



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 18777

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

Elevation 2779 ft Formation My St - Salus Oil Eff. Pay Ft.

District Colby Date Jan 25 1993 Customer Order No.

COMPANY NAME Ritchie Exploration, Inc.

ADDRESS Wichita Ks.

LEASE AND WELL NO. #1 R Hineman COUNTY Lane STATE KS. Sec. 8 Twp. 19 Rge. 28

Mail Invoice To Same R. Hineman #1 No. Copies Requested Reg

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 4494 ft. to 4610 ft. Total Depth 4610 ft. Packer Depth 4489 ft. Size 6 3/4 in. Packer Depth - ft. Size - in. Packer Depth 4494 ft. Size 6 3/4 in. Packer Depth - ft. Size - in. Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4497 ft. Recorder Number 6233 Cap. 4000 Bottom Recorder Depth (Outside) 4450 ft. Recorder Number 13400 Cap. 3950 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor: Murfin Rig #24 Drill Collar Length 527 I. D. 2.2 in. Mud Type: Chemical Viscosity 47 Weight Pipe Length - I. D. - in. Weight 9.4 Water Loss 10.2 cc. Drill Pipe Length 3947 I. D. 3.8 in. Chlorides 3200 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in. Jars: Make No Serial Number - Anchor Length 116 ft. Size 5 1/2 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 in.

Blow: 150 Weak decreasing blow - 3 1/4" in water FPP - Weak surface blow

Recovered 10 ft. of mud Recovered - ft. of Recovered - ft. of Recovered - ft. of Recovered - ft. of Recovered - ft. of

JAN 29 1993

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

Time On Location 6:00 AM Time Pick Up Tool 6:30 AM Time Off Location Set AM P.M. Time Set Packer(s) 9:45 AM Time Started Off Bottom 11:45 AM Maximum Temperature 138 P.M. Initial Hydrostatic Pressure (A) 2197 P.S.I. Initial Flow Period Minutes 30 (B) 50 P.S.I. to (C) 50 P.S.I. Initial Closed In Period Minutes 30 (D) 657 P.S.I. Final Flow Period Minutes 30 (E) 50 P.S.I. to (F) 50 P.S.I. Final Closed In Period Minutes 30 (G) 507 P.S.I. Final Hydrostatic Pressure (H) 2197 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] [Signature]

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 1-25-92

Test Ticket No. 18777

Recorder No. 6532

Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2207</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>55</u> P.S.I.	First Flow Pressure	Mins. <u>30</u>	Mins.
C First Final Flow Pressure	<u>55</u> P.S.I.	Initial Closed-in Pressure	Mins. <u>30</u>	Mins.
D Initial Closed-in Pressure	<u>658</u> P.S.I.	Second Flow Pressure	Mins. <u>30</u>	Mins.
E Second Initial Flow Pressure	<u>55</u> P.S.I.	Final Closed-in Pressure	Mins. <u>27</u>	Mins.
F Second Final Flow Pressure	<u>55</u> P.S.I.			
G Final Closed-in Pressure	<u>507</u> P.S.I.			
H Final Hydrostatic Mud	<u>2207</u> P.S.I.			

