15-155-21381

29-23s-10w

WELL NAME:	McGregor #B-1
OPERATOR:	JFW, Inc
LOCATION:	Sec 29 Rge 23S Twp 10W Reno County Kansas
DATE:	03/16/96

TRILOBITE TESTING L.L.C.

OPERATOR : JFW Inc
WELL NAME: McGregor #B-1
LOCATION : 29-23S-10W, Reno Cty KS
INTERVAL : 3626.00 To 3697.00 ft

DATE 03/16/96
KB 1797.00 ft
GR 1787.00 ft
TD 3697.00 ft

TICKET NO: 8711 DST #1
FORMATION: Viola
TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	13754	13754	13849		
SI 45	Range(Psi)	4000.0	4000.0	4375.0	0.0	0.0
SF 60	Clock(hrs)	AK-1	AK-1	AK-1		
FS 60	Depth(ft)	3633.0	3633.0	3694.0	0.0	0.0

TIME DATA----------
PF Fr. 1035 to 1105 hr
IS Fr. 1105 to 1150 hr
SF Fr. 1150 to 1250 hr
FS Fr. 1250 to 1350 hr

	Field	1	2	3	4
A. Init Hydro	1916.0	1824.0	0.0	0.0	0.0
B. First Flow	88.0	83.0	0.0	0.0	0.0
B1. Final Flow	88.0	83.0	0.0	0.0	0.0
C. In Shut-in	393.0	395.0	0.0	0.0	0.0
D. Init Flow	88.0	83.0	0.0	0.0	0.0
E. Final Flow	88.0	83.0	0.0	0.0	0.0
F. Fl Shut-in	275.0	280.0	0.0	0.0	0.0
G. Final Hydro	1786.0	1788.0	0.0	0.0	0.0
Inside/Outside		I	I	O	

T STARTED 0930 hr
T ON BOTM 1033 hr
T OPEN 1035 hr
T PULLED 1350 hr
T OUT 1530 hr

RECOVERY
Tot Fluid 170.00 ft of 0.00 ft in DC and 170.00 ft in DP
50.00 ft of Gas cut mud - 50% gas, 50% mud
60.00 ft of Gas cut mud w/ few oil spots - 50% gas, 50% mud
60.00 ft of Oil cut gassy mud - 20% gas, 5% oil, 75% mud

TOOL DATA----------

Tool Wt.	0.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	49000.00 lbs
Initial Str Wt	42000.00 lbs
Unseated Str Wt	43000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	3621.00 ft

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION
Initial Flow -
Strong, bottom of bucket in 1 min;
Gas to surface in 5 min

Final Flow -
Strong, bottom of bucket as soon as
tool open

MUD DATA----------

Mud Type	Chemical
Weight	9.30 lb/c
Vis.	41.00 S/L
W.L.	10.60 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	116.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Dan Bangle
Co. Rep.	Jim Musgrove
Contr.	Allen
Rig #	2
Unit #	
Pump T.	

SAMPLES: gas
SENT TO:Caraway, Liberal KS

Test Successful: Y

GAS RECOVERY

OMPANY: JFW Inc DATE: 03/16/96
ELL NAME: McGregor #B-1 KB Elev: 1797.00 ft TICKET #8711 DST #1
ELL LOCATION: 29-23S-10W, Reno Cty KS GR Elev: 1787.00 ft FORMATION: Viola
NTERVAL Fr.: 3626.00 To 3697.00 T.D.: 3697.00 ft TEST TYPE: CONVENTIONAL

AS RECOVERY MEASURED WITH Merla

**** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
5	0.75	0	26	72400.0
10	0.75	0	24	69500.0
15	0.75	0	22	66600.0
20	0.75	0	20	63500.0
25	0.75	0	20	63500.0
30	0.75	0	18	60200.0

**** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
5	0.50	0	60	48600.0
10	0.50	0	50	44300.0
15	0.50	0	38	38600.0
20	0.50	0	32	35500.0
25	0.50	0	26	31900.0
30	0.50	0	16	25100.0
35	0.50	0	11	20900.0
40	0.50	0	9	18800.0
45	0.50	0	6	15400.0
50	0.50	0	6	15400.0
55	0.50	0	6	15400.0
60	0.50	0	6	15400.0

