



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1155352  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

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
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

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

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx)      (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical 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

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1155352

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

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
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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 <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	McElvain Energy, Inc.
Well Name	Faulkner 5 #3H
Doc ID	1155352

Tops

Name	Top	Datum
Base Stone Corral	1816	479
Wellington	2137	158
Chase	2486	-191
Council Grove	2701	-406
Admire	2918	-623
Waubunsee	3165	-870
Topeka	3325	-1030
Heebner	3539	-1244
Toronto	3573	-1278
Lansing/KC	3581	-1286
Base Lansing/KC	3799	-1504
Marmaton	3837	-1542
Pawnee	3884	-1589

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  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

August 15, 2013

Jim McKinney/Jeff Reindl  
McElvain Energy, Inc.  
1050 17TH ST STE 2500  
DENVER, CO 80265-2080

Re: ACO1  
API 15-195-22869-01-00  
Faulkner 5 #3H  
NW/4 Sec.05-11S-22W  
Trego 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,  
Jim McKinney/Jeff Reindl

# ALLIED OIL & GAS SERVICES, LLC

060464

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Great Bend

DATE <u>7-2-13</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION <u>7:00 AM</u>	JOB START <u>4:30 PM</u>	JOB FINISH <u>6:00 PM</u>
LEASE <u>Fayik new</u>	WELL# <u>5</u>	LOCATION <u>I-70 Ex. + 135 North To A RD</u>			COUNTY <u>Texas</u>	STATE <u>TX</u>	
OLD OR <u>NEW</u> (Circle one)			<u>2 1/2 west south into</u>				

CONTRACTOR Waco Rids  
 TYPE OF JOB 7 inch Production / 5" stock  
 HOLE SIZE 8 1/2 T.D. 4476  
 CASING SIZE 7 DEPTH 4482.61  
 TUBING SIZE DEPTH  
 DRILL PIPE blast collar DEPTH 4405.51  
 TOOL DV DEPTH 2307.42  
 PRES. MAX 1250 PSI MINIMUM  
 MEAS. LINE SHOE JOINT 45.19  
 CEMENT LEFT IN CSG. 45.19  
 PERFS.  
 DISPLACEMENT 168 BBHs

OWNER Mc Elvagin Energy  
 CEMENT  
 AMOUNT ORDERED 300 SY AMO + 2% salt + 2% Gye + 2% Sodium Bands + 4% Gel + .3% of 1% Fl-160 + .14 OF + 3# Gilsomite  
 COMMON @ \_\_\_\_\_  
 POZMIX @ \_\_\_\_\_  
 GEL @ \_\_\_\_\_  
 CHLORIDE @ \_\_\_\_\_  
 ASC @ \_\_\_\_\_  

AMO	300	@ 25.90	7,770.00
Fl-160	85	@ 18.90	1,606.50
OF	42	@ 9.80	411.60
Gilsomite	400	@ .98	392.00
		@	_____
		@	_____
		@	_____
		@	_____
HANDLING	487	@ 2.48	1,207.76
MILEAGE	808 X	260	2100.80
			TOTAL <u>13,978.66</u>

**REMARKS:**

Pump 2 BBHs water Test lines To 2000 psi. Pump 10 BBHs ahead mix 88 BBHs AMO at 19. PPG wash pump and lines Release plug @ Start Displacement 80.25 BBHs H2O 88.35 BBHs of mud hard plug at 1250 PSI Released and Hold Over Dont wait 15 min Pump Dont Turn at 700 PSI Hook To Rig start circulation at 700 PSI

**SERVICE**

DEPTH OF JOB \_\_\_\_\_  
 PUMP TRUCK CHARGE 2765.35  
 EXTRA FOOTAGE @ \_\_\_\_\_  
 MILEAGE Hvm 34 @ 7.70 261.80  
 MANIFOLD Head Rent @ 275.00 275.00  
Hvm 102 @ 4.40 448.80  
wait Time 6 @ 420.00 2520.00  
 TOTAL 3,565.60

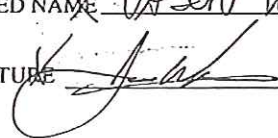
CHARGE TO: Mc Elvagin  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

Thread lock 2	83.07	166.14
Sure bill float collar	@ 886.86	886.86
Stage Tool	@ 6502.00	6502.00
2 Bracket	@ 462.50	924.00
<del>8 combi</del>	@	_____
3 Spinal hizer	@ 258.58	775.74
7 Stop Rins	25.00	175.00
		TOTAL <u>9,430.54</u>

To: Allied Oil & Gas Services, 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.

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES 26,912.80  
8073.84  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS  
18,838.96

PRINTED NAME Vason Klorson  
 SIGNATURE 

# ALLIED OIL & GAS SERVICES, LLC

060465

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Great Bend

DATE <u>8-2-13</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START <u>10:00 pm</u>	JOB FINISH <u>11:30 pm</u>
LEASE <u>Agulwaw</u>	WELL # <u>5</u>	LOCATION <u>I-70 Exit 135 North</u>		COUNTY <u>Texas</u>	STATE <u>TX</u>		
OLD OR <u>NEW</u> (Circle one)			TO <u>ARD 2 1/2 west South I-70</u>				

CONTRACTOR HWD 5  
 TYPE OF JOB 2nd stage  
 HOLE SIZE 8 3/4 T.D. 4476  
 CASING SIZE 7 inch DEPTH 4473.61  
 TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 TOOL DU DEPTH 2327.42  
 PRES. MAX 1200 MINIMUM \_\_\_\_\_  
 MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_  
 CEMENT LEFT IN CSG. \_\_\_\_\_  
 PERFS. \_\_\_\_\_  
 DISPLACEMENT 85.50 BBLS  
 EQUIPMENT \_\_\_\_\_

OWNER Mc Elvain  
 CEMENT  
 AMOUNT ORDERED 350 SX 65/35/46%  
Gel + 2% cc + 1/4 #16 seal + DF  
 COMMON \_\_\_\_\_ @ \_\_\_\_\_  
 POZMIX \_\_\_\_\_ @ \_\_\_\_\_  
 GEL \_\_\_\_\_ @ \_\_\_\_\_  
 CHLORIDE 8 @ 64.00 512.00  
 ASC \_\_\_\_\_ @ \_\_\_\_\_  
hisc wt 350 @ 16.50 5.775.00  
#16 seal 87 @ 2.97 258.39  
 HANDLING \_\_\_\_\_ @ \_\_\_\_\_  
 MILEAGE \_\_\_\_\_ @ \_\_\_\_\_

PUMP TRUCK CEMENTER wayne Davis  
 # 597 HELPER charles King  
 BULK TRUCK Chumbo,  
 # 609/241 DRIVER Justin Ben Newell  
 BULK TRUCK \_\_\_\_\_  
 # \_\_\_\_\_ DRIVER \_\_\_\_\_

REMARKS:

Start circulating for 4 hours  
lost circulation in 30 min  
couldn't get back.  
we pump 20 BBLS water ahead  
start cement mix 225 SX at 5 BBLS min  
we had 600 psi. Mix 125 SX at 2 BBLS  
Per min shut down wash pump and line  
Release plug start displacement 2 BBLS  
Per min had 600 psi Displace 85.50  
BBLS fresh water. hand plug at 1200 psi

CHARGE TO: Mc Elvain  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TOTAL 6,845.39

SERVICE

DEPTH OF JOB 2327.42  
 PUMP TRUCK CHARGE 230.25 2406.25  
 EXTRA FOOTAGE \_\_\_\_\_ @ \_\_\_\_\_  
 MILEAGE \_\_\_\_\_ @ \_\_\_\_\_  
 MANIFOLD \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_

