUGGING ACTION ON SECOND OPENING AFTER FLUSH.

Time On Location 7:00 A.M. P.M. Time Pick Up Tool 7:15 A.M. P.M. Time Off Location 12:00 A.M. P.M.

Time Set Packer(s) 8:30 A.M. P.M. Time Started Off Bottom 10:15 A.M. P.M. Maximum Temperature 116

Initial Hydrostatic Pressure (A) 2032 P.S.I.

Initial Flow Period Minutes 15 (B) 57 P.S.I. to (C) 57 P.S.I.

Initial Closed In Period Minutes 30 (D) 1126 P.S.I.

Final Flow Period Minutes 30 (E) 57 P.S.I. to (F) 57 P.S.I.

Final Closed In Period Minutes 30 (G) 1103 P.S.I.

Final Hydrostatic Pressure (H) 2009 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Ken Hamlin Signature of Customer or his authorized representative

Western Representative Jack Allright 0125

Thank You

FIELD INVOICE

Table with 2 columns: Item, Amount. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, TOTAL. Amounts are mostly \$0, with a final TOTAL of \$550.00.

WESTERN TESTING CO., INC.
Pressure Data

Date 11-3

Test Ticket No. 9491

Recorder No. 13630 Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2028</u> P.S.I.	Open Tool	<u>15</u> Mins.	<u>15</u> Mins.
B First Initial Flow Pressure	<u>49</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>27</u> Mins.
C First Final Flow Pressure	<u>49</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1133</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>27</u> Mins.
E Second Initial Flow Pressure	<u>52</u> P.S.I.	Final Closed-in Pressure		
F Second Final Flow Pressure	<u>112</u> P.S.I.			
G Final Closed-in Pressure	<u>1098</u> P.S.I.			
H Final Hydrostatic Mud	<u>1977</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 7 Inc.
of 5 mins. and a
final inc. of 0 Min.

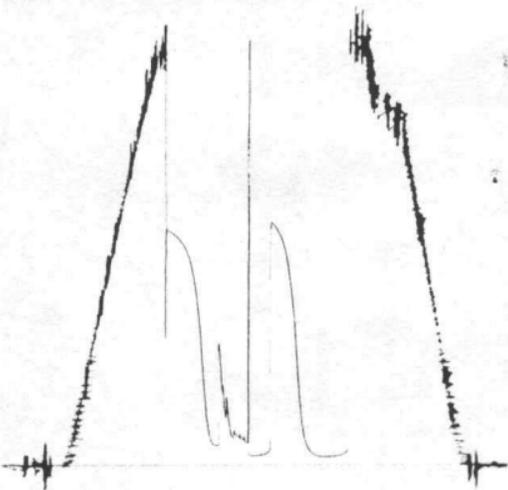
Final Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>49</u>	0	<u>49</u>	0	<u>52</u>	0	<u>112</u>
P 2 5	<u>5</u>	3	<u>60</u>	5	<u>52</u>	3	<u>143</u>
P 3 10	<u>5</u>	6	<u>83</u>	10	<u>52</u> F.T.	6	<u>312</u>
P 4 15	<u>49</u>	9	<u>172</u>	15	<u>131</u>	9	<u>605</u>
P 5 20		12	<u>350</u>	20	<u>149</u>	12	<u>836</u>
P 6 25		15	<u>682</u>	25	<u>240</u> OK	15	<u>967</u>
P 7 30		18	<u>911</u>	30	<u>112</u>	18	<u>1020</u>
P 8 35		21	<u>1025</u>	35		21	<u>1057</u>
P 9 40		24	<u>1095</u>	40		24	<u>1083</u>
P10 45		27	<u>1133</u>	45		27	<u>1098</u>
P11 50		30		50		30	
P12 55		33		55		33	
P13 60		36		60		36	
P14 65		39		65		39	
P15 70		42		70		42	
P16 75		45		75		45	
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	

TKT # 9491

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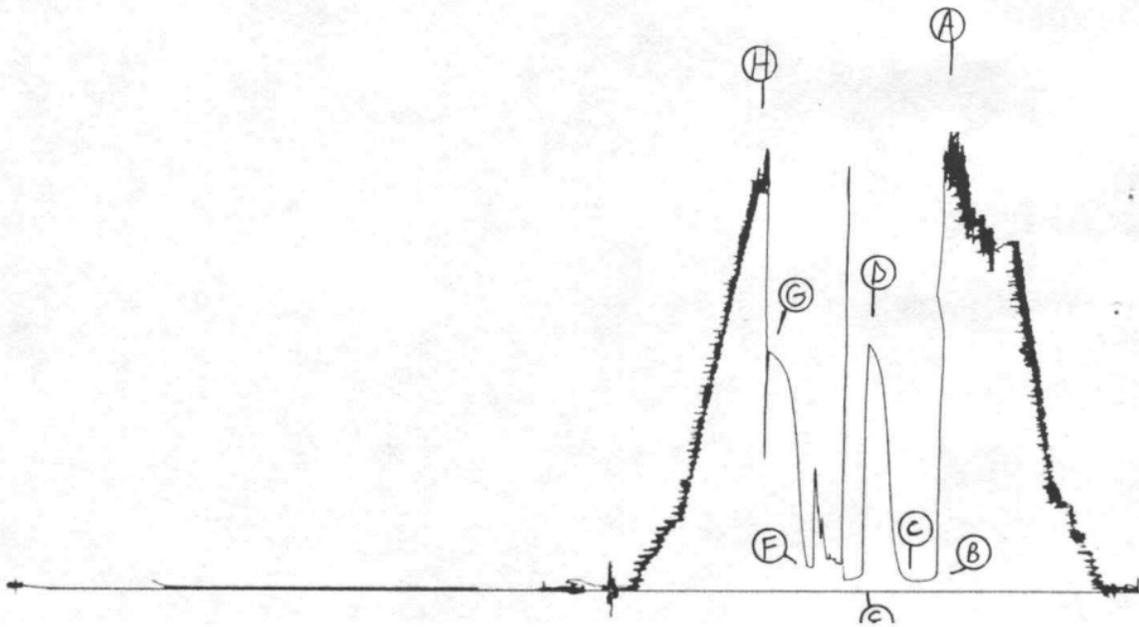
LST#5
TK#9491
L30T



