

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY KITCHIE EXPLORATION, INC.

LEASE & WELL NO. _____

BIXBY P-3 _____

SEC. 24

TWP 30S

RGE 16W

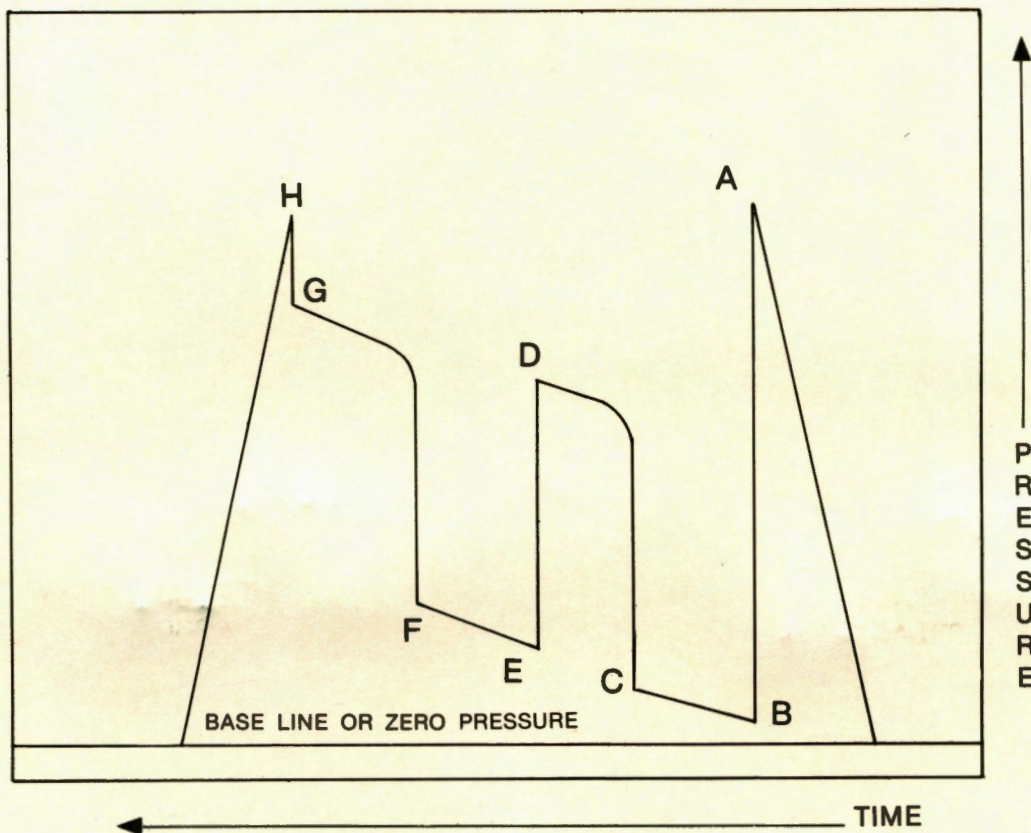
TEST 1

DATE 2/5/90

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.

AK-1 Recorders



A - Initial Hydrostatic

B - First Initial Flow

C - First Final Flow

D - Initial Shut-In

E - Second Initial Flow

F - Second Final Flow

G - Final Shut-In

H - Final Hydrostatic

24-30-16W
20
Rmw
8/12/10

FORMATION TEST REPORT

COMPANY KITCHIE EXPLORATION, INC.

LEASE & WELL NO. _____

BIXBY P-3

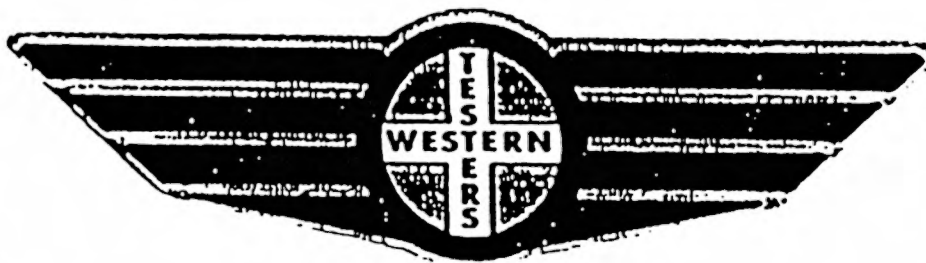
SEC. 24

TWP. 30S

RGE. 16W

TEST 1

DATE 2/5/90



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

20
Rmw
8/12/10

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	2/5/90	TICKET	:	15728	
CUSTOMER	:	RITCHIE EXPLORATION INC	LEASE	:	BIXBY	
WELL	:	P-3	TEST:	:	1	
ELEVATION	:	2050 KB	GEOLOGIST	:	MARTIN	
SECTION	:	24	FORMATION	:	ARBUCKLE	
RANGE	:	16W	TOWNSHIP	:	20S	
Gauge SN#	:	10270	STATE	:	KANSAS	
		COUNTY :	PAWNEE			
		RANGE :	4150	CLOCK	:	12

INTERVAL FROM	:	3737	TO	:	3774	TOTAL DEPTH	:	3774
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	3732	SIZE	:	6.63			
PACKER DEPTH	:	3737	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	WOODMAN-IANNITTI DRILLING RIG #1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	58
WEIGHT	:	9.4	WATER LOSS (CC)	:	11.2
CHLORIDES (PPM)	:	8000			
JARS-MAKE	:		SERIAL NUMBER	:	
DID WELL FLOW ?	:	GAS	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	0	FT	I.D. inch	:	0.00
WEIGHT PIPE LENGTH	:	383	FT	I.D. inch	:	2.70
DRILL PIPE LENGTH	:	3334	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	37	FT	ANCHOR SIZE	:	5.50
SURFACE CHOKE SIZE	:	.75	IN	BOTTOM CHOKE SIZE	:	.75
MAIN HOLE SIZE	:	7.875	IN	TOOL JOINT SIZE	:	4.5 XH

BLOW COMMENT #1	:	INITIAL FLOW PERIOD-STRONG BLOW GAS TO SURFACE IN 19 MIN
BLOW COMMENT #2	:	FINAL FLOW PERIOD-GAS TO SURFACE SEE FLOW CHART
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED	:	70	FT	OF: OIL & GAS CUT MUD
RECOVERED	:	0	FT	OF: 10% OIL 12% GAS 78% MUD
RECOVERED	:	120	FT	OF: HEAVY OIL & GAS CUT MUD
RECOVERED	:	0	FT	OF: 22% OIL 30% GAS 48% MUD

