



KANSAS CORPORATION COMMISSION 1091462
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009

Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33922
Name: Mustang Energy Corporation
Address 1: PO BOX 1121
Address 2: _____
City: HAYS State: KS Zip: 67601 + _____
Contact Person: Rodney Brin
Phone: (785) 623-0533
CONTRACTOR: License # 31548
Name: Discovery Drilling
Wellsite Geologist: Herb Deines
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 #: _____
5/5/2012 5/11/2012 5/12/2012
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 15-165-21971-00-00
Spot Description: _____
NE_NW_SE_NW Sec. 6 Twp. 16 S. R. 18 East West
1340 Feet from North / South Line of Section
1845 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Rush
Lease Name: Werth Well #: 1
Field Name: Big Timber Northwest
Producing Formation: None
Elevation: Ground: 2004 Kelly Bushing: 2012
Total Depth: 3660 Plug Back Total Depth: _____
Amount of Surface Pipe Set and Cemented at: 1185 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: 18000 ppm Fluid volume: 400 bbls
Dewatering method used: Evaporated
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: Doanna Corbo Date: 08/29/2012



1091462

Operator Name: Mustang Energy Corporation Lease Name: Werth Well #: 1
 Sec. 6 Twp. 16 S. R. 18 East West County: Rush

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 (Attach Additional Sheets)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Anhydrite	1181	+831
Electric Log Run	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Base	1210	+802
Electric Log Submitted Electronically (If no, Submit Copy)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Heebner	3254	-1242
List All E. Logs Run:		LKC	3301	-1289
Attached		BKC	3546	-1534
		Reagan Sand	3627	-1615

CASING RECORD <input checked="" 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
Surface Pipe	12.25	8.625	23	1185	Common	450	2% Gel 3%cc

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 (Amount and Kind of Material Used)	Depth

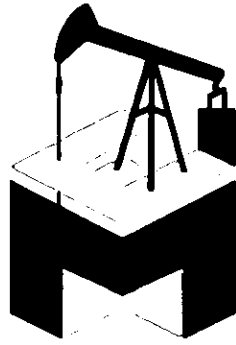
TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease (If vented, Submit ACO-18.)	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled (Submit ACO-5) (Submit ACO-4) <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Mustang Energy Corporation
Well Name	Werth 1
Doc ID	1091462

All Electric Logs Run

Micro Log
Dual Induction
Compensated Neutron Density
Sonic Log



MUSTANG ENERGY CORPORATION

Scale 1:240 Imperial

Well Name: WERTH #1
Surface Location: NE NW SE NW 6-16S-18W
Bottom Location:
API: 15-165-21971-0000
License Number: 33922
Spud Date: 5/5/2012 Time: 3:34 PM
Region: RUSH
Drilling Completed: 5/12/2012 Time: 5:50 PM
Surface Coordinates: 1340' FNL & 1845' FWL
Bottom Hole Coordinates:
Ground Elevation: 2004.00ft
K.B. Elevation: 2012.00ft
Logged Interval: 1185.00ft To: 3659.00ft
Total Depth: 3660.00ft
Formation:
Drilling Fluid Type: FRESH WATER/CHEMICAL GEL

OPERATOR

Company: MUSTANG ENERGY CORPORATION
Address: P.O. BOX 1121
HAYS, KS 67601
Contact Geologist: ROD BRIN
Contact Phone Nbr: (785) 623-0533
Well Name: WERTH #1
Location: NE NW SE NW 6-16S-18W
Pool: API: 15-165-21971-0000
State: KANSAS Field: BIG TIMBER NORTHWEST
Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.3574623 Latitude: 38.6931176
N/S Co-ord: 1340' FNL
E/W Co-ord: 1845' FWL

LOGGED BY



Company: SOLUTIONS CONSULTING
Address: 108 W 35TH
HAYS, KS 67601
Phone Nbr: (785) 259-3737

Logged By: Geologist

Name: JEFF LAWLER

CONTRACTOR

Contractor: DISCOVERY DRILLING
 Rig #: 4
 Rig Type: MUD ROTARY
 Spud Date: 5/5/2012
 TD Date: 5/12/2012
 Rig Release: 4/12/2012
 Time: 3:34 PM
 Time: 5:50 PM
 Time: 10:00 PM

ELEVATIONS

K.B. Elevation: 2012.00ft
 K.B. to Ground: 8.00ft
 Ground Elevation: 2004.00ft

NOTES

DUE TO NON-COMMERCIAL RECOVERY ON ALL DST'S, DECISION WAS MADE TO PLUG & ABANDON THE WERTH #1.

