



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1067079

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other (Explain) _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Grand Mesa Operating Company
Well Name	KLAUS-CAMPBELL 1-33
Doc ID	1067079

Tops

Name	Top	Datum
Stone Corral	2381	+517
Bs/Stone Corral	2404	+494
Heebner	3914	-1016
Lansing	3957	-1059
Muncie Creek	4109	-1211
Marmaton	4310	-1412
Little Osage	4428	-1530
Johnson	4528	-1630
Morrow	4559	-1661
Mississippian	4588	-1690
LTD	4694	

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

November 08, 2011

Ronald N. Sinclair
Grand Mesa Operating Company
1700 N WATERFRONT PKWY BLDG 600
WICHITA, KS 67206-5514

Re: ACO1
API 15-063-21938-00-00
KLAUS-CAMPBELL 1-33
NE/4 Sec.33-13S-31W
Gove County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Ronald N. Sinclair



DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Company**

1700 N Waterfront Parkway Bldg 600
Wichita Kansas S 67206 + 5514

ATTN: Steve Carl

33-13-31 Gove

Klause Campbell #1-33

Start Date: 2011.08.22 @ 13:05:00

End Date: 2011.08.22 @ 19:33:30

Job Ticket #: 16524 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2011.08.23 @ 11:35:52

Grand Mesa Operating Company

Klause Campbell #1-33

33-13-31 Gove

DST # 1

Johnson

2011.08.22



DRILL STEM TEST REPORT

Grand Mesa Operating Company

Klause Campbell #1-33

1700 N Waterfront Parkway Bldg 600
Wichita Kansas S 67206 + 5514

33-13-31 Gove

Job Ticket: 16524

DST#: 1

ATTN: Steve Carl

Test Start: 2011.08.22 @ 13:05:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:01:30

Time Test Ended: 19:33:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320- 85 - Scott Cit

Interval: 4508.00 ft (KB) To 4547.00 ft (KB) (TVD)

Reference Elevations: 2898.00 ft (KB)

Total Depth: 4547.00 ft (KB) (TVD)

2893.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Inside

Press @ RunDepth: 1166.34 psia @ 4543.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.08.22

End Date: 2011.08.22

Last Calib.: 2011.08.22

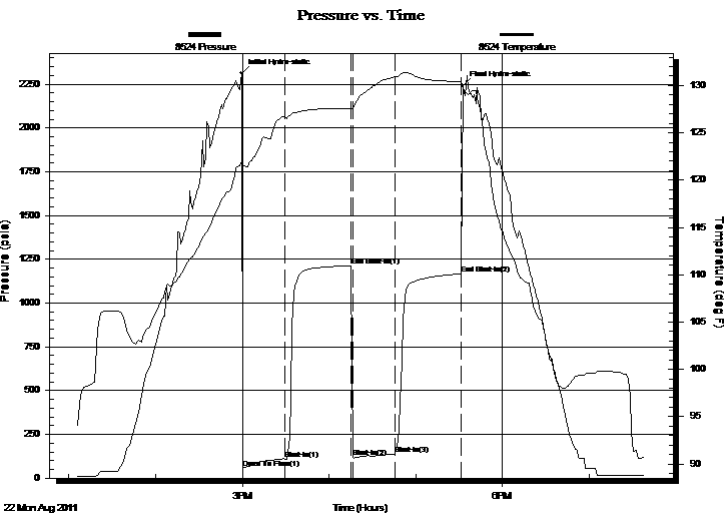
Start Time: 13:06:00

End Time: 19:39:00

Time On Btm: 2011.08.22 @ 14:59:30

Time Off Btm: 2011.08.22 @ 17:32:30

TEST COMMENT: 1st Opening 30 Minutes-Fair blow built to 7 1/2 inches into water
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Weak but building blow built to 1 1/2 inches
2nd Shut-in 45 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2312.28	121.95	Initial Hydro-static
1	53.67	121.55	Open To Flow (1)
30	110.26	126.60	Shut-In(1)
76	1211.95	127.61	End Shut-In(1)
77	117.29	127.51	Shut-In(2)
106	137.93	130.91	Shut-In(3)
152	1166.34	130.39	End Shut-In(2)
153	2239.34	129.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Water and Mud Cut Oil	0.59
0.00	60% Oil 10% Water 30% Mud	0.00
80.00	Water and Mud Cut Oil	1.12
0.00	60% Oil 10% Water 30% Mud	0.00
20.00	Clean Oil	0.28
0.00	60% Oil 10% Water 30% Mud	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Company
 1700 N Waterfront Parkway Bldg 600
 Wichita Kansas S 67206 + 5514
 ATTN: Steve Carl

Klause Campbell #1-33
33-13-31 Gove
 Job Ticket: 16524 **DST#: 1**
 Test Start: 2011.08.22 @ 13:05:00