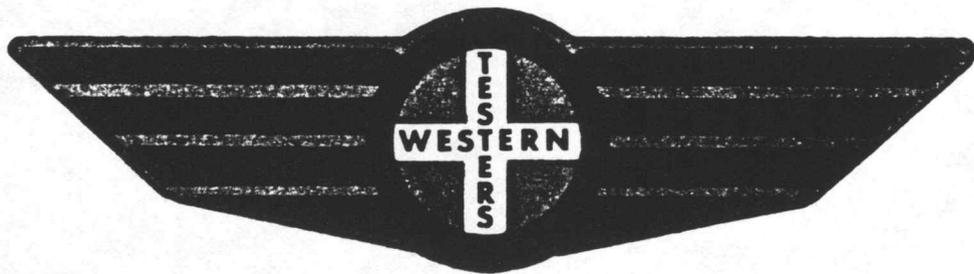
TKT # 9491

DST#5
TK#9491
TOP

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 11-3-85
CUSTOMER: PETROLEUM INC.
WELL: 1
ELEVATION (KB): 2210
SECTION: 20
RANGE: 20W
GAUGE SN #13630

TEST: 5
FORMATION: MARMATON
TOWNSHIP: 13S
COUNTY: ELLIS
RANGE: 4625

TICKET #9491
LEASE: LANG "0"
GEOLOGIST: KEN HAMLIN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 3794 FT TO: 3827 FT TOTAL DEPTH: 3827 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3789 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: JOHN O FARMER
MUD TYPE: STARCH VISCOSITY: 40
WEIGHT: 9.6 WATER LOSS (CC): 13.6
CHLORIDES (P.P.M.): 34000

JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? 0

DRILL COLLAR LENGTH:	27	FT	I.D.:	2.25	IN
WEIGHT PIPE LENGTH:	888	FT	I.D.:	2.76	IN
DRILL PIPE LENGTH:	2858	FT	I.D.:	3.8	IN
TEST TOOL LENGTH:	21	FT	TOOL SIZE:	5 1/2 OD	IN
ANCHOR LENGTH:	33	FT	SIZE:	5 1/2 OD	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 XH	IN

BLOW: INITIAL FLOW PERIOD WEAK SLOW
INCREASING BLOW TO 1 INCH IN BUCKET.
FINAL FLOW PERIOD NO BLOW; FLUSHED
TOOL; GOOD SURGE; NO HELP.

RECOVERED:	30	FT	OF:	SLIGHTLY OIL SPOTTED WATERY MUD
RECOVERED:		FT	OF:	(45% WATER; 55% MUD).
RECOVERED:		FT	OF:	CHLORIDES 57000 PPM.
RECOVERED:		FT	OF:	
RECOVERED:		FT	OF:	
RECOVERED:		FT	OF:	
RECOVERED:		FT	OF:	
RECOVERED:		FT	OF:	
RECOVERED:		FT	OF:	

REMARKS: PLUGGING ACTION ON SECOND
OPENING AFTER FLUSH.

TIME SET PACKER(S): 8:30 AM
WELL TEMPERATURE: 116 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2028 PSI
INITIAL FLOW PERIOD MIN: 15 (B) 49 PSI TO (C) 49 PSI
INITIAL CLOSED IN PERIOD MIN: 27 (D) 1133 PSI
FINAL FLOW PERIOD MIN: 30 (E) 52 PSI TO (F) 112 PSI
FINAL CLOSED IN PERIOD MIN: 27 (G) 1098 PSI
FINAL HYDROSTATIC PRESSURE (H) 1977 PSI

TIME STARTED OFF BOTTOM: 10:15 AM



WESTERN TESTING CO., INC.
FORMATION TESTING

OK

TICKET NO. 9492

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 262-5861

Elevation 2210 KB Formation ARBUCKLE Eff. Pay Ft.

District WAKEENEY Date 11/3/35 Customer Order No.

COMPANY NAME PETROLEUM INC

ADDRESS 300 W DOUGLAS, SUITE 800, WICHITA 67202

LEASE AND WELL NO. #1 LANG O' COUNTY ELLIS STATE KS Sec 20 Twp 13S Rge 20W

Mail Invoice To SAME #1 LANG "O" Co. Name Address No. Copies Requested REG

Mail Charts To GANNIE Address No. Copies Requested REG

Formation Test No. 6 Interval Tested From 3824 ft. to 3855 ft. Total Depth 3855 ft.

Packer Depth 3819 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 3824 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3845 ft. Recorder Number 13630 Cap. 4625

Bottom Recorder Depth (Outside) 3848 ft. Recorder Number 6234 Cap. 4500

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor JOHN O FARMER Drill Collar Length 27 I. D. 2.25 in.

Mud Type STARCH Viscosity 40 Weight Pipe Length 888 I. D. 2.76 in.

Weight 9.6 Water Loss 13.6 cc. Drill Pipe Length 2888 I. D. 3.8 in.

Chlorides 34,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 O.D. in.

Jars: Make Serial Number Anchor Length 31 ft. Size 5 1/2 O.D. in.

Did Well Flow? NO Reversed Out NO 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 X# in.

Blow: 1 STRONG BLOW OFF BOTTOM IN 10 MIN. 2 " " " " " 17 "

Recovered 240 ft. of FREE GAS IN PIPE

Recovered 420 ft. of SLIGHTLY MUD CUT GASSY OIL

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used 4 Remarks:

Time On Location 8:00 AM P.M. Time Pick Up Tool 9:00 AM P.M. Time Off Location STAYED AM P.M.

Time Set Packer(s) 10:15 AM P.M. Time Started Off Bottom 2:00 AM P.M. Maximum Temperature 124

Initial Hydrostatic Pressure (A) 2078 P.S.I.

Initial Flow Period Minutes 15 (B) 113 P.S.I. to (C) 113 P.S.I.

Initial Closed In Period Minutes 30 (D) 932 P.S.I.

Final Flow Period Minutes 60 (E) 170 P.S.I. to (F) 215 P.S.I.

Final Closed In Period Minutes 120 (G) 726 P.S.I.

Final Hydrostatic Pressure (H) 2009 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Ken Hamlin Signature of Customer or his authorized representative

Western Representative Jack Allright 0125

Thank you

FIELD INVOICE

Table with 2 columns: Item, Amount. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL. Amounts are mostly \$0, with Open Hole Test at \$550.00 and TOTAL at \$550.00.