RESPECTFULLY SUBMITTED,
 JEFF LAWLER

WELL COMPARISON SHEET

FORMATION	P&A 12-86				P&A 7-96				P&A 4-85				N				
	R.P. NIXON				R.P. NIXON				SUNBURST EXPLOR. CO.				NCRA				
	WERTH #4				WERTH #3				BIEKER #1				BIEKER #1				
	N2 SW NW 6-16-18				NW NE SW NW 6-16-18				NE NW SW 6-16-18				NW NW SE 6-16-18				
KB	2012		KB	2009		KB	2007		KB	2014		KB	2011		KB	2011	
DEPTH	SAMPLE TOPS		DEPTH	CARD/SMP TOPS		SMPL CORR	DEPTH	DATUM	SMPL CORR	DEPTH	DATUM	SMPL CORR	DEPTH	DATUM	SMPL CORR	DEPTH	DATUM
ANHYDRITE TOP	1181	1171	841	1172	837	+ 4	1182	825	+ 16	1176	858	+ 3	1169	842			1
BASE	1210	1213	799	1215	794	+ 5	1210	797	+ 2	1218	796	+ 8					
TANBO																	
TOPEKA	2971	2969	-957	2971	-961	+ 5	2967	-960	+ 3	2973	-959	+ 2					
OREAD																	
NEEDLER SHALE	3254	3254	-1242	3252	-1243	+ 1	3249	-1242	+ 0	3258	-1244	+ 2	3255	-1244			+ 2
TORONTO	3275	3276	-1264	3272	-1263	- 1	3268	-1261	- 3								
DOUGLAS																	
BROWN LIME																	
LKC	3301	3299	-1287	3298	-1289	+ 2	3298	-1291	+ 4	3308	-1294	+ 7	3299	-1288			+ 1
SEC	3546	3544	-1532	3536	-1527	- 5	3532	-1525	- 7	3536	-1522	- 10					
CONG. SAND													3590	-1579			
MICROSLIPAN																	
ARBuckle	3601	3600	-1588	3575	-1566	- 22	3574	-1567	- 21	3593	-1579	- 9	3603	-1592			+ 4
REAGAN	3627												3626	-1615			
RTD		3660	-1648						65	3606	-1592	- 58	3630	-1619			- 29
LTD	3659			3582	-1578					3606	-1592		3630	-1619			

DST #1 LKC "D-F"



TRIOBITE TESTING, INC

DRILL STEM TEST REPORT

Mustang Energy Corporation

6-16s-18w-Rush

PO Box 1121
 Hays, KS. 67601

Werth #1

Job Ticket: 47287

DST#: 1

ATTN: Jeff Lawler

Test Start: 2012.05.10 @ 04:36:58

GENERAL INFORMATION:

Formation: D-E-F
 Deviated: No Whipstock 0.00 ft (KB)
 Time Tool Opened: 06:26:28
 Time Test Ended: 12:12:43

Test Type: Conventional Bottom Hole (Initial)
 Tester: Jason McLemore
 Unit No: 54

Interval: 3335.00 ft (KB) To 3372.00 ft (KB) (TVD)
 Total Depth: 3372.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches-Hole Condition: Good

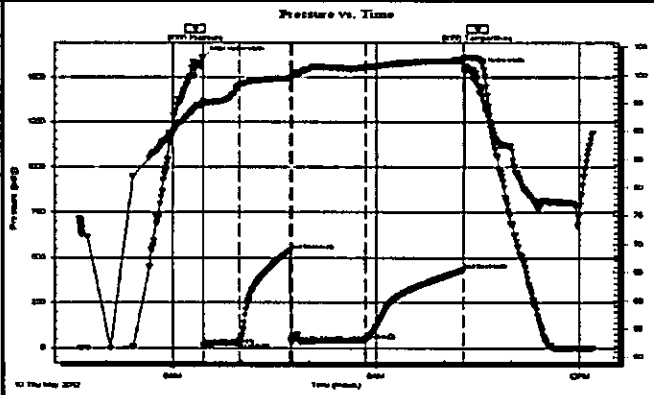
Reference Elevations: 2012.00 ft (KB)
 2004.00 ft (CF)
 KB to GRFC: 8.00 ft

Serial #: 8366 Inside
 Press@RunDepth: 44.41 psig @ 3339.00 ft (KB)
 Start Date: 2012.05.10 End Date: 2012.05.10
 Start Time: 04:37:00 End Time: 12:12:43

Capacity: 8000.00 psig
 Last Calib.: 2012.05.10
 Time On Btm: 2012.05.10 @ 06:26:13
 Time Off Btm: 2012.05.10 @ 10:17:43

TEST COMMENT: FP-Weak Blow, Built to 2-1/2"
 IS-Dead
 FFP-Weak Blow, Built to 3"

FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1609.62	95.32	Initial Hydro-static
1	15.55	94.59	Open To Flow (1)
32	31.67	98.12	Shut-In(1)
77	539.37	99.44	End Shut-In(1)
79	35.42	99.51	Open To Flow (2)
144	44.41	101.29	Shut-In(2)
231	429.90	102.58	End Shut-In(2)
232	1548.26	103.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00		0.64

