

DST REPORT

GENERAL INFORMATION

DATE	: 4/17/96	TICKET	: 20767
CUSTOMER	: RITCHIE EXPLORATION, INC	LEASE	: LENA SPEER
WELL	: #1 TEST: 1	GEOLOGIST	: MATHIESEN
ELEVATION	: 2699 KB	FORMATION	: L KANSAS CITY L
SECTION	: 16	TOWNSHIP	: 18S
RANGE	: 27W COUNTY: LANE	STATE	: KS
GAUGE SN#	: 13551 RANGE : 4150	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	4283.00 ft	TO:	4308.00 ft	TVD:	4308.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE:	OIL		
DEPTH OF RECORDERS:	4286.0 ft		4289.0 ft		
TEMPERATURE:	122.0				
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 :	4263.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in		
ANCHOR LENGTH :	25.0 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:	4278.0 ft	SIZE:	6.750 in		
PACKER DEPTH:	4283.0 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	VISCOSITY :	46.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	8.800 cc
WEIGHT :	9.300 ppg	SERIAL NUMBER:	
CHLORIDES :	2300 ppm	REVERSED OUT?:	NO
JARS-MAKE :			
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK SURFACE BLOW.
 FINAL FLOW PERIOD NO BLOW - FLUSHED TOOL - SURFACE
 BLOW - DIED.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
10.0	0.0	0.0	0.0	100.0	MUD FEW OIL SPOTS
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:	0.1403	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.1403	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2122.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	20.00	20.00
INITIAL SHUT-IN	30.00		669.00
FINAL FLOW	30.00	20.00	20.00
FINAL SHUT-IN	30.00		209.00

FINAL HYDROSTATIC PRESSURE: 2081.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2127.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	85.52	39.93
INITIAL SHUT-IN	30.00		683.26
FINAL FLOW	30.00	94.48	41.90
FINAL SHUT-IN	30.00		237.54

FINAL HYDROSTATIC PRESSURE: 2070.00

Company: RITCHIE EXPLORATION INC

Well: #1 LENA SPEER

Field: TKT 20767 DST 1

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
START FLOW 1				
1	0	16:45:37	0.0000	85.52
5	0	16:46: 6	0.0080	85.51
14	0	16:47:10	0.0260	81.14
23	0	16:48:15	0.0439	74.17
32	0	16:49:20	0.0619	68.93
41	0	16:50:25	0.0799	68.05
50	0	16:51:29	0.0979	64.55
59	0	16:52:34	0.1158	62.80
68	0	16:53:39	0.1338	61.92
77	0	16:54:43	0.1518	60.16
86	0	16:55:48	0.1698	60.15
95	0	16:56:53	0.1878	58.40
104	0	16:57:58	0.2057	56.64
113	0	16:59: 2	0.2237	54.89
122	0	17: 0: 7	0.2417	53.14
131	0	17: 1:12	0.2597	52.26
140	0	17: 2:17	0.2776	49.63
149	0	17: 3:21	0.2956	47.88
158	0	17: 4:26	0.3136	47.00
167	0	17: 5:31	0.3316	46.98
176	0	17: 6:35	0.3496	45.23
185	0	17: 7:40	0.3676	43.48
194	0	17: 8:45	0.3855	43.47
203	0	17: 9:50	0.4035	42.58
212	0	17:10:54	0.4215	41.70
221	0	17:11:59	0.4395	40.82
230	0	17:13: 4	0.4575	39.94
239	0	17:14: 9	0.4755	39.93
END FLOW 1				
START SHUTIN 1				
248	0	17:15:13	0.4934	39.91
257	0	17:16:18	0.5114	39.90
266	0	17:17:23	0.5294	39.02
275	0	17:18:28	0.5474	39.01
284	0	17:19:32	0.5654	40.74
293	0	17:20:37	0.5834	43.34
302	0	17:21:42	0.6014	45.07
311	0	17:22:47	0.6194	52.03
320	0	17:23:52	0.6374	66.82
329	0	17:24:57	0.6555	100.78
338	0	17:26: 2	0.6736	142.58
347	0	17:27: 7	0.6918	193.08
356	0	17:28:13	0.7100	246.20
365	0	17:29:18	0.7281	296.70
374	0	17:30:23	0.7462	345.46
383	0	17:31:29	0.7644	401.19
392	0	17:32:34	0.7826	449.09
401	0	17:33:40	0.8007	498.72
410	0	17:34:45	0.8188	528.32
419	0	17:35:50	0.8369	563.15
428	0	17:36:55	0.8550	584.91
437	0	17:38: 0	0.8730	612.77
446	0	17:39: 5	0.8911	628.44
455	0	17:40:10	0.9091	644.10

WESTERN TESTING CO., INC.