PRESSURE BREAKDOWN

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

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

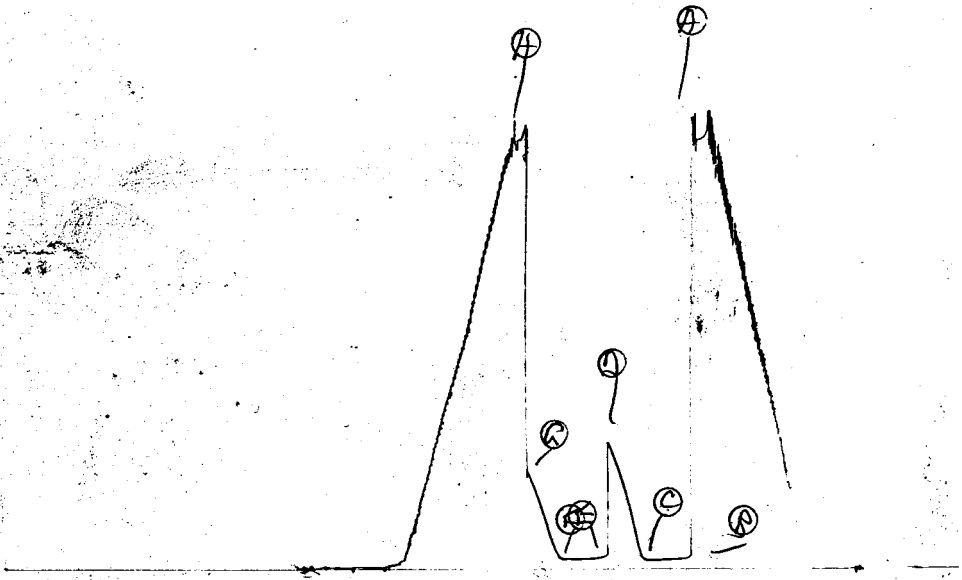
Second Flow Pressure
Breakdown: _____ Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: _____ 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 <u>0</u>	<u>55</u>	<u>0</u>	<u>55</u>	<u>0</u>	<u>55</u>	<u>0</u>	<u>55</u>
P 2 <u>5</u>		<u>3</u>	<u>55</u>	<u>5</u>		<u>3</u>	<u>67</u>
P 3 <u>10</u>		<u>6</u>	<u>65</u>	<u>10</u>		<u>6</u>	<u>109</u>
P 4 <u>15</u>		<u>9</u>	<u>132</u>	<u>15</u>		<u>9</u>	<u>157</u>
P 5 <u>20</u>		<u>12</u>	<u>213</u>	<u>20</u>		<u>12</u>	<u>224</u>
P 6 <u>25</u>		<u>15</u>	<u>285</u>	<u>25</u>		<u>15</u>	<u>285</u>
P 7 <u>30</u>	<u>55</u>	<u>18</u>	<u>275</u>	<u>30</u>	<u>55</u>	<u>18</u>	<u>246</u>
P 8 <u>35</u>		<u>21</u>	<u>448</u>	<u>35</u>		<u>21</u>	<u>295</u>
P 9 <u>40</u>		<u>24</u>	<u>508</u>	<u>40</u>		<u>24</u>	<u>448</u>
P10 <u>45</u>		<u>27</u>	<u>564</u>	<u>45</u>		<u>27</u>	<u>507</u>
P11 <u>50</u>		<u>30</u>	<u>624</u>	<u>50</u>		<u>30</u>	
P12 <u>55</u>		<u>33</u>	<u>658</u>	<u>55</u>		<u>33</u>	
P13 <u>60</u>		<u>36</u>		<u>60</u>		<u>36</u>	
P14 <u>65</u>		<u>39</u>		<u>65</u>		<u>39</u>	
P15 <u>70</u>		<u>42</u>		<u>70</u>		<u>42</u>	
P16 <u>75</u>		<u>45</u>		<u>75</u>		<u>45</u>	
P17 <u>80</u>		<u>48</u>		<u>80</u>		<u>48</u>	
P18 <u>85</u>		<u>51</u>		<u>85</u>		<u>51</u>	
P19 <u>90</u>		<u>54</u>		<u>90</u>		<u>54</u>	
P20 <u>95</u>		<u>57</u>		<u>95</u>		<u>57</u>	
<u>100</u>		<u>60</u>		<u>100</u>		<u>60</u>	

689 D.S. #1

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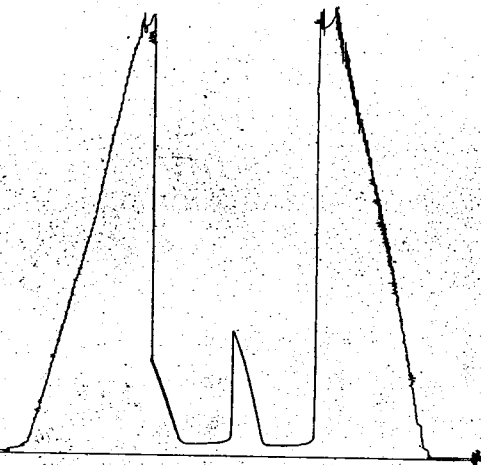


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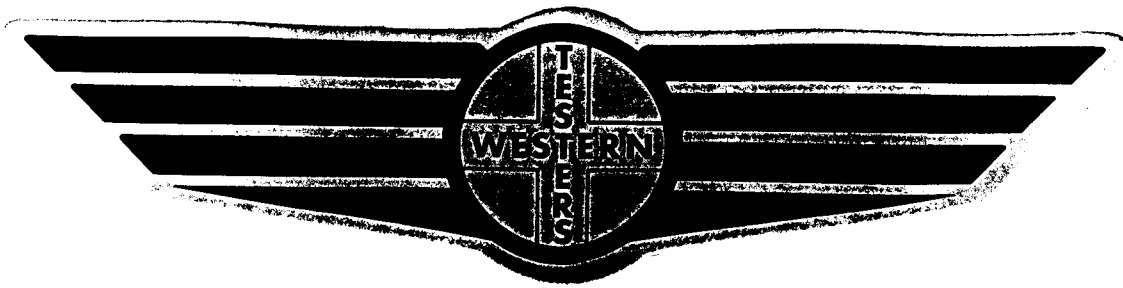
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KH-18777