TOTAL 2406.25

PLUG & FLOAT EQUIPMENT

\_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

To: Allied Oil & Gas Services, 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 Sammy M. SEAMON  
 SIGNATURE Sammy M. Seamon

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES 8,951.64  
2,685.99  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS  
6,266.15



# McElvain Oil & Gas

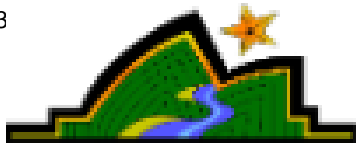
Project: Trego County, KS (NAD 83)

Site: Faulkner 5

Well: #3H

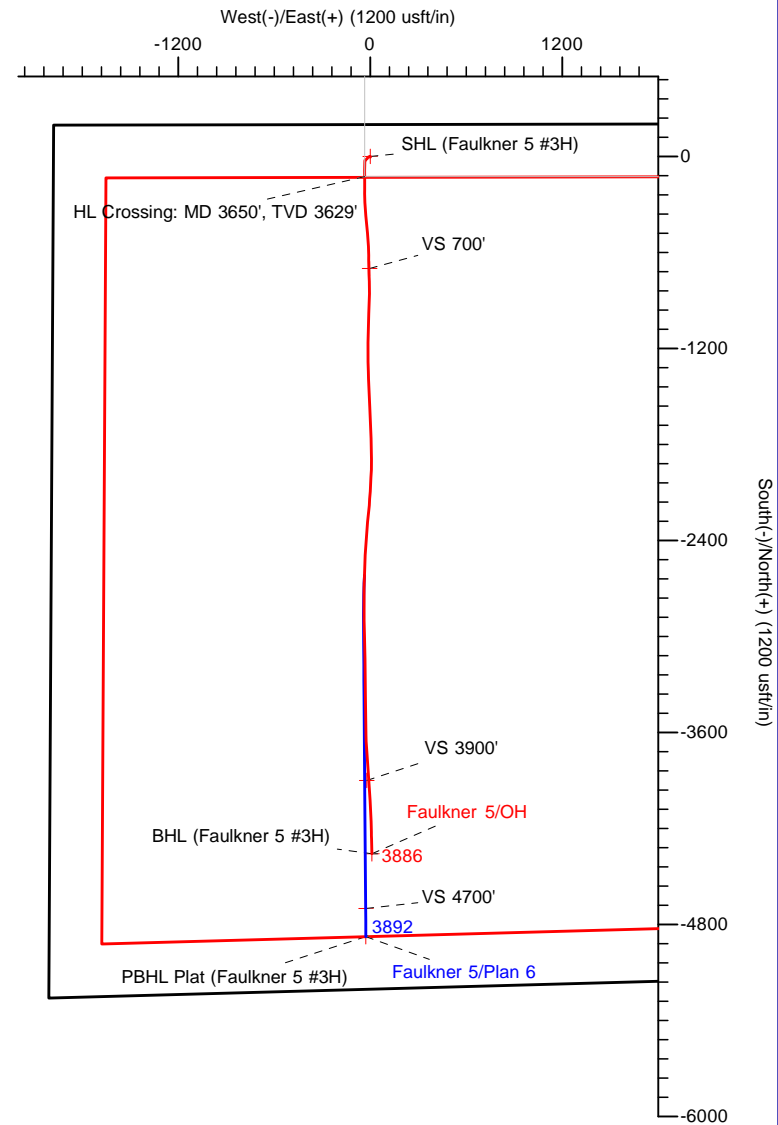
Wellbore: OH

Design: OH



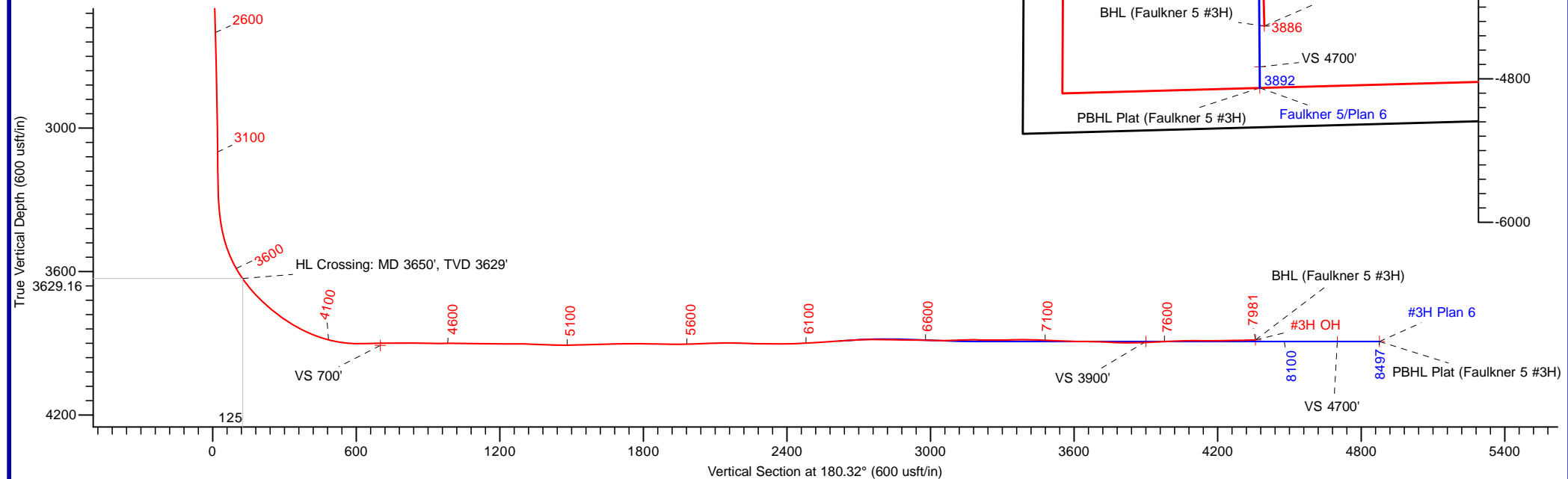
Azimuths to True North  
Magnetic North: 5.61°

Magnetic Field  
Strength: 52719.2snT  
Dip Angle: 66.67°  
Date: 6/10/2013  
Model: IGRF2010



## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL (Faulkner 5 #3H)	0.00	0.35	-0.24	295757.42	804933.44	39° 7' 53.860 N	99° 47' 19.780 W
BHL (Faulkner 5 #3H)	3885.91	-4358.01	10.49	291399.69	804858.08	39° 7' 10.781 N	99° 47' 19.644 W
PBHL Plat (Faulkner 5 #3H)	3892.00	-4875.77	-27.19	290882.78	804810.19	39° 7' 5.663 N	99° 47' 20.122 W
VS 3900'	3892.00	-3899.94	-21.74	291858.32	804834.90	39° 7' 15.309 N	99° 47' 20.053 W
VS 4700'	3894.00	-4699.93	-26.20	291058.57	804814.64	39° 7' 7.401 N	99° 47' 20.109 W
VS 700'	3909.00	-699.99	-3.90	295057.29	804915.95	39° 7' 46.938 N	99° 47' 19.826 W



LEAM DRILLING SYSTEMS LLC  
2010 East Davis, Conroe, Texas 77301  
Phone: 936/756-7577, Fax: 936/756-7595

Design: OH (#3H/OH)  
Faulkner 5  
Created By: Chris Burckle  
Date: 16:40, July 16 2013  
Approved: \_\_\_\_\_  
Date: \_\_\_\_\_