Company: RITCHIE EXPLORATION INC
 Well: #1 LENA SPEER
 Field: TKT 20767 DST 1

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
464	0	17:41:15	0.9271	658.90
473	0	17:42:20	0.9452	673.69
482	0	17:43:24	0.9632	683.26
		END SHUTIN 1		
		START FLOW 2		
490	0	17:44:37	0.9832	94.48
		FLUSHED TOOL		
495	0	17:45:33	0.9988	1785.11
496	0	17:45:43	1.0018	2074.71
505	0	17:46:48	1.0198	2079.91
514	0	17:47:49	1.0367	1762.81
523	0	17:48:53	1.0545	1705.41
532	0	17:49:57	1.0723	1652.29
541	0	17:51: 1	1.0900	1562.33
551	0	17:52: 7	1.1083	1054.84
561	0	17:53: 7	1.1250	65.65
570	0	17:54:12	1.1430	63.02
579	0	17:55:16	1.1609	60.40
588	0	17:56:21	1.1789	58.64
597	0	17:57:26	1.1969	56.89
606	0	17:58:31	1.2149	55.14
615	0	17:59:35	1.2329	53.38
624	0	18: 0:40	1.2508	51.63
633	0	18: 1:45	1.2688	50.75
642	0	18: 2:49	1.2868	49.00
651	0	18: 3:54	1.3048	48.11
660	0	18: 4:59	1.3228	48.10
669	0	18: 6: 4	1.3408	47.22
678	0	18: 7: 8	1.3587	46.34
687	0	18: 8:13	1.3767	45.46
696	0	18: 9:18	1.3947	45.44
705	0	18:10:23	1.4127	43.69
714	0	18:11:27	1.4307	43.68
723	0	18:12:32	1.4487	43.67
732	0	18:13:37	1.4666	42.79
741	0	18:14:42	1.4846	41.90
		END FLOW 2		
		START SHUTIN 2		
749	0	18:15:39	1.5006	41.89
750	0	18:15:46	1.5026	41.89
759	0	18:16:51	1.5206	41.88
768	0	18:17:56	1.5386	41.87
777	0	18:19: 1	1.5566	40.99
786	0	18:20: 5	1.5746	40.98
795	0	18:21:10	1.5925	40.09
804	0	18:22:15	1.6105	40.08
813	0	18:23:20	1.6285	40.94
822	0	18:24:24	1.6465	40.93
831	0	18:25:29	1.6645	41.79
840	0	18:26:34	1.6825	42.65
849	0	18:27:39	1.7005	45.25
858	0	18:28:43	1.7184	47.85
867	0	18:29:48	1.7364	51.33
876	0	18:30:53	1.7544	53.93
885	0	18:31:58	1.7724	57.40

Company: RITCHIE EXPLORATION INC
Well: #1 LENA SPEER
Field: TKT 20767 DST 1

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
894	0	18:33: 3	1.7904	60.87
903	0	18:34: 7	1.8084	64.35
912	0	18:35:12	1.8264	69.56
921	0	18:36:17	1.8444	75.65
930	0	18:37:22	1.8624	81.73
939	0	18:38:27	1.8805	87.82
948	0	18:39:31	1.8985	98.26
957	0	18:40:36	1.9165	113.05
966	0	18:41:41	1.9346	132.20
975	0	18:42:46	1.9526	151.35
984	0	18:43:51	1.9707	180.08
993	0	18:44:56	1.9887	205.33
1002	0	18:46: 2	2.0068	237.54

WESTERN TESTING CO., INC.



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 20767

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

Elevation 2699 KB Formation L KC 2' Eff. Pay Ft.

District Calby Date 4-17-96 Customer Order No.

COMPANY NAME Ritchie Exploration, Inc

ADDRESS 125 W Market Suite 1000 Wichita KS

LEASE AND WELL NO. Lena Spec #1 COUNTY Lane STATE KS Sec. 16 Twp. 18S Rge. 29W

Mail Invoice To Same Co. Name Same Address Lena Spec #1 No. Copies Requested Reg

Mail Charts To Same Address Lena Spec #1 No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 4283 ft. to 4308 ft. Total Depth 4308 ft.

Packer Depth 4278 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4283 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4286 ft. Recorder Number 13551 Cap. 4150

Bottom Recorder Depth (Outside) 4289 ft. Recorder Number 13268 Cap. 4150

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

Drilling Contractor White and Ellis Drill Collar Length - I. D. - in.

Mud Type Chemical Viscosity 46 Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 1.9 cc. Drill Pipe Length 4263 I. D. 3.8 in.

Chlorides 2.200 P.P.M. Test Tool Length 20 ft. Tool Size 5/200 in.

Jars: Make no Serial Number - Anchor Length 25 ft. Size 5/2 00 in.

Did Well Flow? no Reversed Out no Surface Choke Size 3/4 in. Bottom Choke Size 2/4 in.

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

Blow: 1FP - Weak surface blow

FP - No blow. Flushed tool, surface blow, died

Recovered 10 ft. of mud, few oil spots, oil loss than 1%

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

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

Time On Location 1 30 A.M. Time Pick Up Tool 3 00 P.M. Time Off Location 9 45 A.M.

Time Set Packer(s) 4 45 P.M. Time Started Off Bottom 6 45 P.M. Maximum Temperature 122

Initial Hydrostatic Pressure (A) 2122 P.S.I. 2127

Initial Flow Period Minutes 30 (B) 20 P.S.I. to (C) 20 P.S.I.

Initial Closed In Period Minutes 30 (D) 6 69 P.S.I.

Final Flow Period Minutes 30 (E) 20 P.S.I. to (F) 20 P.S.I.

Final Closed In Period Minutes 30 (G) 209 P.S.I.

Final Hydrostatic Pressure (H) 2081 P.S.I. 2070

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.

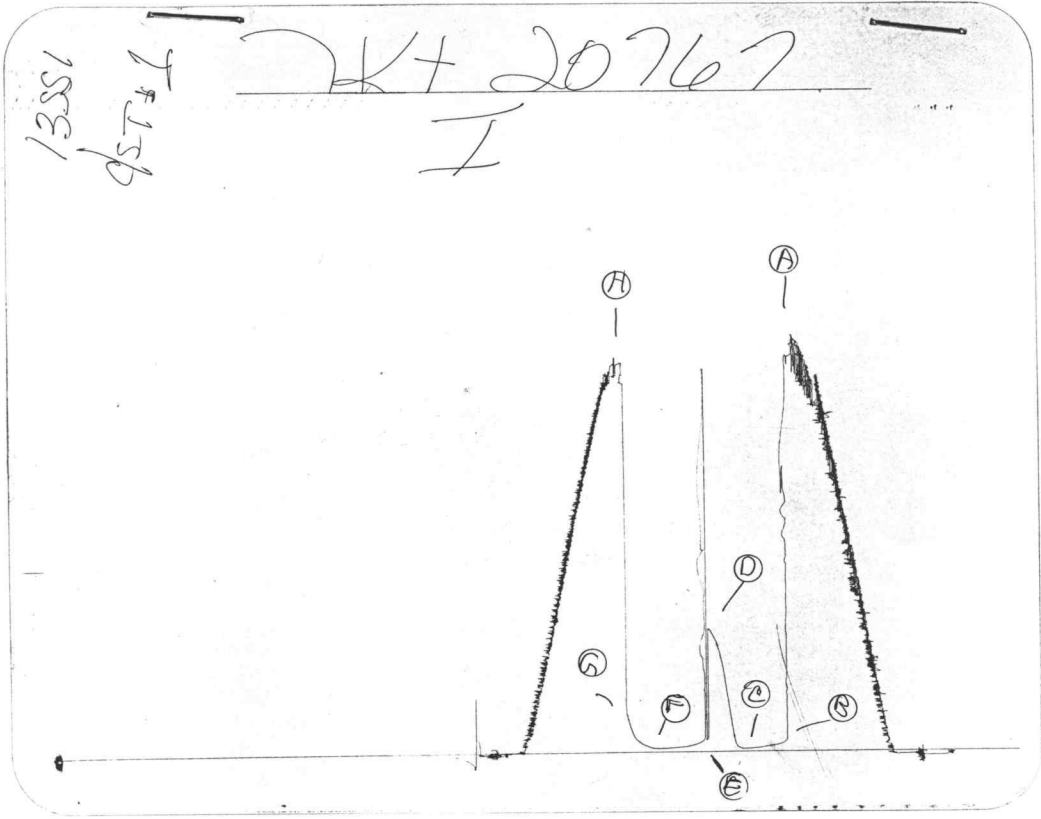
All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