Tool Information

Drill Pipe:	Length: 4370.00 ft	Diameter: 3.80 inches	Volume: 61.30 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 61.89 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4508.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	67.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	4485.00	
Hydraulic Tool	5.00			4490.00	
Jars	6.00			4496.00	
Safety Joint	2.00			4498.00	
Packer	5.00			4503.00	28.00 Bottom Of Top Packer
Packer	5.00			4508.00	
Anchor	34.00			4542.00	
Recorder	1.00	8524	Inside	4543.00	
Recorder	1.00	8419	Outside	4544.00	
Bullnose	3.00			4547.00	39.00 Bottom Packers & Anchor
Total Tool Length:	67.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Company
 1700 N Waterfront Parkway Bldg 600
 Wichita Kansas S 67206 + 5514
 ATTN: Steve Carl

Klausa Campbell #1-33
33-13-31 Gove
 Job Ticket: 16524 **DST#: 1**
 Test Start: 2011.08.22 @ 13:05:00

Mud and Cushion Information

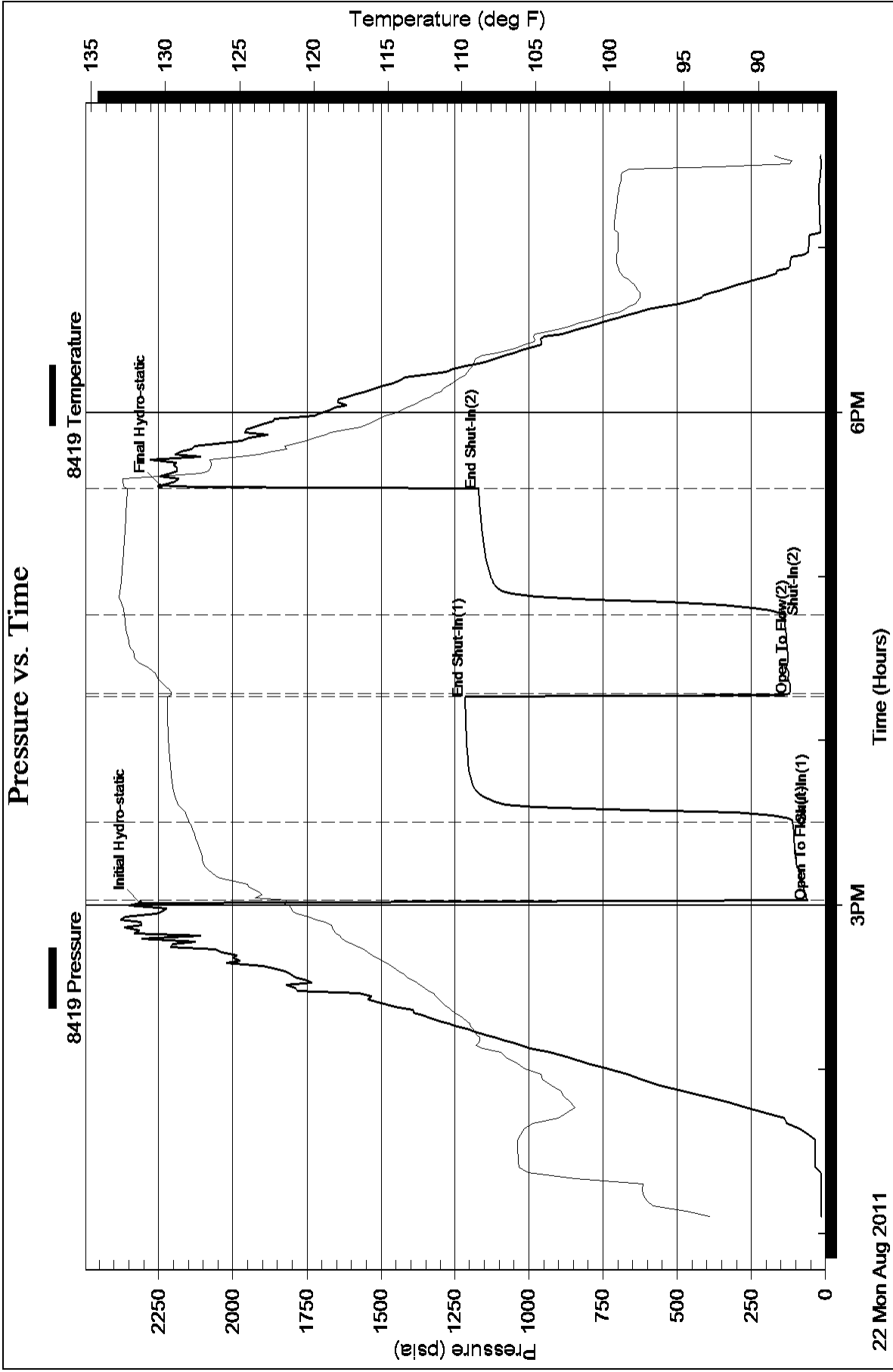
Mud Type: Invert	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.76 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

