



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No. 6311

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 1361 Kb Formation mess Eff. Pay Ft.

District 13 Augusta Date 1-12-84 Customer Order No.
COMPANY NAME Range Oil Co. Inc. 270 Page Court
ADDRESS 220 West Douglas Wichita Ks
LEASE AND WELL NO. Roberts #2 COUNTY Butler STATE Ks Sec. 9 Twp. 25 Rge. 3E
Mail Invoice To Same #2 ROBERTS No. Copies Requested
Co. Name Address
Mail Charts To Same No. Copies Requested
Address

Formation Test No. 1 Interval Tested From 2742 ft. to 2770 ft. Total Depth 2770 ft.
Packer Depth 2742 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 2737 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 2744 ft. Recorder Number 3474 Cap. 3000
Bottom Recorder Depth (Outside) 2749 ft. Recorder Number 2605 Cap. 4150
Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Ref #1 Drill Collar Length 120 I. D. 2.25 in.
Mud Type Chem Viscosity 50 Weight Pipe Length I. D. in.
Weight 9.8 Water Loss cc. Drill Pipe Length 2602 I. D. 3.8 in.
Chlorides P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 in.
Jars: Make Serial Number Anchor Length 28 ft. Size 5 1/2 in.
Did Well Flow? 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 in.

Blow: Weak blow died 10 min, Weak blow 3 min second flow

Recovered 10 ft. of Oil Cut mud (5% O.I.)

Recovered 60 ft. of mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

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

RECEIVED
JAN 15 1985

Time On Location 6:30 A.M. Time Pick Up Tool 9:45 A.M. Time Off Location A.M.
Time Set Packer(s) 11:10 P.M. Time Started Off Bottom 1:25 P.M. Maximum Temperature 108
Initial Hydrostatic Pressure (A) 1363 P.S.I.
Initial Flow Period Minutes 30 (B) 60 P.S.I. to (C) 53 P.S.I.
Initial Closed In Period Minutes 30 (D) 386 P.S.I.
Final Flow Period Minutes 30 (E) 68 P.S.I. to (F) 60 P.S.I.
Final Closed In Period Minutes 45 (G) 386 P.S.I.
Final Hydrostatic Pressure (H) 1363 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 Robert Olsen
Signature of Customer or his authorized representative

Western Representative

Kenny Kurlander
1127

FIELD INVOICE

Open Hole Test \$ 250
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: 1-12 Test Ticket No. 6311

Recorder No. 3474 Capacity _____ Location _____

Clock No. _____ Elevation _____ Well Temperature _____

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1378</u> 1372 P.S.I.		
B First Initial Flow Pressure	<u>52</u> P.S.I.	<u>30</u> Mins.	
C First Final Flow Pressure	<u>52</u> P.S.I.	<u>30</u> Mins.	
D Initial Closed-in Pressure	<u>388</u> P.S.I.	<u>30</u> Mins.	
E Second Initial Flow Pressure	<u>62</u> P.S.I.	<u>45</u> Mins.	
F Second Final Flow Pressure	<u>62</u> P.S.I.		
G Final Closed-in Pressure	<u>386</u> P.S.I.		
H Final Hydrostatic Mud	<u>1356</u> P.S.I.		