CALCULATED RECOVERY ANALYSIS - DRILL PIPE

DST # 1 TICKE 8711

SAMPL #	TOTAL FEET	GAS %	GAS FEET	OIL %	OIL FEET	OIL %	WATE FEET	MUD %	MUD FEET
1	50	50	25		0		0	50	25
2	60	50	30		0		0	50	30
3	60	20	12	5	3		0	75	45
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
TOTAL	170	39.412	67	1.7647	3	0	0	58.824	100

			HRS O	BBL/DAY
BBL OIL=	0.0427	*	1.5	0.68
BBL WATER=	0	*		0
BBL MUD=	1.422			
BBL GAS	0.9527			

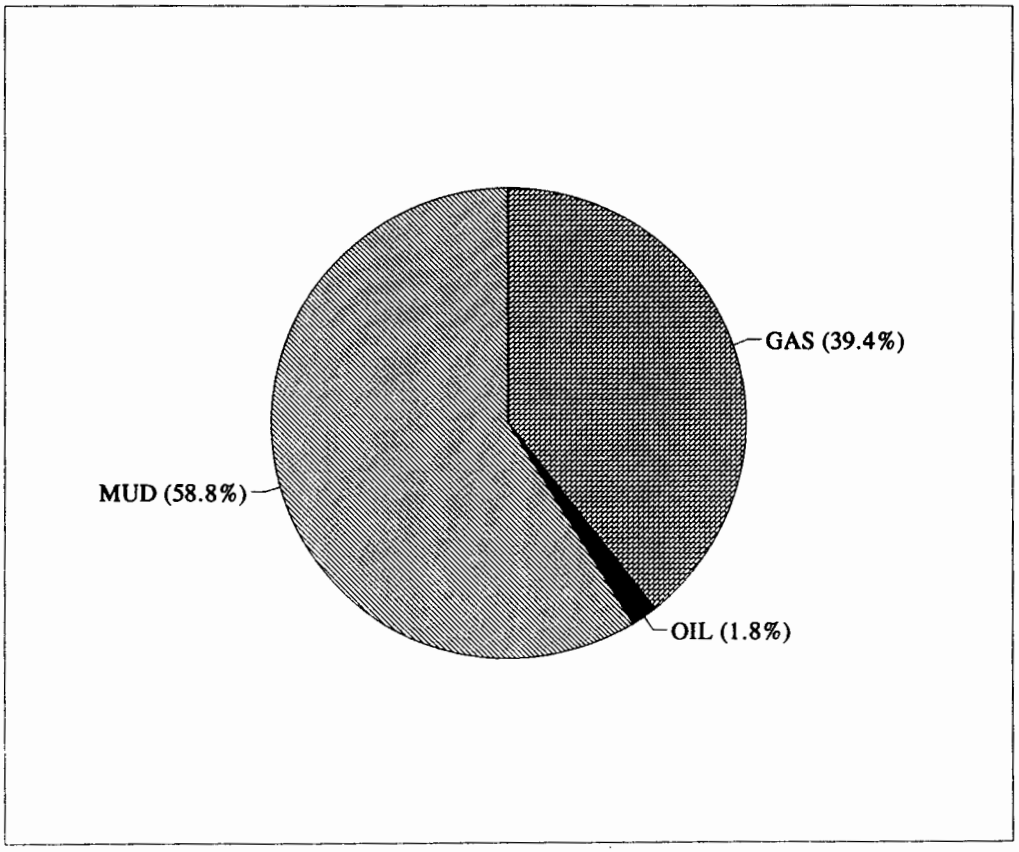
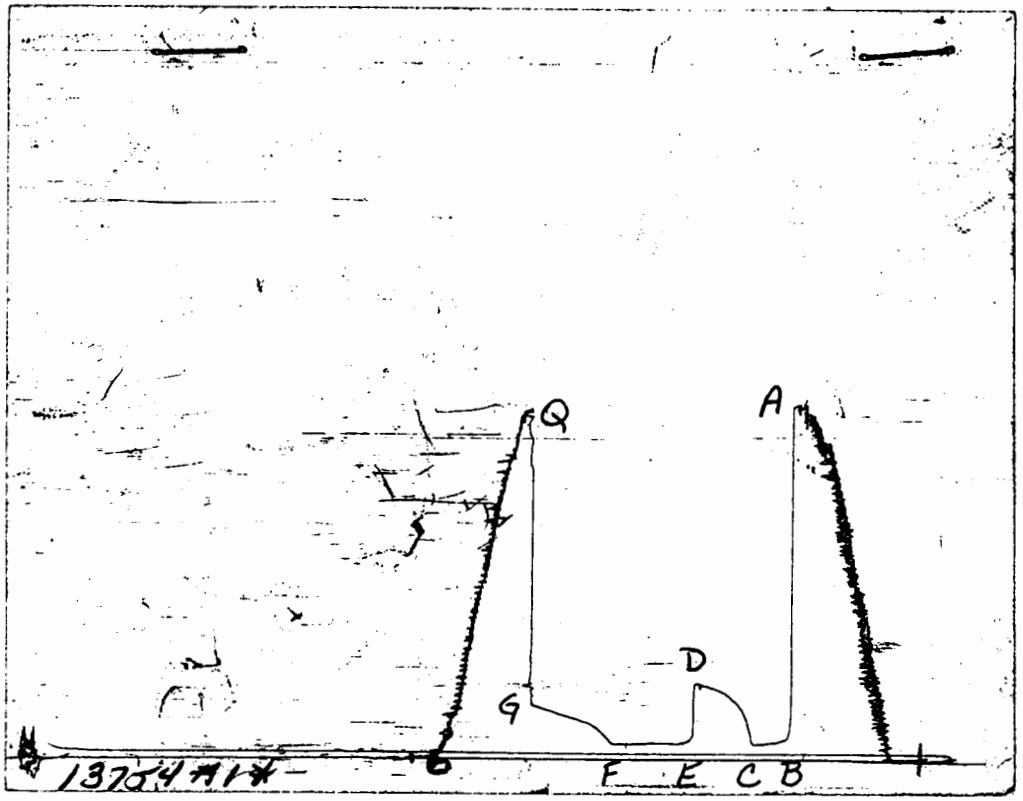