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

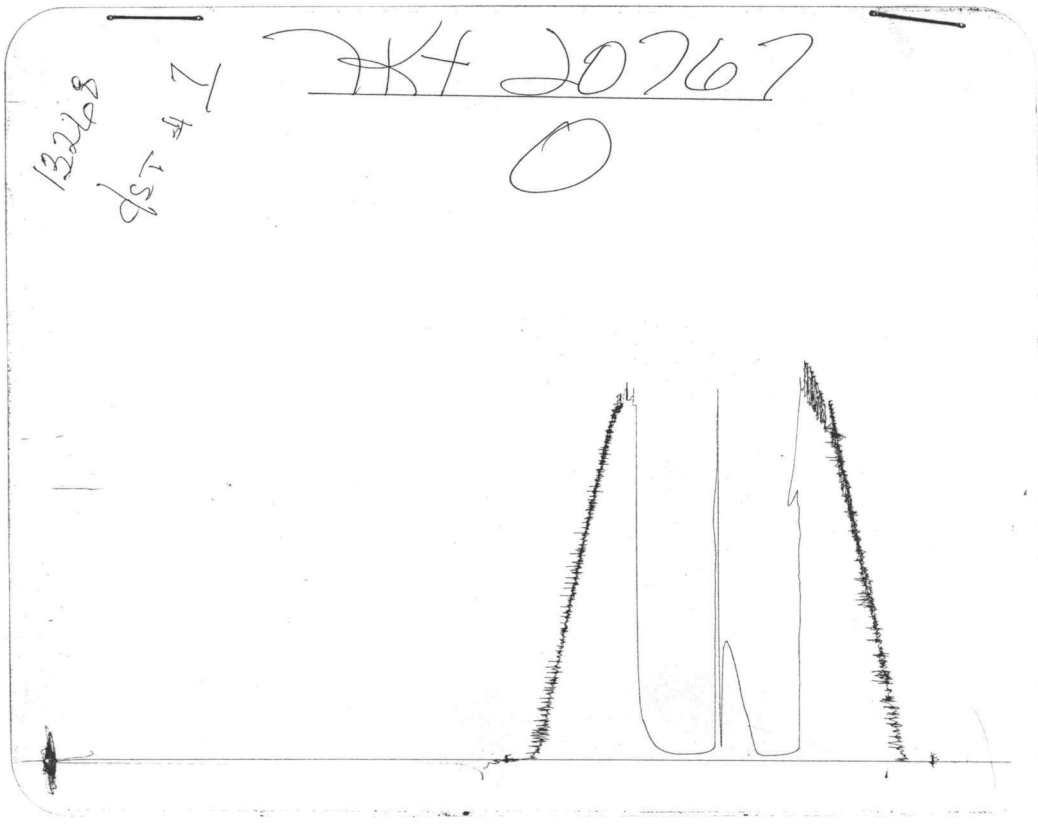
Western Representative Mike Schubert

FIELD INVOICE

Open Hole Test	\$
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$



Inside Recorder



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 4/18/96	TICKET : 20768
CUSTOMER : RITCHIE EXPLORATION, INC	LEASE : LENA SPEER
WELL : #1 TEST: 2	GEOLOGIST: MATHIESEN
ELEVATION: 2699 KB	FORMATION: MARMATON-FT SCOTT
SECTION : 16	TOWNSHIP : 18S
RANGE : 27W COUNTY: LANE	STATE : KS
GAUGE SN#: 13551 RANGE : 4150	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4318.00 ft	TO: 4525.00 ft	TVD: 4525.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: OIL
DEPTH OF RECORDERS: 4321.0 ft	4324.0 ft	
TEMPERATURE: 124.0		

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 : 4298.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 207.0 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: 4313.0 ft	SIZE:	6.750 in
PACKER DEPTH: 4318.0 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	
MUD TYPE : CHEMICAL	VISCOSITY : 51.00 cp
WEIGHT : 9.400 ppg	WATER LOSS: 9.600 cc
CHLORIDES : 2300 ppm	
JARS-MAKE :	SERIAL NUMBER:
DID WELL FLOW?: NO	REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW - 3/4 INCH IN WATER
 FINAL FLOW PERIOD WEAK SURFACE BLOW - DIED IN 20
 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
20.0	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:	0.2805	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.2805	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2164.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	31.00	31.00
INITIAL SHUT-IN	30.00		156.00
FINAL FLOW	30.00	31.00	31.00
FINAL SHUT-IN	30.00		62.00

FINAL HYDROSTATIC PRESSURE: 2133.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2161.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	61.43	45.88
INITIAL SHUT-IN	30.00		93.85
FINAL FLOW	30.00	67.61	49.45
FINAL SHUT-IN	30.00		96.81

