Office (620) 588-4250

Mai Oil Operations Frieb-Manzier Unit #1 2090' FSL & 1310' FEL Section 30-17s-15w Barton County, Kansas

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Dry and Abandoned

Contractor:	Southwind Drilling Co. (rig #3)
Commenced:	June 18, 2014
Completed:	June 25, 2014
Elevation:	2026' K.B., 2024' D.F., 2018' G.L.
Casing program:	Surface; 8 5/8" @ 1064' Production, None
Sample:	Samples saved and examined 3000' to the Rotary Total Depth.
Drilling time:	One (1) foot drilling time recorded and kept 3000 ft. to the Rotary Total Depth.
Measurements:	All depths measured from the Kelly Bushing.
Drill Stem Tests:	There were three (3) Drill Stem Tests ran by Trilobite Testing Co.
Electric Log:	By Nabors; Dual Induction, Compensated Density/Neutron Log and Microresistivity log and Sonic

Formation	Log Depth	Sub-Sea Datum
Anhydrite	1069	+957
Base Anhydrite	1101	+925
Topeka	3026	-1000
Heebner	3258	-1232
Toronto	3271	-1245
Lansing	3319	-1293
Base Kansas City	3533	-1507
Conglomerate	3551	-1525
Arbuckle	3584	-1558
Rotary Total Depth	3664	-1638
Log Total Depth	3666	-1640

All tops and zones corrected to Electric Log Measurement.

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TOPEKA SECTION

3201-3220' Limestone, gray, white, fossiliferous, few sub-oomoldic, chalky, poor visible porosity, questionable stain, no free oil and no odor.

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TORONTO SECTION

3271-3290' Limestone, white/cream, finely crystalline, chalky, poor visible porosity, no shows.

LANSING SECTION

- 3319-3330' Limestone, gray white, fossiliferous, chalky, few cherty (dense).
- 3340-3346 Limestone, tan, oolitic, oomoldic, fair oomoldic porosity, plus tan, oolitic, chert, no shows.
- 3356-3360' Limestone, gray, oolitic, oomoldic, scattered oomoldic porosity (barren).
- 3387-3400' Limestone, cream, white; highly oolitic, good stain, and saturation, show of free oil and faint odor in fresh samples.
- 3400-3405' Limestone, white, oolitic, chalky, poor visible porosity, trace stain, no free oil and no odor.

Drill Stem	Test #1	3365-3410

Times: 30-30-30-30

Blow: Initial: weak built to 1 ¼ in 2nd: no blow

Recovery: 20' mud with oil spots

Pressures:	ISIP	883	psi
	FSIP	726	psi
	IFP	17-23	psi
	FFP	23-27	, psi
	HSH	1648-1612	psi

- 3410-3420' Limestone, white, cream, oomoldic, chalky, poor porosity, no shows.
- 3460-3466' Limestone, gray, oolitic, few sub-oomoldic, chalky, trace gray chert, no shows.
- 3472-3489' Limestone, tan, cream, fossiliferous, poor visible porosity, black and brown stain, no free oil and faint odor in fresh samples.
- 3490-3500' Limestone, white, oolitic, chalky, poor visible porosity, no shows.
- 3510-3520' Limestone, gray, fossiliferous, cherty in part, gray and black stain, no free oil and no odor in fresh samples.

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- 3551-3584' Varied colored opaque chert; few oolitic in matrix of brick red/red, green shale, trace maroon tinted limestone, and very fined grained sand, no shows.
- 3584-3592' Dolomite, cream, white, medium crystalline, scattered inter-crystalline porosity, brown and black stain, show of free oil and faint odor in fresh samples.

Drill Stem T	est #2			3524-3592
Times:	45-30	-45-45		
Blow:	Fair			
Recovery:	60' m	as in pipe uddy oil oil; 48% mud	d; 2% water)	
Pressures:	isip Fsip IFP FFP Hsh		psi psi psi psi psi	

3592-3599' Dolomite, cream, white, medium and coarse crystalline, good intercrystalline and vuggy type porosity, good stain and saturation, good show of free oil and good odor in fresh samples.

Drill Stem T	est #3			3525-3599
Times:	30-30	-30-45		
Blow:	Stron	g		
Recovery:	300' v (2%oi	nud with oil very slightly ; 38% water nuddy water	oil cut muddy water ; 60% mud)	r
Pressures:	ISIP FSIP IFP FFP HSH	970 974 20-275 300-436 1746-1710	psi psi psi psi psi	

Mai Oil Operations Frieb-Manzier Unit #1 2090' FSL & 1310' FEL Section 30-17s-15w Barton County, Kansas

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3600-3620'	Dolomite, white, cream, medium crystalline, scattered to good inter- crystalline porosity, black and brown stain, show of free oil and faint odor in fresh samples.
3620-3640'	Dolomite, as above, few sandy, no shows.
3640-3664'	Dolomite, white/cream, fine and medium crystalline, increasingly sandy; plus brick red and gray shales.

Rotary Total Depth	3664
Log Total Depth	3666

Recommendations:

The Frieb-Manzier Unit #1, was plugged and abandoned at the Rotary Depth 3664.