WESTERN TESTING CO., INC.
Pressure Data

Date 11-3

Test Ticket No. 9492

Recorder No. 13630 Capacity _____ Location _____ Ft. _____

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2074</u>	P.S.I.		
B First Initial Flow Pressure	<u>109</u>	P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>132</u>	P.S.I.	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>927</u>	P.S.I.	<u>60</u> Mins.	<u>55</u> Mins.
E Second Initial Flow Pressure	<u>165</u>	P.S.I.	<u>120</u> Mins.	<u>114</u> Mins.
F Second Final Flow Pressure	<u>215</u>	P.S.I.		
G Final Closed-in Pressure	<u>725</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1982</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 39 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>109</u>	0	<u>132</u>	0	<u>165</u>	0	<u>215</u>
P 2 5	<u>110</u> ^{OK}	3	<u>776</u>	5	<u>165</u>	3	<u>446</u>
P 3 10	<u>131</u>	6	<u>824</u>	10	<u>165</u>	6	<u>481</u>
P 4 15	<u>132</u>	9	<u>851</u>	15	<u>167</u>	9	<u>507</u>
P 5 20		12	<u>872</u>	20	<u>172</u>	12	<u>522</u>
P 6 25		15	<u>887</u>	25	<u>178</u>	15	<u>540</u>
P 7 30		18	<u>901</u>	30	<u>185</u>	18	<u>555</u>
P 8 35		21	<u>911</u>	35	<u>191</u>	21	<u>570</u>
P 9 40		24	<u>920</u>	40	<u>203</u>	24	<u>582</u>
P10 45		27	<u>927</u>	45	<u>212</u>	27	<u>594</u>
P11 50		30		50	<u>214</u>	30	<u>605</u>
P12 55		33		55	<u>215</u>	33	<u>614</u>
P13 60		36		60		36	<u>623</u>
P14 65		39		65		39	<u>632</u>
P15 70		42		70		42	<u>638</u>
P16 75		45		75		45	<u>644</u>
P17 80		48		80		48	<u>650</u>
P18 85		51		85		51	<u>655</u>
P19 90		54		90		54	<u>660</u>
P20 95		57		95		57	<u>665</u>
100		60		100		60	<u>670</u>

cont

WESTERN TESTING CO., INC.
Pressure Data

Date _____

Test Ticket No. 9492

Recorder No. _____ Capacity _____ Location _____ Ft

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud _____	P.S.I.	Open Tool _____	M _____	
B. First Initial Flow Pressure _____	P.S.I.	First Flow Pressure _____	Mins. _____	Mins. _____
C. First Final Flow Pressure _____	P.S.I.	Initial Closed-in Pressure _____	Mins. _____	Mins. _____
D. Initial Closed-in Pressure _____	P.S.I.	Second Flow Pressure _____	Mins. _____	Mins. _____
E. Second Initial Flow Pressure _____	P.S.I.	Final Closed-in Pressure _____	Mins. _____	Mins. _____
F. Second Final Flow Pressure _____	P.S.I.			
G. Final Closed-in Pressure _____	P.S.I.			
H. Final Hydrostatic Mud _____	P.S.I.			

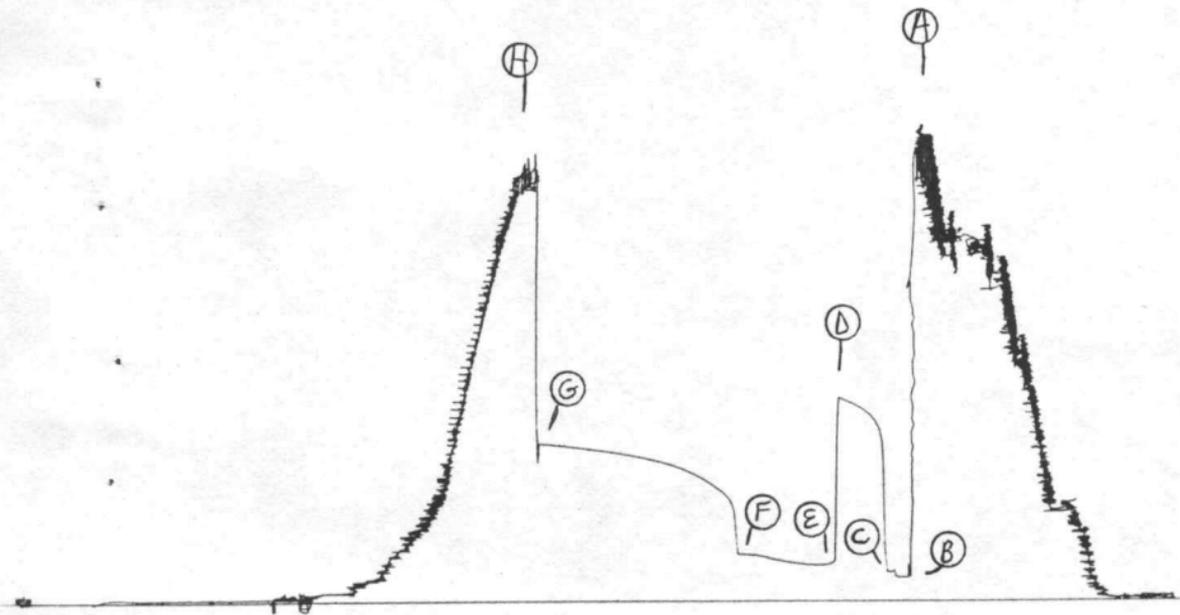
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.							
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 105	_____	63	_____	105	_____	63	<u>675</u>
P 2 110	_____	66	_____	110	_____	66	<u>679</u>
P 3 115	_____	69	_____	115	_____	69	<u>683</u>
P 4 120	_____	72	_____	120	_____	72	<u>687</u>
P 5 125	_____	75	_____	125	_____	75	<u>691</u>
P 6 130	_____	78	_____	130	_____	78	<u>694</u>
P 7 135	_____	81	_____	135	_____	81	<u>697</u>
P 8 140	_____	84	_____	140	_____	84	<u>700</u>
P 9 145	_____	87	_____	145	_____	87	<u>703</u>
P10 150	_____	90	_____	150	_____	90	<u>706</u>
P11 155	_____	93	_____	155	_____	93	<u>709</u>
P12 160	_____	96	_____	160	_____	96	<u>712</u>
P13 165	_____	99	_____	165	_____	99	<u>715</u>
P14 170	_____	102	_____	170	_____	102	<u>718</u>
P15 175	_____	105	_____	175	_____	105	<u>720</u>
P16 180	_____	108	_____	180	_____	108	<u>722</u>
P17 185	_____	111	_____	185	_____	111	<u>724</u>
P18 190	_____	114	_____	190	_____	114	<u>725</u>
P19 195	_____	117	_____	195	_____	117	_____
P20 200	_____	120	_____	200	_____	120	_____

