



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET

No 18747

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

WICHITA, KANSAS 67201

Elevation 3044 RB Formation L KC 4 E' Eff. Pay Ft.

District Colby Date 6-30-93 Customer Order No.

COMPANY NAME Ritchie Exploration Inc.

ADDRESS 125 W Market Suite 1000 Wichita KS 67202

LEASE AND WELL NO #1 A Hockersmith COUNTY Thomas STATE KS Sec. 27 Twp. 10 S Rge. 32 W

Mail Invoice To Same #1-A Hockersmith Co. Name Address No. Copies Requested Reg

Mail Charts To Same #1-A Hockersmith Address No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 4104 ft. to 4125 ft. Total Depth 4125 ft. Packer Depth 4099 ft. Size 6 3/4 in. Packer Depth 4104 ft. Size 6 3/4 in. Packer Depth - ft. Size - in. Packer Depth - ft. Size - in. Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4107 ft. Recorder Number 13760 Cap. 3950 Bottom Recorder Depth (Outside) 4110 ft. Recorder Number 13400 Cap. 3950 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor White & Ellis Rig #9 Drill Collar Length - I. D. - in. Mud Type Chemical Viscosity 42 Weight Pipe Length - I. D. - in. Weight 8.9 Water Loss 11.2 cc. Drill Pipe Length 40.84 I. D. 3.8 Chlorides 1.000 P.P.M. Test Tool Length 20 ft. Tool Size 5/2.00 in. Jars: Make NE Serial Number - Anchor Length 21 ft. Size 5/2.00 in. Did Well Flow? NE Reversed Out NE Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in. Main Hole Size 7/8 in. Tool Joint Size 4/2.00 in.

Blow: IFD - Strong blow - bottom of bucket in 6 min FFD - Strong blow - bottom of bucket in 10 min

Recovered 2 ft. of oil Recovered 90 ft. of s ocwm 1% oil 49% wtr 50% mud Recovered 833 ft. of water w few oil spots - Oil less than 1% Recovered - ft. of Recovered 925 ft. of Total fluid

Chlorides 40,000 P.P.M. Sample Jars used Remarks: JUL 08 1993

Time On Location 1:00 A.M. P.M. Time Pick Up Tool 3:30 A.M. P.M. Time Off Location 11:00 A.M. P.M. Time Set Packer(s) 4:55 A.M. P.M. Time Started Off Bottom 6:55 A.M. P.M. Maximum Temperature 121 Initial Hydrostatic Pressure (A) 1956 P.S.I. Initial Flow Period (B) 30 Minutes 68 P.S.I. to (C) 263 P.S.I. Initial Closed In Period (D) 30 Minutes 1240 P.S.I. Final Flow Period (E) 30 Minutes 292 P.S.I. to (F) 449 P.S.I. Final Closed In Period (G) 30 Minutes 1230 P.S.I. Final Hydrostatic Pressure (H) 1947 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 Mike Stults

Thanks!

FIELD INVOICE

Table with 2 columns: Item Name and Price. 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 6-30-92 Test Ticket No. 18747  
 Recorder No. 13760 Capacity \_\_\_\_\_ Location \_\_\_\_\_  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2014</u> P.S.I.	_____ M		
B First Initial Flow Pressure	<u>60</u> P.S.I.	First Flow Pressure	Mins. <u>35</u>	Mins. _____
C First Final Flow Pressure	<u>272</u> P.S.I.	Initial Closed-in Pressure	Mins. <u>27</u>	Mins. _____
D Initial Closed-in Pressure	<u>1246</u> P.S.I.	Second Flow Pressure	Mins. <u>25</u>	Mins. _____
E Second Initial Flow Pressure	<u>297</u> P.S.I.	Final Closed-in Pressure	Mins. <u>27</u>	Mins. _____
F Second Final Flow Pressure	<u>449</u> P.S.I.			
G Final Closed-in Pressure	<u>1258</u> P.S.I.			
H Final Hydrostatic Mud	<u>1982</u> P.S.I.			