CHART PAGE



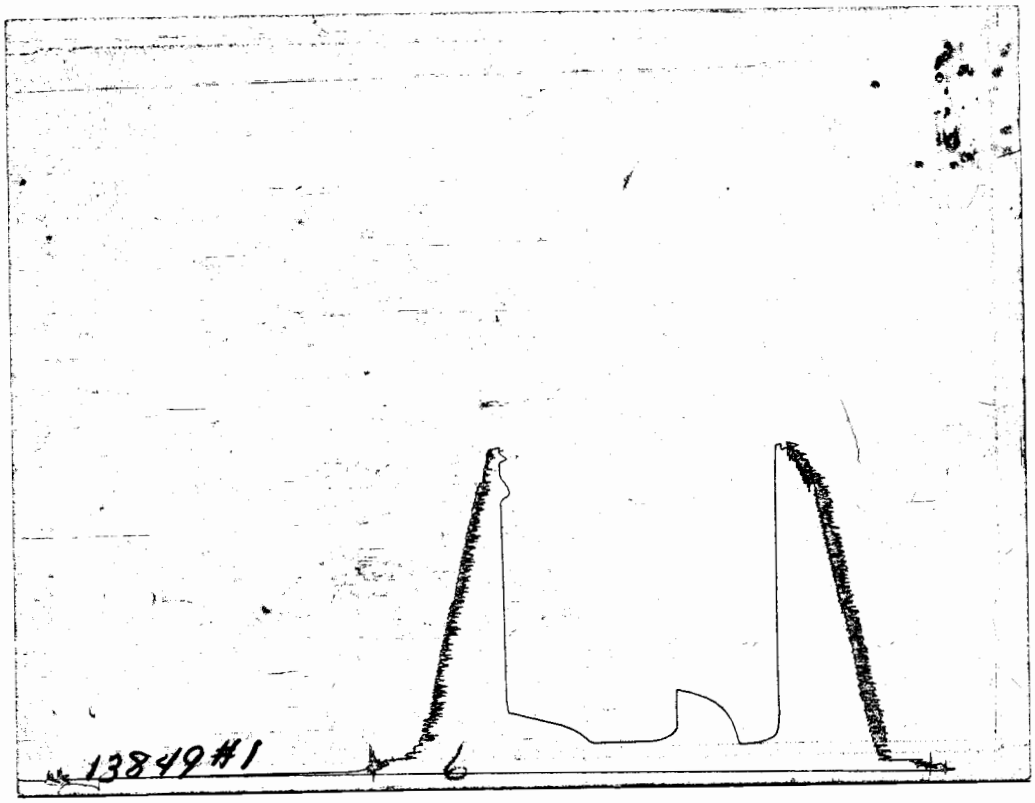
This is a photocopy of the actual AK-1 recorder chart