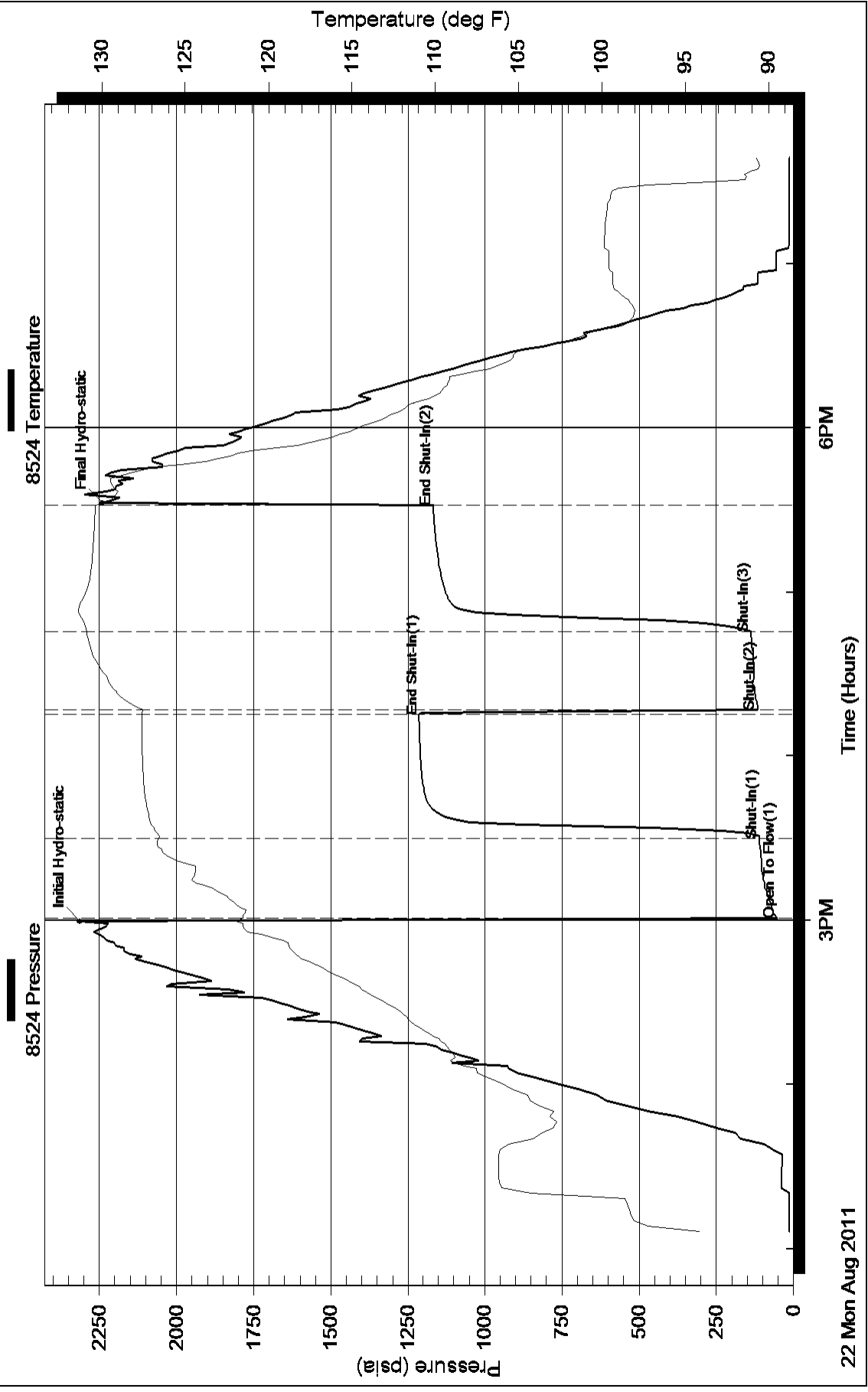
Recovery Table

Length ft	Description	Volume bbl
120.00	Water and Mud Cut Oil	0.590
0.00	60% Oil 10% Water 30% Mud	0.000
80.00	Water and Mud Cut Oil	1.122
0.00	60%Oil 10% Water 30% Mud	0.000
20.00	Clean Oil	0.281
0.00	60%Oil 10% Water 30% Mud	0.000
0.00	180 Gas in the pipe	0.000
0.00	Gravity 43 Corrected	0.000
0.00	Chlorides 30,000	0.000
0.00	Resisitvity .1 @ 78 Degrees	0.000

Total Length: 220.00 ft Total Volume: 1.993 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



Pressure vs. Time



ALLIED CEMENTING CO., LLC. 043390

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Daklay, ks

DATE <u>8-10-11</u>	SEC. <u>33</u>	TWP. <u>13</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION	JOB START <u>7:00pm</u>	JOB FINISH <u>9:30pm</u>
LEASE <u>Klaus Campbell</u>	WELL # <u>1-33</u>	LOCATION <u>Daklay 119, SE, 5 1/2 S</u>			COUNTY <u>Goar</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>				<u>Winds</u>			

CONTRACTOR Martin #24

TYPE OF JOB Surface

HOLE SIZE 12 1/2" T.D. 220'

CASING SIZE 8 7/8" DEPTH 220'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 13.1266