Total Barrels Fluid	=	1.35
Total Fluid Prod Rate	=	32.29 BFPD
Indicated Oil Rate	=	5.68 BOPD
Indicated Wtr Rate	=	0.32 BWPD
Corrected Oil Rate	=	22.68 BOPD
Corrected Wtr Rate	=	1.29 BWPD

REMARK 1 :
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 7:55 AM

TIME STARTED OFF BOTTOM : 9:55 AM

WELL TEMPERATURE : 108

INITIAL HYDROSTATIC PRESSURE

INITIAL FLOW PERIOD MIN: 30

INITIAL CLOSED IN PERIOD MIN: 30

FINAL FLOW PERIOD MIN: 30

FINAL CLOSED IN PERIOD MIN: 30

FINAL HYDROSTATIC PRESSURE

(A) 1898

(B) 58 PSI TO (C) : 69

(D) 1030

(E) 98 PSI TO (F) : 108

(G) 1022

(H) 1853

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RITCHIE EXPLORATION INC
RIG : PAWNEE-KANSAS
FIELD : BIXBY
WELL : P-3
DATE : 2/5/90
GAUGE NO : 10270

OPERATIONAL COMMENTS

COMPANY : RITCHIE EXPLORATION INC
WELL : P-3
GAUGE # : 10270
DATE : 5/ 2/90

FIELD : BIXBY
JOB # : 15728
DEPTH : 3774
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	7:55: 0	0.000	58.000	108.00	0.000
3	7:59:59	0.083	58.000	108.00	0.000
4	8: 5: 0	0.167	58.000	108.00	0.000
5	8:10: 0	0.250	63.000	108.00	5.000
6	8:14:59	0.333	65.000	108.00	2.000
7	8:20: 0	0.417	67.000	108.00	2.000
8	8:25: 0	0.500	69.000	108.00	2.000
INITIAL SHUT-IN PERIOD					
9	8:28: 0	0.550	282.000	108.00	213.000
10	8:31: 0	0.600	505.000	108.00	223.000
11	8:34: 0	0.650	655.000	108.00	150.000
12	8:37: 0	0.700	760.000	108.00	105.000
13	8:40: 0	0.750	834.000	108.00	74.000
14	8:43: 0	0.800	904.000	108.00	70.000
15	8:46: 0	0.850	947.000	108.00	43.000
16	8:49: 0	0.900	981.000	108.00	34.000
17	8:52: 0	0.950	1015.000	108.00	34.000
18	8:55: 0	1.000	1030.000	108.00	15.000
FINAL FLOW PERIOD					
19	8:56: 0	1.017	98.000	108.00	-932.000
20	8:59:59	1.083	98.000	108.00	0.000
21	9: 5: 0	1.167	98.000	108.00	0.000
22	9:10: 0	1.250	101.000	108.00	3.000
23	9:14:59	1.333	104.000	108.00	3.000
24	9:20: 0	1.417	106.000	108.00	2.000
25	9:25: 0	1.500	108.000	108.00	2.000
FINAL SHUT-IN PERIOD					
26	9:28: 0	1.550	313.000	108.00	205.000
27	9:31: 0	1.600	512.000	108.00	199.000
28	9:34: 0	1.650	634.000	108.00	122.000
29	9:37: 0	1.700	741.000	108.00	107.000
30	9:40: 0	1.750	827.000	108.00	86.000
31	9:43: 0	1.800	894.000	108.00	67.000
32	9:46: 0	1.850	941.000	108.00	47.000
33	9:49: 0	1.900	983.000	108.00	42.000
34	9:52: 0	1.950	1009.000	108.00	26.000
35	9:55: 0	2.000	1022.000	108.00	13.000

WESTERN TESTING CO. INC.

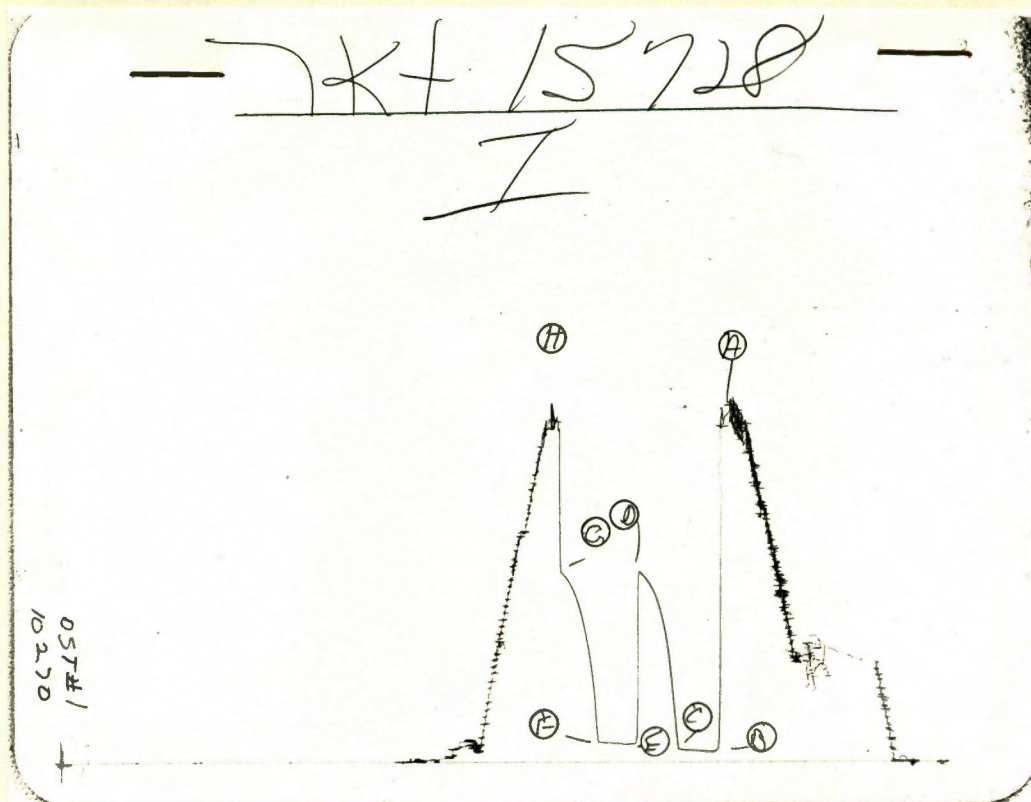
GAS FLOW REPORT

Date : 2/5/90 Ticket # : 15728
 Customer : RITCHIE EXPLORATION INC. Lease : BIXBY
 Well : P-3 Test : 1 Geologist : MARTIN
 Elevation (KB) : 2050 KB Formation : ARBUCKLE
 Section : 24 Township : 20S
 Range : 16W County : PAWNEE State : KANSAS
 Gauge SN # : 10270 Range : 4150 Clock : 12