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

DST REPORT

GENERAL INFORMATION

DATE : 1/25/93
CUSTOMER : RITCHIE EXPLORATION, INC.
WELL : 1 TEST: 1
ELEVATION: 2779 KB
SECTION : 8
RANGE : 28W COUNTY: LANE
GAUGE SN#: 6233 RANGE : 4000
TICKET : 18777
LEASE : R. HINEMAN
GEOLOGIST: KEVIN KESSLER
FORMATION: MYRICK STA - JOHNSON
TOWNSHIP : 19S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4494.00 ft TO: 4610.00 ft TVD: 4610.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4497.0 ft 4450.0 ft
TEMPERATURE: 130.0
DRILL COLLAR LENGTH: 527.0 ft I.D.: 2.200 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3947.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 116.0 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: 4489.0 ft SIZE: 6.750 in
PACKER DEPTH: 4494.0 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. : MURFIN RIG 24
MUD TYPE : CHEMICAL VISCOSITY : 47.00 cp
WEIGHT : 9.400 ppg WATER LOSS: 10.200 cc
CHLORIDES : 3200 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK DECREASING BLOW, 3/4 INCH
IN WATER. FINAL FLOW PERIOD WEAK SURFACE BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
10.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	60.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0470	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.0470	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2197.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	50.00	50.00
INITIAL SHUT-IN	30.00		657.00
FINAL FLOW	30.00	50.00	50.00
FINAL SHUT-IN	30.00		507.00

FINAL HYDROSTATIC PRESSURE: 2197.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2207.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	55.00	55.00
INITIAL SHUT-IN	33.00		658.00
FINAL FLOW	30.00	55.00	55.00
FINAL SHUT-IN	27.00		507.00

FINAL HYDROSTATIC PRESSURE: 2207.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 1/25/93	TICKET : 18777
CUSTOMER : RITCHIE EXPLORATION, INC.	LEASE : R. HINEMAN
WELL : 1 TEST: 1	GEOLOGIST: KEVIN KESSLER
ELEVATION: 2779 KB	FORMATION: MYRICK STA - JOHNSON
SECTION : 8	TOWNSHIP : 19S
RANGE : 28W COUNTY: LANE	STATE : KS
GAUGE SN#: 6233 RANGE : 4000	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	55.00	55.00
5.00	55.00	0.00
10.00	55.00	0.00
15.00	55.00	0.00
20.00	55.00	0.00
25.00	55.00	0.00
30.00	55.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	55.00	55.00	0.00
6.00	65.00	10.00	0.00
9.00	132.00	67.00	0.00
12.00	213.00	81.00	0.00
15.00	285.00	72.00	0.00
18.00	375.00	90.00	0.00
21.00	448.00	73.00	0.00
24.00	508.00	60.00	0.00
27.00	564.00	56.00	0.00
30.00	624.00	60.00	0.00
33.00	658.00	34.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
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PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	55.00	55.00
5.00	55.00	0.00
10.00	55.00	0.00
15.00	55.00	0.00
20.00	55.00	0.00
25.00	55.00	0.00
30.00	55.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	67.00	67.00	0.00
6.00	109.00	42.00	0.00
9.00	157.00	48.00	0.00
12.00	224.00	67.00	0.00
15.00	285.00	61.00	0.00
18.00	346.00	61.00	0.00
21.00	395.00	49.00	0.00
24.00	448.00	53.00	0.00
27.00	507.00	59.00	0.00



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET N° 18778

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

Elevation 2779 KB Formation Cong Sand Eff. Pay _____ Ft.

District Colby Date 1-26-93 Customer Order No. _____

COMPANY NAME Ritchie Exploration Inc

ADDRESS Wichita KS.

LEASE AND WELL NO. Hineman #1 COUNTY Lane STATE KS Sec. 8 Twp. 19 Rge. 28

Mail Invoice To R. Hineman #1 Co. Name _____ Address _____ No. Copies Requested Reg

Mail Charts To Same Address _____ No. Copies Requested Reg

Formation Test No. 2 Interval Tested From 4606 ft. to 4624 ft. Total Depth 4624 ft.