EQUIPMENT

PUMP TRUCK # 422 CEMENTER Lakene
HELPER Darren

BULK TRUCK # 409 DRIVER Chris

BULK TRUCK # DRIVER

REMARKS:

Mix 165 stks down casing
Displace with water
Cement did circulate
Thank You

CHARGE TO: Grand Mesa

STREET _____

CITY _____ STATE _____ ZIP _____

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Anthony Martin

SIGNATURE Anthony Martin

OWNER same

CEMENT AMOUNT ORDERED 165 stks com 3% CC
to gel

COMMON	<u>165 stks @ 16.25</u>	<u>2681.25</u>
POZMIX	@	
GEL	<u>39 stks @ 21.25</u>	<u>63.75</u>
CHLORIDE	<u>6 stks @ 58.20</u>	<u>349.20</u>
ASC	@	
	@	
	@	
	@	
	@	
	@	
	@	
	@	
HANDLING	<u>174 stks @ 2.25</u>	<u>391.50</u>
MILEAGE	<u>114 stks/mile</u>	<u>421.08</u>
		TOTAL <u>3906.78</u>

SERVICE

DEPTH OF JOB 220'

PUMP TRUCK CHARGE 1125.00

EXTRA FOOTAGE @

MILEAGE 22 x 2 @ 7.00 308.00

MANIFOLD 5 wedge @ 325.00

Light Vehicle mile @ 4.00 176.00

@

TOTAL 1938.00

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL _____

SALES TAX (If Any) _____

TOTAL CHARGES _____

DISCOUNT _____ IF PAID IN 30 DAYS

JOB LOG

SWIFT Services, Inc.

DATE 8-24-11 PAGE NO. 1

CUSTOMER: **GRAND MESA** WELL NO. **1-33** LEASE **KLAUS-CAMPBELL** JOB TYPE **5 1/2" 2-STAGE LGST.** TICKET NO. **21018**

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2400							ON LOCATION
	0045							START 5 1/2" CASING IN WELL
								TD- 4700 SET = 469#
								TP- 4698 5 1/2 # 15.5
								ST- 11'
								CONTRAILZS- 1, 3, 5, 8, 10, 15, 55
								CMT BSKTS- 2, 56
								DV TOOL = 2405 TOP JT # 56
	0300							DROP BALL - CIRCULATE ROTATE
	0350	7	12		✓	500		PUMP 500 GAL MUD FLUSH "
	0352	7	20		✓	500		PUMP 20 BBL KCL-FLUSH "
	0400	4	42		✓			MAX 175 SKS EA-2 @ 15.4 PPG "
	0412							WASH OUT PUMP - LEVES
	0412							RELEASE 1 ST STAGE LATCH DOWN PLUG
	0415	8	0		✓			DISPLACE PLUG "
		8	101			850		SHOT OFF ROTATING
	0430	7	111.5			1500		PLUG DOWN - PSE UP LATCH IN PLUG
	0432					OK		RELEASE PSE - HELD WASH TRUCK
	0435							DROP DV OPENING PLUG
	0450				✓	1250		OPEN DV - CIRCULATE
	0635	6	20		✓	300		PUMP 20 BBL KCL-FLUSH
	0640		7-5					PLUG RH - MH (30 SKS - 20 SKS)
	0645	6	140		✓	250		MAX 250 SKS SMD @ 11.2 PPG
	0725							WASH OUT PUMP - LEVES
	0726							RELEASE DV CLOSING PLUG
	0730	6	0		✓			DISPLACE PLUG
	0740	5	57.2			1500		PLUG DOWN - PSE UP CLOSE DV TOOL
	0742					OK		RELEASE PSE - HELD
								CIRCULATED 40 SKS cement to PET
								WASH TRUCK
	0830							JOB COMPLETE <i>John Taylor</i> <i>Don Stueber</i> THANK YOU WAYNE, DON L., JOE, ROB

Pro-Stim Chemicals, LLC

P.O. Box 25
 Cheyenne Wells, CO 80810

Invoice

Date	Invoice #
9/29/2011	57146

Bill To
Grand Mesa Operating Co. 1700 N. Waterfront Pkwy - Bldg 600 Wichita, KS 67206-6614

Ship To

Requested By	Terms	Sales Rep.	Ship	Lease
	Net 30	S M	9/22/2011	KLAUS CAMPBELL

Quantity	Item Code	Description	Price Each	Amount
400	RWR-1 15%	GALLONS	2.26	904.00
2	AR-630	GALLONS	24.10	48.20
26	KCL BIOCID - 2%	BRLS	3.16	82.16
1	DUMP JOB		158.00	158.00T
6	TRUCK TIME	HOURS	95.00	570.00T
		Sales Tax - LOGAN CO.	7.80%	56.78

Total			\$1,819.14
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Phone #	Fax #	E-mail
719-767-8071	719-767-5925	prostim@hotmail.com