Respectfully submitted;

James C. Musgrove Petroleum Geologist

RILOBITE	DRILL STEM TES			h-Mana	zier Unit #	#1	
TESTING, INC	8411 Preston Rd. Ste. 800				Barton,K		
	Dallas, TX 75225			icket: 58		DST#:1	
	ATTN: Jim Musgrove		Test 8	Start: 20	14.06.22 @	18:22:41	
GENERAL INFORMATION:					an tanàn dia kaominina dia		
Formation: LKC E-F Deviated: No Whipstock: Time Tool Opened: 20:01:11 Time Test Ended: 23:14:41	ft (KB)		Test T Teste Unit N	r: 1	Conventiona Fate Lang	I Bottom Hole	e (Initial)
Interval: 3365.00 ft (KB) To 34 Total Depth: 3410.00 ft (KB) (TV 1000 ft (KB) (TV Hole Diameter: 7.88 inchesHole			Refer		vations: o GR/CF:	2018.00 2010.00 8.00	ft (CF)
Serial #: 8898 Outside Press@RunDepth: 27.34 psig	@ 3374.00 ft (KB)		Capacity:			8000.00	psig
Start Date: 2014.06.22 Start Time: 18:22:42	End Date: End Time:	2014.06.22 23:14:41	Last Calib. Time On Bi Time Off B	tm: 2	2014.06.22 (2014.06.22 (
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		30	22.64		Shut-In(1)		
		59	882.60		End Shut-I		
		59 90	23.47 27.34		Open To F Shut-In(2)		
		119	725.51		End Shut-I		
		120	1611.53	108.96	Final Hydro		
Zibrukn 284						konstruer en en forse en staat	
Recovery					s Rates		Data (Mar
Length (ft) Description	Volume (bbi)			Ga Choke (i		ure (psig) Gas	s Rate (Mcf/
Recovery						ure (psig) Gas	s Rate (Mcf/
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Length (ft) Description	Volume (bbi)					ure (psig) Gad	s Rate (Mct/
Length (ft) Description	Volume (bbi)					ure (psig) Gau	s Rate (Mcf/

	RILOBITE	DRILL STEM TE			ah-Man	zier Unit #	44	
	ESTING , INC							
	LOING, NO	8411 Preston Rd. Ste. 800 Dallas, TX 75225			17s-15w Ticket: 58	Barton,K	(S DST#: 2	
		ATTN: Jim Musgrove				014.06.23 @		
GENERAL IN	IFORMATION:							
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		Condition. Good					0.00	
Serial #: 88 Press@RunDep Start Date: Start Time:		@ 3533.00 ft (KB) End Date: End Time:	2014.06.23 20:49:30	Capacity Last Calil Time On Time Off	b.: Btm:	2014.06.23 (2014.06.23 (psig
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			Time (Min.) 0 1 45 75 76 76 120 166 166	Pressure (psig) 1754.08 19.14 27.46 283.06 29.76 36.01 493.67 1712.66	106.95 107.83 107.77 108.79	Open To F Shut-In(1) End Shut-In Open To F Shut-In(2) End Shut-In	static low (1) n(1) low (2) n(2)	
	Recovery				Ga	s Rates		
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01-40 1	ESTING , INC	DRILL STEM TE	SIKER			
· 新		Mai Oil Operations		Frieb-	Manzier Unit	#1
	ESTING, INC	8411 Preston Rd. Ste. 800 Dallas, TX 75225			•15w Barton, et: 58904	KS DST#: 3
		ATTN: Jim Musgrove		Test Sta	rt: 2014.06.24 @	01:33:19
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Interval: 38 Total Depth: Hole Diameter:	525.00 ft (KB) To 35 3599.00 ft (KB) (T 7.88 inchesHole			Referen	ce Elevations: KB to GR/CF:	2018.00 ft (KB) 2010.00 ft (CF) 8.00 ft
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	Pressure vs. 7	ime IV			SURE SUMM	IARY
5795 5795			Time (Min.) 0 1 31 61 62 91 138 139	(psig) (de 1746.31 10 69.93 10 274.56 11 969.65 11 300.23 11 436.37 11 974.07 11	emp Annotat eg F) 22.47 Initial Hyd 22.18 Open To I 5.58 Shut-In(1) 4.00 End Shut- 13.84 Open To I 16.74 Shut-In(2) 15.95 End Shut- 15.98 Final Hyd	ro-static Flow (1)) In(1) Flow (2)) In(2)
	Recovery				Gas Rates	
Length (ft)	Description	Volume (bbl)			Choke (inches) Press	sure (psig) Gas Rate (Mcf/d
	00%M with oil spots SOCWM 2%O 38%O 6	2.03 0%M 4.21				
	CW 95%W 5%M	5.05				
1 1						

QUALITY OILWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Cell 785-324-1041

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Home Office P.O. Box 32 Russell, KS 67665

No. 501

Cell 785-324-1041		t manual manners	1313131	1. Con travelate	BRAN SALAN SALA		
Sec.	Twp.	Range	00000	County	State	On Location	Finish
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ALLIED OIL & GAS SERVICES, LLC 055294

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31 RUSSELL, KANSAS 6766

PRINTED NAME UG 4

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SIGNATURE

SERVICE POINT:

RUSSI	ELL, KAN	ISAS 0700	13				Russell	
DATE 6,25.14	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH	
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TUBING SIZE							1	
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DISCOUNT _____

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