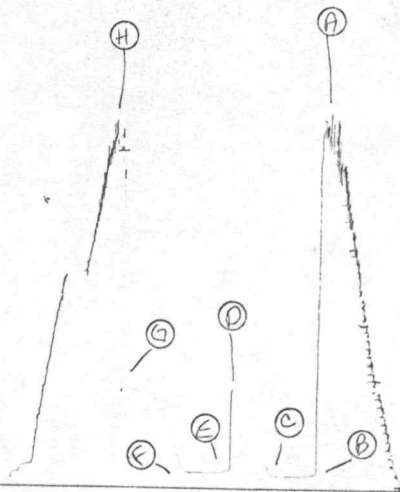
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>11</u> Inc.		Breakdown: <u>7</u> 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.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>52</u>	0	<u>52</u>	0	<u>62</u>	0	<u>62</u>
P 2 5		3	<u>55</u>	5		3	<u>64</u>
P 3 10		6	<u>97</u>	10		6	<u>85</u>
P 4 15		9	<u>180</u>	15		9	<u>122</u>
P 5 20	<u>52</u>	12	<u>262</u>	20		12	<u>174</u>
P 6 25	<u>52</u>	15	<u>318</u>	25		15	<u>232</u>
P 7 30	<u>52</u>	18	<u>350</u>	30	<u>62</u>	(17) 18	<u>278</u>
P 8 35		21	<u>366</u>	35		21	<u>314</u>
P 9 40		24	<u>374</u>	40		24	<u>334</u>
P10 45		27	<u>382</u>	(10) 45		27	<u>349</u>
P11 50		(11) 30	<u>388</u>	50		(11) 30	<u>361</u>
P12 55		33		55		33	<u>368</u>
P13 60		36		60		36	<u>374</u>
P14		39		65		39	<u>378</u>
P15		42		70		42	<u>381</u>
P16		(12) 45		(11) 75		(12) 45	<u>383</u>
P17		48		80		48	<u>385</u>
P18		51		85		51	<u>386</u>
P19		54		(19) 90		54	
P20		57				57	
		60				(21) 60	

7CK# 6311

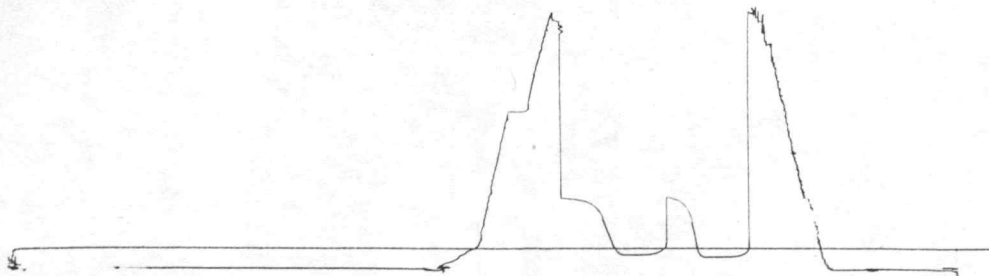
3474
#1

I



tick# 6311

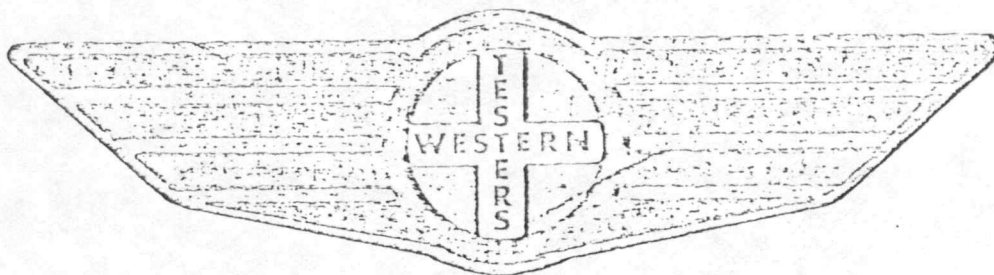
0



FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company

ANNUAL OIL COMPANY, INC.

Lease and Well No.

#4 RUDENIS

Sec. 7

Twp. 42S

Rge. 3E

Test No. 1

Date 12/81

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 1/12/85
CUSTOMER: RANGE OIL COMPANY INC.
WELL: 2 TEST: 1
ELEVATION (KB): 1361 FORMATION: MISSISSIPPI
SECTION: 9 TOWNSHIP: 25S
RANGE: 3E COUNTY: BUTLER STATE: KANSAS
GAUGE SN #3474 RANGE: 3000 CLOCK: 12

INTERVAL TEST FROM: 2742 FT TO: 2770 FT TOTAL DEPTH: 2770 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2742 FT SIZE: 6 3/4 IN PACKER DEPTH: 2737 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG
MUD TYPE: CHEMICAL VISCOSITY: 50
WEIGHT: 9.8 WATER LOSS (CC):

CHLORIDES (P.P.M.):

JARS - MAKE:

SERIAL NUMBER:

DID WELL FLOW?

REVERSED OUT?