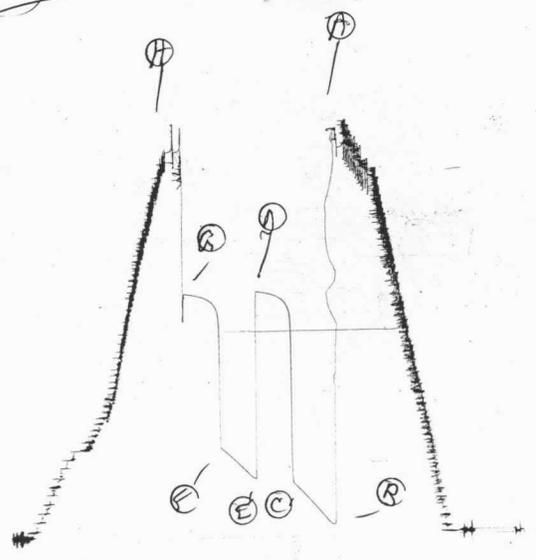
PRESSURE BREAKDOWN

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.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>60</u>	0	<u>272</u>	0	<u>297</u>	0	<u>449</u>
P 2 5	<u>69</u>	3	<u>1172</u>	5	<u>318</u>	3	<u>1167</u>
P 3 10	<u>110</u>	6	<u>1198</u>	10	<u>351</u>	6	<u>1194</u>
P 4 15	<u>148</u>	9	<u>1214</u>	15	<u>388</u>	9	<u>1208</u>
P 5 20	<u>186</u>	12	<u>1222</u>	20	<u>415</u>	12	<u>1218</u>
P 6 25	<u>227</u>	15	<u>1230</u>	25	<u>442</u>	15	<u>1224</u>
P 7 30	<u>257</u>	18	<u>1236</u>	30		18	<u>1228</u>
P 8 35	<u>272</u>	21	<u>1240</u>	35		21	<u>1232</u>
P 9 40		24	<u>1244</u>	40		24	<u>1235</u>
P10 45		27	<u>1246</u>	45		27	<u>1238</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	

13760

JKT 18747

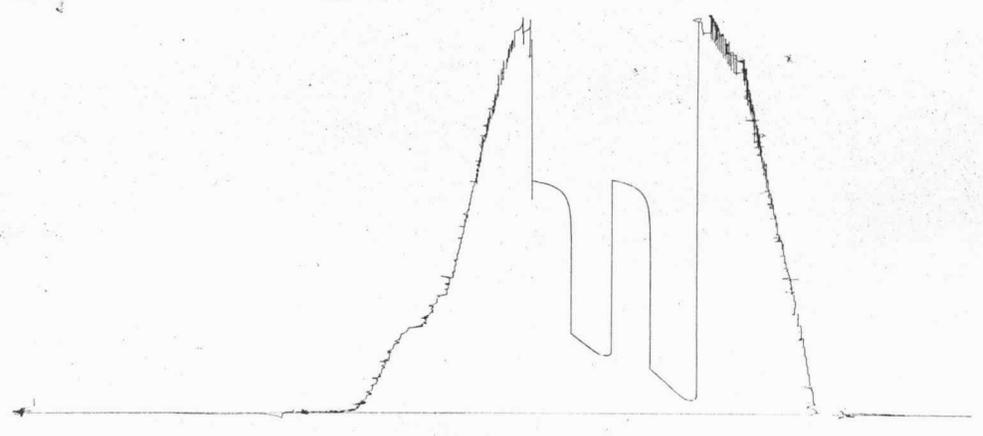
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JKT 18747