FINAL HYDROSTATIC PRESSURE: 2155.00

Company: RITCHIE EXPLORATION INC

Well: #1 LENA SPEER

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Field: TKT 20768 DST 2

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
START FLOW 1				
1	0	21: 0: 3	0.0000	61.43
9	0	21: 1: 0	0.0160	61.49
18	0	21: 2: 5	0.0340	59.82
27	0	21: 3:10	0.0520	58.14
36	0	21: 4:15	0.0701	55.60
45	0	21: 5:20	0.0881	53.05
54	0	21: 6:25	0.1061	51.38
63	0	21: 7:30	0.1242	48.83
72	0	21: 8:35	0.1422	47.16
81	0	21: 9:39	0.1602	45.48
90	0	21:10:44	0.1782	45.55
99	0	21:11:49	0.1962	43.87
108	0	21:12:54	0.2142	43.07
117	0	21:13:59	0.2322	43.13
126	0	21:15: 3	0.2502	42.33
135	0	21:16: 8	0.2682	42.40
144	0	21:17:13	0.2862	42.46
153	0	21:18:18	0.3041	42.53
162	0	21:19:22	0.3221	42.60
171	0	21:20:27	0.3401	42.67
180	0	21:21:32	0.3581	42.73
189	0	21:22:37	0.3761	42.80
198	0	21:23:41	0.3941	42.87
207	0	21:24:46	0.4120	42.93
216	0	21:25:51	0.4300	43.87
225	0	21:26:55	0.4480	43.94
234	0	21:28: 0	0.4660	44.88
243	0	21:29: 5	0.4839	45.81
252	0	21:30:10	0.5019	45.88
END FLOW 1				
START SHUTIN 1				
259	0	21:31: 0	0.5159	45.93
261	0	21:31:14	0.5199	46.82
270	0	21:32:19	0.5379	46.89
279	0	21:33:24	0.5558	46.95
288	0	21:34:28	0.5738	47.02
297	0	21:35:33	0.5918	47.09
306	0	21:36:38	0.6098	47.15
315	0	21:37:43	0.6278	47.22
324	0	21:38:47	0.6458	47.29
333	0	21:39:52	0.6637	48.22
342	0	21:40:57	0.6817	49.16
351	0	21:42: 2	0.6997	49.23
360	0	21:43: 6	0.7177	49.30
369	0	21:44:11	0.7356	51.10
378	0	21:45:16	0.7536	51.17
387	0	21:46:20	0.7715	52.98
396	0	21:47:25	0.7895	53.92
405	0	21:48:30	0.8075	54.86
414	0	21:49:34	0.8255	55.79
423	0	21:50:39	0.8434	58.47
432	0	21:51:44	0.8613	60.28
441	0	21:52:48	0.8793	62.96
450	0	21:53:53	0.8972	64.77

WESTERN TESTING CO., INC.

Company: RITCHIE EXPLORATION INC
 Well: #1 LENA SPEER
 Field: TKT 20768 DST 2

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
459	0	21:54:57	0.9151	69.19
468	0	21:56: 2	0.9330	73.61
477	0	21:57: 6	0.9509	78.04
486	0	21:58:10	0.9688	85.07
495	0	21:59:14	0.9866	93.85
		END SHUTIN 1		
		START FLOW 2		
500	0	22:11:30	1.1909	67.61
509	0	22:12:35	1.2089	67.67
518	0	22:13:40	1.2270	64.26
527	0	22:14:45	1.2450	59.97
536	0	22:15:50	1.2631	55.68
545	0	22:16:55	1.2812	51.39
554	0	22:18: 0	1.2992	51.46
563	0	22:19: 5	1.3172	48.91
572	0	22:20:10	1.3352	46.37
581	0	22:21:14	1.3533	44.69
590	0	22:22:19	1.3713	43.89
599	0	22:23:24	1.3893	43.08
608	0	22:24:29	1.4073	42.28
617	0	22:25:34	1.4252	42.35
626	0	22:26:38	1.4432	41.54
635	0	22:27:43	1.4612	40.74
644	0	22:28:48	1.4792	41.68
653	0	22:29:53	1.4972	40.87
662	0	22:30:57	1.5152	40.94
671	0	22:32: 2	1.5332	41.88
680	0	22:33: 7	1.5512	41.95
689	0	22:34:12	1.5691	42.88
698	0	22:35:16	1.5871	42.95
707	0	22:36:21	1.6051	43.89
716	0	22:37:26	1.6230	44.83
725	0	22:38:30	1.6410	45.76
734	0	22:39:35	1.6590	46.70
743	0	22:40:40	1.6769	48.51
752	0	22:41:44	1.6949	49.45
		END FLOW 2		
		START SHUTIN 2		
755	0	22:42: 6	1.7009	49.47
761	0	22:42:49	1.7129	50.39
770	0	22:43:54	1.7308	52.19
779	0	22:44:58	1.7488	53.13
788	0	22:46: 3	1.7668	53.20
797	0	22:47: 8	1.7847	54.14
806	0	22:48:12	1.8027	56.82
815	0	22:49:17	1.8206	57.75
824	0	22:50:22	1.8386	58.69
833	0	22:51:26	1.8565	60.50
842	0	22:52:31	1.8745	61.44
851	0	22:53:36	1.8925	63.25
860	0	22:54:40	1.9104	65.06
869	0	22:55:45	1.9283	67.74
878	0	22:56:49	1.9463	71.29
887	0	22:57:54	1.9642	75.71
896	0	22:58:58	1.9820	81.87

Company: RITCHIE EXPLORATION INC
Well: #1 LENA SPEER
Field: TKT 20768 DST 2

[Thursday: Apr. 18, 1996]
Page 3

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
905	0	23: 0: 2	1.9998	92.39
914	0	23: 1: 6	2.0177	96.81

WESTERN TESTING CO., INC.



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No. 20768

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

Elevation 2699 KB Formation Warm, Ft Scott Eff. Pay Ft.

District Colby Date 4-18-96 Customer Order No.