DRILL COLLAR LENGTH: 120 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2602 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 28 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.
DIED IN 10 MINUTES. FINAL FLOW
PERIOD WEAK BLOW FOR 3 MINUTES.

RECOVERED: 10 FT OF: OIL CUT MUD (5% OIL).
RECOVERED: 60 FT OF: MUD.
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): 11:10 AM

TIME STARTED OFF BOTTOM: 1:25 PM

WELL TEMPERATURE: 108 °F

INITIAL HYDROSTATIC PRESSURE:

(A) 1378 PSI

INITIAL FLOW PERIOD MIN: 30

(B) 51 PSI TO (C) 52 PSI

INITIAL CLOSED IN PERIOD MIN: 30

(D) 388 PSI

FINAL FLOW PERIOD MIN: 30

(E) 62 PSI TO (F) 62 PSI

FINAL CLOSED IN PERIOD MIN: 51

(G) 386 PSI

FINAL HYDROSTATIC PRESSURE

(H) 1356 PSI



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N° 6312

P. O. BOX 1599 PHONE (316) 262-5861

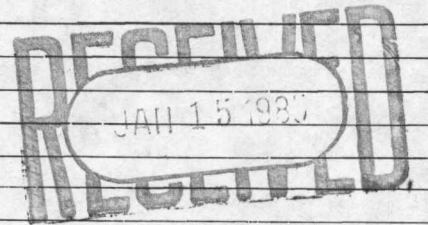
Elevation 1361 Formation miss Eff. Pay Ft.

WICHITA, KANSAS 67201

COMPANY NAME Range Oil Co Inc
ADDRESS 220 West Douglas Wichita Ks
LEASE AND WELL NO. Roberts #2 COUNTY Butler STATE Ks
Mail Invoice To Same #2 ROBERTS No. Copies Requested 1
Co. Name Same Address
Mail Charts To Same No. Copies Requested 5

Formation Test No. 2 Interval Tested From 2770 ft. to 2785 ft. Total Depth 2785 ft.
Packer Depth 2776 ft. Size 6 3/4 in.
Packer Depth 2765 ft. Size 6 3/4 in.
Depth of Selective Zone Set
Top Recorder Depth (Inside) 2775 ft. Recorder Number 3474 Cap. 3000
Bottom Recorder Depth (Outside) 2780 ft. Recorder Number 2605 Cap. 4150
Below Saddle Recorder Depth ft. Recorder Number Cap.
Drilling Contractor Reg #2 Drill Collar Length 120 I. D. 2.25 in.
Mud Type Chem Viscosity 43 Weight Pipe Length I. D. in.
Weight 9.6 Water Loss 13.7 cc. Drill Pipe Length 2630 I. D. 3.8 in.
Chlorides 1900 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
Jars: Make NO Serial Number Anchor Length 15 ft. Size 5 1/2 in.
Did Well Flow? NO Reversed Out Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 X 1 in.
Blow: fair blow 1'-1 1/2" first flow, weak blow second flow

Recovered 10 ft. of free oil
Recovered 60 ft. of oil cut mud 10% oil
Recovered 150 ft. of salt water
Recovered ft. of
Recovered ft. of
Chlorides P.P.M. Sample Jars used Remarks:



Time On Location 8:10 A.M. Time Pick Up Tool 8:10 A.M.
Time Set Packer(s) 9:25 A.M. Time Started Off Bottom 12:25 A.M.
Maximum Temperature 109
Initial Hydrostatic Pressure (A) 1371 P.S.I.
Initial Flow Period Minutes 30 (B) 37 P.S.I. to (C) 60 P.S.I.
Initial Closed In Period Minutes 30 (D) 356 P.S.I.
Final Flow Period Minutes 60 (E) 75 P.S.I. to (F) 90 P.S.I.
Final Closed In Period Minutes 60 (G) 363 P.S.I.
Final Hydrostatic Pressure (H) 1371 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 of Customer or his authorized representative

Western Representative

FIELD INVOICE

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 \$

WESTERN TESTING CO., INC.