# LEAM Drilling Systems LLC

## Survey Report

<b>Company:</b>	McElvain Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well #3H
<b>Project:</b>	Trego County, KS (NAD 83)	<b>TVD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Site:</b>	Faulkner 5	<b>MD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Well:</b>	#3H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Trego County, KS (NAD 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Kansas Northern Zone		

<b>Site</b>	Faulkner 5				
<b>Site Position:</b>		<b>Northing:</b>	295,757.06 usft	<b>Latitude:</b>	39° 7' 53.857 N
<b>From:</b>	Map	<b>Easting:</b>	804,933.67 usft	<b>Longitude:</b>	99° 47' 19.777 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-1.13 °

<b>Well</b>	#3H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	295,757.06 usft	<b>Latitude:</b>	39° 7' 53.857 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	804,933.67 usft	<b>Longitude:</b>	99° 47' 19.777 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	2,282.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	6/10/2013	5.61	66.67	52,719

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	180.32	

<b>Survey Program</b>	<b>Date</b> 7/16/2013				
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
366.00	7,931.00	Survey #1 (OH)	LEAM MWD	MWD - Standard	
7,981.00	7,981.00	Survey #2 (OH)	Project	Projection	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
366.00	0.40	145.10	366.00	-1.05	0.73	1.04	0.11	0.11	0.00	
552.00	0.50	159.90	551.99	-2.34	1.38	2.33	0.08	0.05	7.96	
861.00	0.30	228.70	860.99	-4.14	1.24	4.14	0.16	-0.06	22.27	
1,121.00	0.20	95.60	1,120.98	-4.64	1.18	4.63	0.18	-0.04	-51.19	
1,387.00	0.40	337.90	1,386.98	-3.82	1.29	3.81	0.20	0.08	-44.25	
1,656.00	1.00	299.80	1,655.96	-1.78	-1.10	1.79	0.27	0.22	-14.16	
1,923.00	1.10	266.70	1,922.92	-0.77	-5.68	0.81	0.23	0.04	-12.40	

# LEAM Drilling Systems LLC

## Survey Report

<b>Company:</b>	McElvain Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well #3H
<b>Project:</b>	Trego County, KS (NAD 83)	<b>TVD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Site:</b>	Faulkner 5	<b>MD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Well:</b>	#3H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
2,198.00	1.20	231.60	2,197.87	-2.71	-10.57	2.77	0.25	0.04	-12.76	
2,459.00	2.00	215.80	2,458.76	-8.11	-15.38	8.19	0.35	0.31	-6.05	
2,729.00	1.50	223.40	2,728.64	-14.50	-20.56	14.61	0.20	-0.19	2.81	
2,995.00	1.50	235.70	2,994.55	-18.99	-25.83	19.13	0.12	0.00	4.62	
3,085.00	1.40	229.00	3,084.52	-20.37	-27.63	20.53	0.22	-0.11	-7.44	
3,246.00	1.10	236.90	3,245.48	-22.51	-30.41	22.68	0.21	-0.19	4.91	
3,288.00	2.50	210.70	3,287.46	-23.51	-31.22	23.69	3.78	3.33	-62.38	
3,330.00	4.50	196.30	3,329.38	-25.88	-32.15	26.06	5.17	4.76	-34.29	
3,371.00	7.30	185.70	3,370.16	-30.02	-32.86	30.20	7.30	6.83	-25.85	
3,416.00	10.40	184.70	3,414.62	-36.91	-33.48	37.10	6.90	6.89	-2.22	
3,460.00	13.90	185.40	3,457.63	-46.14	-34.30	46.33	7.96	7.95	1.59	
3,505.00	18.50	179.80	3,500.83	-58.66	-34.78	58.86	10.78	10.22	-12.44	
3,550.00	24.20	179.50	3,542.72	-75.04	-34.68	75.23	12.67	12.67	-0.67	
3,594.00	29.60	179.10	3,581.95	-94.94	-34.43	95.13	12.28	12.27	-0.91	
3,639.00	34.30	180.00	3,620.12	-118.74	-34.25	118.93	10.50	10.44	2.00	
3,650.00	35.20	180.16	3,629.16	-125.01	-34.26	125.20	8.26	8.22	1.42	
<b>HL Crossing: MD 3650', TVD 3629'</b>										
3,684.00	38.00	180.60	3,656.45	-145.28	-34.40	145.47	8.26	8.22	1.30	
3,729.00	41.70	180.20	3,690.99	-174.11	-34.60	174.30	8.24	8.22	-0.89	
3,774.00	45.90	180.40	3,723.47	-205.25	-34.76	205.44	9.34	9.33	0.44	
3,819.00	50.00	179.70	3,753.60	-238.66	-34.78	238.85	9.18	9.11	-1.56	
3,864.00	53.80	178.10	3,781.36	-274.06	-34.09	274.24	8.90	8.44	-3.56	
3,909.00	57.50	175.70	3,806.75	-311.14	-32.07	311.32	9.33	8.22	-5.33	
3,954.00	60.20	175.00	3,830.03	-349.52	-28.94	349.68	6.15	6.00	-1.56	
3,999.00	64.00	174.00	3,851.08	-389.10	-25.12	389.24	8.67	8.44	-2.22	
4,043.00	69.70	173.80	3,868.37	-429.31	-20.82	429.42	12.96	12.95	-0.45	
4,088.00	74.10	175.90	3,882.35	-471.90	-17.00	471.99	10.74	9.78	4.67	
4,133.00	79.10	176.10	3,892.78	-515.56	-13.94	515.63	11.12	11.11	0.44	
4,178.00	84.70	178.00	3,899.11	-560.03	-11.66	560.08	13.13	12.44	4.22	
4,219.00	89.60	178.10	3,901.15	-600.94	-10.26	600.99	11.95	11.95	0.24	
4,264.00	91.00	178.60	3,900.92	-645.92	-8.97	645.96	3.30	3.11	1.11	
4,309.00	90.80	178.50	3,900.21	-690.90	-7.83	690.93	0.50	-0.44	-0.22	
4,353.00	90.80	178.50	3,899.60	-734.88	-6.68	734.91	0.00	0.00	0.00	
4,398.00	90.70	178.50	3,899.01	-779.86	-5.50	779.88	0.22	-0.22	0.00	
4,476.00	88.40	181.00	3,899.62	-857.85	-5.16	857.86	4.35	-2.95	3.21	
4,521.00	89.70	181.40	3,900.36	-902.83	-6.10	902.85	3.02	2.89	0.89	
4,563.00	90.10	181.70	3,900.44	-944.81	-7.24	944.84	1.19	0.95	0.71	
4,606.00	90.40	182.50	3,900.25	-987.78	-8.81	987.82	1.99	0.70	1.86	
4,649.00	89.50	181.90	3,900.29	-1,030.75	-10.46	1,030.79	2.52	-2.09	-1.40	
4,694.00	88.90	181.10	3,900.92	-1,075.73	-11.64	1,075.78	2.22	-1.33	-1.78	
4,739.00	89.00	181.00	3,901.74	-1,120.72	-12.47	1,120.77	0.31	0.22	-0.22	
4,784.00	89.00	180.60	3,902.53	-1,165.71	-13.10	1,165.76	0.89	0.00	-0.89	