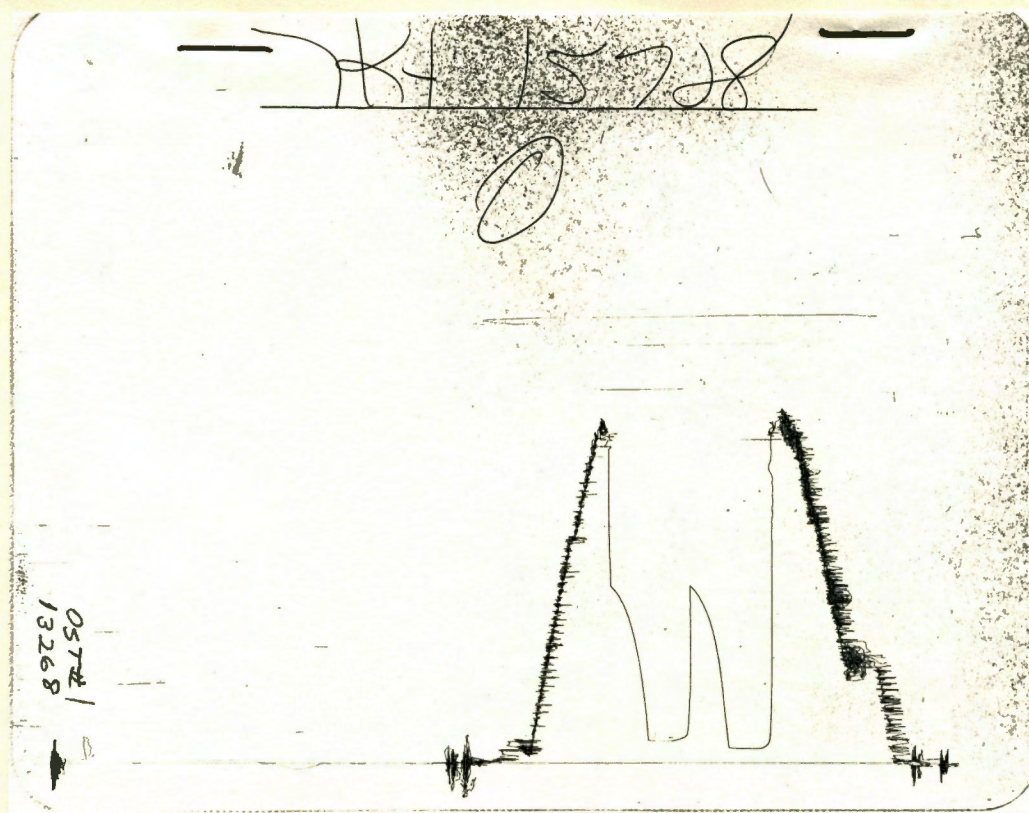
TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
PRE FLOW =====				
19	MERLA			GAS TO SURFACE
20	MERLA	1/4	5"WTR	3710 CFPD
30	MERLA	1/4	22"WTR	7880 CFPD

SECOND FLOW =====				
5	MERLA	1/4	24"WTR	8220 CFPD
15	MERLA	1/4	19"WTR	7320 CFPD
25	MERLA	1/4	17"WTR	6930 CFPD
30	MERLA	1/4	17"WTR	6930 CFPD

Gas Bottle SN # : 818
 Date Bottle Filled : 2-5-90
 Date to be Invoiced :



Inside Recorder



Outside Recorder

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COMPANY RITCHIE EXPLORATION, INC.

LEASE & WELL NO. _____

BIXBY P-3

SEC. 24

TWP 30S

RGE. 16W

TEST 2

DATE 2/5/90

20
6/12/10

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	2/5/90	TICKET	:	15729
CUSTOMER	:	RITCHIE EXPLORATION INC.	LEASE	:	BIXBY
WELL	:	P-3	TEST:	:	2
ELEVATION	:	2050 KB	GEOLOGIST	:	MARTIN
SECTION	:	24	FORMATION	:	ARBUCKLE
RANGE	:	16W	TOWNSHIP	:	20S
Gauge SN#	:	10270	STATE	:	KANSAS
		COUNTY :	PAWNEE		
		RANGE :	4150		
			CLOCK	:	12

INTERVAL FROM	:	3774	TO	:	3779	TOTAL DEPTH	:	3779
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	3774	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	WOODMAN-IANNITTI DRILLING RIG #1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	47
WEIGHT	:	9.1	WATER LOSS (CC)	:	11.2
CHLORIDES (PPM)	:	8000			
JARS-MAKE	:		SERIAL NUMBER	:	
DID WELL FLOW ?	:	GAS	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	0	FT	I.D. inch	:	0.00
WEIGHT PIPE LENGTH	:	383	FT	I.D. inch	:	2.70
DRILL PIPE LENGTH	:	3371	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	5	FT	ANCHOR SIZE	:	5.50
SURFACE CHOKE SIZE	:	.75	IN	BOTTOM CHOKE SIZE	:	.75
MAIN HOLE SIZE	:	7.875	IN	TOOL JOINT SIZE	:	4.5 XH

BLOW COMMENT #1	:	INITIAL FLOW PERIOD-STRONG BLOW THROUGHOUT
BLOW COMMENT #2	:	FINAL FLOW PERIOD-STRONG BLOW-GAS TO SURFACE IN 15 MIN
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 10 FT OF: OIL & GAS CUT MUD 14% OIL 5% GAS 81% MUD

Total Barrels Fluid = 0.07
Total Fluid Prod Rate = 1.70 BFPD
Indicated Oil Rate = 0.24 BOPD
Indicated Wtr Rate = 0.02 BWPD
Corrected Oil Rate = 3.17 BOPD
Corrected Wtr Rate = 0.23 BWPD

REMARK 1 :
REMARK 2 : GAS TOO WEAK TO GUAGE
REMARK 3 :
REMARK 4 :

SET PACKER(S) :	7:20 PM	TIME STARTED OFF BOTTOM :	9:20 PM
WELL TEMPERATURE :	108		
INITIAL HYDROSTATIC PRESSURE		(A)	1894
INITIAL FLOW PERIOD MIN:	30	(B)	24 PSI TO (C) : 24
INITIAL CLOSED IN PERIOD MIN:	30	(D)	1089
FINAL FLOW PERIOD MIN:	30	(E)	27 PSI TO (F) : 31
FINAL CLOSED IN PERIOD MIN:	30	(G)	1031
FINAL HYDROSTATIC PRESSURE		(H)	1886