COMPANY NAME Ritchie Exploration, Inc.

ADDRESS 125 W Market Suite 1000 Wichita KS

LEASE AND WELL NO. Lena Spec #1 COUNTY Lane STATE KS Sec. 16 Twp. 18 S Rge. 27 W

Mail Invoice To Same Co. Name Address No. Copies Requested Reg

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 2 Interval Tested From 4318 ft. to 4525 ft. Total Depth 4525 ft.

Packer Depth 4313 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4318 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4321 ft. Recorder Number 13551 Cap. 4150

Bottom Recorder Depth (Outside) 4324 ft. Recorder Number 13268 Cap. 4150

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

Drilling Contractor Whites Ellis Drill Collar Length - I. D. - in.

Mud Type Chemical Viscosity 51 Weight Pipe Length - I. D. - in.

Weight 9.4 Water Loss 9.6 cc. Drill Pipe Length 4298 I. D. 3.8 in.

Chlorides 2.300 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make NC Serial Number - Anchor Length 207 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 7/8 in. Tool Joint Size 4 1/2 OD in.

Blow: 16P. Weak blow - 3 1/4" in water

FFP. Weak surface blow - died in 20 min

Recovered 20 ft. of mud

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

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

Time On Location 5:30 A.M. Time Pick Up Tool 7:00 P.M. Time Off Location 1:30 A.M. P.M.

Time Set Packer(s) 9:00 A.M. Time Started Off Bottom 11:00 P.M. Maximum Temperature 124

Initial Hydrostatic Pressure (A) 2164 P.S.I. 2164

Initial Flow Period (B) 30 Minutes 31 P.S.I. to (C) 31 P.S.I.

Initial Closed In Period (D) 30 Minutes 156 P.S.I.

Final Flow Period (E) 30 Minutes 31 P.S.I. to (F) 31 P.S.I.

Final Closed In Period (G) 30 Minutes 62 P.S.I.

Final Hydrostatic Pressure (H) 2133 P.S.I. 2155

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.

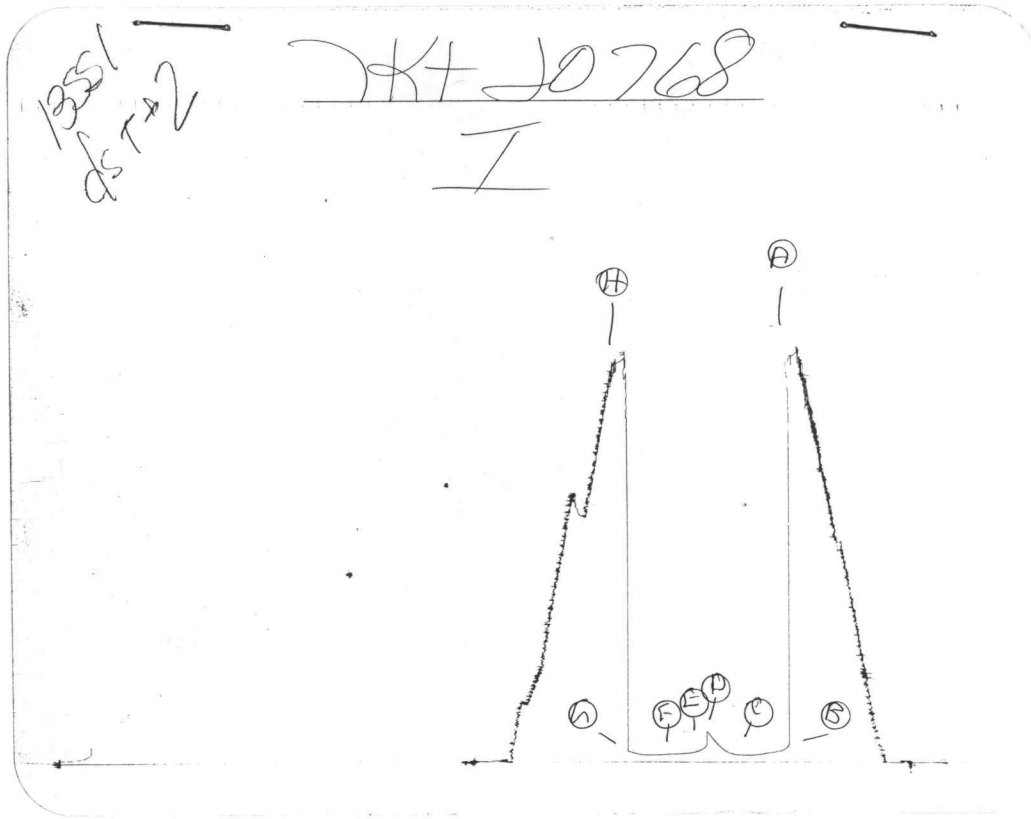
All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