Gas Rates

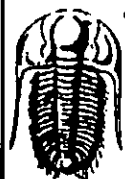
Choke (inches)	Pressure (psig)	Gas Rate (Mc/d)

Trilobite Testing, Inc

Ref. No: 47287

Printed: 2012.05.10 @ 12:43:56

DST #3 CONGLOMERATE



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mustang Energy Corporation

6-16s-18w-Rush

PO Box 1121
Hays, KS. 67601

Werth #1

ATTN: Jeff Lawler

Job Ticket: 47289

DST#: 3

Test Start: 2012.05.11 @ 17:58:31

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: **No Whipstock** 0.00 ft (KB)
 Time Tool Opened: 19:45:31
 Time Test Ended: 22:26:31

Test Type: **Conventional Bottom Hole (Reset)**
 Tester: **Jason McLemore**
 Unit No: **54**

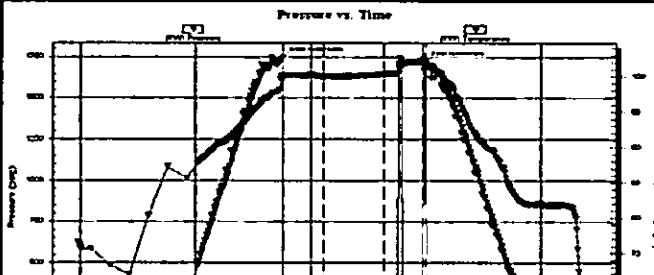
Interval: **3520.00 ft (KB) To 3600.00 ft (KB) (TVD)**
 Total Depth: **3600.00 ft (KB) (TVD)**
 Hole Diameter: **7.80 inches** Hole Condition: **Good**

Reference Elevations: **2012.00 ft (KB)**
2004.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: **8366** **Inside**
 Press@RunDepth: **47.61 psig @ 3587.00 ft (KB)**
 Start Date: **2012.05.11** End Date:
 Start Time: **17:58:33** End Time:

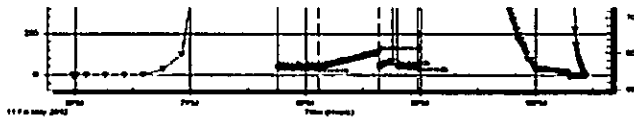
Capacity: **8000.00 psig**
 Last Calib.: **2012.05.11**
 Time On Btm: **2012.05.11 @ 19:45:16**
 Time Off Btm: **2012.05.11 @ 20:59:31**

TEST COMMENT: **FP-Weak Surface Blow, Dead in 10 Mn.**
SI-Dead
FP-Dead, Flush Tool, Dead After Surge, Pull Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1749.79	100.22	Initial Hydro-static
1	45.60	99.68	Open To Flow (1)
22	47.61	100.02	Shut-In(1)
53	140.12	100.33	End Shut-In(1)
54	51.50	100.27	Open To Flow (2)
74	53.53	102.22	Shut-In(2)
75	1719.50	102.32	Final Hydro-static



Recovery		
Length (ft)	Description	Volume (bbl)
2.00	Drilling Mud	0.01

Gas Rates		
Choke (inches)	Pressure (psig)	Gas Rate (Mc/d)

Trilobite Testing, Inc

Ref. No: 47289

Printed: 2012.05.12 @ 11:47:17

LKC #4 ARBUCKLE



DRILL STEM TEST REPORT

Mustang Energy Corporation
 PO Box 1121
 Hays, KS. 67601
 ATTN: Jeff Lawler

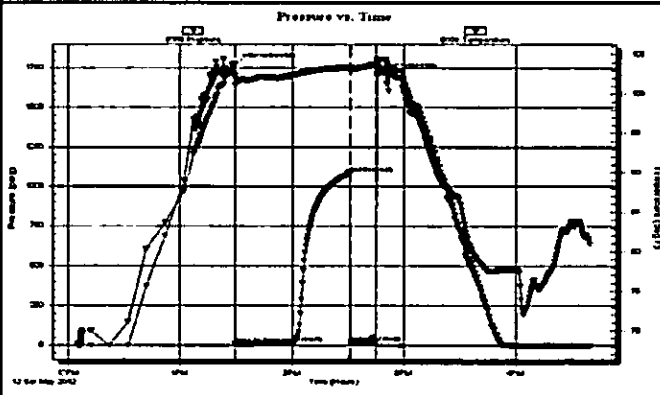
6-16s-18w-Rush
 Werth #1
 Job Ticket: 47290
 Test Start: 2012.05.12 @ 12:05:12
 DST#: 4

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: **No Whipstock** 0.00 ft (KB)
 Time Tool Opened: 13:29:42
 Time Test Ended: 16:39:57
 Interval: **3604.00 ft (KB) To 3619.00 ft (KB) (TVD)**
 Total Depth: **3619.00 ft (KB) (TVD)**
 Hole Diameter: **7.80 inches** Hole Condition: **Good**
 Test Type: **Conventional Straddle (Reset)**
 Tester: **Jason McLemore**
 Unit No: **54**
 Reference Elevations: **2012.00 ft (KB)**
2004.00 ft (CF)
 KB to GR/CF: **8.00 ft**