# LEAM Drilling Systems LLC

## Survey Report

<b>Company:</b>	McElvain Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well #3H
<b>Project:</b>	Trego County, KS (NAD 83)	<b>TVD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Site:</b>	Faulkner 5	<b>MD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Well:</b>	#3H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,829.00	90.50	180.30	3,902.72	-1,210.70	-13.45	1,210.76	3.40	3.33	-0.67	
4,874.00	90.70	179.90	3,902.25	-1,255.70	-13.53	1,255.76	0.99	0.44	-0.89	
4,919.00	88.10	178.60	3,902.72	-1,300.69	-12.94	1,300.74	6.46	-5.78	-2.89	
4,964.00	87.70	178.00	3,904.37	-1,345.64	-11.60	1,345.68	1.60	-0.89	-1.33	
5,009.00	88.20	178.10	3,905.98	-1,390.58	-10.07	1,390.62	1.13	1.11	0.22	
5,054.00	88.90	177.60	3,907.12	-1,435.54	-8.39	1,435.56	1.91	1.56	-1.11	
5,097.00	89.30	177.00	3,907.80	-1,478.48	-6.36	1,478.50	1.68	0.93	-1.40	
5,142.00	92.60	177.60	3,907.05	-1,523.42	-4.24	1,523.42	7.45	7.33	1.33	
5,187.00	92.00	177.60	3,905.24	-1,568.35	-2.36	1,568.33	1.33	-1.33	0.00	
5,229.00	91.20	177.60	3,904.07	-1,610.29	-0.60	1,610.27	1.90	-1.90	0.00	
5,272.00	90.60	177.70	3,903.40	-1,653.25	1.16	1,653.22	1.41	-1.40	0.23	
5,315.00	90.90	177.50	3,902.83	-1,696.21	2.96	1,696.17	0.84	0.70	-0.47	
5,358.00	91.50	177.90	3,901.93	-1,739.16	4.69	1,739.11	1.68	1.40	0.93	
5,400.00	89.60	178.70	3,901.53	-1,781.14	5.93	1,781.08	4.91	-4.52	1.90	
5,443.00	88.60	178.80	3,902.20	-1,824.13	6.87	1,824.06	2.34	-2.33	0.23	
5,488.00	89.50	179.30	3,902.95	-1,869.11	7.62	1,869.04	2.29	2.00	1.11	
5,533.00	89.10	179.80	3,903.50	-1,914.11	7.97	1,914.03	1.42	-0.89	1.11	
5,578.00	90.20	181.80	3,903.78	-1,959.10	7.34	1,959.03	5.07	2.44	4.44	
5,623.00	92.00	183.50	3,902.91	-2,004.04	5.26	2,003.98	5.50	4.00	3.78	
5,668.00	92.50	183.30	3,901.14	-2,048.93	2.60	2,048.88	1.20	1.11	-0.44	
5,713.00	91.60	183.50	3,899.53	-2,093.82	-0.07	2,093.78	2.05	-2.00	0.44	
5,758.00	90.70	183.70	3,898.63	-2,138.72	-2.90	2,138.70	2.05	-2.00	0.44	
5,800.00	88.90	184.60	3,898.78	-2,180.61	-5.94	2,180.61	4.79	-4.29	2.14	
5,843.00	88.10	184.70	3,899.90	-2,223.45	-9.42	2,223.47	1.87	-1.86	0.23	
5,879.00	88.40	185.20	3,901.00	-2,259.30	-12.52	2,259.33	1.62	0.83	1.39	
5,910.00	88.90	185.90	3,901.73	-2,290.14	-15.52	2,290.20	2.77	1.61	2.26	
5,940.00	89.80	185.50	3,902.07	-2,319.99	-18.50	2,320.06	3.28	3.00	-1.33	
5,971.00	88.90	185.70	3,902.43	-2,350.84	-21.53	2,350.93	2.97	-2.90	0.65	
6,002.00	90.80	184.60	3,902.51	-2,381.72	-24.31	2,381.81	7.08	6.13	-3.55	
6,033.00	91.90	184.60	3,901.78	-2,412.61	-26.79	2,412.72	3.55	3.55	0.00	
6,064.00	92.00	183.70	3,900.72	-2,443.51	-29.04	2,443.63	2.92	0.32	-2.90	
6,107.00	93.10	181.90	3,898.81	-2,486.41	-31.13	2,486.55	4.90	2.56	-4.19	
6,152.00	93.50	182.20	3,896.22	-2,531.31	-32.74	2,531.45	1.11	0.89	0.67	
6,194.00	93.50	182.30	3,893.65	-2,573.20	-34.39	2,573.35	0.24	0.00	0.24	
6,239.00	94.00	182.40	3,890.71	-2,618.06	-36.23	2,618.22	1.13	1.11	0.22	
6,284.00	94.00	181.90	3,887.57	-2,662.92	-37.91	2,663.09	1.11	0.00	-1.11	
6,327.00	93.00	179.80	3,884.95	-2,705.83	-38.55	2,706.01	5.40	-2.33	-4.88	
6,370.00	89.60	179.20	3,883.97	-2,748.81	-38.17	2,748.98	8.03	-7.91	-1.40	
6,415.00	89.20	179.40	3,884.44	-2,793.81	-37.62	2,793.98	0.99	-0.89	0.44	
6,458.00	88.90	179.60	3,885.16	-2,836.80	-37.25	2,836.96	0.84	-0.70	0.47	
6,500.00	89.40	179.60	3,885.78	-2,878.80	-36.96	2,878.96	1.19	1.19	0.00	
6,543.00	89.50	179.60	3,886.19	-2,921.79	-36.66	2,921.95	0.23	0.23	0.00	

# LEAM Drilling Systems LLC

## Survey Report

<b>Company:</b>	McElvain Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well #3H
<b>Project:</b>	Trego County, KS (NAD 83)	<b>TVD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Site:</b>	Faulkner 5	<b>MD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Well:</b>	#3H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,585.00	88.20	179.30	3,887.03	-2,963.78	-36.25	2,963.94	3.18	-3.10	-0.71	
6,628.00	89.10	179.10	3,888.05	-3,006.76	-35.65	3,006.92	2.14	2.09	-0.47	
6,673.00	89.90	178.20	3,888.44	-3,051.75	-34.59	3,051.89	2.68	1.78	-2.00	
6,718.00	92.40	178.90	3,887.54	-3,096.72	-33.45	3,096.86	5.77	5.56	1.56	
6,761.00	92.70	178.80	3,885.62	-3,139.67	-32.59	3,139.80	0.74	0.70	-0.23	
6,806.00	88.00	179.00	3,885.35	-3,184.65	-31.73	3,184.78	10.45	-10.44	0.44	
6,851.00	89.30	179.40	3,886.41	-3,229.63	-31.10	3,229.75	3.02	2.89	0.89	
6,894.00	90.60	178.90	3,886.45	-3,272.63	-30.46	3,272.74	3.24	3.02	-1.16	
6,939.00	89.60	179.00	3,886.37	-3,317.62	-29.64	3,317.73	2.23	-2.22	0.22	
6,981.00	93.30	179.90	3,885.31	-3,359.59	-29.23	3,359.70	9.07	8.81	2.14	
7,025.00	88.60	179.80	3,884.58	-3,403.58	-29.12	3,403.68	10.68	-10.68	-0.23	
7,067.00	87.00	180.70	3,886.19	-3,445.54	-29.30	3,445.65	4.37	-3.81	2.14	
7,110.00	87.50	179.40	3,888.25	-3,488.49	-29.34	3,488.60	3.24	1.16	-3.02	
7,152.00	88.10	179.40	3,889.86	-3,530.46	-28.90	3,530.56	1.43	1.43	0.00	
7,195.00	88.60	177.70	3,891.10	-3,573.42	-27.81	3,573.52	4.12	1.16	-3.95	
7,237.00	89.30	178.00	3,891.87	-3,615.39	-26.24	3,615.48	1.81	1.67	0.71	
7,277.00	89.00	177.10	3,892.46	-3,655.35	-24.53	3,655.43	2.37	-0.75	-2.25	
7,320.00	88.70	177.80	3,893.33	-3,698.29	-22.61	3,698.36	1.77	-0.70	1.63	
7,363.00	87.80	176.80	3,894.64	-3,741.23	-20.59	3,741.28	3.13	-2.09	-2.33	
7,407.00	87.90	175.90	3,896.29	-3,785.11	-17.79	3,785.15	2.06	0.23	-2.05	
7,450.00	88.60	175.20	3,897.60	-3,827.96	-14.46	3,827.98	2.30	1.63	-1.63	
7,492.00	91.90	174.70	3,897.42	-3,869.79	-10.76	3,869.79	7.95	7.86	-1.19	
7,537.00	92.60	175.90	3,895.65	-3,914.60	-7.08	3,914.58	3.09	1.56	2.67	
7,582.00	93.00	176.20	3,893.46	-3,959.44	-3.98	3,959.40	1.11	0.89	0.67	
7,627.00	92.60	176.50	3,891.26	-4,004.29	-1.12	4,004.24	1.11	-0.89	0.67	
7,670.00	91.20	177.40	3,889.83	-4,047.21	1.17	4,047.14	3.87	-3.26	2.09	
7,712.00	90.50	178.00	3,889.21	-4,089.17	2.85	4,089.09	2.20	-1.67	1.43	
7,757.00	89.80	178.70	3,889.09	-4,134.15	4.15	4,134.06	2.20	-1.56	1.56	
7,800.00	90.00	178.10	3,889.17	-4,177.13	5.35	4,177.04	1.47	0.47	-1.40	
7,845.00	90.60	177.50	3,888.93	-4,222.10	7.08	4,221.99	1.89	1.33	-1.33	
7,888.00	90.90	178.70	3,888.37	-4,265.07	8.50	4,264.96	2.88	0.70	2.79	
7,931.00	91.70	178.80	3,887.39	-4,308.05	9.44	4,307.93	1.87	1.86	0.23	
7,981.00	91.70	178.80	3,885.91	-4,358.02	10.49	4,357.89	0.00	0.00	0.00	