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DST REPORT

GENERAL INFORMATION

DATE : 6/30/93  
CUSTOMER : RITCHIE EXPLORATION INC.  
WELL : #1-A TEST: 1  
ELEVATION: 3044 KB  
SECTION : 27  
RANGE : 32W COUNTY: THOMAS  
GAUGE SN#: 13760 RANGE : 3950  
TICKET : 18747  
LEASE : HOCKERSMITH  
GEOLOGIST: MATHIESEN  
FORMATION: L. KANSAS CITY E  
TOWNSHIP : 10S  
STATE : KS  
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4104.00 ft TO: 4125.00 ft TVD: 4125.0 ft  
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL  
DEPTH OF RECORDERS: 4107.0 ft 4110.0 ft  
TEMPERATURE: 121.0  
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in  
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in  
DRILL PIPE LENGTH : 4084.0 ft I.D.: 3.800 in  
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in  
ANCHOR LENGTH : 21.0 ft ANCHOR SIZE: 5.500 in  
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in  
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH  
PACKER DEPTH: 4099.0 ft SIZE: 6.750 in  
PACKER DEPTH: 4104.0 ft SIZE: 6.750 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : WHITE & ELLIS RIG 9  
MUD TYPE : CHEMICAL VISCOSITY : 42.00 cp  
WEIGHT : 8.900 ppg WATER LOSS: 11.200 cc  
CHLORIDES : 1000 ppm  
JARS-MAKE :  
DID WELL FLOW?: NO SERIAL NUMBER:  
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW - BOTTOM OF BUCKET  
IN 6 MINUTES. FINAL FLOW PERIOD STRONG BLOW -  
BOTTOM OF BUCKET IN 10 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
2.0	100.0	0.0	0.0	0.0	OIL
90.0	1.0	0.0	49.0	50.0	SL OIL CUT WATERY MUD
833.0	0.0	0.0	100.0	0.0	WATER W/ FEW OIL SPECKS
0.0	0.0	0.0	0.0	0.0	OIL LESS THAN 1%
0.0	0.0	0.0	0.0	0.0	CHLORIDES 40000 PPM

RATE INFORMATION

OIL VOLUME:	0.0407 STB	TOTAL FLOW TIME:	60.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	1.2792 STB/D
MUD VOLUME:	0.6312 STB	AVERAGE WATER RATE:	310.1059 STB/D
WATER VOLUME:	12.3025 STB		
TOTAL FLUID :	12.9744 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1956.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	68.00	263.00
INITIAL SHUT-IN	30.00		1240.00
FINAL FLOW	30.00	292.00	449.00
FINAL SHUT-IN	30.00		1230.00

FINAL HYDROSTATIC PRESSURE: 1947.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2016.00

Description	Duration	p1	p End
INITIAL FLOW	35.00	60.00	272.00
INITIAL SHUT-IN	27.00		1246.00
FINAL FLOW	25.00	297.00	449.00
FINAL SHUT-IN	27.00		1238.00

FINAL HYDROSTATIC PRESSURE: 1983.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 6/30/93	TICKET : 18747
CUSTOMER : RITCHIE EXPLORATION INC.	LEASE : HOCKERSMITH
WELL : #1-A TEST: 1	GEOLOGIST: MATHIESEN
ELEVATION: 3044 KB	FORMATION: L. KANSAS CITY E
SECTION : 27	TOWNSHIP : 10S
RANGE : 32W COUNTY: THOMAS	STATE : KS
GAUGE SN#: 13760 RANGE : 3950	CLOCK : 12

INITIAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	60.00	60.00
5.00	69.00	9.00
10.00	110.00	41.00
15.00	148.00	38.00
20.00	186.00	38.00
25.00	227.00	41.00
30.00	257.00	30.00
35.00	272.00	15.00

INITIAL SHUT IN

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1172.00	1172.00	0.00
6.00	1198.00	26.00	0.00
9.00	1214.00	16.00	0.00
12.00	1223.00	9.00	0.00
15.00	1230.00	7.00	0.00
18.00	1236.00	6.00	0.00
21.00	1240.00	4.00	0.00
24.00	1244.00	4.00	0.00
27.00	1246.00	2.00	0.00

FINAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	297.00	297.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	318.00	21.00
10.00	351.00	33.00
15.00	388.00	37.00
20.00	415.00	27.00
25.00	449.00	34.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1167.00	1167.00	0.00
6.00	1194.00	27.00	0.00
9.00	1208.00	14.00	0.00
12.00	1218.00	10.00	0.00
15.00	1224.00	6.00	0.00
18.00	1228.00	4.00	0.00
21.00	1232.00	4.00	0.00
24.00	1235.00	3.00	0.00
27.00	1238.00	3.00	0.00



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 18748

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

Elevation 3044 KB Formation Pw to Johnson Eff. Pay Ft.