TKT # 9492

DST#6
TK# 9492
TOP

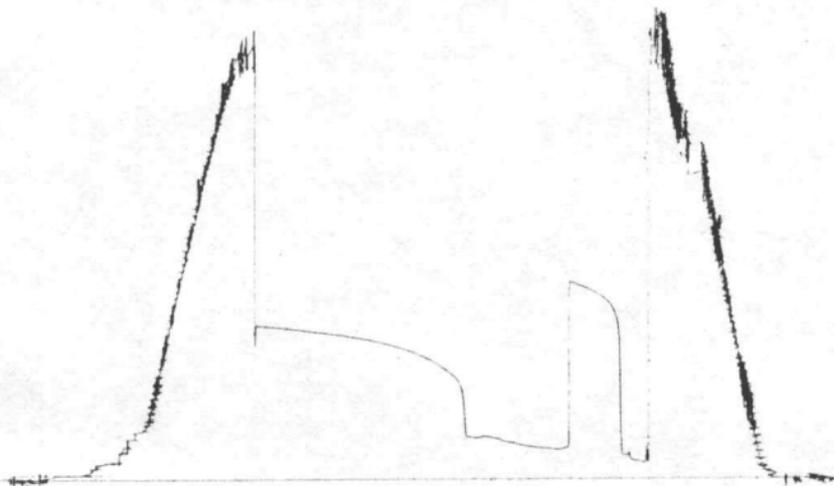
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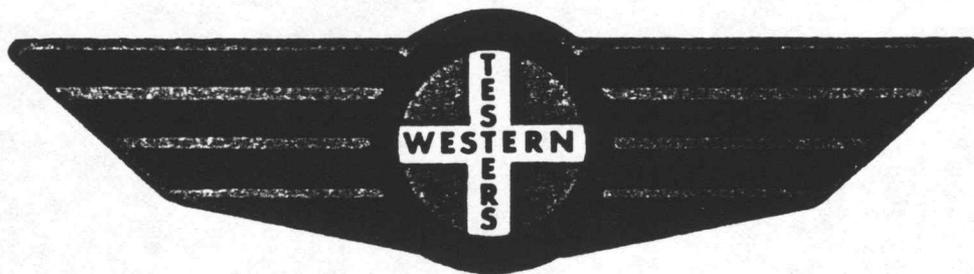
TKT # 9492

DST#6
TK#9492
BOT

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 11-3-85
CUSTOMER: PETROLEUM INC.
WELL: 1
ELEVATION (KB): 2210
SECTION: 20
RANGE: 20W
GAUGE SN #13630

TEST: 6
FORMATION: ARBUCKLE
TOWNSHIP: 13S
COUNTY: ELLIS
RANGE: 4625

TICKET #9492
LEASE: LANG "O"
GEOLOGIST: KEN HAMLIN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 3824 FT TO: 3855 FT TOTAL DEPTH: 3855 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3819 FT SIZE: 6 3/4 IN PACKER DEPTH: 3824 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: JOHN O FARMER
MUD TYPE: STARCH VISCOSITY: 40
WEIGHT: 9.6 WATER LOSS (CC): 13.6
CHLORIDES (P.P.M.): 34000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 27 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: 888 FT I.D.: 2.76 IN
DRILL PIPE LENGTH: 2888 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 31 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: INITIAL FLOW PERIOD STRONG BLOW
OFF BOTTOM IN 10 MINUTES.
FINAL FLOW PERIOD STRONG BLOW
OFF BOTTOM IN 17 MINUTES.

RECOVERED: 240 FT OF: FREE GAS ABOVE FLUID.
RECOVERED: 420 FT OF: SLIGHTLY MUD CUT GASSY OIL.
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 10:15 PM TIME STARTED OFF BOTTOM: 2:00 AM
WELL TEMPERATURE: 124 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2074 PSI
INITIAL FLOW PERIOD MIN: 15 (B) 109 PSI TO (C) 132 PSI
INITIAL CLOSED IN PERIOD MIN: 27 (D) 927 PSI
FINAL FLOW PERIOD MIN: 55 (E) 165 PSI TO (F) 215 PSI
FINAL CLOSED IN PERIOD MIN: 114 (G) 725 PSI
FINAL HYDROSTATIC PRESSURE (H) 1982 PSI

WESTERN TESTING CO., INC.
Pressure Data

Date 11-4

Test Ticket No. 9493

Recorder No. 13630 Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2038</u> P.S.I.			
B First Initial Flow Pressure	<u>69</u> P.S.I.	15 Mins.	<u>15</u> Mins.	
C First Final Flow Pressure	<u>78</u> P.S.I.	30 Mins.	<u>27</u> Mins.	
D Initial Closed-in Pressure	<u>759</u> P.S.I.	60 Mins.	<u>55</u> Mins.	
E Second Initial Flow Pressure	<u>122</u> P.S.I.	120 Mins.	<u>117</u> Mins.	
F Second Final Flow Pressure	<u>181</u> P.S.I.			
G Final Closed-in Pressure	<u>658</u> P.S.I.			
H Final Hydrostatic Mud	<u>1968</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 40 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>69</u>	0	<u>78</u>	0	<u>122</u>	0	<u>181</u>
P 2 5	<u>69</u>	3	<u>546</u>	5	<u>122</u>	3	<u>330</u>
P 3 10	<u>73</u>	6	<u>641</u>	10	<u>123</u>	6	<u>387</u>
P 4 15	<u>78</u>	9	<u>678</u>	15	<u>128</u>	9	<u>412</u>
P 5 20		12	<u>700</u>	20	<u>135</u>	12	<u>432</u>
P 6 25		15	<u>716</u>	25	<u>143</u>	15	<u>450</u>
P 7 30		18	<u>730</u>	30	<u>151</u>	18	<u>467</u>
P 8 35		21	<u>744</u>	35	<u>157</u>	21	<u>481</u>
P 9 40		24	<u>754</u>	40	<u>164</u>	24	<u>491</u>
P10 45		27	<u>759</u>	45	<u>171</u>	27	<u>501</u>
P11 50		30		50	<u>178</u>	30	<u>511</u>
P12 55		33		55	<u>181</u>	33	<u>521</u>
P13 60		36		60		36	<u>531</u>
P14 65		39		65		39	<u>540</u>
P15 70		42		70		42	<u>547</u>
P16 75		45		75		45	<u>554</u>
P17 80		48		80		48	<u>560</u>
P18 85		51		85		51	<u>566</u>
P19 90		54		90		54	<u>572</u>
P20 95		57		95		57	<u>577</u>
100		60		100		60	<u>582</u>