Well name McGregor

DST # 1

Recorder # 13754

A		1824	
B		83	
C		83	
D		395	
E		83	
F		83	
G		280	
H		1788	



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 8711

Well Name & No. McGregor #B-1 Test No. 1 Date 3-16-96

Company IFW, Inc Zone Tested Viola

Address 1014 W. Huntsville Rd, Plevna, Ks. 67568 Elevation 1797 KB 1787 GL

Co. Rep / Geo. Jim Musgrove Cont. Allen #2 Est. Ft. of Pay 12 Por. 16 %

Location: Sec. 29 Twp. 23 Rge. 10 Co. Reno State Ks.

No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) N Evaluation (Y, N) Y (gas only)

Interval Tested 3626 – 3697 Initial Str Wt./Lbs. 42,000 Unseated Str Wt./Lbs. 43,000

Anchor Length 71 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 49,000

Top Packer Depth 3621 Hole Size — 7 7/8" Rubber Size — 6 3/4"

Bottom Packer Depth 3626 Wt. Pipe I.D. — 2.7 Ft. Run

Total Depth 3697 Drill Collar — 2.25 Ft. Run

Mud Wt. 9.3 LCM Vis. 41 WL 10.6 Drill Pipe Size 4.5 XH Ft. Run 3621

Blow Description I.F. Strong - B.O.B. in 1 min. GTS in 10 min.

F.F. Strong - B.O.B. as soon as tool opened
Gas sample Taken

Recovery — Total Feet 170 Ft. in DC Ft. in WP Ft. in DP 170

Rec. 50	Feet Of GCM	50 %gas	%oil	%water	50 %mud
Rec. 60	Feet Of GCM w/few oil spots	50 %gas	%oil	%water	50 %mud
Rec. 60	Feet Of OCGSY M	20 %gas	5 %oil	%water	75 %mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud

BHT 116 °F Gravity °API D@ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 6,000 ppm System

(A) Initial Hydrostatic Mud	1816 PSI	Recorder No.	13754	T-Started	09:30
(B) First Initial Flow Pressure	88 PSI	@ (depth)	3633	T-Open	00:35
(C) First Final Flow Pressure	88 PSI	Recorder No.	13849	T-Pulled	1350
(D) Initial Shut-in Pressure	393 PSI	@ (depth)	3694	T-Out	1530
(E) Second Initial Flow Pressure	88 PSI	Recorder No.			
(F) Second Final Flow Pressure	88 PSI	@ (depth)			
(G) Final Shut-in Pressure	275 PSI	Initial Opening	30	Test X	600
(H) Final Hydrostatic Mud	1786 PSI	Initial Shut-in	45	Jars	
		Final Flow	60	Safety Joint	
		Final Shut-in	60	Straddle	
				Circ. Sub	
				Sampler X	200
				Extra Packer	
				Elect. Rec.	5
				Other	
				TOTAL PRICE $	800

TRILOBIE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Jim Musgrove

Our Representative Dan Bangle

TRILOBITE TESTING

P.O. Box 362 • Hays, Kansas 67601 • (913) 625-4778

GAS VOLUME REPORT

TFW, Inc. (OPERATOR) — McGregor #B-1 (WELL NAME AND NO.) — 1 (DST NO.)

Min.	Ins. of Water PSIG	Orifice Size	MCF/D	Min.	Ins. of Water PSIG	Orifice Size	MCF/D
0		3/4		0		1/2	
5	26	"	72.4	5	60	"	48.6
10	24	"	69.5	10	50	"	44.3
15	22	"	66.6	15	38	"	38.6
20	20	"	63.5	20	32	"	35.5
25	20	"	63.5	25	26	"	31.9
30	18	"	60.2	30	16	"	25.1
				35	11	"	20.9
				40	9	"	18.8
				45	6	"	15.4
				50	6	"	15.4
				55	6	"	15.4
				60	6	"	15.4