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RITCHIE EXPLORATION INC.
RIG : PAWNEE-KANSAS
FIELD : BIXBY
WELL : P-3
DATE : 2/5/90
GAUGE NO : 10270

OPERATIONAL COMMENTS

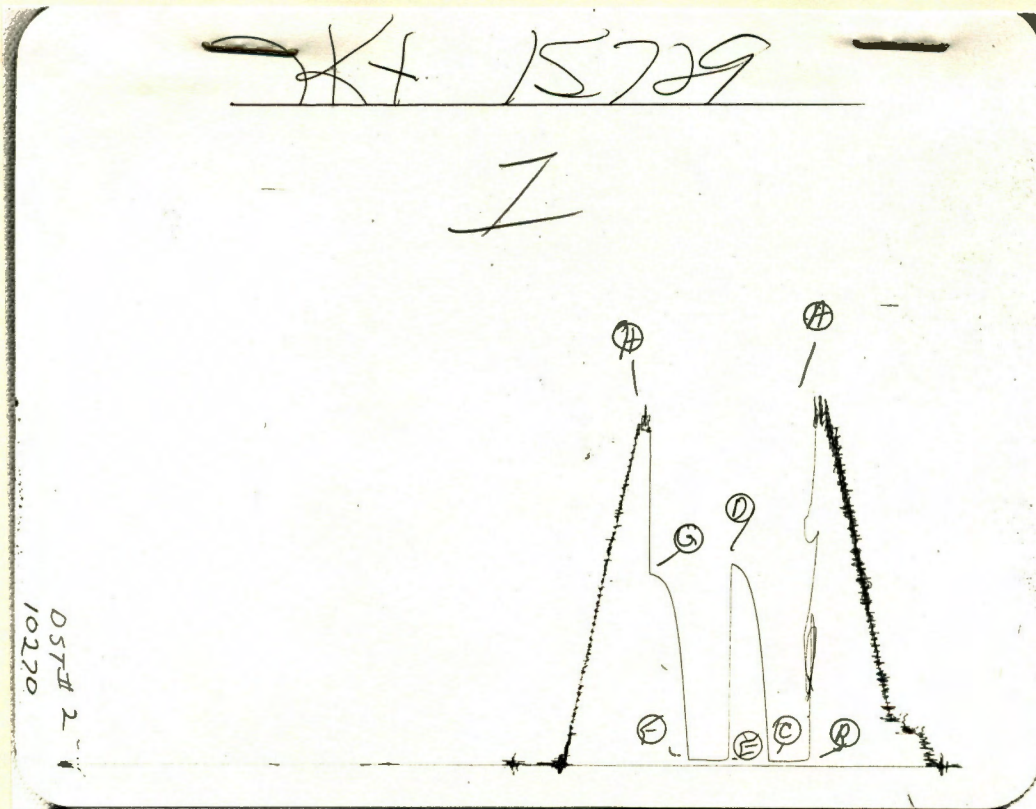
GAS TOO WEAK TO GUAGE

COMPANY : RITCHIE EXPLORATION INC.
WELL : P-3
GAUGE # : 10270
DATE : 5/ 2/90

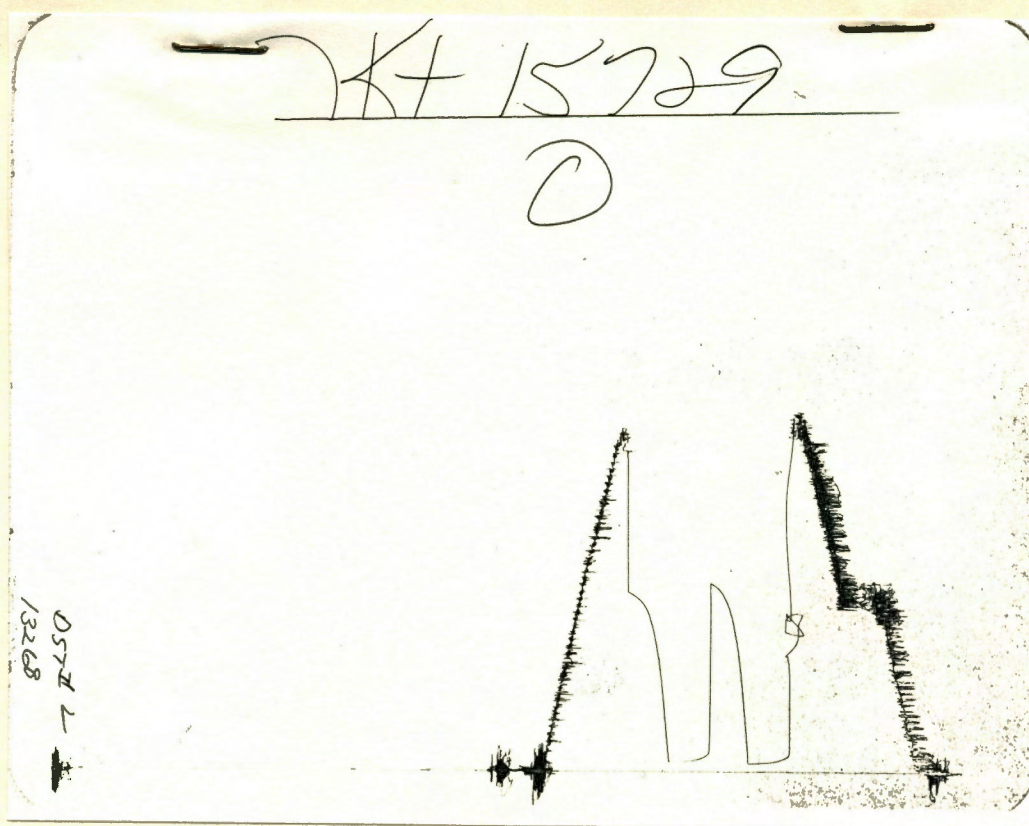
FIELD : BIXBY
JOB # : 15729
DEPTH : 3779
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	7:20: 0	0.000	24.000	108.00	0.000
3	7:24:59	0.083	24.000	108.00	0.000
4	7:30: 0	0.167	24.000	108.00	0.000
5	7:35: 0	0.250	24.000	108.00	0.000
6	7:39:59	0.333	24.000	108.00	0.000
7	7:45: 0	0.417	24.000	108.00	0.000
8	7:50: 0	0.500	24.000	108.00	0.000
INITIAL SHUT-IN PERIOD					
9	7:53: 0	0.550	325.000	108.00	301.000
10	7:56: 0	0.600	573.000	108.00	248.000
11	7:59: 0	0.650	756.000	108.00	183.000
12	8: 2: 0	0.700	881.000	108.00	125.000
13	8: 5: 0	0.750	949.000	108.00	68.000
14	8: 8: 0	0.800	1015.000	108.00	66.000
15	8:11: 0	0.850	1048.000	108.00	33.000
16	8:14: 0	0.900	1068.000	108.00	20.000
17	8:17: 0	0.950	1081.000	108.00	13.000
18	8:20: 0	1.000	1089.000	108.00	8.000
FINAL FLOW PERIOD					
19	8:21: 0	1.017	27.000	108.00	-1062.000
20	8:24:59	1.083	27.000	108.00	0.000
21	8:30: 0	1.167	27.000	108.00	0.000
22	8:35: 0	1.250	27.000	108.00	0.000
23	8:39:59	1.333	29.000	108.00	2.000
24	8:45: 0	1.417	30.000	108.00	1.000
25	8:50: 0	1.500	31.000	108.00	1.000
FINAL SHUT-IN PERIOD					
26	8:53: 0	1.550	269.000	108.00	238.000
27	8:56: 0	1.600	541.000	108.00	272.000
28	8:59: 0	1.650	723.000	108.00	182.000
29	9: 2: 0	1.700	844.000	108.00	121.000
30	9: 5: 0	1.750	920.000	108.00	76.000
31	9: 8: 0	1.800	968.000	108.00	48.000
32	9:11: 0	1.850	1001.000	108.00	33.000
33	9:14: 0	1.900	1014.000	108.00	13.000
34	9:17: 0	1.950	1025.000	108.00	11.000
35	9:20: 0	2.000	1031.000	108.00	6.000