Serial #: **8366** Inside
 Press@RunDepth: **17.05 psig @ 3605.00 ft (KB)**
 Start Date: **2012.05.12** End Date: **2012.05.12**
 Start Time: **12:05:14** End Time: **16:39:57**
 Capacity: **8000.00 psig**
 Last Calib.: **2012.05.12**
 Time On Btm: **2012.05.12 @ 13:29:27**
 Time Off Btm: **2012.05.12 @ 14:45:12**

TEST COMMENT: FFP-Weak Surface Blow
 IS-Dead
 FFP-Dead, Pull Tool

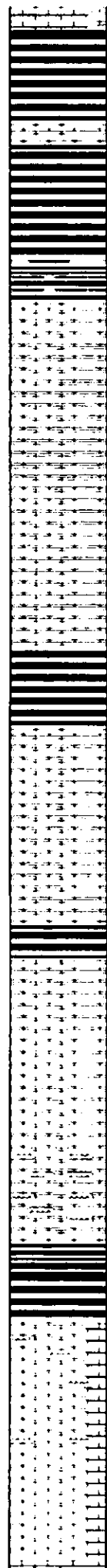
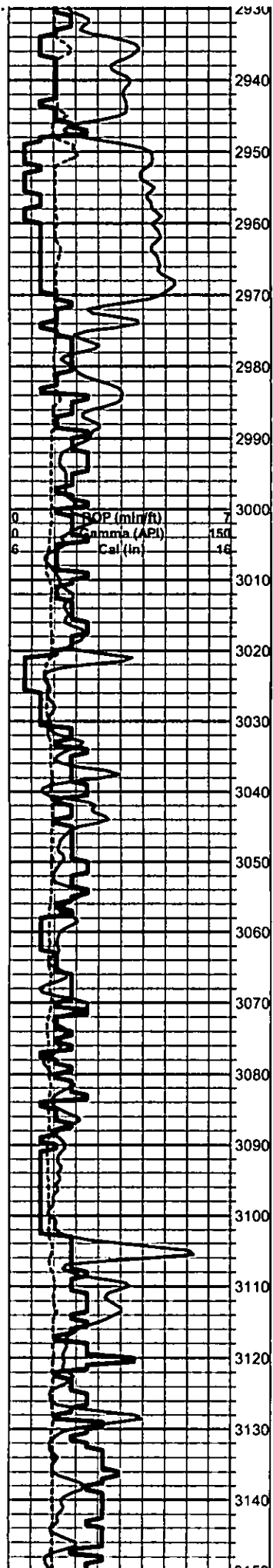


PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1772.21	102.39	Initial Hydro-static
1	9.18	101.13	Open To Flow (1)
31	17.05	102.52	Shut-In(1)
62	1086.66	103.42	End Shut-In(1)
62	17.94	102.87	Open To Flow (2)
76	21.23	103.73	Shut-In(2)
76	1713.21	104.46	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
3.00	Drilling Mud	0.01

Gas Rates		
Choke (inches)	Pressure (psig)	Gas Rate (Mc/d)



Lm- Gray Buff Tan, FXLN, dense, sl. FSL, algal in part, scattered pinpoint porosity, bi-clastic, trashy

Sh- Gray Lime Green, dense, soft & smooth

TOPEKA 2969' (-957) E-LOG 2971'(-959) Lm- Gray Brown, FXLN, silty & chalky in part, FSL fragments, high energy, dense, minimal visible porosity,

Lm- Cream Tan Brown, Med XLN, granular in part, mix of grain & mud supported chips, scattered pinpoint porosity & development, chalky in part, few dense chips w/ siliceous cementation

Lm- Gray Lt Brown, F-Med gm., trashy rip-up clasts, FSL w/ fusulinids & few crinoids, gritty & sl. granular

Lm- Gray Buff, FXLN, FSL, dense, few algal Ls chips, tight, limited visible porosity, some interbedded gray shales & grainy chalk

Lm- Gray Tan, Fine grn., mostly mud supported matrix, few med XLN, dense, scattered secondary XLN porosity

Lm- A/A w/ few buff & tan dense algal Ls. chips

Lm- Gray, Med XLN, gritty & grainy, few Ss chips, well consolidated & sorted, speckled w/ dark minerals, mostly dense, semi-brittle, very scattered pinpoint porosity, FSL fragments

Lm- Gray Tan, VFXLN, mostly dense, semi-brittle cryptocrystalline, few chips of dense algal Ls, all w/ minimal visible porosity

Lm- Lt Gray Buff Cream, FXLN, few chips of FSL bedded chert, some trashy clastics, chalky in part