Remarks: GTS in 5 min. Gas Sample Taken

101 NCR

NATURAL GAS ANALYSIS REPORT

Sampled by:
Trilobite Testing, L.L.C.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 913-625-5620

Analyzed by:
Caraway Analytical, L.L.C.
728 North Roosevelt
Liberal, Kansas 67901
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number:	960159	Analyzed:	03/20/96
Sample From:	McGregor 8-1 DST 1	Pressure:	
Producer:	JFW Inc.	Temperature:	
Date:		Location:	29-23-10
Time:		County:	Reno
Sampler:		State:	Kansas
Source:		Formation:	Viola

		Mole %	GPM
Helium	He:	0.687	0.000
Oxygen	O2:	0.000	0.000
Nitrogen	N2:	14.500	0.000
Carbon Dioxide	CO2:	0.159	0.000
Methane	C1:	60.356	0.000
Ethane	C2:	10.983	2.937
Propane	C3:	7.511	2.070
Iso Butane	iC4:	1.032	0.338
Normal Butane	nC4:	2.807	0.885
Iso Pentane	iC5:	0.543	0.199
Normal Pentane	nC5:	0.808	0.293
Hexanes Plus	C6+:	0.614	0.268
	TOTAL:	100.000	6.989
	Z Fact:	0.9963	
	SP.GR.:	0.8399	
	BTU (SAT):	1189.8 @ 14.73 psia	
	BTU (DRY):	1210.9 @ 14.73 psia	
	OCTANE RATING:	101.7	

COMMENTS: No pressure in bottle, sample entered under vacuum 0.000

Caraway Analytical, 20-Mar-96

E

TRILOBITE TESTING L.L.C.

OPERATOR : JFW, Inc — DATE 03/16/96
WELL NAME: McGregor #B-1 — KB 1797.00 ft — TICKET NO: 8712 — DST #2
LOCATION : 29-23S-10W, Reno Cty KS — GR 1787.00 ft — FORMATION: Viola
INTERVAL : 3692.00 To 3728.00 ft — TD 3728.00 ft — TEST TYPE: CONVENTIONAL

RECORDER DATA

	Mins		Field	1	2	3	4
PF	30	Rec.	13849	13849	13754		
SI	45	Range(Psi)	4375.0	4375.0	4000.0	0.0	0.0
SF	60	Clock(hrs)	AK-1	AK-1	AK-1		
FS	60	Depth(ft)	3725.0	3725.0	3698.0	0.0	0.0

TIME DATA----------
PF Fr. 2325 to 2355 hr
IS Fr. 2355 to 0040 hr
SF Fr. 0040 to 0140 hr
FS Fr. 0140 to 0240 hr

	Field	1	2	3	4
A. Init Hydro	1873.0	1870.0	0.0	0.0	0.0
B. First Flow	55.0	38.0	0.0	0.0	0.0
B1. Final Flow	55.0	38.0	0.0	0.0	0.0
C. In Shut-in	764.0	748.0	0.0	0.0	0.0
D. Init Flow	66.0	44.0	0.0	0.0	0.0
E. Final Flow	77.0	60.0	0.0	0.0	0.0
F. Fl Shut-in	720.0	710.0	0.0	0.0	0.0
G. Final Hydro	1808.0	1790.0	0.0	0.0	0.0
Inside/Outside	O	O	I		

T STARTED 2200 hr
T ON BOTM 2323 hr
T OPEN 2325 hr
T PULLED 0240 hr
T OUT 0415 hr

RECOVERY
Tot Fluid 120.00 ft of 0.00 ft in DC and 120.00 ft in DP
120.00 ft of Gassy mud - 40% gas, 60% mud

TOOL DATA----------

Tool Wt.	0.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	60000.00 lbs
Initial Str Wt	42000.00 lbs
Unseated Str Wt	44000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	3684.00 ft

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION
Initial Flow -
Strong, bottom of bucket in 20 sec

Final Flow -
Strong, bottom of bucket as soon as
tool open; Gas to surface in 5 min

MUD DATA----------

Mud Type	Chemical
Weight	9.50 lb/c
Vis.	60.00 S/L
W.L.	10.40 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	118.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Dan Bangle
Co. Rep.	Jim Musgrove
Contr.	Allen
Rig #	2
Unit #	
Pump T.	