WESTERN TESTING CO. INC.



Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

20
KMD
8/12/10

COMPANY RITCHIE EXPLORATION, INC. LEASE & WELL NO. BIXBY P-3 SEC. 24 TWP 36 RGE. 16W TEST 3 DATE 2/6/90

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	2/6/90	TICKET	:	15730
CUSTOMER	:	RITCHIE EXPLORATION INC.	LEASE	:	BIXBY
WELL	:	P-3	TEST:	:	3
ELEVATION	:	2050 KB	GEOLOGIST	:	MARTIN
SECTION	:	24	FORMATION	:	ARBUCKLE
RANGE	:	16W	COUNTY	:	PAWNEE
GAUGE SN#	:	10270	RANGE	:	4150
			STATE	:	KANSAS
			CLOCK	:	12

INTERVAL FROM	:	3779	TO	:	3784	TOTAL DEPTH	:	3784
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	3779	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	WOODMAN-IANNITTI DRILLING RIG #1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	41
WEIGHT	:	9.4	WATER LOSS (CC)	:	9.6
CHLORIDES (PPM)	:	7000			
JARS-MAKE	:		SERIAL NUMBER	:	
DID WELL FLOW ?	:	GAS	REVERSED OUT ?	:	NO

DRILL COLLAR LENGTH	:	0	FT	I.D. inch	:	0.00
WEIGHT PIPE LENGTH	:	383	FT	I.D. inch	:	2.70
DRILL PIPE LENGTH	:	3376	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	20	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	5	FT	ANCHOR SIZE	:	5.50
SURFACE CHOKE SIZE	:	.75	IN	BOTTOM CHOKE SIZE	:	.75
MAIN HOLE SIZE	:	7.875	IN	TOOL JOINT SIZE	:	4.5 XH

BLOW COMMENT #1	:	INITIAL FLOW PERIOD-STRONG BLOW THROUGHOUT
BLOW COMMENT #2	:	FINAL FLOW PERIOD-STRONG BLOW GAS TO SURFACE IN 25 MIN
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 120 FT OF: CLEAN GASSY OIL GRAVITY 38
RECOVERED : 20 FT OF: HEAVY OIL & GAS CUT MUD
RECOVERED : 0 FT OF: 13% OIL 35% GAS 52% MUD

Total Barrels Fluid = 0.99
Total Fluid Prod Rate = 23.79 BFPD
Indicated Oil Rate = 20.84 BOPD
Indicated Wtr Rate = 0.03 BWPD
Corrected Oil Rate = 16.93 BOPD
Corrected Wtr Rate = 0.03 BWPD

REMARK 1 :
REMARK 2 : GAS TOO WEAK TO GAUGE
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 6:45 AM TIME STARTED OFF BOTTOM : 8:45 AM
WELL TEMPERATURE : 108
INITIAL HYDROSTATIC PRESSURE (A) 1912
INITIAL FLOW PERIOD MIN: 30 (B) 45 PSI TO (C) : 58
INITIAL CLOSED IN PERIOD MIN: 30 (D) 686
FINAL FLOW PERIOD MIN: 30 (E) 74 PSI TO (F) : 81
FINAL CLOSED IN PERIOD MIN: 30 (G) 559
FINAL HYDROSTATIC PRESSURE (H) 1876

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RITCHIE EXPLORATION INC.
RIG : PAWNEE-KANSAS
FIELD : BIXBY
WELL : P-3
DATE : 2/6/90
GAUGE NO : 10270