Sh- Gray, soft smooth

Lm- Cream Tan, VF-Med XLN, few chips of sharp angular bedded chert, FSL, abundant fusulinids, few chips w/ dense fenestral porosity, granular & gritty, moderately developed, well cemented, scattered pinpoint porosity, clean & barren

Lm- Gray Brown Tan, Med XLN, dense, highly FSL w/ fusulinids & crinoids, mud supported matrix, sl. siliceous, some silt/mud stone, scattered micro porosity & development, no shows noted

Lm/Chert- A/A, w/ chips of fresh bedded FSL chert & a few chips of eroded & reworked chert w/ fusulinid fragments, few chips of gritty sl. dolomitic chert, scattered development, clean & barren

Sh- Black Drk Gray Lt Gray Maroon White, few fissile & sl. unconsolidated & FSL, mostly smooth & soft, white sticky chalk

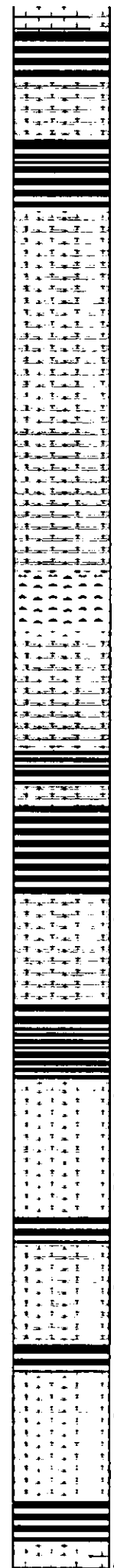
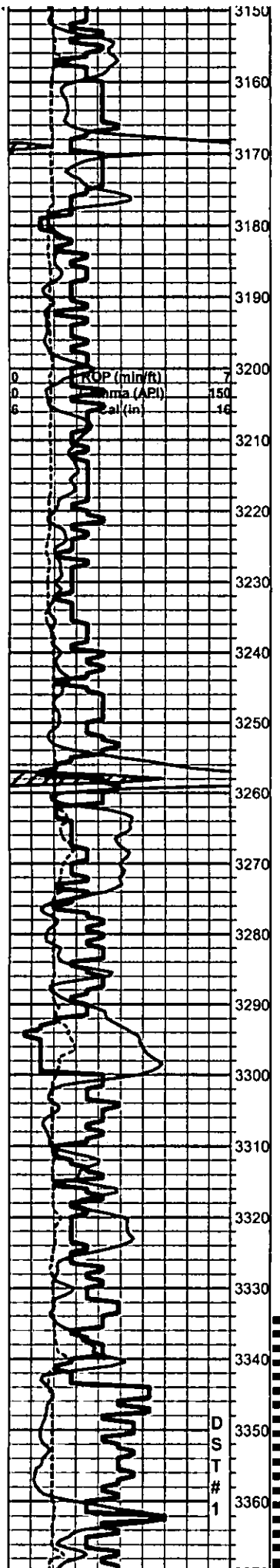
Lm/Chert- Cream Tan Buff, Med-Coarse XLN, mix of chert, dolomitic chert & cherty Ls, massive, moderately well developed, dolomitic Ls, some w/ good consistent intragranular porosity, few chalky in part, clean & barren

Lm/Chert- Gray Tan Cream, VFXLN, mix of bedded & reworked FSL chert, dense well cemented cryptocrystalline Ls, and dense tight cherty Ls, minimal visible porosity

Lm- Cream Tan, VFXLN, dense, very well cemented, mostly cryptocrystalline, few w/ scattered secondary porosity, few algal Ls chips, minimal visible porosity

Lm- Buff Cream Tan, F-Med XLN, gritty & granular, some mud supported matrix, chalky in part, some w/ moderate development and scattered pinpoint porosity, some w/ abundant

0	Total Gas (units)	00
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



dense fenestral porosity, tight & well cemented

Lm- Lt Brown Gray Tan, F-Med XLN, sl. clastic, FSL, some dense mud supported matrix, some granular dolomitic Ls, well cemented, trashy, scattered pinpoint porosity

Sh- Black Gray Lime Maroon Lime Green, soft, smooth, few sticky gray & white clumps

Lm- Lt Gray Cream Tan, FXLN, well cemented, minimal development, mostly dense, scattered microcrystalline porosity, tight

Lm- Buff Cream, FXLN, dense, FSL, poorly developed, chalky in part, scattered porosity, no shows noted, few chips of FSL bedded chert

Lm- Lt Gray Cream, F-Med XLN, gritty & sl. granular, dense, well cemented, FSL fragments, limited visible porosity

Lm- Buff Cream, VFXLN, mix of mud supported matrix siltstone and dense sub-cryptocrystalline w/ no visible porosity

Lm- Cream Tan, Fine grn., mostly soft chalky siltstone, few chips of dense massive, well cemented FSL mudstone w/ minimal visible porosity