Packer Depth 4606 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 4606 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4609 ft. Recorder Number 6233 Cap. 4000

Bottom Recorder Depth (Outside) 4612 ft. Recorder Number 13400 Cap. 3950

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

Drilling Contractor Murfin #24 Drill Collar Length 527 I. D. 22 in.

Mud Type Chemical Viscosity 48 Weight Pipe Length _____ I. D. _____ in.

Weight 9.4 Water Loss 10.4 cc. Drill Pipe Length 4059 I. D. 38 in.

Chlorides 3.400 P.P.M. Test Tool Length 20 ft. Tool Size 5/200 in.

Jars: Make No Serial Number _____ Anchor Length 18 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 7/8 in. Tool Joint Size 4 1/2 in.

Blow: IFP - Weak blow - 1/2" in water

FFP - Weak Surface blow

Recovered 5 ft. of mud is few spots of oil

Recovered _____ ft. of _____ Oil less than 1%

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

JAN 29 1993

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

Time On Location 10:00 AM Time Pick Up Tool 11:00 AM Time Off Location 6:00 AM

Time Set Packer(s) 100 AM Time Started Off Bottom 3:00 AM Maximum Temperature 130

Initial Hydrostatic Pressure _____ (A) 2276 P.S.I.

Initial Flow Period _____ Minutes 30 (B) _____ P.S.I. to (C) _____ P.S.I.

Initial Closed In Period _____ Minutes 30 (D) 376 P.S.I.

Final Flow Period _____ Minutes 30 (E) 50 P.S.I. to (F) 50 P.S.I.

Final Closed In Period _____ Minutes 30 (G) 172 P.S.I.

Final Hydrostatic Pressure _____ (H) 2257 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 Kessler
Signature of Customer or his authorized representative

Western Representative Mike Schubert

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 1-26-50

Test Ticket No. 18778

Recorder No. 6282 Capacity _____ Location _____ Ft. _____

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2483</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>61</u> P.S.I.	First Flow Pressure	Mins. <u>30</u>	Mins.
C First Final Flow Pressure	<u>55</u> P.S.I.	Initial Closed-in Pressure	Mins. <u>54</u>	Mins.
D Initial Closed-in Pressure	<u>3910</u> P.S.I.	Second Flow Pressure	Mins. <u>40</u>	Mins.
E Second Initial Flow Pressure	<u>56</u> P.S.I.	Final Closed-in Pressure	Mins. <u>30</u>	Mins.
F Second Final Flow Pressure	<u>56</u> P.S.I.			
G Final Closed-in Pressure	<u>184</u> P.S.I.			
H Final Hydrostatic Mud	<u>2483</u> P.S.I.			