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

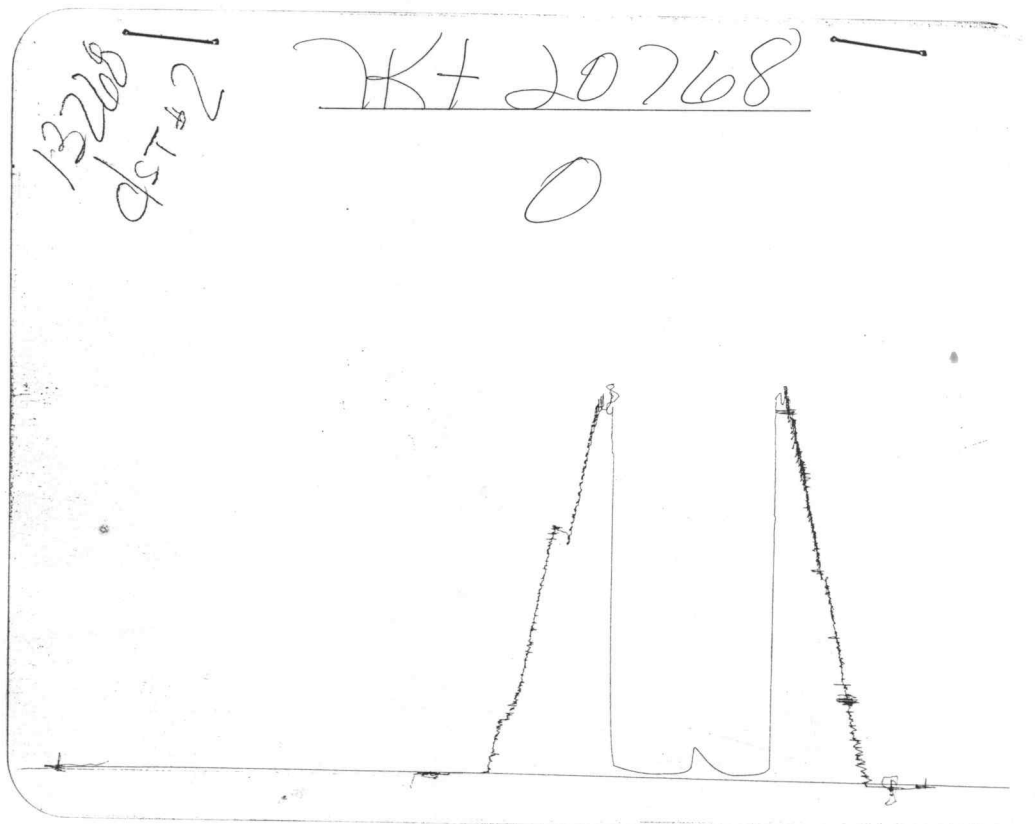
Western Representative Mike Skudunt

FIELD INVOICE

Open Hole Test	\$
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$



Inside Recorder



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 4/18/96	TICKET : 20769
CUSTOMER : RITCHIE EXPLORATION, INC	LEASE : LENA SPEER
WELL : #1 TEST: 3	GEOLOGIST: MATHIESEN
ELEVATION: 2699 KB	FORMATION: CHR-CONGLOMERAT SD
SECTION : 16	TOWNSHIP : 18S
RANGE : 27W COUNTY: LANE	STATE : KS
GAUGE SN#: 13551 RANGE : 4150	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4521.00 ft	TO: 4602.00 ft	TVD: 4602.0 ft
DEPTH OF SELECTIVE ZONE:	TEST TYPE: OIL	
DEPTH OF RECORDERS: 4524.0 ft	4527.0 ft	
TEMPERATURE: 126.0		
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 : 4501.0 ft	I.D.: 3.800 in	
TEST TOOL LENGTH : 20.0 ft	TOOL SIZE : 5.500 in	
ANCHOR LENGTH : 81.0 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: 4516.0 ft	SIZE: 6.750 in	
PACKER DEPTH: 4521.0 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	VISCOSITY : 50.00 cp
MUD TYPE : CHEMICAL	WATER LOSS: 8.800 cc
WEIGHT : 9.400 ppg	SERIAL NUMBER:
CHLORIDES : 2300 ppm	REVERSED OUT?: NO
JARS-MAKE :	
DID WELL FLOW?: NO	

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW - DIED IN 15 MINUTES
FINAL FLOW PERIOD NO BLOW - FLUSHED TOOL.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	%	%	%	%	Comments
Oil	Gas	Water	Mud		
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:	0.1403	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.1403	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2289.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	52.00	52.00
INITIAL SHUT-IN	30.00		64.00
FINAL FLOW	30.00	52.00	52.00
FINAL SHUT-IN	30.00		64.00

FINAL HYDROSTATIC PRESSURE: 2279.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2290.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	111.43	62.92
INITIAL SHUT-IN	30.00		72.10
FINAL FLOW	30.00	72.96	61.92
FINAL SHUT-IN	30.00		70.67

FINAL HYDROSTATIC PRESSURE: 2273.00

Company: RITCHIE EXPLORATION INC

Well: #1 LENA SPEER

Field: TKT 20769 DST 3

[Thursday: Apr. 18, 1996]

Page 1

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
START FLOW 1				
1	0	15: 5: 6	0.0000	111.43
9	0	15: 6: 3	0.0159	108.77
18	0	15: 7: 8	0.0338	100.01
27	0	15: 8:12	0.0517	92.99
36	0	15: 9:16	0.0696	88.58
45	0	15:10:21	0.0875	85.05
54	0	15:11:26	0.1054	80.64
63	0	15:12:30	0.1234	78.84
72	0	15:13:35	0.1413	76.18
81	0	15:14:39	0.1593	74.38
90	0	15:15:44	0.1773	73.46
99	0	15:16:49	0.1952	72.53
108	0	15:17:54	0.2132	71.61
117	0	15:18:58	0.2312	71.56
126	0	15:20: 3	0.2492	70.63
135	0	15:21: 8	0.2671	69.71
144	0	15:22:12	0.2851	68.78
153	0	15:23:17	0.3031	68.73
162	0	15:24:22	0.3211	67.81
171	0	15:25:27	0.3390	67.75
180	0	15:26:31	0.3570	67.70
189	0	15:27:36	0.3750	66.78
198	0	15:28:41	0.3930	66.72
207	0	15:29:45	0.4110	65.80
216	0	15:30:50	0.4289	65.75
225	0	15:31:55	0.4469	64.82
234	0	15:33: 0	0.4649	64.77
243	0	15:34: 4	0.4828	62.97
252	0	15:35: 9	0.5008	62.92
END FLOW 1				
START SHUTIN 1				
259	0	15:35:59	0.5148	62.88
261	0	15:36:14	0.5188	62.87
270	0	15:37:18	0.5368	62.82
279	0	15:38:23	0.5548	61.89
288	0	15:39:28	0.5728	61.84
297	0	15:40:33	0.5907	60.91
306	0	15:41:37	0.6087	61.73
315	0	15:42:42	0.6267	62.55
324	0	15:43:47	0.6447	61.63
333	0	15:44:52	0.6627	62.44
342	0	15:45:56	0.6807	62.39
351	0	15:47: 1	0.6987	62.34
360	0	15:48: 6	0.7167	62.28
369	0	15:49:11	0.7346	62.23
378	0	15:50:15	0.7526	62.18
387	0	15:51:20	0.7706	62.12
396	0	15:52:25	0.7886	62.94
405	0	15:53:30	0.8066	63.76
414	0	15:54:35	0.8246	63.71
423	0	15:55:39	0.8426	64.52
432	0	15:56:44	0.8606	65.34
441	0	15:57:49	0.8786	66.16
450	0	15:58:54	0.8966	67.85

WESTERN TESTING CO., INC.