OPERATIONAL COMMENTS

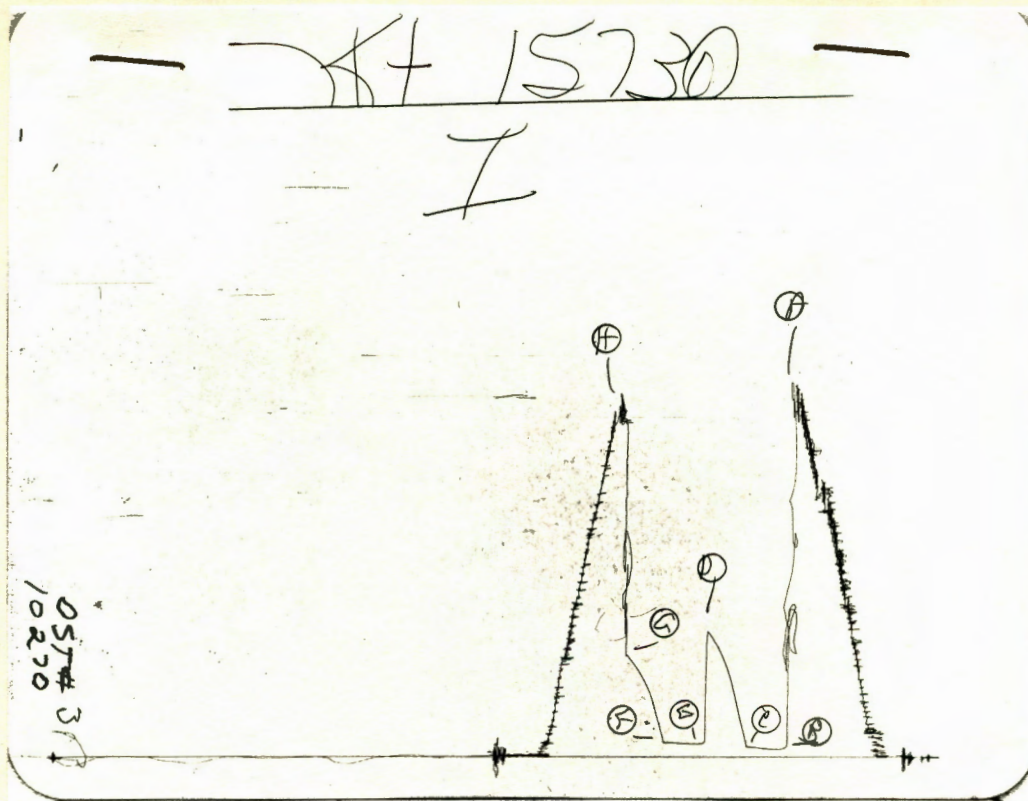
GAS TOO WEAK TO GAUGE

COMPANY : RITCHIE EXPLORATION INC.
WELL : P-3
GAUGE # : 10270
DATE : 6/ 2/90

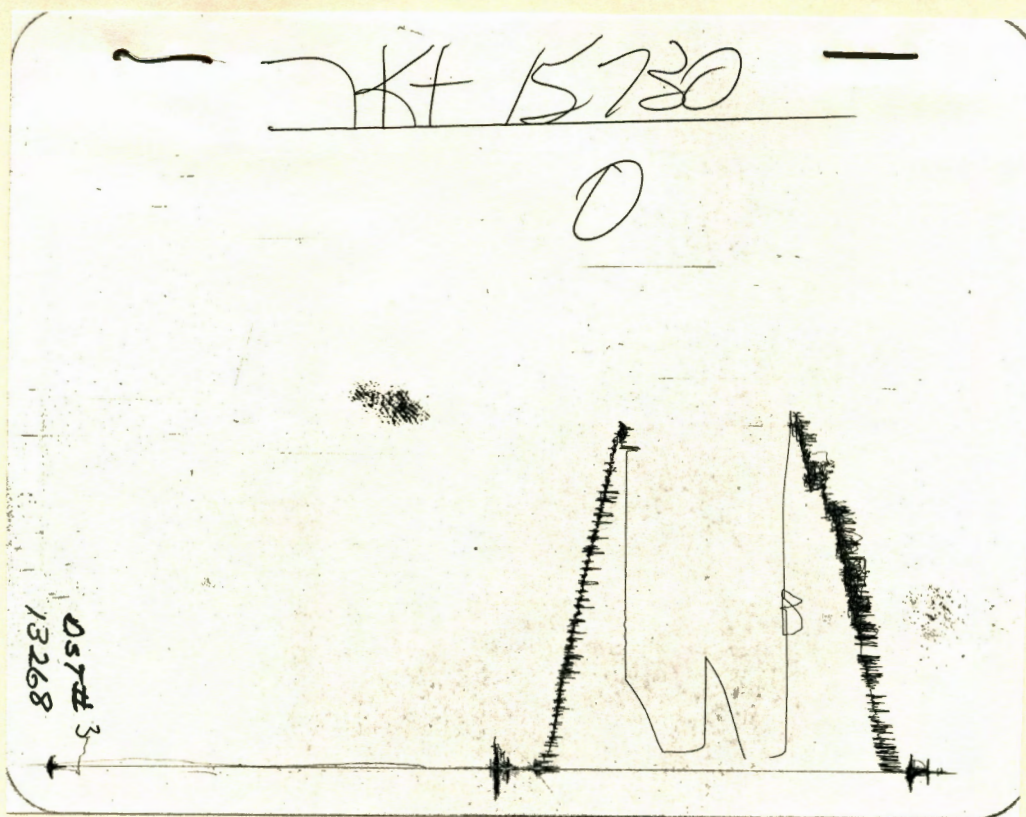
FIELD : BIXBY
JOB # : 15730
DEPTH : 3784
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	6:45: 0	0.000	45.000	108.00	0.000
3	6:49:59	0.083	45.000	108.00	0.000
4	6:55: 0	0.167	45.000	108.00	0.000
5	7: 0: 0	0.250	47.000	108.00	2.000
6	7: 4:59	0.333	51.000	108.00	4.000
7	7:10: 0	0.417	54.000	108.00	3.000
8	7:15: 0	0.500	58.000	108.00	4.000
INITIAL SHUT-IN PERIOD					
9	7:18: 0	0.550	155.000	108.00	97.000
10	7:21: 0	0.600	241.000	108.00	86.000
11	7:24: 0	0.650	341.000	108.00	100.000
12	7:27: 0	0.700	422.000	108.00	81.000
13	7:30: 0	0.750	494.000	108.00	72.000
14	7:33: 0	0.800	546.000	108.00	52.000
15	7:36: 0	0.850	597.000	108.00	51.000
16	7:39: 0	0.900	628.000	108.00	31.000
17	7:42: 0	0.950	662.000	108.00	34.000
18	7:45: 0	1.000	686.000	108.00	24.000
FINAL FLOW PERIOD					
19	7:46: 0	1.017	74.000	108.00	-612.000
20	7:49:59	1.083	74.000	108.00	0.000
21	7:55: 0	1.167	74.000	108.00	0.000
22	8: 0: 0	1.250	75.000	108.00	1.000
23	8: 4:59	1.333	78.000	108.00	3.000
24	8:10: 0	1.417	80.000	108.00	2.000
25	8:15: 0	1.500	81.000	108.00	1.000
FINAL SHUT-IN PERIOD					
26	8:18: 0	1.550	149.000	108.00	68.000
27	8:21: 0	1.600	229.000	108.00	80.000
28	8:24: 0	1.650	310.000	108.00	81.000
29	8:27: 0	1.700	368.000	108.00	58.000
30	8:30: 0	1.750	413.000	108.00	45.000
31	8:33: 0	1.800	454.000	108.00	41.000
32	8:36: 0	1.850	490.000	108.00	36.000
33	8:39: 0	1.900	518.000	108.00	28.000
34	8:42: 0	1.950	548.000	108.00	30.000
35	8:45: 0	2.000	559.000	108.00	11.000

WESTERN TESTING CO. INC.



Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY RITCHIE EXPLORATION, INC. LEASE & WELL NO. BIXBY P-3 SEC. 24 TWP 20S RGE. 10W TEST 4 DATE 2/6/90

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE	:	2/6/90	TICKET	:	15731
CUSTOMER	:	RITCHIE EXPLORATION INC.	LEASE	:	BIXBY
WELL	:	P-3	TEST:	:	4
ELEVATION	:	2050 KB	GEOLOGIST	:	MARTIN
SECTION	:	24	FORMATION	:	ARBUCKLE
RANGE	:	16W	COUNTY	:	PAWNEE
GAUGE SN#	:	10270	RANGE	:	4150
			STATE	:	KANSAS
			CLOCK	:	12

INTERVAL FROM	:	3820	TO	:	3829	TOTAL DEPTH	:	3829
DEPTH OF SELECTIVE ZONE	:							
PACKER DEPTH	:	3820	SIZE	:	6.63			
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				
PACKER DEPTH	:		SIZE	:				

DRILLING CON.	:	WOODMAN-IANNITTI DRILLING RIG #1			
MUD TYPE	:	CHEMICAL	VISCOSITY	:	44
WEIGHT	:	9.1	WATER LOSS (CC)	:	11.2
CHLORIDES (PPM)	:	7000			
JARS-MAKE	:		SERIAL NUMBER	:	
DID WELL FLOW ?	:		REVERSED OUT ?	:	

DRILL COLLAR LENGTH	:	0	FT	I.D. inch	:	0.00
WEIGHT PIPE LENGTH	:	383	FT	I.D. inch	:	2.70
DRILL PIPE LENGTH	:	3422	FT	I.D. inch	:	3.80
TEST TOOL LENGTH	:	15	FT	TOOL SIZE	:	5.50
ANCHOR LENGTH	:	9	FT	ANCHOR SIZE	:	5.50
SURFACE CHOKE SIZE	:	.75	IN	BOTTOM CHOKE SIZE	:	.75
MAIN HOLE SIZE	:	7.875	IN	TOOL JOINT SIZE	:	4.5 XH

BLOW COMMENT #1	:	INITIAL FLOW PERIOD-STRONG BLOW THROUGHOUT
BLOW COMMENT #2	:	FINAL FLOW PERIOD-STRONG BLOW THROUGHOUT
BLOW COMMENT #3	:	
BLOW COMMENT #4	:	

RECOVERED : 2500 FT OF: WATER
RECOVERED : 0 FT OF: CHLORIDES 26000 PPM

Total Barrels Fluid = 32.41
Total Fluid Prod Rate = 518.49 BFPD
Indicated Wtr Rate = 518.49 BWPD

REMARK 1 :
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) :	1:00 AM	TIME STARTED OFF BOTTOM :	4:00 AM
WELL TEMPERATURE :	117		
INITIAL HYDROSTATIC PRESSURE		(A)	1935
INITIAL FLOW PERIOD MIN:	45	(B)	442 PSI TO (C) : 1050
INITIAL CLOSED IN PERIOD MIN:	45	(D)	1157
FINAL FLOW PERIOD MIN:	45	(E)	1094 PSI TO (F) : 1163
FINAL CLOSED IN PERIOD MIN:	45	(G)	1170
FINAL HYDROSTATIC PRESSURE		(H)	1900

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : RITCHIE EXPLORATION INC.
RIG : PAWNEE-KANSAS
FIELD : BIXBY
WELL : P-3
DATE : 2/6/90
GAUGE NO : 10270

OPERATIONAL COMMENTS

COMPANY : RITCHIE EXPLORATION INC.
WELL : P-3
GAUGE # : 10270
DATE : 6/ 2/90

FIELD : BIXBY
JOB # : 15731
DEPTH : 3829
TEST :