GRAND MESA

OPERATING COMPANY

(316) 265-3000
FAX: (316) 265-3455

1700 N. WATERFRONT PARKWAY
BLDG. 600
WICHITA, KANSAS 67206-5514

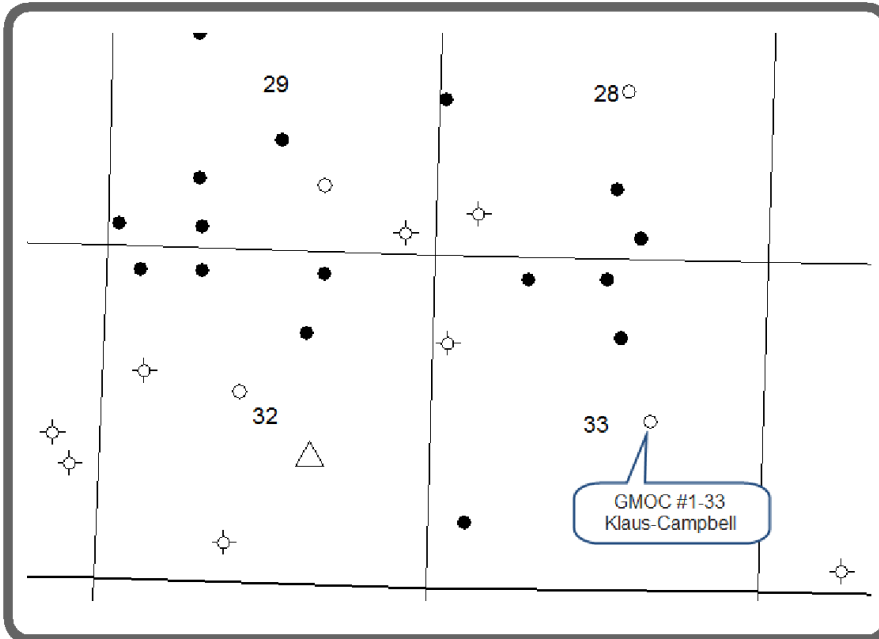
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: #1-33 Klaus-Campbell
Location: 2581'FNL 1797'FEL 33-13s-31w, Gove County, Kansas
License Number: API: 15-063-21938 Region: Antelope Ridge
Spud Date: 8/16/2011 Drilling Completed: 8/23/2011
Surface Coordinates: LAT: 38.880957
LONG: -100.766931
Bottom Hole Vertical hole
Coordinates:
Ground Elevation (ft): 2893 K.B. Elevation (ft): 2898
Logged Interval (ft): 3600' To: RTD Total Depth (ft): 4700
Formation: Mississippian at RTD
Type of Drilling Fluid: Chemical

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

GEOLOGIST

Name: Steven P. Carl and John Goldsmith
Company: Grand Mesa Operating Company
Address: 1700 N. Waterfront Parkway, Bldg 600
Wichita, Kansas 67206
316-256-3000

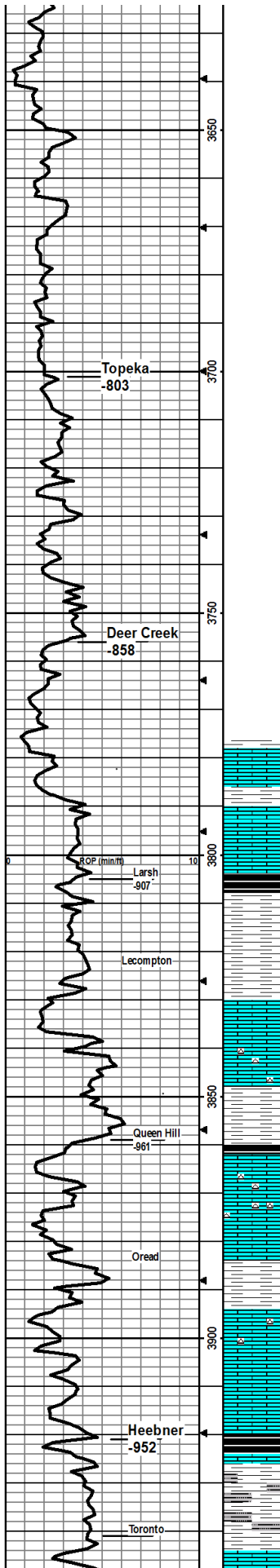


COMMENTS

Contractor: Murfin Drilling Company Rig #24
Pusher: Tony Martin
Surface Casing: 8 5/8 set at 220'
Production Casing: 5 1/2" set at 4700' to further evaluate the Johnson zone.
Mud by: MudCo
DST's by: Superior Testing
Logs by: Weatherford (DIL, CN-CD, ML)
RTD=4700'
LTD=4694'

FORMATION TOPS

FORMATION	SAMPLE TOPS		LOG TOPS	
	Depth	Datum	Depth	Datum
Stone Corral	2386'	+512	2381'	+517
B/Stone Corral	2408'	+490	2533'	+494



LS - lt gry/cream, fxdn, no por, abund sh - gry, no cup odr, ns.