SAMPLES:
SENT TO:

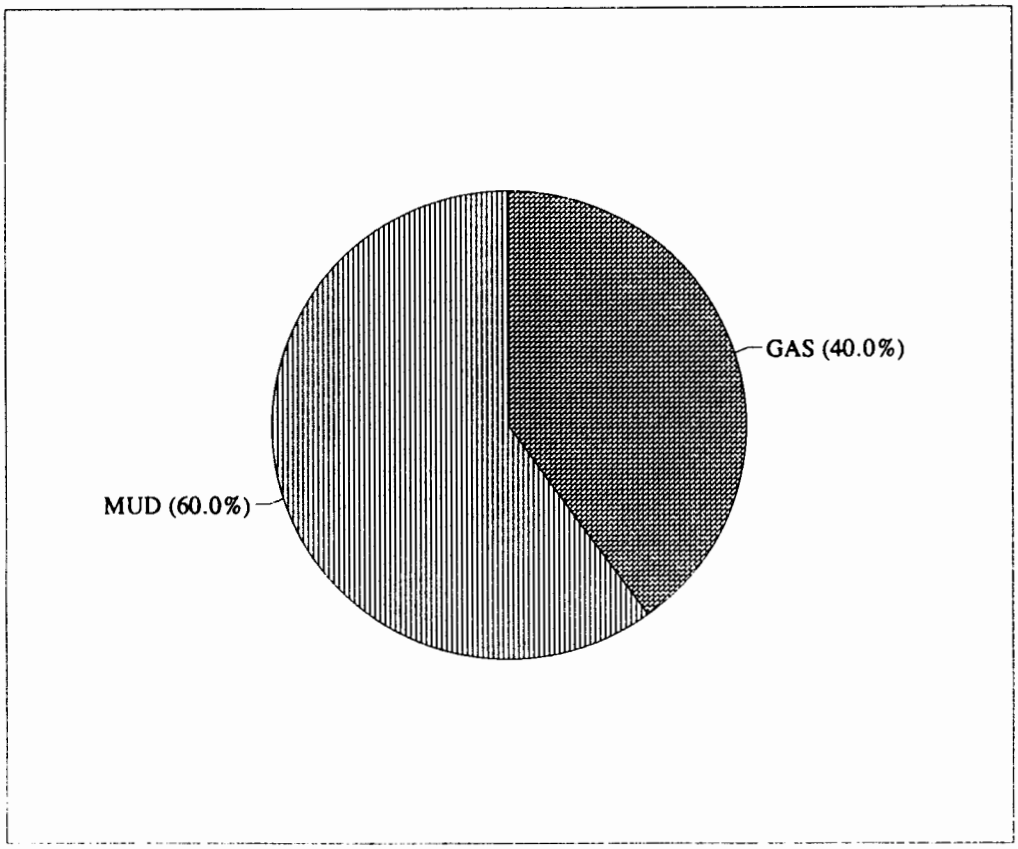
Test Successful: Y

CALCULATED RECOVERY ANALYSIS - DRILL PIPE

DST # 2 TICKE 8712

SAMPL #	TOTAL FEET	GAS %	GAS FEET	OIL %	OIL FEET	OIL %	WATE FEET	MUD %	MUD FEET
1	120	40	48		0		0	60	72
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
TOTAL	120	40	48	0	0	0	0	60	72