cont

WESTERN TESTING CO., INC.
Pressure Data

Test Ticket No. 9493

Date _____ Recorder No. _____ Capacity _____ Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	_____ P.S.I.	Open Tool	_____ M	_____
B. First Initial Flow Pressure	_____ P.S.I.	First Flow Pressure	_____ Mins.	_____ Mins.
C. First Final Flow Pressure	_____ P.S.I.	Initial Closed-in Pressure	_____ Mins.	_____ Mins.
D. Initial Closed-in Pressure	_____ P.S.I.	Second Flow Pressure	_____ Mins.	_____ Mins.
E. Second Initial Flow Pressure	_____ P.S.I.	Final Closed-in Pressure	_____ Mins.	_____ Mins.
F. Second Final Flow Pressure	_____ P.S.I.			
G. Final Closed-in Pressure	_____ P.S.I.			
H. Final Hydrostatic Mud	_____ P.S.I.			

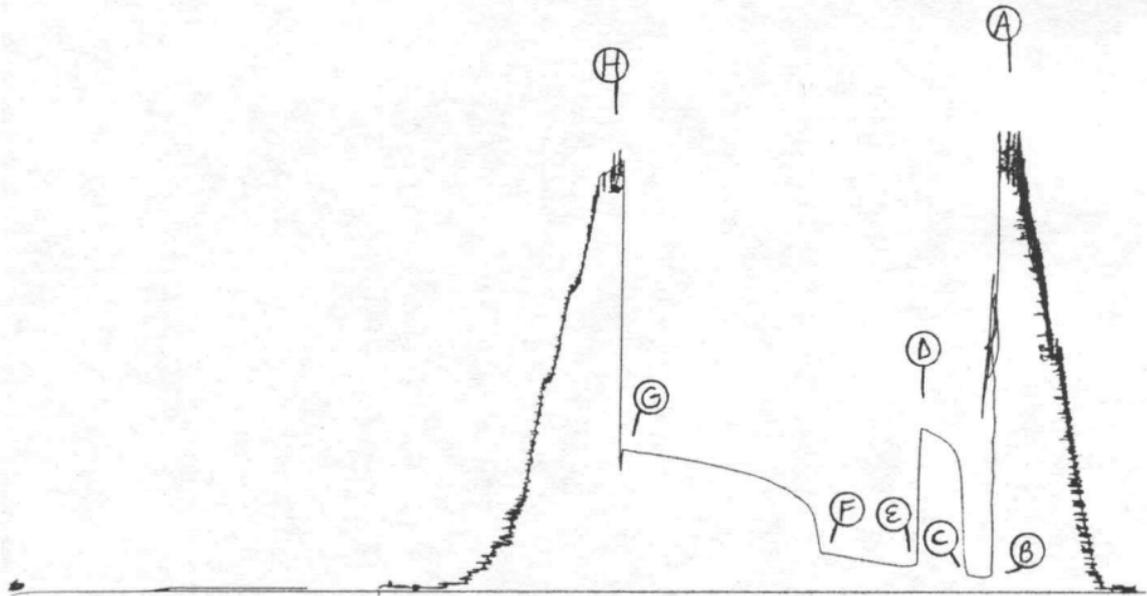
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.							
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	105	63		105		63	587
P 2	110	66		110		66	592
P 3	115	69		115		69	597
P 4	120	72		120		72	602
P 5	125	75		125		75	607
P 6	130	78		130		78	612
P 7	135	81		135		81	617
P 8	140	84		140		84	621
P 9	145	87		145		87	625
P10	150	90		150		90	629
P11	155	93		155		93	632
P12	160	96		160		96	635
P13	165	99		165		99	638
P14	170	102		170		102	641
P15	175	105		175		105	644
P16	180	108		180		108	647
P17	185	111		185		111	650
P18	190	114		190		114	654
P19	195	117		195		117	658
P20	200	120		200		120	

TKT # 9493

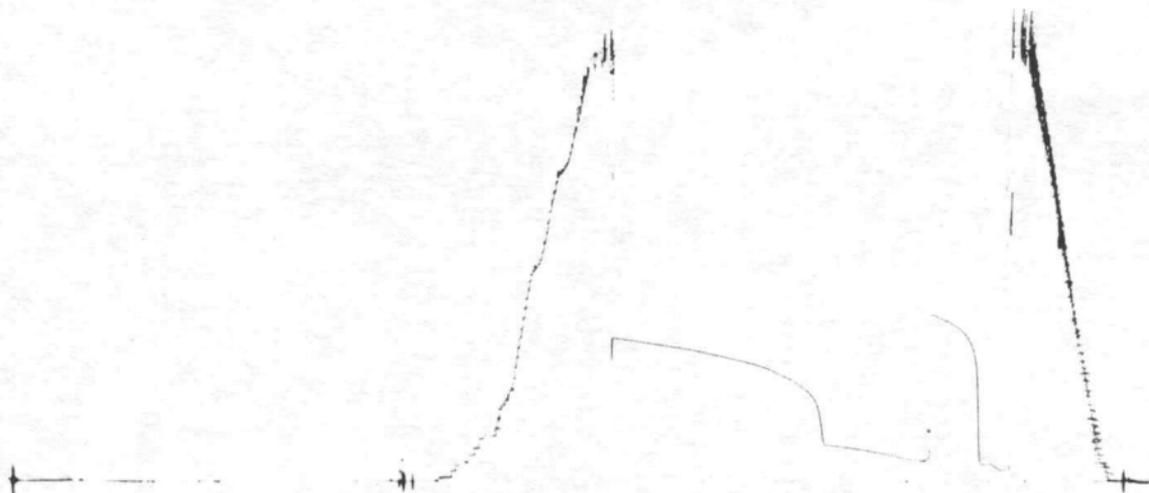
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TKT 9493
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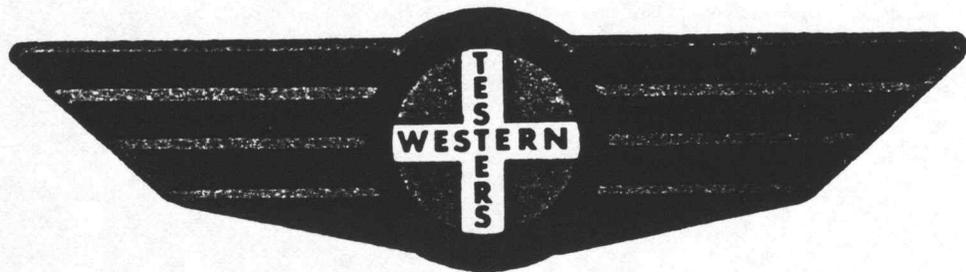