LS - gry/md tan, fxdn, foss-crin, bryz, brach, msty dns w/ nvp, sm LS drk gry, foss-crin, 1 pc LS md gry, fxdn, sply por, intxn por, sply drk brn stn, cuts pl blue, nsfo.

LS - gry/md tan, fxdn, fw cal inclusns, msty dns w/ nvp, no cup odr, ns.

LS - gry/md tan, fxdn, foss-forams/var, dns w/ nvp, no cup odr, fw LS gry, sptd w/ drk foss, dns/hd w/ nvp, scat pr int xln por, spotty drk stn, cuts pale blu, nsfo.

LS-crm/lt tan, mottled, crs xln, mealy/grainy, foss-bryz/fus, sm ool/pis, dense, hard, nvp, abund chert-gry, opaque foss, nvp, no cup odr, ns.

LS-mostly as above, dense/hard, diff crush, v foss-crin, SH-gry/grn, foss-brach, no cup odr, ns.

LS-crm/tan, fn-med xln, dense/hard, diff crush, v foss-crin/ fus/gas, scat pr int xln por, abund chert-gry, opaque, foss, no cup odr, no fluor, ns.

LS-4t gry/tn, vfn-fn xln, dense/hard, diff crush, decr foss-few fus/crin, nvp, chert as above, sm weathered, sm chalk, no cup odr, ns.

SH-gry/brn/sm blk-fiss, sm silty, LS-as above no cup odr, ns.

LS-med gry, med-crs xln, foss-fus/crin/foram, dense/hard, nvp, decr chert, sm chalk, no cup odr, ns.

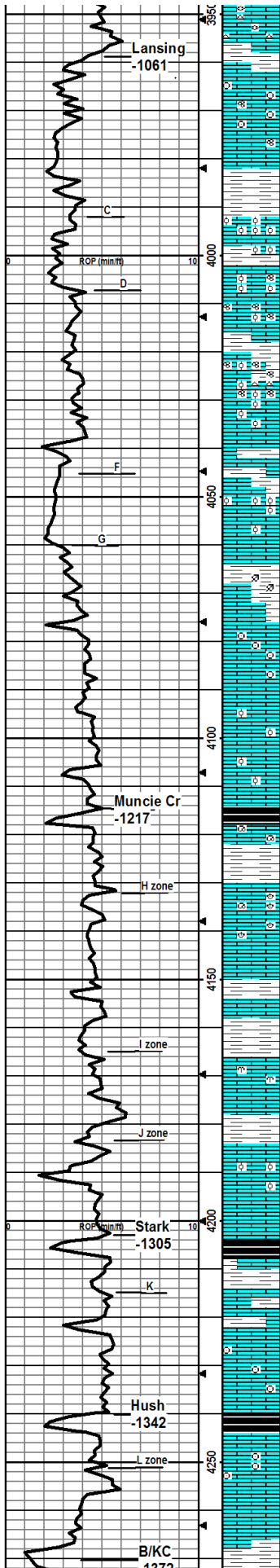
LS-tan/gry, med xln, foss, as above dense/hard, nvp, ns.

LS-gry, fn-med xln, decr foss, dense/hard, nvp, ns.

SH-blk, carb, few pcs in 3930smpl, flood in 3940smpl.

MUDS TNV SH-4t gry/lt tan, v soft, silty in part, sample cup water is dirty tan/gry.

LS-4t tan/crm, micro-fn xln, v foss-various, rare pr int foss por mostly



filled w/calc spar, sm ool, dense/hard, diff crush, scat drk brn min stn, does not cut, sm chert-gry/ tan, opaque, foss-fus/spic, scat m in fluor, nvp, no cup odr, ns.

LS-gry, mostly vfn-fn xln, dense/hard, sm crs xln, sparry, sm chalk, uniform -vfoss-foram/crin/spic, v rare pr int xln por, no cup odr, ns.

LS-gry/lt tan, mostly as above, few pcs LS-orm, fn xln, ool/ foss-various, sparry, decr chalk, nvp, no cup odr, ns.

LS-orm/lt tan, micro-fn xln, sm uniform, dense/hard, sm profus ool, dense, med crush, few pcs chalk, nvp, no cup odr, ns.

LS-med-lt tan, sm fn xln, sm med-crs xln, abund foss-bryz/ various, abund spar, dense, nvp, no cup odr, ns.

LS-orm/tan, fn xln, profus ool/foss, spar filled int ool por, sm chert-gry, opaque, foss, no cup odr, no fluor, ns.

60m in LS-as above, influx red mudstn, v soft, sticky.

LS - lt tan/crm, f/med xln, ool/foss-forams, dens/hrd, ool filled por, no cup odr, sm sm al specs of pyrite

LS-orm/lt tan, vfn xln, rare crs xln, v foss/ool, sparry, mostly dense, sm mealy/flakey, chalky, nvp, sm chert-gry, opaque, fresh, no cup odr, SH-gry/grn, sm silty, ns.

LS - crm/lt tan, vfn xln, foss/ool, dense/hrd, nvp, no cup odr,

LS - lt tan/crm, fn xln, foss sm ool, dense, nvp, sm chert-gry, opaque, no cup odr, SH-gry.