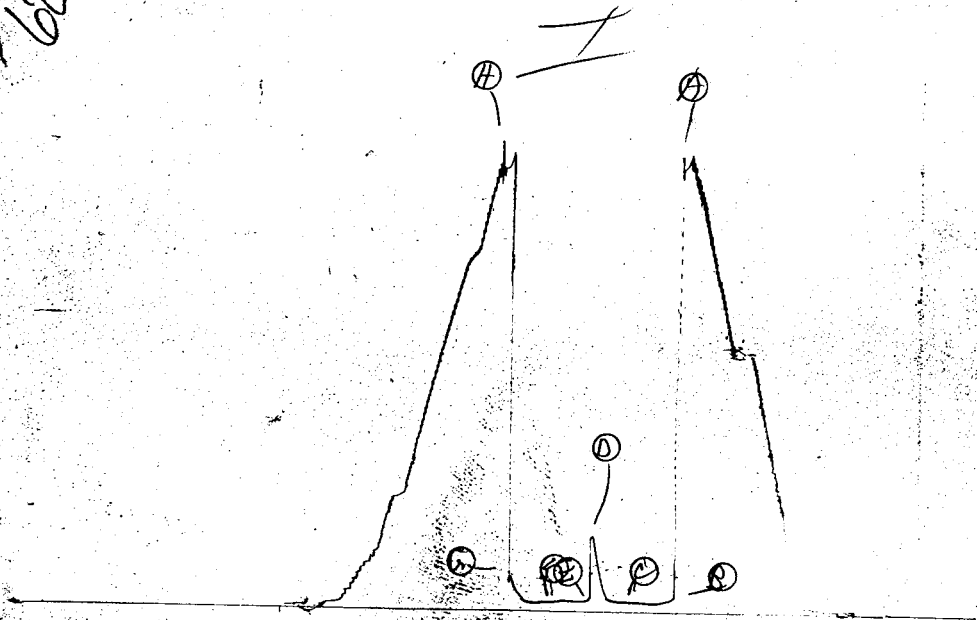
PRESSURE BREAKDOWN

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>61</u>	0	<u>55</u>	0	<u>56</u>	0	<u>56</u>
P 2 5	<u>61</u>	3	<u>56</u>	5		3	
P 3 10	<u>54</u>	6	<u>58</u>	10		6	
P 4 15	<u>50</u>	9	<u>60</u>	15		9	
P 5 20	<u>51</u>	12	<u>60</u>	20		12	
P 6 25	<u>55</u>	15	<u>60</u>	25		15	<u>56</u>
P 7 30	<u>55</u>	18	<u>65</u>	30	<u>56</u>	18	<u>61</u>
P 8 35		21	<u>86</u>	35		21	<u>81</u>
P 9 40		24	<u>145</u>	40		24	<u>110</u>
P10 45		27	<u>247</u>	45		27	<u>144</u>
P11 50		30	<u>246</u>	50		30	<u>184</u>
P12 55		33	<u>3910</u>	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	

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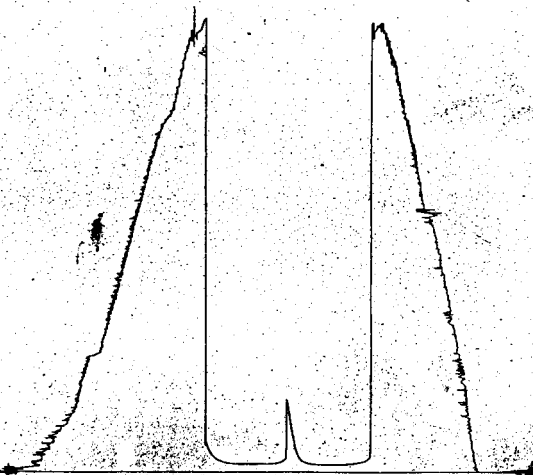
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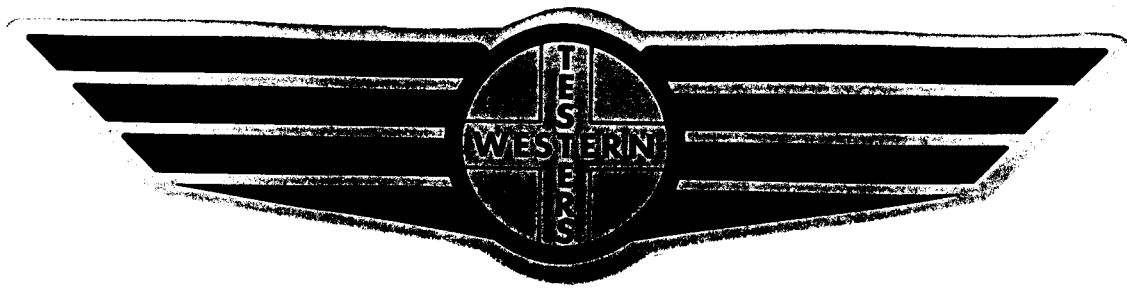
W. A. L. JK 18778

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

DST REPORT

GENERAL INFORMATION

DATE	: 1/26/93	TICKET	: 18778
CUSTOMER	: RITCHIE EXPLORATION, INC.	LEASE	: R. HINEMAN
WELL	: 1 TEST: 2	GEOLOGIST	: KEVIN KESSLER
ELEVATION	: 2779 KB	FORMATION	: CONGLOMERATE SAND
SECTION	: 8	TOWNSHIP	: 19S
RANGE	: 28W COUNTY: LANE	STATE	: KS
GAUGE SN#	: 6233 RANGE : 4000	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	4606.00 ft	TO:	4624.00 ft	TVD:	4624.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	4609.0 ft		4612.0 ft		
TEMPERATURE:	130.0				
DRILL COLLAR LENGTH:	527.0 ft	I.D.:	2.200 in		
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in		
DRILL PIPE LENGTH :	4059.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in		
ANCHOR LENGTH :	18.0 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:	4601.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	4606.0 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. :	MURFIN RIG 24	VISCOSITY :	48.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	10.400 cc
WEIGHT :	9.400 ppg	SERIAL NUMBER:	
CHLORIDES :	3400 ppm	REVERSED OUT?:	NO
JARS-MAKE :			
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW, 1/2 INCH IN WATER.
FINAL FLOW PERIOD WEAK SURFACE BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