TKT # 9493

1557
TK#9493
BOT



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 11-4-85
CUSTOMER: PETROLEUM INC.
WELL: 1
ELEVATION (KB): 2210
SECTION: 20
RANGE: 20W
WELL SN #13630

TEST: 7

FORMATION: ARBUCKLE
TOWNSHIP: 13S
COUNTY: ELLIS
RANGE: 4625

TICKET #9493
LEASE: LANG #0
GEOLOGIST: KEN HAMLIN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 3855 FT TO: 3865 FT TOTAL DEPTH: 3865 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3850 FT SIZE: 6 3/4 IN PACKER DEPTH: 3855 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

MILLING CONTRACTOR: JOHN O FARMER
MUD TYPE: STARCH VISCOSITY: 45
WIGHT: 9.6 WATER LOSS (CC): 11.8
FLORIDES (P.P.M.): 34000

WELLS - MAKE: SERIAL NUMBER:
MUD WELL FLOW? NO REVERSED OUT? NO

MILL COLLAR LENGTH:	27	FT	I.D.:	2.25	IN
RIGHT PIPE LENGTH:	888	FT	I.D.:	2.76	IN
MILL PIPE LENGTH:	2919	FT	I.D.:	3.8	IN
TEST TOOL LENGTH:	21	FT	TOOL SIZE:	5 1/2 OD	IN
ANCHOR LENGTH:	10	FT	SIZE:	5 1/2 OD	IN
INTERFACE CHOKE SIZE:	3/4	IN	BOTTOM CHOKE SIZE:	3/4	IN
MIN HOLE SIZE:	7 7/8	IN	TOOL JOINT SIZE:	4 1/2 XH	IN

FLOW: INITIAL FLOW PERIOD STRONG BLOW
OFF BOTTOM IN 7 MINUTES. FINAL
FLOW PERIOD STRONG BLOW; OFF
BOTTOM IN 10 MINUTES.

COVERED:	300	FT	OF:	GAS ABOVE FLUID.
COVERED:	150	FT	OF:	CLEAN GASSY OIL.
COVERED:	240	FT	OF:	SLIGHTLY MUD CUT GASSY OIL.
COVERED:		FT	OF:	GRAVITY 40 AT 60 DEGREES.
COVERED:		FT	OF:	
COVERED:		FT	OF:	
COVERED:		FT	OF:	
COVERED:		FT	OF:	
COVERED:		FT	OF:	

MARKS:

TIME SET PACKER(S): 11:30 AM TIME STARTED OFF BOTTOM: 3:15 PM

WELL TEMPERATURE: 124 °F

INITIAL HYDROSTATIC PRESSURE:		(A) 2038	PSI
INITIAL FLOW PERIOD	MIN: 15	(B) 69	PSI TO (C) 78 PSI
INITIAL CLOSED IN PERIOD	MIN: 27	(D) 759	PSI
FINAL FLOW PERIOD	MIN: 55	(E) 122	PSI TO (F) 181 PSI
FINAL CLOSED IN PERIOD	MIN: 117	(G) 658	PSI
FINAL HYDROSTATIC PRESSURE		(H) 1968	PSI



WESTERN TESTING CO., INC.
FORMATION TESTING

OK
TICKET NO 9494

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 2210 KB Formation ARBUCKLE Eff. Pay Ft.

District WAKEENEY Date 11/5/85 Customer Order No.
COMPANY NAME PETROLEUM INC

ADDRESS 300 W DOLLAS SUITE 300 WICHITA KS 67202

LEASE AND WELL NO #1 LANG 'O' COUNTY EWING STATE KS Sec. 20 Twp. 13S Rge. 20W

Mail Invoice To SAME #1 LANG 'O' Co. Name Address No. Copies Requested REC

Mail Charts To SAME Address No. Copies Requested 12 REC

Formation Test No. 8 Interval Tested From 3865 ft. to 3880 ft. Total Depth 3880 ft.

Packer Depth 3860 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 3865 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3873 ft. Recorder Number 13630 Cap. 4625

Bottom Recorder Depth (Outside) 3876 ft. Recorder Number 6234 Cap. 4500

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor JOHN O FAIRMER Drill Collar Length 27 I. D. 2.25 in.

Mud Type STARCH Viscosity 45 Weight Pipe Length 888 I. D. 2.76 in.

Weight 9.6 Water Loss 11.3 cc. Drill Pipe Length 2829 2828 I. D. 3.8 in.

Chlorides 34,000 P.P.M. Test Tool Length 21 ft. Tool Size 5/16 OD in.

Jars: Make Serial Number Anchor Length 15 ft. Size 5/16 OD in.

Did Well Flow? NO Reversed Out 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 X H in.

Blow: 1 STRONG BLOW OFF BOTTOM IN 8 MIN.