Chert- Smokey Gray, VFXLN, FSL w/ fusulinids, sharp angular bedded chert, few chips gritty & granular sl. dolomitic chert

Lm- Cream Tan, FXLN, dense, well cemented, semi-brittle, sub-cryptocrystalline, minimal visible porosity, mottled, chalky in part

HEEBNER 3254' (-1242) E-LOG 3254' (-1242) Sh- Black Gray, carbonaceous, dense, very well compacted, grainy

Sh- Gray Lime Green Maroon, soft, gritty & earthy, sticky argillaceous clumps

TORONTO 3276' (-1264) E-LOG 3275' (-1263) Lm- Cream Tan, FXLN, clean, chalky in part, scattered development, sl. FSL, some cryptocrystalline & dense, some w/ scattered XLN porosity, 2-3 CHIPS W/ DRK RESIDUAL STN, 1 CHIP W/ SL SFO, NO ODR

Sh- Gray Brown Maroon Lime Green, soft, gritty & earthy, mostly well compacted

LKC 3299' (-1287) E-LOG 3301' (-1289) Lm- Cream Tan, FXLN, dense, mostly sub-cryptocrystalline, limited development & visible porosity, few massive chips w/ micro-porosity, very well cemented, 1 CHIP W/ SCATTERED PINPOINT POROSITY, RARE LT STN, NO SFO, NO ODR

Lm- Cream Tan, FXLN, semi-brittle, scattered XLN porosity w/ abundant secondary porosity, scattered development, chalky in part, 1 CHIP W/ LT STN, NO SFO, VRY FNT ODR UPON CRUSH, CONSISTANT PINPOINT POROSITY, BRIGHT FLOR, NO CUT

Lm- Cream Tan, FXLN, scattered development, semi-brittle, dense, well cemented, scattered pinpoint porosity, scattered solution veins w/ recrystallization w/ in, DRK GILSONITIC RESIDUE, NSFO, NO ODR

Sh- Gray Maroon, soft, smooth, few dense waxy chips

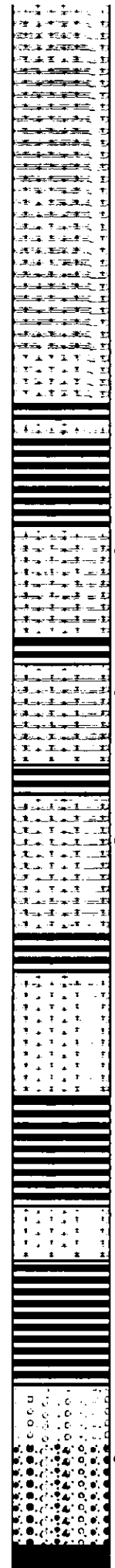
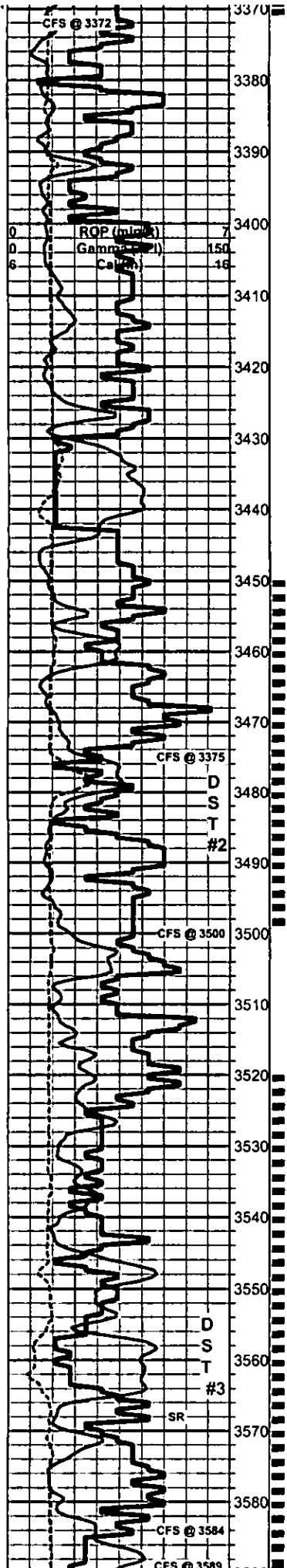
Lm- Cream Tan, Coarse XLN, oolitic, highly FSL, well developed w/ consistant pinpoint to sub-wugular porosity, EVEN LT GSY STN, SL SFO, FNT ODR UPON CRUSH, DULL FLOR. W/ SLOW STREAMING WET CUT

Lm- Cream Tan, FXLN, scattered development, dense w/ scattered XLN to pinpoint, FEW

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

SHORT TRIP
SLOPE 1dgr
BOARD 3398.78
STRAP 3398.24
STRAP -0.54

DST #1
3335 - 3372



CHIPS W/ SCATTERED DRK GSY STN, FR ODR, SL SHOW OF GSY FO UPON CRUSH

Lm- Cream Tan, Med-Coarse XLN, oolitic, development varies from minimal w/ dense cementation to well developed, oolitic clusters w/ good interparticle porosity, DRK GSY SCATTERED STN, SL SFO, FNT ODR UPON CRUSH