# LEAM Drilling Systems LLC

## Survey Report - Geographic

<b>Company:</b>	McElvain Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well #3H
<b>Project:</b>	Trego County, KS (NAD 83)	<b>TVD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Site:</b>	Faulkner 5	<b>MD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Well:</b>	#3H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Trego County, KS (NAD 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Kansas Northern Zone		

<b>Site</b>	Faulkner 5				
<b>Site Position:</b>	<b>Northing:</b>	295,757.06 usft	<b>Latitude:</b>	39° 7' 53.857 N	
<b>From:</b> Map	<b>Easting:</b>	804,933.67 usft	<b>Longitude:</b>	99° 47' 19.777 W	
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-1.13 °

<b>Well</b>	#3H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	295,757.06 usft	<b>Latitude:</b>	39° 7' 53.857 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	804,933.67 usft	<b>Longitude:</b>	99° 47' 19.777 W
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	2,282.00 usft	

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	6/10/2013	5.61	66.67	52,719

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	180.32	

<b>Survey Program</b>	<b>Date</b> 7/16/2013				
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
366.00	7,931.00	Survey #1 (OH)	LEAM MWD	MWD - Standard	
7,981.00	7,981.00	Survey #2 (OH)	Project	Projection	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Map Northing (usft)</b>	<b>Map Easting (usft)</b>	<b>Latitude</b>	<b>Longitude</b>	
0.00	0.00	0.00	0.00	0.00	0.00	295,757.06	804,933.67	39° 7' 53.857 N	99° 47' 19.777 W	
366.00	0.40	145.10	366.00	-1.05	0.73	295,756.00	804,934.38	39° 7' 53.846 N	99° 47' 19.768 W	
552.00	0.50	159.90	551.99	-2.34	1.38	295,754.69	804,935.01	39° 7' 53.833 N	99° 47' 19.759 W	
861.00	0.30	228.70	860.99	-4.14	1.24	295,752.89	804,934.83	39° 7' 53.816 N	99° 47' 19.761 W	
1,121.00	0.20	95.60	1,120.98	-4.64	1.18	295,752.40	804,934.76	39° 7' 53.811 N	99° 47' 19.762 W	
1,387.00	0.40	337.90	1,386.98	-3.82	1.29	295,753.22	804,934.89	39° 7' 53.819 N	99° 47' 19.761 W	
1,656.00	1.00	299.80	1,655.96	-1.78	-1.10	295,755.30	804,932.54	39° 7' 53.839 N	99° 47' 19.791 W	
1,923.00	1.10	266.70	1,922.92	-0.77	-5.68	295,756.40	804,927.98	39° 7' 53.849 N	99° 47' 19.849 W	
2,198.00	1.20	231.60	2,197.87	-2.71	-10.57	295,754.56	804,923.05	39° 7' 53.830 N	99° 47' 19.911 W	