2 " " " " " " 10 "

Recovered 90 ft. of CLEAN GASSY OIL

Recovered 120 ft. of OIL CUT WATERY MUD

Recovered 600 ft. of SLIGHTLY OIL SPECTED WATER

Recovered ft. of

Recovered ft. of

Chlorides 26,000 P.P.M. Sample Jars used 6 Remarks:

Time On Location 3:30 A.M. P.M. Time Pick Up Tool 6:45 A.M. P.M. Time Off Location 2:30 A.M. P.M.

Time Set Packer(s) 8:00 A.M. P.M. Time Started Off Bottom 11:45 A.M. P.M. Maximum Temperature 126

Initial Hydrostatic Pressure (A) 2101 P.S.I.

Initial Flow Period Minutes 15 (B) 79 P.S.I. to (C) 113 P.S.I.

Initial Closed In Period Minutes 30 (D) 1103 P.S.I.

Final Flow Period Minutes 60 (E) 170 P.S.I. to (F) 339 P.S.I.

Final Closed In Period Minutes 120 (G) 1115 P.S.I.

Final Hydrostatic Pressure (H) 2078 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] Signature of Customer or his authorized representative

Western Representative [Signature] 0125

Thank You

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test (\$550.00), Misc. (0), Straddle Test (0), Jars (0), Selective Zone (0), Safety Joint (0), Standby (0), Evaluation (0), Extra Packer (0), Circ. Sub. (0), Mileage (0), Fluid Sampler (0), Extra Charts (0), Insurance (0), Telecopier (0), TOTAL (\$550.00).

WESTERN TESTING CO., INC.
Pressure Data

Date 11-5

Test Ticket No. 9494

Recorder No. 13630 Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2092</u>	P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
B First Initial Flow Pressure	<u>78</u>	P.S.I.	<u>30</u> Mins.	<u>27</u> Mins.
C First Final Flow Pressure	<u>106</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1099</u>	P.S.I.	<u>120</u> Mins.	<u>114</u> Mins.
E Second Initial Flow Pressure	<u>171</u>	P.S.I.		
F Second Final Flow Pressure	<u>342</u>	P.S.I.		
G Final Closed-in Pressure	<u>1112</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2057</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>4</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>13</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>39</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>78</u>	0	<u>106</u>	0	<u>171</u>	0	<u>342</u>
P 2 5	<u>80</u>	3	<u>890</u>	5	<u>172</u>	3	<u>831</u>
P 3 10	<u>96</u>	6	<u>983</u>	10	<u>180</u>	6	<u>886</u>
P 4 15	<u>106</u>	9	<u>1022</u>	15	<u>199</u>	9	<u>918</u>
P 5 20		12	<u>1045</u>	20	<u>221</u>	12	<u>942</u>
P 6 25		15	<u>1062</u>	25	<u>240</u>	15	<u>957</u>
P 7 30		18	<u>1076</u>	30	<u>259</u>	18	<u>973</u>
P 8 35		21	<u>1084</u>	35	<u>277</u>	21	<u>985</u>
P 9 40		24	<u>1092</u>	40	<u>294</u>	24	<u>995</u>
P10 45		27	<u>1099</u>	45	<u>310</u>	27	<u>1005</u>
P11 50		30		50	<u>325</u>	30	<u>1014</u>
P12 55		33		55	<u>339</u>	33	<u>1022</u>
P13 60		36		60	<u>342</u>	36	<u>1029</u>
P14 65		39		65		39	<u>1036</u>
P15 70		42		70		42	<u>1041</u>
P16 75		45		75		45	<u>1046</u>
P17 80		48		80		48	<u>1051</u>
P18 85		51		85		51	<u>1056</u>
P19 90		54		90		54	<u>1060</u>
P20 95		57		95		57	<u>1064</u>
100		60		100		60	<u>1068</u>

cont

WESTERN TESTING CO., INC.
Pressure Data

Test Ticket No. 9494

Date _____ Recorder No. _____ Capacity _____ Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud _____	P.S.I.	Open Tool _____	M _____	
B First Initial Flow Pressure _____	P.S.I.	First Flow Pressure _____	Mins. _____	Mins. _____
C First Final Flow Pressure _____	P.S.I.	Initial Closed-in Pressure _____	Mins. _____	Mins. _____
D Initial Closed-in Pressure _____	P.S.I.	Second Flow Pressure _____	Mins. _____	Mins. _____
E Second Initial Flow Pressure _____	P.S.I.	Final Closed-in Pressure _____	Mins. _____	Mins. _____
F Second Final Flow Pressure _____	P.S.I.			
G Final Closed-in Pressure _____	P.S.I.			
H Final Hydrostatic Mud _____	P.S.I.			

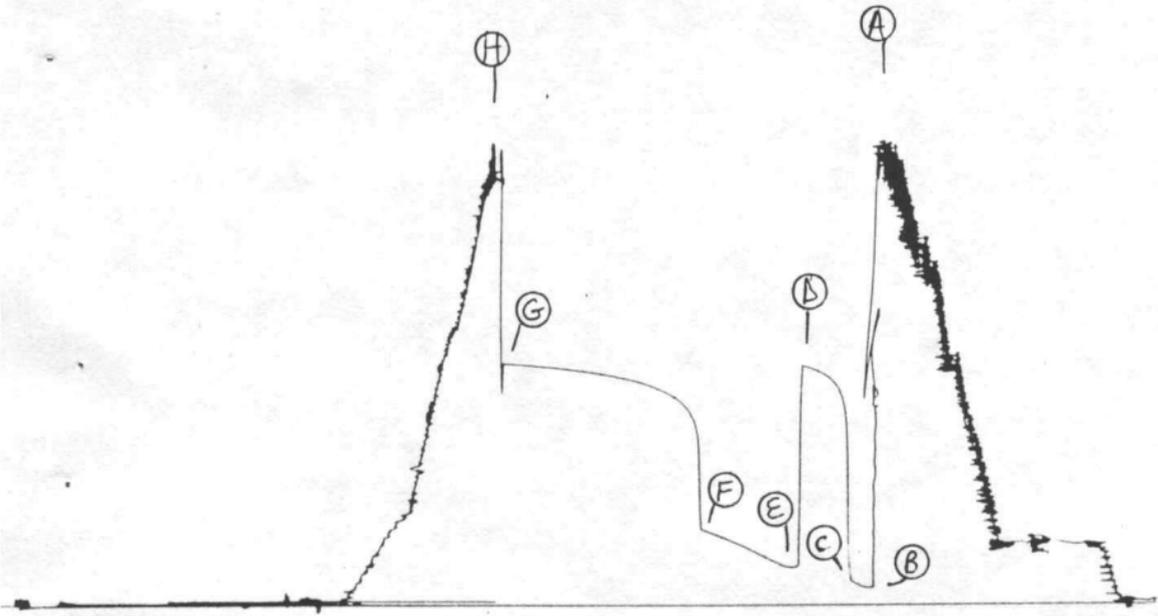
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.							
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 105	_____	63	_____	105	_____	63	1072
P 2 110	_____	66	_____	110	_____	66	1076
P 3 115	_____	69	_____	115	_____	69	1079
P 4 120	_____	72	_____	120	_____	72	1082
P 5 125	_____	75	_____	125	_____	75	1085
P 6 130	_____	78	_____	130	_____	78	1088
P 7 135	_____	81	_____	135	_____	81	1091
P 8 140	_____	84	_____	140	_____	84	1094
P 9 145	_____	87	_____	145	_____	87	1096
P10 150	_____	90	_____	150	_____	90	1098
P11 155	_____	93	_____	155	_____	93	1100
P12 160	_____	96	_____	160	_____	96	1102
P13 165	_____	99	_____	165	_____	99	1104
P14 170	_____	102	_____	170	_____	102	1106
P15 175	_____	105	_____	175	_____	105	1108
P16 180	_____	108	_____	180	_____	108	1110
P17 185	_____	111	_____	185	_____	111	1111
P18 190	_____	114	_____	190	_____	114	1112
P19 195	_____	117	_____	195	_____	117	_____
P20 200	_____	120	_____	200	_____	120	_____