District Colby Date 7-2-93 Customer Order No.

COMPANY NAME Ritchie Exploration, Inc.

ADDRESS 125 N Market Suite 1000 Wichita KS. 67202

LEASE AND WELL NO #1-A Hockersmith COUNTY Thomas STATE KS Sec. 27 Twp. 10s Rge 32w

Mail Invoice To Same #1-A No. Copies Requested Reg

Co. Name Address Hockersmith

Mail Charts To Same Address Hockersmith No. Copies Requested Reg

Formation Test No. 2 Interval Tested From 4439 ft. to 4610 ft. Total Depth 4610 ft.

Packer Depth 4605 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4610 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4442 ft. Recorder Number 13760 Cap. 3950

Bottom Recorder Depth (Outside) 4445 ft. Recorder Number 13400 Cap. 3950

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

Drilling Contractor White & Ellis Rig #9 Drill Collar Length - I. D. - in.

Mud Type Chemical Viscosity 50 Weight Pipe Length - I. D. - in.

Weight 9.4 Water Loss 10.0 cc. Drill Pipe Length 4419 I. D. 3.8 in.

Chlorides 2.500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make No Serial Number 7 Anchor Length 171 ft. Size 5 1/2 OD in.

Did Well Flow? No Reversed Out No Surface Choke Size 3 1/4 in. Bottom Choke Size 3 1/4 in.

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

Blow: 1FP - Fair blow increased to 6" in water

FFP - Fair blow 7" in bucket

Recovered 180 ft. of gassy odor in pipe

Recovered 42 ft. of oil

Recovered 40 ft. of 50cc 2% oil 98% mud

Recovered 40 ft. of gsy cem 20% oil 40% gas 40% mud

Recovered - ft. of

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

JUL 08 1993

Time On Location 8:00 A.M. P.M. Time Pick Up Tool 8:45 A.M. P.M. Time Off Location 1:30 A.M. P.M.

Time Set Packer(s) 10:30 A.M. P.M. Time Started Off Bottom 1:30 A.M. P.M. Maximum Temperature 130

Initial Hydrostatic Pressure (A) 2195 P.S.I.

Initial Flow Period Minutes 45 (B) 39 P.S.I. to (C) 48 P.S.I.

Initial Closed In Period Minutes 45 (D) 887 P.S.I.

Final Flow Period Minutes 45 (E) 53 P.S.I. to (F) 58 P.S.I.

Final Closed In Period Minutes 45 (G) 828 P.S.I.

Final Hydrostatic Pressure (H) 2165 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 [Signature] Signature of Customer or his authorized representative

Western Representative Mike Shurt

Thanks!

FIELD INVOICE

Table with 2 columns: Item Name and Price. 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 7-2-92

Test Ticket No. 18748

Recorder No. 12760

Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft

Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2115</u> P.S.I.	Open Tool	_____ M	
B First Initial Flow Pressure	<u>49</u> P.S.I.	First Flow Pressure	_____ Mins	<u>45</u> Mins
C First Final Flow Pressure	<u>49</u> P.S.I.	Initial Closed-in Pressure	_____ Mins	<u>29</u> Mins
D Initial Closed-in Pressure	<u>887</u> P.S.I.	Second Flow Pressure	_____ Mins	<u>45</u> Mins
E Second Initial Flow Pressure	<u>59</u> P.S.I.	Final Closed-in Pressure	_____ Mins	<u>42</u> Mins
F Second Final Flow Pressure	<u>64</u> P.S.I.			
G Final Closed-in Pressure	<u>825</u> P.S.I.			
H Final Hydrostatic Mud	<u>2102</u> P.S.I.			