Company: RITCHIE EXPLORATION INC
 Well: #1 LENA SPEER
 Field: TKT 20769 DST 3

[Thursday: Apr. 18, 1996]
 Page 2

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
459	0	15:59:59	0.9146	69.54
468	0	16: 1: 3	0.9326	72.10
		END SHUTIN 1		
		START FLOW 2		
470	0	16: 1:18	0.9366	72.96
477	0	16: 2: 8	0.9507	75.53
486	0	16: 3:13	0.9687	78.96
495	0	16: 4:18	0.9867	80.65
		FLUSH TOOL		
498	0	16: 6: 1	1.0151	1520.47
502	0	16: 7: 8	1.0338	2200.50
510	0	16: 8:11	1.0513	2295.86
519	0	16: 9:13	1.0686	2252.44
528	0	16:10:17	1.0864	2240.25
537	0	16:11:20	1.1040	2212.44
563	0	16:12:27	1.1226	81.12
572	0	16:13:32	1.1406	78.45
581	0	16:14:37	1.1585	76.66
590	0	16:15:41	1.1765	75.73
599	0	16:16:46	1.1944	73.07
608	0	16:17:51	1.2124	71.27
617	0	16:18:55	1.2304	70.35
626	0	16:20: 0	1.2483	69.42
635	0	16:21: 5	1.2663	68.50
644	0	16:22: 9	1.2843	68.45
653	0	16:23:14	1.3023	67.52
662	0	16:24:19	1.3202	66.60
671	0	16:25:23	1.3382	64.80
680	0	16:26:28	1.3562	64.75
689	0	16:27:33	1.3741	63.83
698	0	16:28:38	1.3921	63.77
707	0	16:29:42	1.4101	62.85
716	0	16:30:47	1.4281	61.92
		END FLOW 2		
		START SHUTIN 2		
717	0	16:30:54	1.4301	61.92
725	0	16:31:52	1.4461	61.87
734	0	16:32:56	1.4640	60.95
743	0	16:34: 1	1.4820	60.89
752	0	16:35: 6	1.5000	59.97
761	0	16:36:11	1.5180	59.92
770	0	16:37:15	1.5359	58.99
779	0	16:38:20	1.5539	58.94
788	0	16:39:25	1.5719	58.02
797	0	16:40:30	1.5899	58.83
806	0	16:41:34	1.6079	57.91
815	0	16:42:39	1.6259	58.73
824	0	16:43:44	1.6438	58.67
833	0	16:44:49	1.6618	58.62
842	0	16:45:53	1.6798	58.57
851	0	16:46:58	1.6978	59.38
860	0	16:48: 3	1.7158	59.33
869	0	16:49: 8	1.7338	59.28
878	0	16:50:12	1.7518	60.97
887	0	16:51:17	1.7698	60.04

Company: RITCHIE EXPLORATION INC
Well: #1 LENA SPEER
Field: TKT 20769 DST 3

[Thursday: Apr. 18, 1996]
Page 3

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
896	0	16:52:22	1.7877	59.12
905	0	16:53:27	1.8057	59.94
914	0	16:54:31	1.8237	60.75
923	0	16:55:36	1.8417	60.70
932	0	16:56:41	1.8597	60.65
941	0	16:57:46	1.8777	61.47
950	0	16:58:50	1.8957	61.41
959	0	16:59:55	1.9137	63.10
968	0	17: 1: 0	1.9317	63.92
977	0	17: 2: 5	1.9497	64.74
986	0	17: 3:10	1.9677	67.30
995	0	17: 4:15	1.9857	68.12
1004	0	17: 5:19	2.0037	70.67

WESTERN TESTING CO., INC.



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 20769

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

Elevation 2699 RB Formation Ohio - Chng Sd Eff. Pay Ft.

District Colby Date 4-18-90 Customer Order No.
COMPANY NAME Ritchie Exploration, Inc
ADDRESS 125 N Market Suite 1000 Wichita KS.
LEASE AND WELL NO. Lena Spear #1 COUNTY Lane STATE KS. Sec. 12 Twp. 18S Rge. 27W
Mail Invoice To Same ~~to~~ Lena Spear #1 Co. Name Address No. Copies Requested Reg
Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 3 Interval Tested From 4521 ft. to 4602 ft. Total Depth 4602 ft.
Packer Depth 4516 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 4521 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 4524 ft. Recorder Number 13551 Cap. 4150
Bottom Recorder Depth (Outside) 4527 ft. Recorder Number 13268 Cap. 4150
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor White & Ellis Drill Collar Length - I. D. - in.
Mud Type Chemical Viscosity 50 Weight Pipe Length - I. D. - in.
Weight 9.4 Water Loss 2.8 cc. Drill Pipe Length 4501 I. D. 3.8 in.
Chlorides 2.300 P.P.M. Test Tool Length 20 ft. Tool Size 5/2 CD in.
Jars: Make NO Serial Number - Anchor Length 81 ft. Size 5/2 CD 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 47/8 in.