Lm- Cream Off White, FXLN, dense, well cemented, little to no development, sub-cryptocrystalline, tight

Lm- Cream Tan, Fine grn., dense, chalky in part, algal Ls, no visible porosity

Sh- Black Gray Maroon, carbonaceous, fissile, well compacted, some soft, gritty & earthy, few chips of sharp angular bedded chert

Lm- Cream Tan, FXLN, sl. FSL, chalky in part, mostly dense w/ scattered microcrystalline porosity, scattered development, few chips w/ abundant secondary porosity, FEW CHIPS W/ LT GSY STN, MOSTLY FLAKEY DEAD STN, 1 CHIP W/ SL GSY SHEEN, NSFO, VRY FNT ODR UPON CRUSH

Sh- Gray Lime Green, dense, blocky, waxy

Lm- Cream Tan, FXLN, sl. FSL, limited development, scattered pinpoint porosity, mostly dense, few chips w/ good secondary porosity, possible fracturing, LT SCATTERED FLAKEY RESIDUAL STN, NO SFO, NO ODR

Sh- Gray Lime Green Maroon, soft, smooth, few dense slivers, few speckled w/ dark minerals

Lm- Cream Tan, FXLN, sl. oolitic, oolitic w/ scattered dissolution & limited interconnectivity, scattered developed, SCATTERED LT STN, SL. SFO, NO ODR

Lm- Cream Tan, FXLN, dense, poorly developed, limited visible porosity, clean & barren

Lm- Cream Tan, FXLN, densely packed w/ oolites, siliceous cementation, minimal development, tight & well cemented, no visible porosity

Lm- Cream Tan, VFXLN, dense, cryptocrystalline, tight, no visible porosity

Lm- Cream Buff, FXLN, dense, microcrystalline, scattered visible porosity, minimal development, sl. FSL, clean & barren

Lm- Buff Cream, VF grn., dense, very well cemented, tight packstone and algal Ls, no visible porosity

BKC 3544' (-1532) E-LOG 3546' (-1534) Sh- Red Maroon Lime Green, very dense & well compacted, some smooth, soft & earthy

Sh- A/A

Conglomerate- Mix of various colored shales, few chips of orange/semi-translucent bedded chert and clastic sl. FSL Ls.

Cherty/Dolomitic Conglomerate- Mix of dolomitic chert, cherty dolomite, and eroded & reworked dolomite, Dolomite- Med XLN, mostly consolidated w/ pinpoint porosity, few chips w/ DRK SCATTERED STN, NO SFO, VRY FNT ODR

Cherty/Dolomitic mix, few chips of med XLN consolidated dolomite, chips of salmon tinted chert & dolomite, few chips of white glauconite speckled dolomite

Cherty Conglomerate- various mix of dark colored shales, sl. unconsolidated, various

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

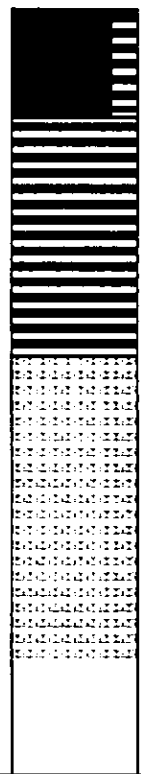
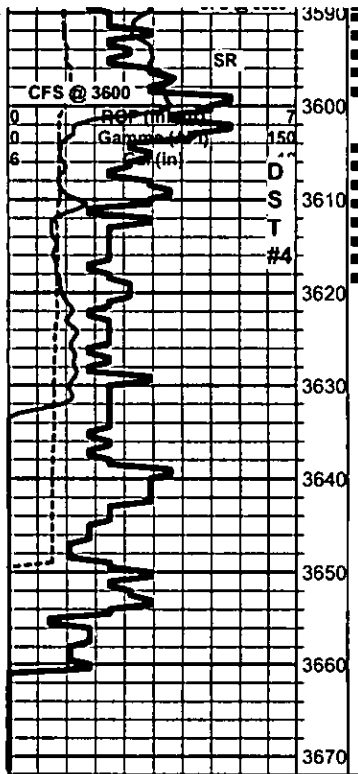
DST #2
3450 - 3500

DST #3
3520 - 3600

D
S
T
#2

D
S
T
#3

SR



colored bedded chert

Conglomerate- A/A, Sandy dolomite- well to poorly sorted, very friable, some w/ green glauconite tinted lime, SFO UPON CRUSH, INSTANT FLOR. UPON CRUSH, ARBUCKLE 3600' (-1588) E-LOG 3601' (-1589) Dolomite- Cream Buff, Med XLN, consolidated, sl. friable, mostly consistant pinpoint porosity, LT BRWN STN, SL SFO, DULL TO BRIGHT FLOR. 20" smpl. STRONG ARBUCKLE ODR 40" smpl. STRONG ODR

Dolomite, crm-lan, fnxn-granular with scattered medxn with depth. Light odor but little visible porosity in samples.