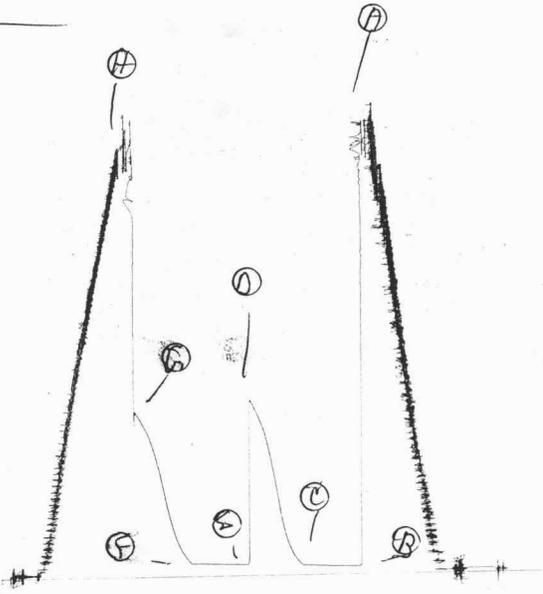
**PRESSURE BREAKDOWN**

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	Press.	Point Minutes	Press.
P 1	<u>42</u>	0	<u>49</u>	0	<u>59</u>	0	<u>64</u>
P 2	<u>45</u>	3	<u>61</u>	3	<u>59</u>	3	<u>79</u>
P 3	<u>48</u>	6	<u>87</u>	6	<u>59</u>	6	<u>107</u>
P 4	<u>49</u>	9	<u>124</u>	9	<u>59</u>	9	<u>141</u>
P 5	<u>49</u>	12	<u>173</u>	12	<u>60</u>	12	<u>188</u>
P 6	<u>45</u>	15	<u>256</u>	15	<u>60</u>	15	<u>255</u>
P 7	<u>46</u>	18	<u>355</u>	18	<u>62</u>	18	<u>328</u>
P 8	<u>47</u>	21	<u>478</u>	21	<u>62</u>	21	<u>428</u>
P 9	<u>48</u>	24	<u>595</u>	24	<u>63</u>	24	<u>527</u>
P 10	<u>49</u>	27	<u>687</u>	27	<u>64</u>	27	<u>610</u>
P 11		30	<u>751</u>	30		30	<u>674</u>
P 12		33	<u>806</u>	33		33	<u>728</u>
P 13		36	<u>849</u>	36		36	<u>769</u>
P 14		39	<u>887</u>	39		39	<u>806</u>
P 15		42		42		42	<u>825</u>
P 16		45		45		45	
P 17		48		48		48	
P 18		51		51		51	
P 19		54		54		54	
P 20		57		57		57	
		60		60		60	

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KT 18748

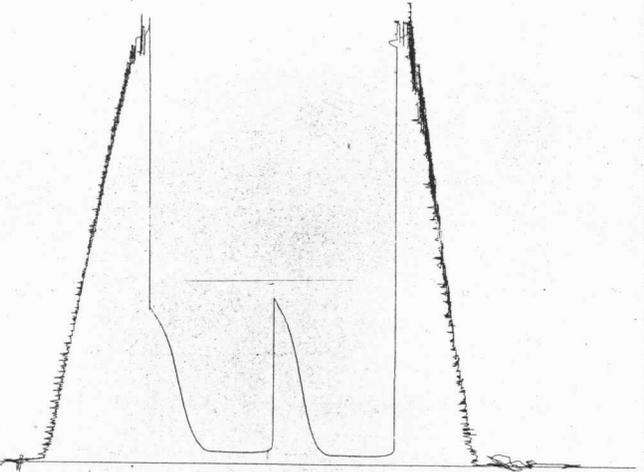
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KT 18748