Pressure Data

Date: 1-12 Test Ticket No. 6312
 Recorder No. 3474 Capacity _____ Location _____
 Clock No. _____ Elevation _____ Well Temperature _____
 Point Pressure Time Given Time Computed
 A Initial Hydrostatic Mud 1382 P.S.I. Open Tool _____ M _____
 B First Initial Flow Pressure 44 P.S.I. First Flow Pressure 30 Mins. _____ Mi
 C First Final Flow Pressure 65 P.S.I. Initial Closed-in Pressure 30 Mins. _____ Mi
 D Initial Closed-in Pressure 366 P.S.I. Second Flow Pressure 60 Mins. _____ Mi
 E Second Initial Flow Pressure 88 P.S.I. Final Closed-in Pressure 60 Mins. _____ Mi
 F Second Final Flow Pressure 101 P.S.I.
 G Final Closed-in Pressure 374 P.S.I.
 H Final Hydrostatic Mud 1345 P.S.I.

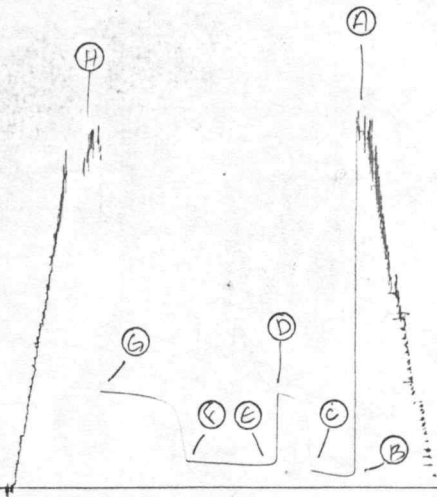
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>14</u> Inc.		Breakdown: <u>23</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 <u>0</u>	<u>44</u>	<u>0</u>	<u>65</u>	<u>0</u>	<u>88</u>	<u>0</u>	<u>101</u>
P 2 <u>5</u>	<u>1</u>	<u>3</u>	<u>215</u>	<u>5</u>	<u>1</u>	<u>3</u>	<u>127</u>
P 3 <u>10</u>	<u>44</u>	<u>6</u>	<u>303</u>	<u>10</u>	<u>1</u>	<u>6</u>	<u>213</u>
P 4 <u>15</u>	<u>47</u>	<u>9</u>	<u>324</u>	<u>15</u>	<u>88</u>	<u>9</u>	<u>278</u>
P 5 <u>20</u>	<u>52</u>	<u>12</u>	<u>337</u>	<u>20</u>	<u>88</u>	<u>12</u>	<u>306</u>
P 6 <u>25</u>	<u>58</u>	<u>15</u>	<u>347</u>	<u>25</u>	<u>89</u>	<u>15</u>	<u>321</u>
P 7 <u>30</u>	<u>65</u>	<u>18</u>	<u>355</u>	<u>30</u>	<u>90</u>	<u>(17) 18</u>	<u>332</u>
P 8 <u>35</u>		<u>21</u>	<u>360</u>	<u>35</u>	<u>92</u>	<u>21</u>	<u>339</u>
P 9 <u>40</u>		<u>24</u>	<u>364</u>	<u>40</u>	<u>94</u>	<u>24</u>	<u>344</u>
P 10 <u>45</u>		<u>27</u>	<u>366</u>	<u>(18) 45</u>	<u>96</u>	<u>27</u>	<u>349</u>
P 11 <u>50</u>		<u>(11) 30</u>		<u>50</u>	<u>98</u>	<u>(11) 30</u>	<u>353</u>
P 12 <u>55</u>		<u>33</u>		<u>55</u>	<u>99</u>	<u>33</u>	<u>356</u>
P 13 <u>60</u>		<u>36</u>		<u>60</u>	<u>100</u>	<u>36</u>	<u>359</u>
P 14		<u>39</u>		<u>65</u>	<u>102</u>	<u>39</u>	<u>361</u>
P 15		<u>42</u>		<u>70</u>		<u>42</u>	<u>363</u>
P 16		<u>(12) 45</u>		<u>(14) 75</u>		<u>(12) 45</u>	<u>365</u>
P 17		<u>48</u>		<u>80</u>		<u>48</u>	<u>367</u>
P 18		<u>51</u>		<u>85</u>		<u>51</u>	<u>369</u>
P 19		<u>54</u>		<u>(19) 90</u>		<u>54</u>	<u>370</u>
P 20		<u>57</u>				<u>57</u>	<u>371</u>
		<u>60</u>				<u>(21) 60</u>	<u>373</u>
						<u>63</u>	<u>374</u>