# LEAM Drilling Systems LLC

## Survey Report - Geographic

<b>Company:</b>	McElvain Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well #3H
<b>Project:</b>	Trego County, KS (NAD 83)	<b>TVD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Site:</b>	Faulkner 5	<b>MD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Well:</b>	#3H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
2,459.00	2.00	215.80	2,458.76	-8.11	-15.38	295,749.26	804,918.14	39° 7' 53.776 N	99° 47' 19.972 W	
2,729.00	1.50	223.40	2,728.64	-14.50	-20.56	295,742.97	804,912.83	39° 7' 53.713 N	99° 47' 20.038 W	
2,995.00	1.50	235.70	2,994.55	-18.99	-25.83	295,738.59	804,907.47	39° 7' 53.669 N	99° 47' 20.105 W	
3,085.00	1.40	229.00	3,084.52	-20.37	-27.63	295,737.24	804,905.64	39° 7' 53.655 N	99° 47' 20.128 W	
3,246.00	1.10	236.90	3,245.48	-22.51	-30.41	295,735.16	804,902.82	39° 7' 53.634 N	99° 47' 20.163 W	
3,288.00	2.50	210.70	3,287.46	-23.51	-31.22	295,734.17	804,902.00	39° 7' 53.624 N	99° 47' 20.173 W	
3,330.00	4.50	196.30	3,329.38	-25.88	-32.15	295,731.82	804,901.02	39° 7' 53.601 N	99° 47' 20.185 W	
3,371.00	7.30	185.70	3,370.16	-30.02	-32.86	295,727.70	804,900.23	39° 7' 53.560 N	99° 47' 20.194 W	
3,416.00	10.40	184.70	3,414.62	-36.91	-33.48	295,720.81	804,899.47	39° 7' 53.492 N	99° 47' 20.202 W	
3,460.00	13.90	185.40	3,457.63	-46.14	-34.30	295,711.61	804,898.47	39° 7' 53.401 N	99° 47' 20.212 W	
3,505.00	18.50	179.80	3,500.83	-58.66	-34.78	295,699.09	804,897.74	39° 7' 53.277 N	99° 47' 20.218 W	
3,550.00	24.20	179.50	3,542.72	-75.04	-34.68	295,682.72	804,897.52	39° 7' 53.115 N	99° 47' 20.217 W	
3,594.00	29.60	179.10	3,581.95	-94.94	-34.43	295,662.82	804,897.38	39° 7' 52.918 N	99° 47' 20.214 W	
3,639.00	34.30	180.00	3,620.12	-118.74	-34.25	295,639.02	804,897.08	39° 7' 52.683 N	99° 47' 20.212 W	
3,650.00	35.20	180.16	3,629.16	-125.01	-34.26	295,632.75	804,896.95	39° 7' 52.621 N	99° 47' 20.212 W	
<b>HL Crossing: MD 3650', TVD 3629'</b>										
3,684.00	38.00	180.60	3,656.45	-145.28	-34.40	295,612.48	804,896.41	39° 7' 52.421 N	99° 47' 20.213 W	
3,729.00	41.70	180.20	3,690.99	-174.11	-34.60	295,583.66	804,895.64	39° 7' 52.136 N	99° 47' 20.216 W	
3,774.00	45.90	180.40	3,723.47	-205.25	-34.76	295,552.53	804,894.86	39° 7' 51.828 N	99° 47' 20.218 W	
3,819.00	50.00	179.70	3,753.60	-238.66	-34.78	295,519.13	804,894.18	39° 7' 51.498 N	99° 47' 20.218 W	
3,864.00	53.80	178.10	3,781.36	-274.06	-34.09	295,483.73	804,894.18	39° 7' 51.148 N	99° 47' 20.210 W	
3,909.00	57.50	175.70	3,806.75	-311.14	-32.07	295,446.61	804,895.47	39° 7' 50.781 N	99° 47' 20.184 W	
3,954.00	60.20	175.00	3,830.03	-349.52	-28.94	295,408.18	804,897.83	39° 7' 50.402 N	99° 47' 20.144 W	
3,999.00	64.00	174.00	3,851.08	-389.10	-25.12	295,368.53	804,900.87	39° 7' 50.011 N	99° 47' 20.096 W	
4,043.00	69.70	173.80	3,868.37	-429.31	-20.82	295,328.24	804,904.37	39° 7' 49.613 N	99° 47' 20.041 W	
4,088.00	74.10	175.90	3,882.35	-471.90	-17.00	295,285.59	804,907.36	39° 7' 49.192 N	99° 47' 19.993 W	
4,133.00	79.10	176.10	3,892.78	-515.56	-13.94	295,241.88	804,909.55	39° 7' 48.761 N	99° 47' 19.954 W	
4,178.00	84.70	178.00	3,899.11	-560.03	-11.66	295,197.37	804,910.96	39° 7' 48.321 N	99° 47' 19.925 W	
4,219.00	89.60	178.10	3,901.15	-600.94	-10.26	295,156.44	804,911.54	39° 7' 47.917 N	99° 47' 19.907 W	
4,264.00	91.00	178.60	3,900.92	-645.92	-8.97	295,111.44	804,911.95	39° 7' 47.472 N	99° 47' 19.891 W	
4,309.00	90.80	178.50	3,900.21	-690.90	-7.83	295,066.45	804,912.20	39° 7' 47.028 N	99° 47' 19.876 W	
4,353.00	90.80	178.50	3,899.60	-734.88	-6.68	295,022.45	804,912.48	39° 7' 46.593 N	99° 47' 19.862 W	
4,398.00	90.70	178.50	3,899.01	-779.86	-5.50	294,977.46	804,912.77	39° 7' 46.148 N	99° 47' 19.847 W	
4,476.00	88.40	181.00	3,899.62	-857.85	-5.16	294,899.48	804,911.57	39° 7' 45.377 N	99° 47' 19.842 W	
4,521.00	89.70	181.40	3,900.36	-902.83	-6.10	294,854.53	804,909.74	39° 7' 44.933 N	99° 47' 19.854 W	
4,563.00	90.10	181.70	3,900.44	-944.81	-7.24	294,812.57	804,907.77	39° 7' 44.518 N	99° 47' 19.869 W	
4,606.00	90.40	182.50	3,900.25	-987.78	-8.81	294,769.64	804,905.35	39° 7' 44.093 N	99° 47' 19.889 W	
4,649.00	89.50	181.90	3,900.29	-1,030.75	-10.46	294,726.72	804,902.85	39° 7' 43.668 N	99° 47' 19.910 W	
4,694.00	88.90	181.10	3,900.92	-1,075.73	-11.64	294,681.77	804,900.78	39° 7' 43.224 N	99° 47' 19.925 W	
4,739.00	89.00	181.00	3,901.74	-1,120.72	-12.47	294,636.81	804,899.07	39° 7' 42.779 N	99° 47' 19.935 W	
4,784.00	89.00	180.60	3,902.53	-1,165.71	-13.10	294,591.84	804,897.55	39° 7' 42.334 N	99° 47' 19.943 W	
4,829.00	90.50	180.30	3,902.72	-1,210.70	-13.45	294,546.86	804,896.31	39° 7' 41.890 N	99° 47' 19.948 W	
4,874.00	90.70	179.90	3,902.25	-1,255.70	-13.53	294,501.87	804,895.35	39° 7' 41.445 N	99° 47' 19.949 W	
4,919.00	88.10	178.60	3,902.72	-1,300.69	-12.94	294,456.88	804,895.05	39° 7' 41.000 N	99° 47' 19.941 W	
4,964.00	87.70	178.00	3,904.37	-1,345.64	-11.60	294,411.91	804,895.49	39° 7' 40.556 N	99° 47' 19.924 W	
5,009.00	88.20	178.10	3,905.98	-1,390.58	-10.07	294,366.95	804,896.13	39° 7' 40.112 N	99° 47' 19.905 W	
5,054.00	88.90	177.60	3,907.12	-1,435.54	-8.39	294,321.97	804,896.93	39° 7' 39.667 N	99° 47' 19.883 W	
5,097.00	89.30	177.00	3,907.80	-1,478.48	-6.36	294,278.99	804,898.11	39° 7' 39.243 N	99° 47' 19.858 W	
5,142.00	92.60	177.60	3,907.05	-1,523.42	-4.24	294,234.02	804,899.34	39° 7' 38.799 N	99° 47' 19.831 W	
5,187.00	92.00	177.60	3,905.24	-1,568.35	-2.36	294,189.07	804,900.34	39° 7' 38.355 N	99° 47' 19.807 W	
5,229.00	91.20	177.60	3,904.07	-1,610.29	-0.60	294,147.10	804,901.26	39° 7' 37.940 N	99° 47' 19.785 W	
5,272.00	90.60	177.70	3,903.40	-1,653.25	1.16	294,104.11	804,902.18	39° 7' 37.515 N	99° 47' 19.762 W	
5,315.00	90.90	177.50	3,902.83	-1,696.21	2.96	294,061.12	804,903.13	39° 7' 37.091 N	99° 47' 19.739 W	