Blow: IFP - 1 peak below - died in 15 min
FFP - NO below. Finished 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:

Time On Location 1212 A.M. Time Pick Up Tool 1120 P.M. Time Off Location 8:00 A.M.
Time Set Packer(s) 305 A.M. Time Started Off Bottom 505 P.M. Maximum Temperature 126
Initial Hydrostatic Pressure (A) 2289 P.S.I. 2290
Initial Flow Period Minutes 30 (B) 52 P.S.I. to (C) 52 P.S.I.
Initial Closed In Period Minutes 30 (D) 64 P.S.I.
Final Flow Period Minutes 30 (E) 52 P.S.I. to (F) 52 P.S.I.
Final Closed In Period Minutes 30 (G) 64 P.S.I.
Final Hydrostatic Pressure (H) 2279 P.S.I. 2273

COMPANY TERMS

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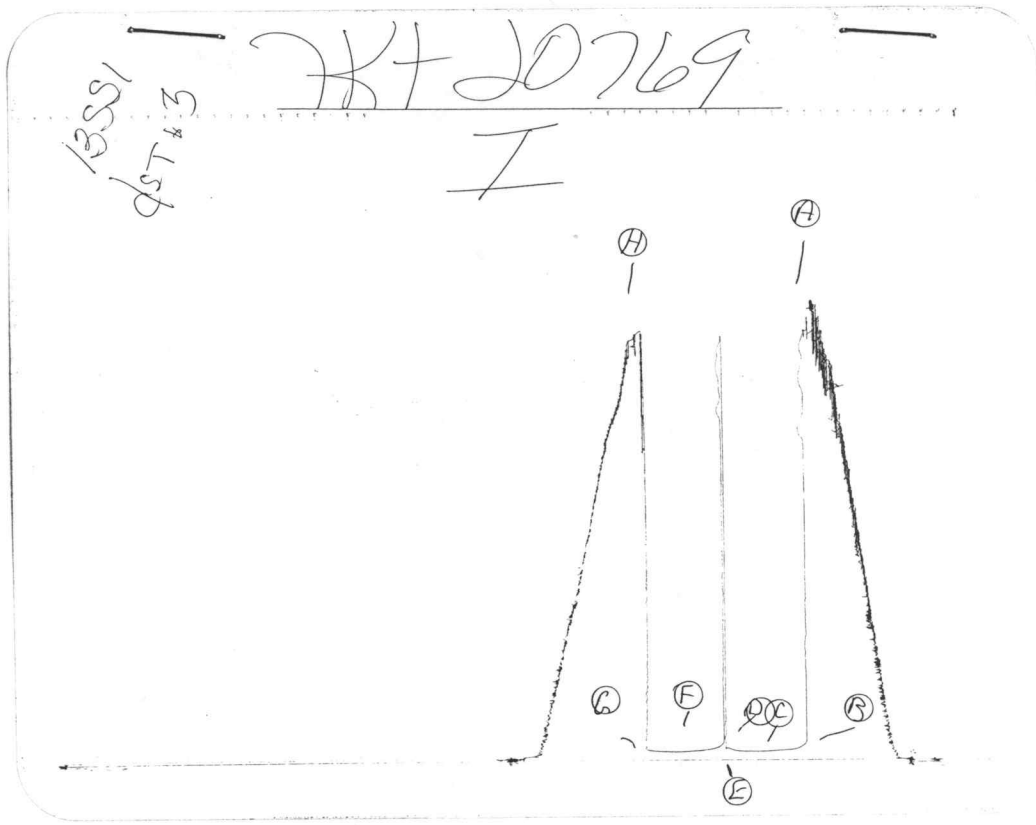
All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

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

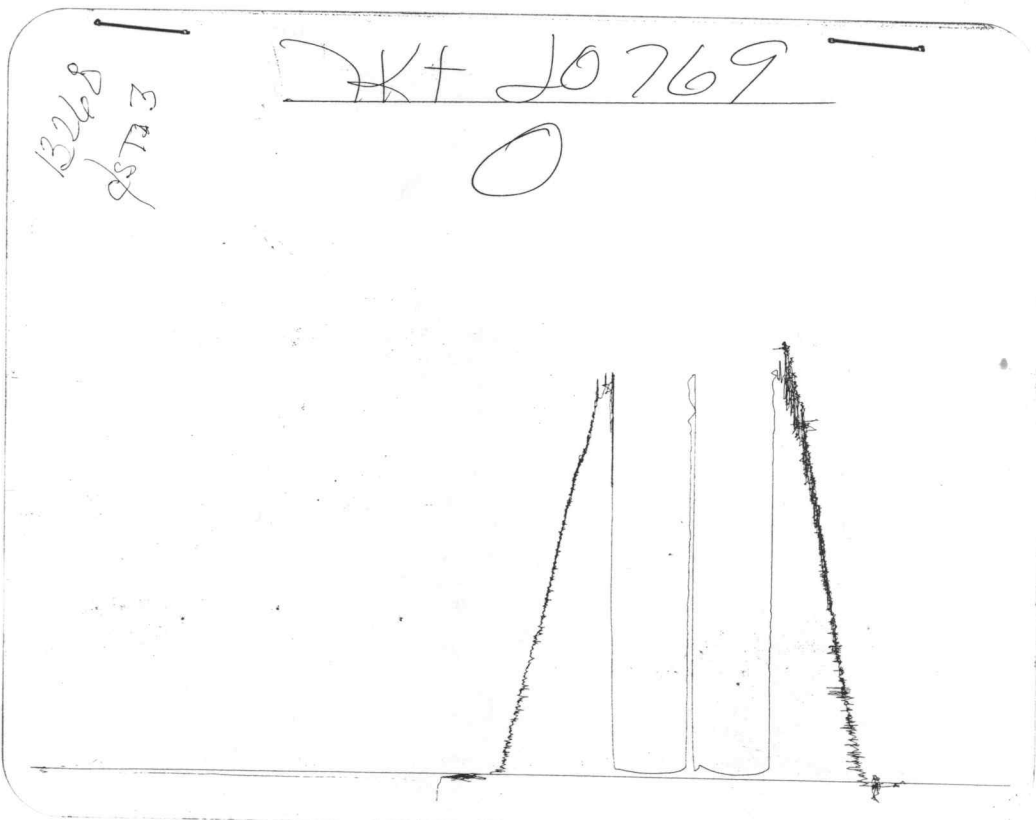
Western Representative Mike Schubert

FIELD INVOICE

Open Hole Test \$
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$



Inside Recorder



Outside Recorder