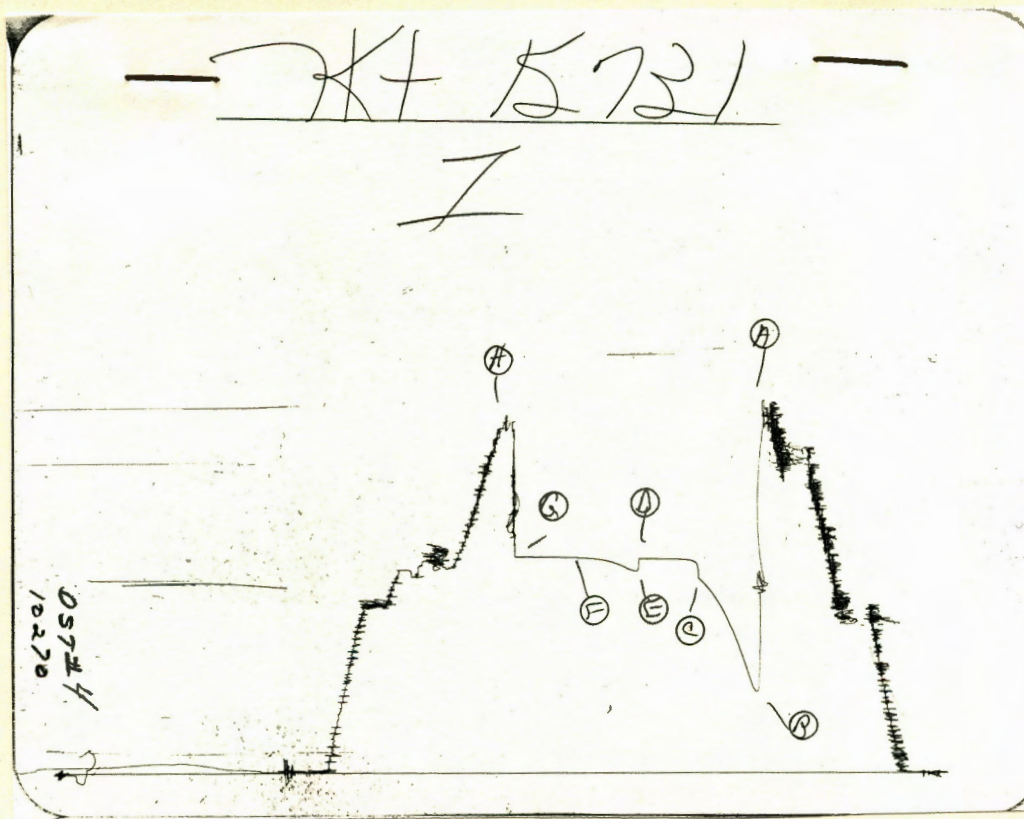
DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	1: 0: 0	0.000	442.000	117.00	0.000
3	1: 4:59	0.083	472.000	117.00	30.000
4	1:10: 0	0.167	579.000	117.00	107.000
5	1:15: 0	0.250	671.000	117.00	92.000
6	1:19:59	0.333	765.000	117.00	94.000
7	1:25: 0	0.417	843.000	117.00	78.000
8	1:30: 0	0.500	905.000	117.00	62.000
9	1:34:59	0.583	963.000	117.00	58.000
10	1:40: 0	0.667	1008.000	117.00	45.000
11	1:45: 0	0.750	1050.000	117.00	42.000
INITIAL SHUT-IN PERIOD					
12	1:48: 0	0.800	1138.000	117.00	88.000
13	1:51: 0	0.850	1147.000	117.00	9.000
14	1:54: 0	0.900	1151.000	117.00	4.000
15	1:57: 0	0.950	1153.000	117.00	2.000
16	2: 0: 0	1.000	1155.000	117.00	2.000
17	2: 2:59	1.050	1156.000	117.00	1.000
18	2: 6: 0	1.100	1157.000	117.00	1.000
19	2: 9: 0	1.150	1157.000	117.00	0.000
20	2:12: 0	1.200	1157.000	117.00	0.000
21	2:15: 0	1.250	1157.000	117.00	0.000
22	2:18: 0	1.300	1157.000	117.00	0.000
23	2:21: 0	1.350	1157.000	117.00	0.000
24	2:24: 0	1.400	1157.000	117.00	0.000
25	2:27: 0	1.450	1157.000	117.00	0.000
26	2:30: 0	1.500	1157.000	117.00	0.000
FINAL FLOW PERIOD					
27	2:31: 0	1.517	1094.000	117.00	-63.000
28	2:34:59	1.583	1098.000	117.00	4.000
29	2:40: 0	1.667	1113.000	117.00	15.000
30	2:45: 0	1.750	1129.000	117.00	16.000
31	2:49:59	1.833	1139.000	117.00	10.000
32	2:55: 0	1.917	1149.000	117.00	10.000
33	3: 0: 0	2.000	1156.000	117.00	7.000
34	3: 4:59	2.083	1159.000	117.00	3.000
35	3:10: 0	2.167	1161.000	117.00	2.000
36	3:15: 0	2.250	1163.000	117.00	2.000
FINAL SHUT-IN PERIOD					
37	3:18: 0	2.300	1164.000	117.00	1.000
38	3:21: 0	2.350	1165.000	117.00	1.000
39	3:24: 0	2.400	1166.000	117.00	1.000
40	3:27: 0	2.450	1167.000	117.00	1.000
41	3:30: 0	2.500	1168.000	117.00	1.000
42	3:33: 0	2.550	1169.000	117.00	1.000
43	3:36: 0	2.600	1170.000	117.00	1.000
44	3:39: 0	2.650	1170.000	117.00	0.000
45	3:42: 0	2.700	1170.000	117.00	0.000
46	3:45: 0	2.750	1170.000	117.00	0.000
47	3:48: 0	2.800	1170.000	117.00	0.000
48	3:51: 0	2.850	1170.000	117.00	0.000

COMPANY : RITCHIE EXPLORATION INC.
WELL : P-3
GAUGE # : 10270
DATE : 6/ 2/90

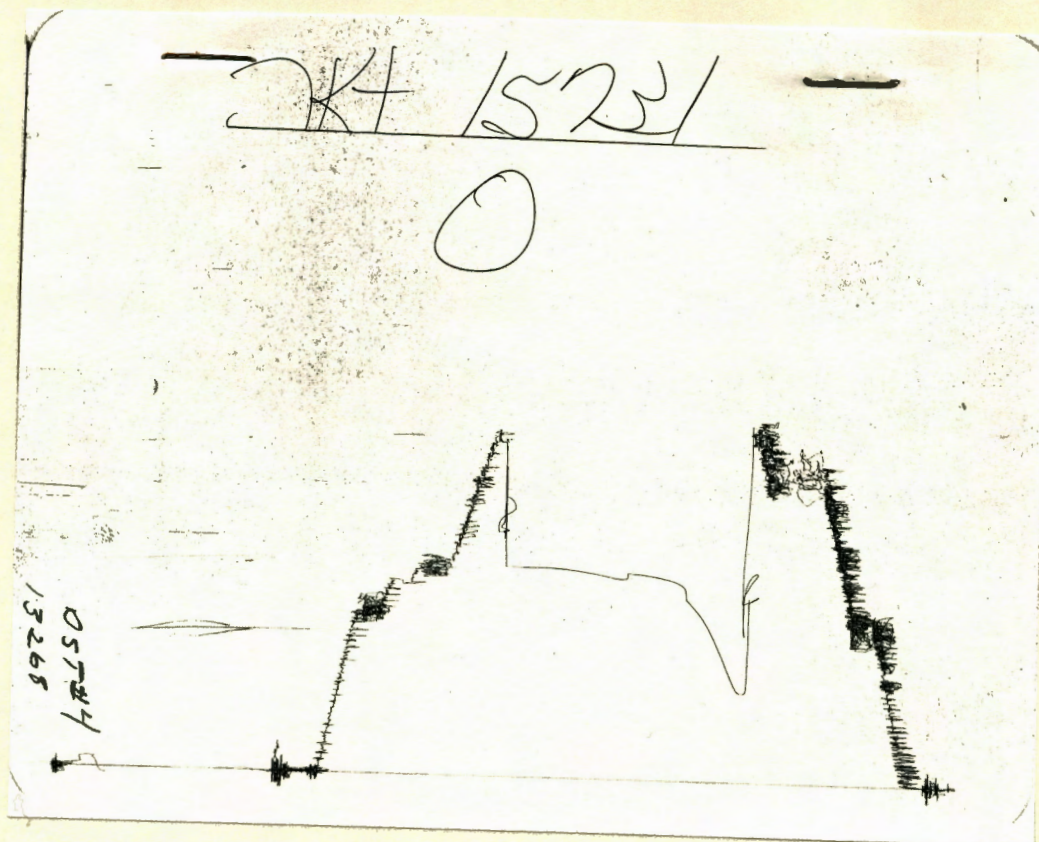
FIELD : BIXBY
JOB # : 15731
DEPTH : 3829
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	3:54: 0	2.900	1170.000	117.00	0.000
50	3:57: 0	2.950	1170.000	117.00	0.000
51	4: 0: 0	3.000	1170.000	117.00	0.000

WESTERN TESTING CO. INC.



Inside Recorder



Outside Recorder