TKT # 9494

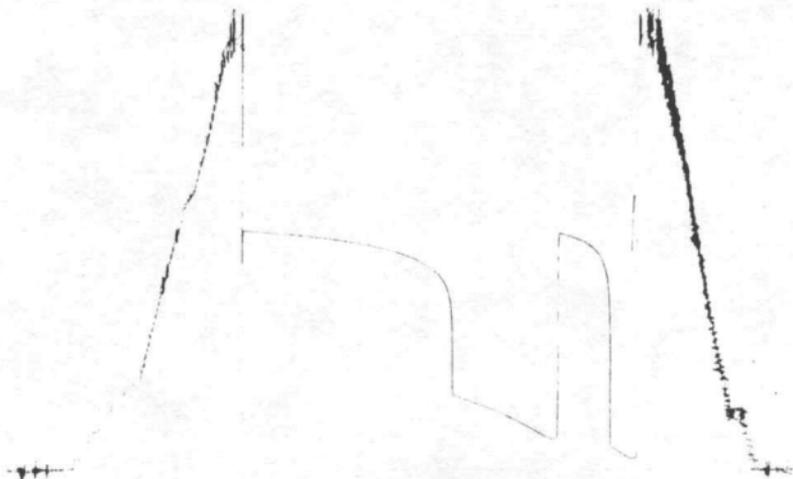
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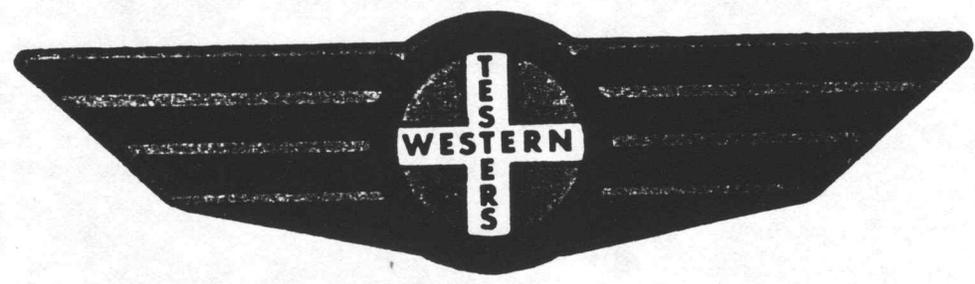


TKT # 9494

W1#8
TK#9494
BOT



FORMATION TEST REPORT



Home Office:
P.O. Box 1599

Wichita, Kansas 67201
Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 11-5-85
CUSTOMER: PETROLEUM INC.
WELL: 1
ELEVATION (KB): 2210
SECTION: 20
RANGE: 20W
GAUGE SN #13630

TEST: 8
COUNTY: ELLIS
RANGE: 4625

FORMATION: ARBUCKLE
TOWNSHIP: 13S

TICKET #9494
LEASE: LANG "0"
GEOLOGIST: KEN HAMLIN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 3865 FT TO: 3880 FT TOTAL DEPTH: 3880 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3860 FT SIZE: 6 3/4 IN PACKER DEPTH: 3865 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: JOHN O FARMER
MUD TYPE: STARCH VISCOSITY: 45
WEIGHT: 9.6 WATER LOSS (CC): 11.8
CHLORIDES (P.P.M.): 34000

JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT?
DRILL COLLAR LENGTH: 27 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: 888 FT I.D.: 2.76 IN
DRILL PIPE LENGTH: 2929 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 15 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: INITIAL FLOW PERIOD STRONG BLOW
OFF BOTTOM IN 8 MINUTES.
FINAL FLOW PERIOD STRONG BLOW
OFF BOTTOM IN 10 MINUTES.

RECOVERED: 90 FT OF: CLEAN GASSY OIL.
RECOVERED: 120 FT OF: OIL CUT WATERY MUD.
RECOVERED: 600 FT OF: SLIGHTLY OIL SPECKED WATER.
RECOVERED: FT OF: CHLORIDES 26000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 8:00 AM

TIME STARTED OFF BOTTOM: 11:45 AM

WELL TEMPERATURE: 126 °F

INITIAL HYDROSTATIC PRESSURE: (A) 2092 PSI
INITIAL FLOW PERIOD MIN: 15 (B) 78 PSI TO (C) 106 PSI
INITIAL CLOSED IN PERIOD MIN: 27 (D) 1099 PSI
FINAL FLOW PERIOD MIN: 60 (E) 171 PSI TO (F) 342 PSI
FINAL CLOSED IN PERIOD MIN: 114 (G) 1112 PSI
FINAL HYDROSTATIC PRESSURE (H) 2057 PSI