<u>Feet of Fluid</u>	<u>% Oil</u>	<u>% Gas</u>	<u>% Water</u>	<u>% Mud</u>	<u>Comments</u>
5.0	0.0	0.0	0.0	100.0	MUD W/FEW SPOTS OF OIL
0.0	0.0	0.0	0.0	0.0	OIL LESS THAN 1%

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	60.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	0.0235 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.0235 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2276.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	50.00	50.00
INITIAL SHUT-IN	30.00		376.00
FINAL FLOW	30.00	50.00	50.00
FINAL SHUT-IN	30.00		172.00

FINAL HYDROSTATIC PRESSURE: 2257.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2283.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	61.00	55.00
INITIAL SHUT-IN	33.00		396.00
FINAL FLOW	30.00	56.00	56.00
FINAL SHUT-IN	30.00		184.00

FINAL HYDROSTATIC PRESSURE: 2283.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 1/26/93	TICKET : 18778
CUSTOMER : RITCHIE EXPLORATION, INC.	LEASE : R. HINEMAN
WELL : 1 TEST: 2	GEOLOGIST: KEVIN KESSLER
ELEVATION: 2779 KB	FORMATION: CONGLOMERATE SAND
SECTION : 8	TOWNSHIP : 19S
RANGE : 28W COUNTY: LANE	STATE : KS
GAUGE SN#: 6233 RANGE : 4000	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	61.00	61.00
5.00	61.00	0.00
10.00	54.00	-7.00
15.00	50.00	-4.00
20.00	51.00	1.00
25.00	52.00	1.00
30.00	55.00	3.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	56.00	56.00	0.00
6.00	58.00	2.00	0.00
9.00	60.00	2.00	0.00
12.00	60.00	0.00	0.00
15.00	60.00	0.00	0.00
18.00	65.00	5.00	0.00
21.00	86.00	21.00	0.00
24.00	145.00	59.00	0.00
27.00	247.00	102.00	0.00
30.00	346.00	99.00	0.00
33.00	396.00	50.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
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PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	56.00	56.00
5.00	56.00	0.00
10.00	56.00	0.00
15.00	56.00	0.00
20.00	56.00	0.00
25.00	56.00	0.00
30.00	56.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	56.00	56.00	0.00
6.00	56.00	0.00	0.00
9.00	56.00	0.00	0.00
12.00	56.00	0.00	0.00
15.00	56.00	0.00	0.00
18.00	61.00	5.00	0.00
21.00	81.00	20.00	0.00
24.00	110.00	29.00	0.00
27.00	144.00	34.00	0.00
30.00	184.00	40.00	0.00



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 18779

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

Elevation 2799 RB Formation L KC "I" Eff. Pay Ft.

District Colby Date 1-27-93 Customer Order No.

COMPANY NAME Ritchie Exploration, Inc

ADDRESS Wichita ks.

LEASE AND WELL NO. Hineman #1 COUNTY Lane STATE KS. Sec. 8 Twp. 19 Rge. 2B

Mail Invoice To R. Hineman #1 Co. Name Address No. Copies Requested 100

Mail Charts To Same Address No. Copies Requested

Formation Test No. 3 Interval Tested From 4217 ft. to 4241 ft. Total Depth 4675 ft.

Packer Depth 4217 ft. Size 6 3/4 in. Packer Depth 4241 ft. Size 6 3/4 in.

Packer Depth 4246 ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4220 ft. Recorder Number 6233 Cap. 4000

Bottom Recorder Depth (Outside) 4223 ft. Recorder Number 13400 Cap. 3950

Below Straddle Recorder Depth 4672 ft. Recorder Number 10330 Cap. 4000

Drilling Contractor Musfin Rig #24 Drill Collar Length 232 I. D. 2 2 in.

Mud Type Chemical Viscosity 47 Weight Pipe Length I. D. in.

Weight 9.4 Water Loss 11.2 cc. Drill Pipe Length 3970 I. D. 3 8 in.

Chlorides 3.300 P.P.M. Test Tool Length 15 ft. Tool Size 5/200 in.

Jars: Make NC Serial Number - Anchor Length 24 ft. Size 5/200 in.

Did Well Flow? NC Reversed Out NC Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

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

Blow: 1FP - Weak blow - 1/2" in water FFP - Weak blow - 1/4" in water Flushed Tool

Recovered 10 ft. of mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used Remarks: JAN 29 1993

Time On Location 7:30 A.M. Time Pick Up Tool 8:30 A.M. Time Off Location P.M.

Time Set Packer(s) 10:55 A.M. Time Started Off Bottom 12:15 P.M. Maximum Temperature

Initial Hydrostatic Pressure (A) 2067 P.S.I.