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DST REPORT

GENERAL INFORMATION

DATE : 7/2/93  
CUSTOMER : RITCHIE EXPLORATION INC.  
WELL : #1-A TEST: 2  
ELEVATION: 3044 KB  
SECTION : 27  
RANGE : 32W COUNTY: THOMAS  
GAUGE SN#: 13760 RANGE : 3950  
TICKET : 18748  
LEASE : HOCKERSMITH  
GEOLOGIST: MATHIESEN  
FORMATION: PAWNEE TO JOHNSON  
TOWNSHIP : 10S  
STATE : KS  
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4439.00 ft TO: 4610.00 ft TVD: 4610.0 ft  
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL  
DEPTH OF RECORDERS: 4442.0 ft 4445.0 ft  
TEMPERATURE: 130.0  
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in  
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in  
DRILL PIPE LENGTH : 4419.0 ft I.D.: 3.800 in  
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in  
ANCHOR LENGTH : 171.0 ft ANCHOR SIZE: 5.500 in  
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in  
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH  
PACKER DEPTH: 4605.0 ft SIZE: 6.750 in  
PACKER DEPTH: 4610.0 ft SIZE: 6.750 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : WHITE & ELLIS RIG 9  
MUD TYPE : CHEMICAL VISCOSITY : 50.00 cp  
WEIGHT : 9.400 ppg WATER LOSS: 10.000 cc  
CHLORIDES : 2500 ppm  
JARS-MAKE :  
DID WELL FLOW?: NO SERIAL NUMBER:  
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD FAIR BLOW - INCREASED TO 6  
INCHES IN WATER. FINAL FLOW PERIOD FAIR BLOW - 7  
INCHES IN BUCKET.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
180.0	0.0	100.0	0.0	0.0	GAS
0.5	100.0	0.0	0.0	0.0	OIL
40.0	2.0	0.0	0.0	98.0	SL OIL CUT MUD
40.0	20.0	40.0	0.0	40.0	GASSY OIL CUT MUD

RATE INFORMATION

OIL VOLUME:	0.1304	STB	TOTAL FLOW TIME:	90.0000	min.
GAS VOLUME:	15.4366	SCF	AVERAGE OIL RATE:	14.4752	STB/D
MUD VOLUME:	0.7743	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.9047	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2195.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	39.00	48.00
INITIAL SHUT-IN	45.00		887.00
FINAL FLOW	45.00	53.00	58.00
FINAL SHUT-IN	45.00		828.00

FINAL HYDROSTATIC PRESSURE: 2165.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2225.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	43.00	49.00
INITIAL SHUT-IN	39.00		887.00
FINAL FLOW	45.00	59.00	64.00
FINAL SHUT-IN	42.00		835.00

FINAL HYDROSTATIC PRESSURE: 2203.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 7/2/93	TICKET	: 18748
CUSTOMER	: RITCHIE EXPLORATION INC.	LEASE	: HOCKERSMITH
WELL	: #1-A	TEST: 2	GEOLOGIST: MATHIESEN
ELEVATION	: 3044 KB	FORMATION:	PAWNEE TO JOHNSON
SECTION	: 27	TOWNSHIP	: 10S
RANGE	: 32W	STATE	: KS
GAUGE SN#:	13760	CLOCK	: 12
	COUNTY: THOMAS		
	RANGE : 3950		

INITIAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	43.00	43.00
5.00	43.00	0.00
10.00	43.00	0.00
15.00	43.00	0.00
20.00	44.00	1.00
25.00	45.00	1.00
30.00	46.00	1.00
35.00	47.00	1.00
40.00	48.00	1.00
45.00	49.00	1.00

INITIAL SHUT IN

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	61.00	61.00	0.00
6.00	87.00	26.00	0.00
9.00	124.00	37.00	0.00
12.00	173.00	49.00	0.00
15.00	256.00	83.00	0.00
18.00	355.00	99.00	0.00
21.00	478.00	123.00	0.00
24.00	595.00	117.00	0.00
27.00	687.00	92.00	0.00
30.00	751.00	64.00	0.00
33.00	806.00	55.00	0.00
36.00	849.00	43.00	0.00
39.00	887.00	38.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	59.00	59.00
5.00	59.00	0.00
10.00	59.00	0.00
15.00	59.00	0.00
20.00	60.00	1.00
25.00	60.00	0.00
30.00	61.00	1.00
35.00	62.00	1.00
40.00	63.00	1.00
45.00	64.00	1.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	79.00	79.00	0.00
6.00	107.00	28.00	0.00
9.00	141.00	34.00	0.00
12.00	188.00	47.00	0.00
15.00	255.00	67.00	0.00
18.00	328.00	73.00	0.00
21.00	428.00	100.00	0.00
24.00	527.00	99.00	0.00
27.00	610.00	83.00	0.00
30.00	674.00	64.00	0.00
33.00	728.00	54.00	0.00
36.00	769.00	41.00	0.00
39.00	806.00	37.00	0.00
42.00	835.00	29.00	0.00