REAGAN SAND E-LOG 3627' (-1615) Sandstone, qtz, fair to good sorting, clear polished, rounded surfaces, light saturated stain in part with good streaming wet cut. Noted few specks of free oil with very light odor which could be carry over from upper ar buckle.

THIS ZONE WAS TESTED IN THE BECKER #1 NW NW SE AND RECOVERED 2460' OF SALTWATER WITH A REAGAN SAND DATUM OF -1615.

RTD 3660' (-1648) LTD 3659' (-1647)

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100
DST #4 STRADDLE 3604-3619		

QUALITY OILWELL CEMENTING, INC.

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

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

No. 417

Date	5-12-12	Sec.	6	Twp.	16	Range	18	County	Rush	State	KS	On Location	Finish	11:30PM	
Lease	Worth	Well No.	1		Location Hay's, ks - 5 to C.L., 2 1/2 W										
Contractor	Discovery #4					Owner	Slaters								
Type Job	Plug					To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.									
Hole Size	7 7/8"		T.D.	3660'											
Csg.			Depth	Charge To Mustang Energy											
Tbg. Size	4 1/2" D.P.		Depth	3578'											
Tool			Depth	Street											
Cement Left in Csg.			Shoe Joint	City											
Meas Line			Displace	H2O/mud		State									
													The above was done to satisfaction and supervision of owner agent or contractor.		
													Cement Amount Ordered 270 5x 60' 110 4 1/2 60' 4 1/2 5.		

EQUIPMENT

Pumptrk	9	No.	Cementor	Matt	Helper	Common
Bulktrk	10	No.	Driver	Bevan	Driver	Poz. Mix
Bulktrk	p.u.	No.	Driver	Rock	Driver	Gel.

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
3578' - 50 5x	Sand
1200' - 50 5x	Handling
450' - 40 5x	Mileage

FLOAT EQUIPMENT

Rathole - 30 5x	Guide Shoe
Mouschule - 20 5x	Centralizer
Cement and Circulate	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

	Pumptrk Charge
	Mileage
	Tax
	Discount
	Total Charge

X Signature *[Handwritten Signature]*

QUALITY OILWELL CEMENTING, INC.

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

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

No. 347

Date <u>5-6-12</u>	Sec. <u>6</u>	Twp. <u>16</u>	Range <u>18</u>	County <u>Rush</u>	State <u>KS</u>	On Location	Finish <u>12:30 p.m.</u>
Lease <u>Werth</u>		Well No. <u>1</u>		Location <u>Hays S CO. line 2 1/4 W Sinto</u>			
Contractor <u>D. Scovell #4</u>				Owner			
Type Job <u>Surface</u>				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size <u>12 1/4</u>		T.D. <u>1185</u>		Charge To <u>MUSTANG ENERGY</u>			
Csg. <u>8 5/8</u>		Depth <u>1185</u>		Street			
Tbg. Size		Depth		City			
Tool		Depth		State			
Cement Left in Csg. <u>27 1/2</u>		Shoe Joint <u>27 1/2</u>		The above was done to satisfaction and supervision of owner agent or contractor.			
Meas Line		Displace <u>73 1/2 BBL</u>		Cement Amount Ordered <u>450 com 3 1/2 all 2 1/2 6el</u>			
EQUIPMENT				<u>44 #FO</u>			
Pumptrk <u>15</u>	No.	Cementer <u>Craig</u>	Helper	Common <u>450</u>			
Bulktrk	No.	Driver <u>Cody</u>	Driver	Poz. Mix			
Bulktrk <u>12</u>	No.	Driver <u>Levy</u>	Driver	Gel. <u>9</u>			
JOB SERVICES & REMARKS				Calcium <u>16</u>			
Remarks:				Hulls			
Rat Hole				Salt			
Mouse Hole				Flowseal <u>112#</u>			
Centralizers				Kol-Seal			
Baskets				Mud CLR 48			
D/V or Port Collar				GFL-117 or CD110 CAF 38			
<u>8 5/8 on bottom Est. Circulation.</u>				Sand			
<u>Mix 450 com Displace Plug.</u>				Handling <u>465</u>			
<u>Cement Circulated!</u>				Mileage			
<u>Plug landed @ 900ft.</u>				FLOAT EQUIPMENT			
<u>Shot in @ 700ft.</u>				Guide Shoe			
				Centralizer <u>8 5/8</u>			
				Baskets <u>Baffle Plate</u>			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Pumptrk Charge <u>Long Surface</u>			
				Mileage <u>15</u>			
				Tax			
				Discount			
				Total Charge			
Signature <u>[Signature]</u>							