Initial Flow Period Minutes 20 (B) 50 P.S.I. to (C) 50 P.S.I.

Initial Closed In Period Minutes 20 (D) 10:55 P.S.I.

Final Flow Period Minutes 20 (E) 50 P.S.I. to (F) 50 P.S.I.

Final Closed In Period Minutes 20 (G) 10:35 P.S.I.

Final Hydrostatic Pressure (H) 2047 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 Kessler Signature of Customer or his authorized representative

Western Representative: Mike Sweet

Thanks!

FIELD INVOICE

Table with 2 columns: Item 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 1-27-92 Test Ticket No. 1877
 Recorder No. 6232 Capacity _____ Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2060</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>40</u> P.S.I.	First Flow Pressure	Mins. <u>20</u>	Mins.
C First Final Flow Pressure	<u>30</u> P.S.I.	Initial Closed-in Pressure	Mins. <u>21</u>	Mins.
D Initial Closed-in Pressure	<u>1047</u> P.S.I.	Second Flow Pressure	Mins. <u>20</u>	Mins.
E Second Initial Flow Pressure	<u>52</u> P.S.I.	Final Closed-in Pressure	Mins. <u>24</u>	Mins.
F Second Final Flow Pressure	<u>38</u> P.S.I.			
G Final Closed-in Pressure	<u>1052</u> P.S.I.			
H Final Hydrostatic Mud	<u>2048</u> P.S.I.			

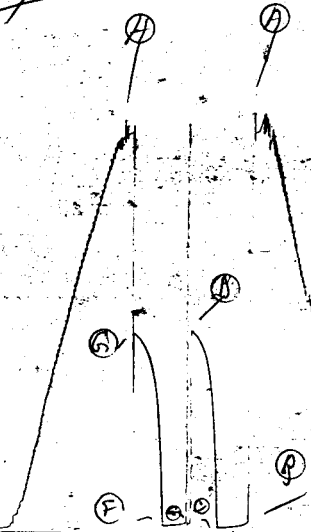
PRESSURE BREAKDOWN

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>40</u>	0	<u>30</u>	0	<u>52</u>	0	<u>38</u>
P 2 5	<u>40</u>	3	<u>37</u>	5	<u>45</u>	3	<u>38</u>
P 3 10	<u>37</u>	6	<u>690</u>	10	<u>42</u>	6	<u>620</u>
P 4 15	<u>35</u>	9	<u>862</u>	15	<u>39</u>	9	<u>824</u>
P 5 20	<u>30</u>	12	<u>937</u>	20	<u>38</u>	12	<u>908</u>
P 6 25		15	<u>984</u>	25		15	<u>962</u>
P 7 30		18	<u>1024</u>	30		18	<u>994</u>
P 8 35		21	<u>1047</u>	35		21	<u>1017</u>
P 9 40		24		40		24	<u>1032</u>
P10 45		27		45		27	
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	

6223

KA 18779

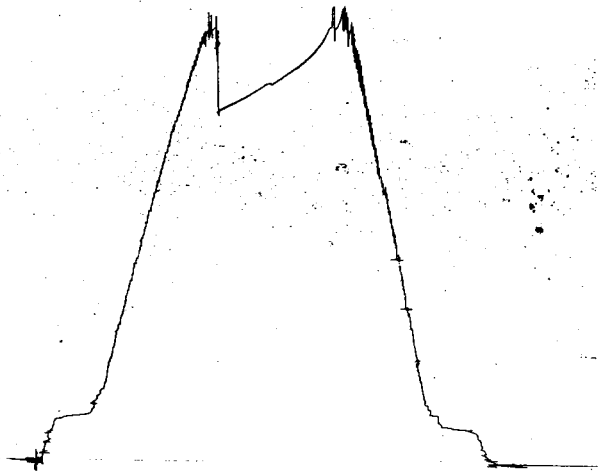
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Staddle