# LEAM Drilling Systems LLC

## Survey Report - Geographic

<b>Company:</b>	McElvain Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well #3H
<b>Project:</b>	Trego County, KS (NAD 83)	<b>TVD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Site:</b>	Faulkner 5	<b>MD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Well:</b>	#3H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,358.00	91.50	177.90	3,901.93	-1,739.16	4.69	294,018.14	804,904.01	39° 7' 36.666 N	99° 47' 19.717 W	
5,400.00	89.60	178.70	3,901.53	-1,781.14	5.93	293,976.15	804,904.42	39° 7' 36.251 N	99° 47' 19.702 W	
5,443.00	88.60	178.80	3,902.20	-1,824.13	6.87	293,933.16	804,904.51	39° 7' 35.826 N	99° 47' 19.690 W	
5,488.00	89.50	179.30	3,902.95	-1,869.11	7.62	293,888.16	804,904.37	39° 7' 35.382 N	99° 47' 19.680 W	
5,533.00	89.10	179.80	3,903.50	-1,914.11	7.97	293,843.17	804,903.83	39° 7' 34.937 N	99° 47' 19.676 W	
5,578.00	90.20	181.80	3,903.78	-1,959.10	7.34	293,798.20	804,902.32	39° 7' 34.492 N	99° 47' 19.684 W	
5,623.00	92.00	183.50	3,902.91	-2,004.04	5.26	293,753.31	804,899.35	39° 7' 34.048 N	99° 47' 19.710 W	
5,668.00	92.50	183.30	3,901.14	-2,048.93	2.60	293,708.48	804,895.80	39° 7' 33.604 N	99° 47' 19.744 W	
5,713.00	91.60	183.50	3,899.53	-2,093.82	-0.07	293,663.65	804,892.24	39° 7' 33.161 N	99° 47' 19.778 W	
5,758.00	90.70	183.70	3,898.63	-2,138.72	-2.90	293,618.82	804,888.53	39° 7' 32.717 N	99° 47' 19.814 W	
5,800.00	88.90	184.60	3,898.78	-2,180.61	-5.94	293,577.00	804,884.67	39° 7' 32.303 N	99° 47' 19.852 W	
5,843.00	88.10	184.70	3,899.90	-2,223.45	-9.42	293,534.23	804,880.34	39° 7' 31.879 N	99° 47' 19.896 W	
5,879.00	88.40	185.20	3,901.00	-2,259.30	-12.52	293,498.45	804,876.52	39° 7' 31.525 N	99° 47' 19.936 W	
5,910.00	88.90	185.90	3,901.73	-2,290.14	-15.52	293,467.67	804,872.92	39° 7' 31.220 N	99° 47' 19.974 W	
5,940.00	89.80	185.50	3,902.07	-2,319.99	-18.50	293,437.89	804,869.35	39° 7' 30.925 N	99° 47' 20.012 W	
5,971.00	88.90	185.70	3,902.43	-2,350.84	-21.53	293,407.10	804,865.72	39° 7' 30.620 N	99° 47' 20.050 W	
6,002.00	90.80	184.60	3,902.51	-2,381.72	-24.31	293,376.29	804,862.32	39° 7' 30.315 N	99° 47' 20.085 W	
6,033.00	91.90	184.60	3,901.78	-2,412.61	-26.79	293,345.45	804,859.23	39° 7' 30.010 N	99° 47' 20.117 W	
6,064.00	92.00	183.70	3,900.72	-2,443.51	-29.04	293,314.60	804,856.38	39° 7' 29.704 N	99° 47' 20.145 W	
6,107.00	93.10	181.90	3,898.81	-2,486.41	-31.13	293,271.75	804,853.43	39° 7' 29.280 N	99° 47' 20.172 W	
6,152.00	93.50	182.20	3,896.22	-2,531.31	-32.74	293,226.89	804,850.94	39° 7' 28.836 N	99° 47' 20.192 W	
6,194.00	93.50	182.30	3,893.65	-2,573.20	-34.39	293,185.04	804,848.46	39° 7' 28.422 N	99° 47' 20.213 W	
6,239.00	94.00	182.40	3,890.71	-2,618.06	-36.23	293,140.22	804,845.74	39° 7' 27.979 N	99° 47' 20.237 W	
6,284.00	94.00	181.90	3,887.57	-2,662.92	-37.91	293,095.41	804,843.17	39° 7' 27.536 N	99° 47' 20.258 W	
6,327.00	93.00	179.80	3,884.95	-2,705.83	-38.55	293,052.52	804,841.68	39° 7' 27.111 N	99° 47' 20.266 W	
6,370.00	89.60	179.20	3,883.97	-2,748.81	-38.17	293,009.54	804,841.21	39° 7' 26.687 N	99° 47' 20.261 W	
6,415.00	89.20	179.40	3,884.44	-2,793.81	-37.62	292,964.54	804,840.87	39° 7' 26.242 N	99° 47' 20.254 W	
6,458.00	88.90	179.60	3,885.16	-2,836.80	-37.25	292,921.55	804,840.40	39° 7' 25.817 N	99° 47' 20.250 W	
6,500.00	89.40	179.60	3,885.78	-2,878.80	-36.96	292,879.56	804,839.86	39° 7' 25.402 N	99° 47' 20.246 W	
6,543.00	89.50	179.60	3,886.19	-2,921.79	-36.66	292,836.56	804,839.31	39° 7' 24.977 N	99° 47' 20.242 W	
6,585.00	88.20	179.30	3,887.03	-2,963.78	-36.25	292,794.57	804,838.88	39° 7' 24.562 N	99° 47' 20.237 W	
6,628.00	89.10	179.10	3,888.05	-3,006.76	-35.65	292,751.59	804,838.64	39° 7' 24.137 N	99° 47' 20.229 W	
6,673.00	89.90	178.20	3,888.44	-3,051.75	-34.59	292,706.59	804,838.81	39° 7' 23.692 N	99° 47' 20.216 W	
6,718.00	92.40	178.90	3,887.54	-3,096.72	-33.45	292,661.60	804,839.06	39° 7' 23.248 N	99° 47' 20.201 W	
6,761.00	92.70	178.80	3,885.62	-3,139.67	-32.59	292,618.65	804,839.07	39° 7' 22.823 N	99° 47' 20.190 W	
6,806.00	88.00	179.00	3,885.35	-3,184.65	-31.73	292,573.66	804,839.05	39° 7' 22.379 N	99° 47' 20.180 W	
6,851.00	89.30	179.40	3,886.41	-3,229.63	-31.10	292,528.67	804,838.79	39° 7' 21.934 N	99° 47' 20.172 W	
6,894.00	90.60	178.90	3,886.45	-3,272.63	-30.46	292,485.68	804,838.57	39° 7' 21.509 N	99° 47' 20.163 W	
6,939.00	89.60	179.00	3,886.37	-3,317.62	-29.64	292,440.68	804,838.51	39° 7' 21.064 N	99° 47' 20.153 W	
6,981.00	93.30	179.90	3,885.31	-3,359.59	-29.23	292,398.70	804,838.08	39° 7' 20.650 N	99° 47' 20.148 W	
7,025.00	88.60	179.80	3,884.58	-3,403.58	-29.12	292,354.72	804,837.33	39° 7' 20.215 N	99° 47' 20.146 W	
7,067.00	87.00	180.70	3,886.19	-3,445.54	-29.30	292,312.77	804,836.32	39° 7' 19.800 N	99° 47' 20.149 W	
7,110.00	87.50	179.40	3,888.25	-3,488.49	-29.34	292,269.83	804,835.43	39° 7' 19.375 N	99° 47' 20.149 W	
7,152.00	88.10	179.40	3,889.86	-3,530.46	-28.90	292,227.86	804,835.04	39° 7' 18.961 N	99° 47' 20.144 W	
7,195.00	88.60	177.70	3,891.10	-3,573.42	-27.81	292,184.88	804,835.28	39° 7' 18.536 N	99° 47' 20.130 W	
7,237.00	89.30	178.00	3,891.87	-3,615.39	-26.24	292,142.90	804,836.03	39° 7' 18.121 N	99° 47' 20.110 W	
7,277.00	89.00	177.10	3,892.46	-3,655.35	-24.53	292,102.91	804,836.95	39° 7' 17.726 N	99° 47' 20.088 W	
7,320.00	88.70	177.80	3,893.33	-3,698.29	-22.61	292,059.93	804,838.01	39° 7' 17.302 N	99° 47' 20.064 W	
7,363.00	87.80	176.80	3,894.64	-3,741.23	-20.59	292,016.97	804,839.19	39° 7' 16.877 N	99° 47' 20.038 W	
7,407.00	87.90	175.90	3,896.29	-3,785.11	-17.79	291,973.05	804,841.12	39° 7' 16.444 N	99° 47' 20.003 W	
7,450.00	88.60	175.20	3,897.60	-3,827.96	-14.46	291,930.14	804,843.61	39° 7' 16.020 N	99° 47' 19.960 W	
7,492.00	91.90	174.70	3,897.42	-3,869.79	-10.76	291,888.24	804,846.48	39° 7' 15.607 N	99° 47' 19.913 W	
7,537.00	92.60	175.90	3,895.65	-3,914.60	-7.08	291,843.37	804,849.28	39° 7' 15.164 N	99° 47' 19.867 W	