LS - lt tan/crm, fn xln, ool/foss, sm chalky, ool fill por, sm SH - gry/grn.

LS - crm/lt tan, fn xln, foss, sm ool, nvp, sm SH gry/grn, w/ pyrite intrn x, 2 pc chert, orgn, no cup odr.

Predom SH-gry/brn, silty, sm mica, few plant remains.

LS - Lt tan/crm, vfn xln, foss/ool, nvp, sm SH-gry/grn, silty, no cup odr, ns.

LS - crm/lt gray, vf xln, sm foss-crin, few pcs ool, nvp, no cup odr, ns.

LS - lt tan/crm, f/dn, fw foss sm ool, nvp, no cup odr, ns.

LS - crm/lt tan, f/dn, scat frac w/ drk brn min stain, ds not cut, sm ool, nvp, no cup odr, ns.

LS - lt gry/crm, f w/ sm med xln, sm ool, nvp, sm pyrite m in intrnxd, no cup odr, ns.

LS - lt gry/crm, f/dn, sm ool/fw foss, nvp, sm cherty-gry, opaque, no cup odr, fw frags of drk carb SH.

SH - drk gry/black, carb.

LS - lt gry/lt brn, f/dn, foss-gast, sm ool, dense/hard, no cup odr, ns.

LS - Lt/med tan, med/crse xln, foss-bryz/crin, mstly dense, stlly chalky, fw pcs vpr nxdn por, sply dead oil stain, cuts wk pale blue, no cup odr, nsfo.

LS-It tan, fn xln, foss-brach/crin/ool, dense/med crush, nvp, no cup odr, ns.

LS-It tan, vfn xln, dense/hard, mostly uniform, decr foss, few pcs chert, few frac faces w/drck stn, w/k cut, no cup odr, nsfo.

LS-tan, med-crs xln, mostly uniform, sm foss-various, sm nvp, abund SH-brn, silty, no cup odr, ns.

SH-predom brn, silty, sm gry, silty.

LS-orm/lt tan, vfn xln, foss-fus/crin/bryz, dense, brittle, nvp, no cup odr, ns.

LS-sm as above, plus LS-gry, fn xln, uniform, dense/hard, nvp, no cup odr, ns.

SH-gry/grn/brn, sm silty, hard, waxy, no cup odr, ns.

LS-orm, micro xln, foss/ool, dense, brittle, nvp, no cup odr, no fluor, ns.

LS-orm, micro-fn, mostly uniform, sm foss as above, dense/hard, no cup odr, ns.

SH-blk, carb.

LS-It brn, micro xln, hard, dense, brittle, foss-various, nvp, no cup odr, ns.

LS-as above, SH-gry/grn, silty.

LS-gry, fn-med xln, dense, hard, brittle, foss-crin, nvp, no cup odr, ns.

SH-blk, carb.

LS - lt tan/lt brn, f/med xln, dense/hard, foss, nvp, no cup odr, ns.

LS - gry/lt tan, f sm med xln, dense, nvp, no cup odr, ns.

SH - gry/grn, hard.

Mudco:
3957
Wt: 9.1
Vis: 57
pH: 10.0
Flit: 8.8
Chlor: 2200
LCM: 2

Circ 60m in

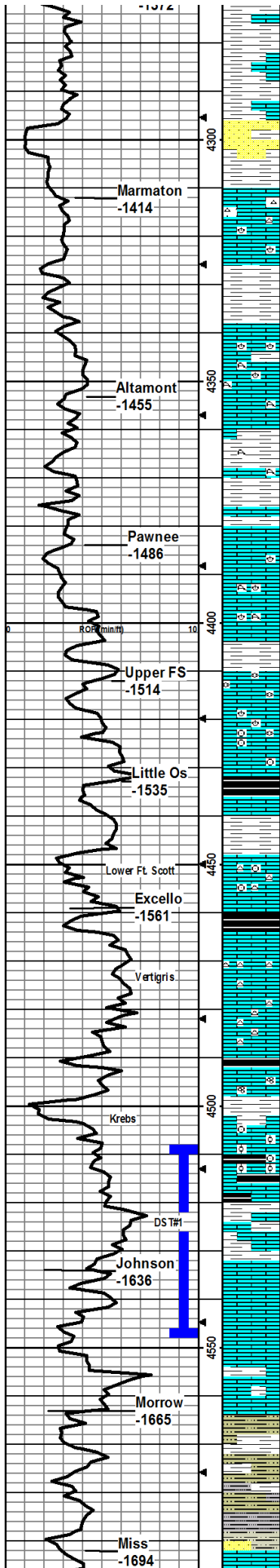
Circ 60m in

Circ 60m in

Circ 60m in

Circ 60m in

Mudco:
4240
Wt: 9.1
Vis: 53
pH: 9.5
Flit: 8.2
Chlor: 2500
LCM: 2



SH - gry/grn, sm silty, no cup odr.