JK 18729

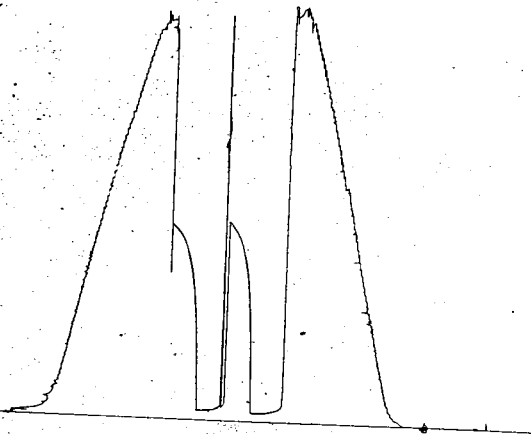
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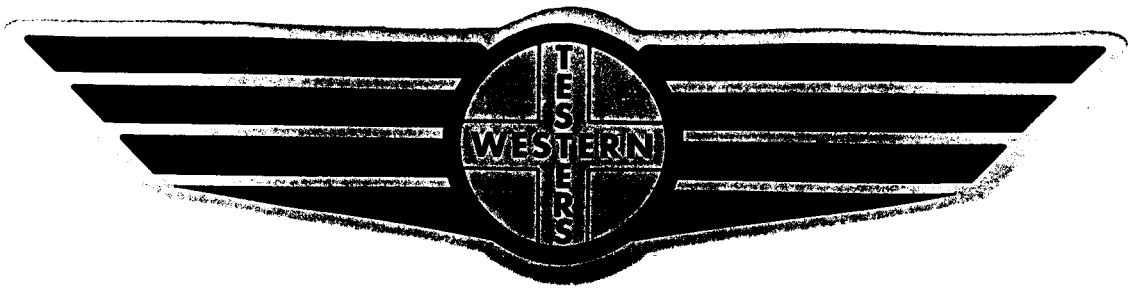
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JK 18779

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

DST REPORT

GENERAL INFORMATION

DATE : 1/27/93
CUSTOMER : RITCHIE EXPLORATION, INC.
WELL : 1 TEST: 3
ELEVATION: 2779 KB
SECTION : 8
RANGE : 28W COUNTY: LANE
GAUGE SN#: 6233 RANGE : 4000
TICKET : 18779
LEASE : R. HINEMAN
GEOLOGIST: KEVIN KESSLER
FORMATION: L KANSAS CITY I
TOWNSHIP : 19S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4217.00 ft TO: 4241.00 ft TVD: 4675.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4220.0 ft 4223.0 ft
TEMPERATURE: 0.0
DRILL COLLAR LENGTH: 232.0 ft I.D.: 2.200 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3970.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 15.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 24.0 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: 4217.0 ft SIZE: 6.750 in
PACKER DEPTH: 4241.0 ft SIZE: 6.750 in
PACKER DEPTH: 4246.0 ft SIZE: 6.750 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : MURFIN RIG 24
MUD TYPE : CHEMICAL VISCOSITY : 47.00 cp
WEIGHT : 9.400 ppg WATER LOSS: 11.200 cc
CHLORIDES : 3300 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW, 1/2 INCH IN WATER.
FINAL FLOW PERIOD WEAK BLOW, 1/4 INCH IN WATER,
FLUSHED TOOL.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
10.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	40.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0470	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.0470	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2067.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	50.00	50.00
INITIAL SHUT-IN	20.00		1055.00
FINAL FLOW	20.00	50.00	50.00
FINAL SHUT-IN	20.00		1035.00

FINAL HYDROSTATIC PRESSURE: 2047.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2060.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	40.00	30.00
INITIAL SHUT-IN	21.00		1047.00
FINAL FLOW	20.00	53.00	38.00
FINAL SHUT-IN	24.00		1032.00

FINAL HYDROSTATIC PRESSURE: 2048.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 1/27/93	TICKET : 18779
CUSTOMER : RITCHIE EXPLORATION, INC.	LEASE : R. HINEMAN
WELL : 1 TEST: 3	GEOLOGIST: KEVIN KESSLER
ELEVATION: 2779 KB	FORMATION: L KANSAS CITY I
SECTION : 8	TOWNSHIP : 19S
RANGE : 28W COUNTY: LANE	STATE : KS
GAUGE SN#: 6233 RANGE : 4000	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	40.00	40.00
5.00	40.00	0.00
10.00	37.00	-3.00
15.00	35.00	-2.00
20.00	30.00	-5.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	371.00	371.00	0.00
6.00	690.00	319.00	0.00
9.00	862.00	172.00	0.00
12.00	937.00	75.00	0.00
15.00	986.00	49.00	0.00
18.00	1021.00	35.00	0.00
21.00	1047.00	26.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	53.00	53.00
5.00	45.00	-8.00
10.00	42.00	-3.00
15.00	39.00	-3.00
20.00	38.00	-1.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	383.00	383.00	0.00
6.00	690.00	307.00	0.00
9.00	834.00	144.00	0.00
12.00	908.00	74.00	0.00
15.00	962.00	54.00	0.00
18.00	994.00	32.00	0.00
21.00	1017.00	23.00	0.00
24.00	1032.00	15.00	0.00