			HRS O	BBL/DAY
BBL OIL=	0	*	1.5	0
BBL WATER=	0	*		0
BBL MUD=	1.0238			
BBL GAS	0.6826			



GAS RECOVERY

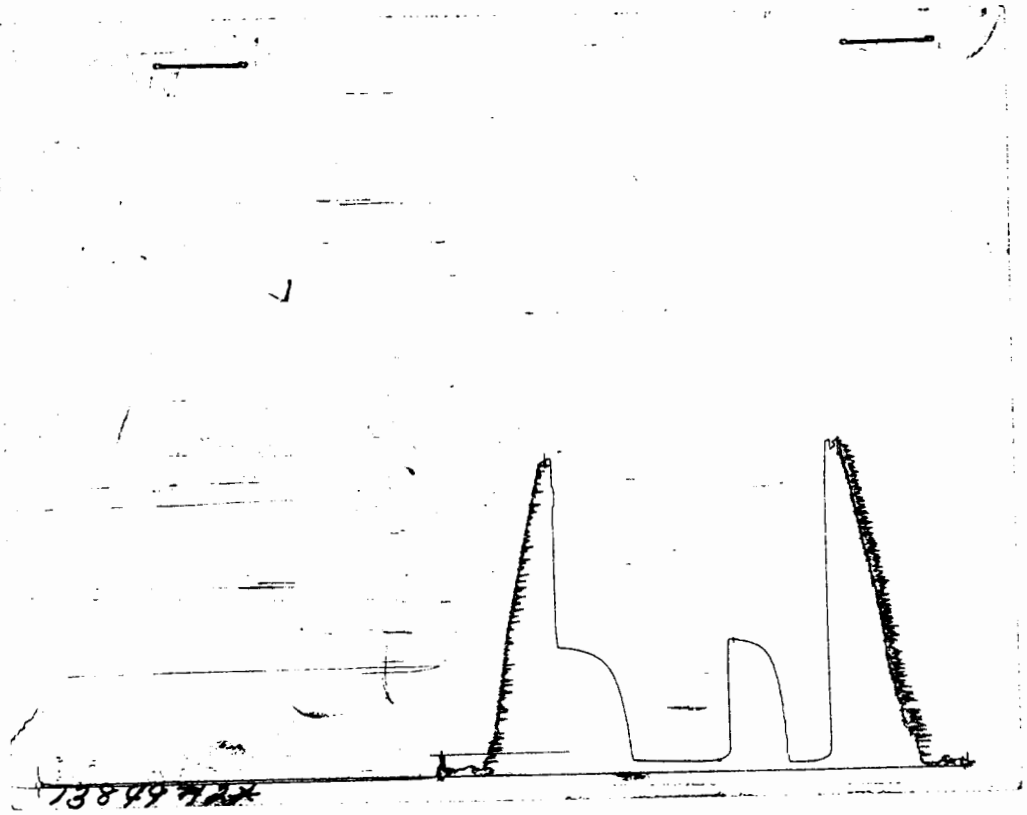
COMPANY: JFW, Inc DATE: 03/16/96
WELL NAME: McGregor #B-1 KB Elev: 1797.00 ft TICKET #8712 DST #2
WELL LOCATION: 29-23S-10W, Reno Cty KS GR Elev: 1787.00 ft FORMATION: Viola
INTERVAL Fr.: 3692.00 To 3728.00 T.D.: 3728.00 ft TEST TYPE: CONVENTIONAL

GAS RECOVERY MEASURED WITH Merla

***** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
5	0.25	0	46	11400.0
10	0.25	0	38	10400.0
15	0.25	0	44	11100.0
20	0.25	0	44	11100.0
25	0.25	0	44	11100.0
30	0.25	0	44	11100.0
35	0.25	0	44	11100.0
40	0.25	0	44	11100.0
45	0.25	0	44	11100.0
50	0.25	0	44	11100.0
55	0.25	0	44	11100.0
60	0.25	0	44	11100.0

CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

Well name McGregor

DST # 2

Recorder # 13849

A		1870		1
B		38		2
C		38		3
D		748		4
E		44		5
F		60		6
G		710		7
H		1790		8
				9
				10
				11
				12

13754#2

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

No 8712

Test Ticket

Well Name & No. Mc Gregor #B-1 Test No. 2 Date 3-16-96

Company IFW, Inc. Zone Tested Viola

Address _____ Elevation 1797 KB 1787 GL

Co. Rep / Geo. Jim Musgrove Cont. Allen #2 Est. Ft. of Pay ___ Por. ___ %

Location: Sec. 29 Twp. 23 Rge. 10 Co. Reno State Ks.

No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) N Evaluation (Y, N) N

Interval Tested 3692 - 3728 Initial Str Wt./Lbs. 42,000 Unseated Str Wt./Lbs. 44,000

Anchor Length 36 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 60,000

Top Packer Depth 3687 Hole Size — 7 7/8" ___ Rubber Size — 6 3/4" ___

Bottom Packer Depth 3692 Wt. Pipe I.D. — 2.7 Ft. Run ___

Total Depth 3728 Drill Collar — 2.25 Ft. Run ___

Mud Wt. 9.5 LCM ___ Vis. 60 WL 10.4 Drill Pipe Size 4.5 XH Ft. Run 3684

Blow Description I.F. Strong - B.O.B. in 20 Sec.