SH - gry/grn, sm silty, sm LS - tan/lt brn, f xln, dense flakey, nvp no cup odr, ns

SH - gry/grn, silty, sm LS - gry/lt tan, fxn, foss, dense/hard, nvp, no cup odr, ns.

SH - gry/grn, sandy, soft, chalky, sm LS - crm/lt tan, med xln, foss-brach, sm ool, tr int xln por, SS - lt brn, fn grn, sub rnded grns, tr por, no cup odr, ns.

LS - lt tan/crm, fmed xln, sm ool, nvp, sm pcs Chert - brght orng, no cup odr, ns.

LS - lt tan/crm, f xln, foss-crin/brach, flakey, nvp, fw pcs SH - reddish/brn, silty, no cup odr, ns.

LS - lt tan/lt brn, fxn, foss-brach, flakey, sm crm, nvp, no cup odr, ns.

LS - lt tan/crm, fmed xln, foss-brach, dsn/hrd, nvp, sm SH - rdsh/brn, silty, fresh, no cup odr, ns.

LS-med tan, med xln, uniform to v foss-coral/crin, hard/ dense brittle, few pcs w/vpr int xln por, drk patchy sh, dead oil? does not cut, abund SH-gry/brn, sm silty, no cup odr, nsfo.

LS-brn-lt gry, sm mottled, sm uniform, sm foss-coral/ various, hard/dense, rare vpr int xln por w/drck patchy dd oil stn, does not cut, abund SH-predom gry, no cup odr, nsfo.

SH-predom gry, silty, sm red/brn, silty, no cup odr, ns.

SH-gry/brn, silty, sm pure chalk-wht, v soft, sticky, nvp, no cup odr, ns.

pure chalk as above, soft, sticky.

LS-med tan, micro xln, profus ool/foss-brach/coral/bryz, hard, dense, chalky, nvp, no cup odr, ns.

LS-lt gry-med tan, micro xln, profus ool/pic/foss as above, flakey, chalky, easy crush, nvp, SH-predom gry, sm striated, silty, sm blk-carb, no cup odr, ns.

LS-med tan, micro xln, profus ool/foss-crin/brach/fus, dense, med crush, nvp, SH-drk gry/blk, sm carb, no cup odr, ns.

LS-med tan, fn xln, decr ool/foss, dense, hard, brittle, few pcs w/vpr int xln por, few spots free oil in rare pcs, chalky, abund chert-gry, op-transl, foss, nvp, no cup odr, ns.

SH-mostly drk gry, sm blk, carb, fissile

SH-med-lt gry, fissile.

LS-crm/lt gry, fn xln, mostly uniform, dense/brittle, foss-spi d'crin, nvp, no fluor, abund chert-gry, transl, foss-spic, no cup odr, ns.

SH-blk, carb, flood in 4470smpl, bleed gas on break, no cup odr.

LS-gry, fn xln, uniform, nvp, abund chert-gry, opaque, foss-spic, no cup odr, ns.

LS-med brn-lt tan, fn xln, some uniform, some v ool foss-various, dense, hard, nvp, abund sharp chert-gry, opaque, no cup odr, ns.

SH-blk, carb.

LS-tan, micro-fn xln, mostly uniform, dense, brittle, med crush, few foss-foram, nvp, no cup odr, ns.

SH-gry, silty.

LS-mostly as above, sm LS-tan, fn xln, ool/foss, dense, abund chert-gry, transl, foss-spic, sm DOLO-lt brn, fn xln, dense, nvp, SH-gry/silty sm blk carb, no cup odr, ns.

Mix of LS's and SH's as above, no cup odr, ns.

SH-gry, silty, sm blk carb.

LS-med tan, micro-fn xln, dense, brittle, mostly uniform to silty foss, v rare pr int xln por, 1pc/tray w/wssfo, no cup odr.

LS-mostly as above, dense, few pcs/tray w/pr-fr int xln por, ssfo, frnt odr on break, frnt gold fluor, no cup odr.

LS-med tan, fn xln, dense, uniform, rare foss, few pcs w/fr int foss por, nsfo, few pcs LS-med tan, med xln, fr ppl/wug por, ssfo, sm drk dd oil stn, abund pure wht chalk, soft, abund SH-gry, no cup odr.

SH and Mudstone, yell/gry, firm to v soft/sticky, silty, abund loose sand grns-clr qtz, vfn grn, sub-rnd, well srted, no clusters, no cup odr, no fluor, cup water dirty yellow/brown, ns.

SH and Mudstone as above, loose ss grns as above, no cup odr, ns.

SH-lt tan, vsoft, sticky, abund sand grns as above, no cup odr, sm SS clusters-lt blu/gry, vfn grn, well cen, well srted, ns.

Circ 30m in

DST#1
4508'-4547'
Johnson
30-45-30-45
180' GIP
200' TF
20' CO
180' W&MCO
60% Oil
10% Wtr
30% Mud
Chlor: 30k
IFP: 59-110#
FFP: 120-137#
SIP: 1213-116#

Circ 60m in

Circ 60m in