TC# 6312

3474
D5+2

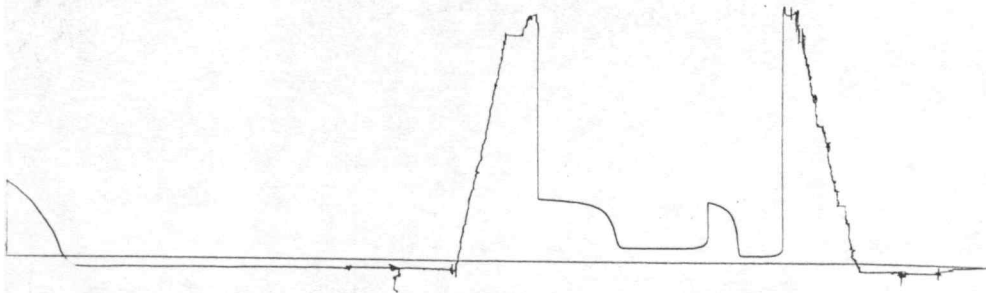
I



HC# 6312.

2605
DST#2

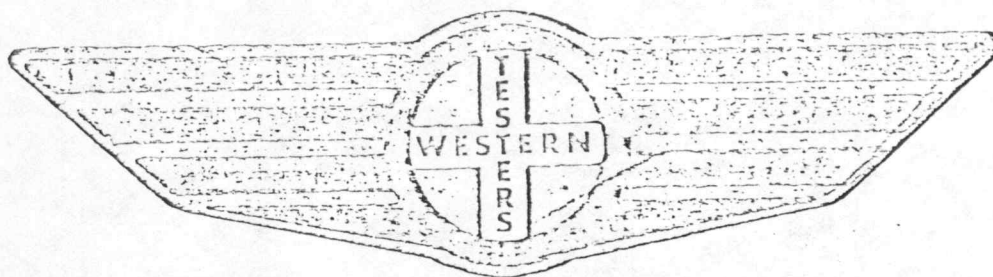
O



FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 1/12/85
CUSTOMER: RANGE OIL COMPANY INC.
WELL: 2 TEST: 2
ELEVATION (KB): 1361 FORMATION: MISSISSIPPI
SECTION: 9 TOWNSHIP: 25S
RANGE: 3E COUNTY: BUTLER STATE: KANSAS
GAUGE SN #3474 RANGE: 3000 CLOCK: 12

INTERVAL TEST FROM: 2770 FT TO: 2785 FT TOTAL DEPTH: 2785 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2770 FT SIZE: 6 3/4 IN PACKER DEPTH: 2765 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG
MUD TYPE: CHEMICAL VISCOSITY: 43
WEIGHT: 9.6 WATER LOSS (CC): 13.7

CHLORIDES (P.P.M.): 1900
JARS - MAKE: NO SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT?

DRILL COLLAR LENGTH: 120 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2630 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 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 FAIR BLOW.
1" TO 1 1/2" BLOW. FINAL FLOW
PERIOD WEAK BLOW.

RECOVERED: 10 FT OF: FREE OIL.
RECOVERED: 60 FT OF: OIL CUT MUD (10% OIL).
RECOVERED: 150 FT OF: SALT WATER.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 9:25 PM
WELL TEMPERATURE: 109 °F
INITIAL HYDROSTATIC PRESSURE:
INITIAL FLOW PERIOD MIN: 30
INITIAL CLOSED IN PERIOD MIN: 27
FINAL FLOW PERIOD MIN: 65
FINAL CLOSED IN PERIOD MIN: 66
FINAL HYDROSTATIC PRESSURE

TIME STARTED OFF BOTTOM: 12:25 AM

(A) 1382 PSI
(B) 44 PSI TO (C) 65 PSI
(D) 366 PSI
(E) 88 PSI TO (F) 101 PSI
(G) 374 PSI
(H) 1345 PSI