F.F. Strong - B.O.B. as soon as Tool opened

GTS in 5 min.

Recovery — Total Feet 120 Ft. in DC ___ Ft. in WP ___ Ft. in DP 120

Rec. 120	Feet Of Gsy Mud	40 %gas	%oil	%water	60 %mud
Rec. ___	Feet Of ___	%gas	%oil	%water	%mud
Rec. ___	Feet Of ___	%gas	%oil	%water	%mud
Rec. ___	Feet Of ___	%gas	%oil	%water	%mud
Rec. ___	Feet Of ___	%gas	%oil	%water	%mud

BHT 118 °F Gravity ___ °API D@ ___ °F Corrected Gravity ___ °API

RW ___ @ ___ °F Chlorides ___ ppm Recovery Chlorides 6300 ppm System

(A) Initial Hydrostatic Mud	1873 PSI	Recorder No.	13754	T-Started	2200
(B) First Initial Flow Pressure	55 PSI	@ (depth)	3698	T-Open	2325
(C) First Final Flow Pressure	55 PSI	Recorder No.	13849	T-Pulled	0240
(D) Initial Shut-in Pressure	764 PSI	@ (depth)	3725	T-Out	0415
(E) Second Initial Flow Pressure	66 PSI	Recorder No.	___		
(F) Second Final Flow Pressure	77 PSI	@ (depth)	___		
(G) Final Shut-in Pressure	720 PSI	Initial Opening	30	Test	X 600
(H) Final Hydrostatic Mud	1808 PSI	Initial Shut-in	45	Jars	___
		Final Flow	60	Safety Joint	___
		Final Shut-in	60	Straddle	___
		___		Circ. Sub	___
		___		Sampler	___
				Extra Packer	___
				Elect. Rec.	___
				Other	___
				TOTAL PRICE $	600

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Jim Musgrove

Our Representative Earl Bangle

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TRILOBITE TESTING

P.O. Box 362 • Hays, Kansas 67601 • (913) 625-4778

GAS VOLUME REPORT

JFW, Inc (OPERATOR) | McGregor #B-1 (WELL NAME AND NO.) | 2 (DST NO.)

Min.	Ins. of Water PSIG	Orifice Size	MCF/D	Min.	Ins. of Water PSIG	Orifice Size	MCF/D
0				0		4	
5	No			5	46	"	11.4
10	GTS			10	38	"	10.4
15				15	44	"	11.1
20				20	44	"	11.1
25				25	44	"	11.1
30				30	44	"	11.1
				35	44	"	11.1
				40	44	"	11.1
				45	44	"	11.1
				50	44	"	11.1
				55	44	"	11.1
				60	44	"	11.1

Remarks: GTS 5 min into FF
Gas Sample Taken

NATURAL GAS ANALYSIS REPORT

Sampled by:
Trilobite Testing, L.L.C.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 913-625-5620

Analyzed by:
Caraway Analytical, L.L.C.
728 North Roosevelt
Liberal, Kansas 67901
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number:	960159	Analyzed:	03/20/96
Sample From:	McGregor 8-1 DST 1	Pressure:	
Producer:	JFW Inc.	Temperature:	
Date:		Location:	29-23-10
Time:		County:	Reno
Sampler:		State:	Kansas
Source:		Formation:	Viola

		Mole %	GPM
Helium	He:	0.687	0.000
Oxygen	O2:	0.000	0.000
Nitrogen	N2:	14.500	0.000
Carbon Dioxide	CO2:	0.159	0.000
Methane	C1:	60.356	0.000
Ethane	C2:	10.983	2.937
Propane	C3:	7.511	2.070
Iso Butane	iC4:	1.032	0.338
Normal Butane	nC4:	2.807	0.885
Iso Pentane	iC5:	0.543	0.199
Normal Pentane	nC5:	0.608	0.293
Hexanes Plus	C6+:	0.614	0.268
	TOTAL:	100.000	6.989
	Z Fact:	0.9963	
	SP.GR.:	0.8399	
	BTU (SAT):	1189.8 @ 14.73 psia	
	BTU (DRY):	1210.9 @ 14.73 psia	
	OCTANE RATING:	101.7	

COMMENTS: No pressure in bottle, sample entered under vacuum 0.000

Caraway Analytical, 20-Mar-96

MAR 21 '96 13:07 PREFERRED ANSWERING