# LEAM Drilling Systems LLC

## Survey Report - Geographic

<b>Company:</b>	McElvain Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well #3H
<b>Project:</b>	Trego County, KS (NAD 83)	<b>TVD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Site:</b>	Faulkner 5	<b>MD Reference:</b>	GE 2282' + KB 13' @ 2295.00usft (Original Well Elev)
<b>Well:</b>	#3H	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
7,582.00	93.00	176.20	3,893.46	-3,959.44	-3.98	291,798.47	804,851.49	39° 7' 14.721 N	99° 47' 19.827 W	
7,627.00	92.60	176.50	3,891.26	-4,004.29	-1.12	291,753.57	804,853.46	39° 7' 14.277 N	99° 47' 19.791 W	
7,670.00	91.20	177.40	3,889.83	-4,047.21	1.17	291,710.62	804,854.90	39° 7' 13.853 N	99° 47' 19.762 W	
7,712.00	90.50	178.00	3,889.21	-4,089.17	2.85	291,668.63	804,855.75	39° 7' 13.438 N	99° 47' 19.741 W	
7,757.00	89.80	178.70	3,889.09	-4,134.15	4.15	291,623.64	804,856.16	39° 7' 12.994 N	99° 47' 19.724 W	
7,800.00	90.00	178.10	3,889.17	-4,177.13	5.35	291,580.64	804,856.51	39° 7' 12.569 N	99° 47' 19.709 W	
7,845.00	90.60	177.50	3,888.93	-4,222.10	7.08	291,535.65	804,857.35	39° 7' 12.124 N	99° 47' 19.687 W	
7,888.00	90.90	178.70	3,888.37	-4,265.07	8.50	291,492.66	804,857.93	39° 7' 11.700 N	99° 47' 19.669 W	
7,931.00	91.70	178.80	3,887.39	-4,308.05	9.44	291,449.67	804,858.02	39° 7' 11.275 N	99° 47' 19.657 W	
7,981.00	91.70	178.80	3,885.91	-4,358.02	10.49	291,399.69	804,858.08	39° 7' 10.781 N	99° 47' 19.644 W	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
3,650.00	3,629.16	-125.01	-34.26	HL Crossing: MD 3650', TVD 3629'	



T11S, R22W, 6th P.M.

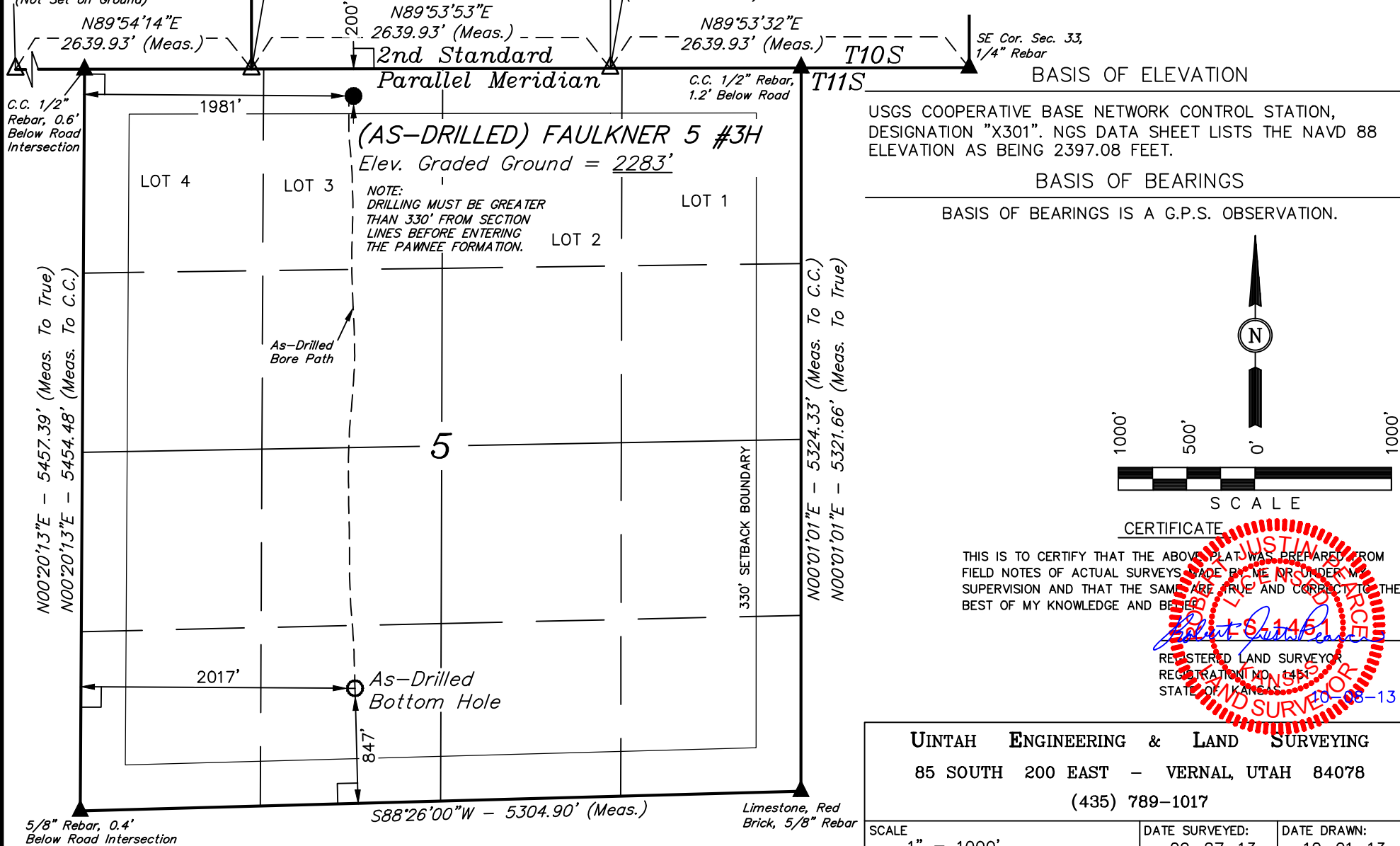
McELVAIN ENERGY, INC.

S 1/4 Cor. Sec. 32,  
Re-Established Using  
Curvature of 2nd Parallel  
(Not Set on Ground)

SW Cor. Sec. 33,  
Re-Established Using  
Curvature of 2nd Parallel  
(Not Set on Ground)

S 1/4 Cor. Sec. 33,  
Re-Established Using  
Curvature of 2nd Parallel  
(Not Set on Ground)

Well location, (AS-DRILLED) FAULKNER 5 #3H,  
located as shown in LOT 3 of Section 5,  
T11S, R22W, 6th P.M., Trego County, Kansas.



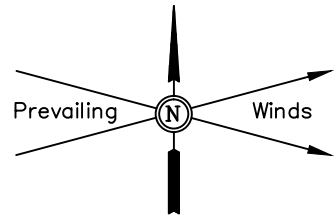
NAD 83 (AS-DRILLED BOTTOM HOLE)	NAD 83 (AS-DRILLED SURFACE LOCATION)
LATITUDE = 39°07'10.79" (39.119664)	LATITUDE = 39°07'53.86" (39.131628)
LONGITUDE = 99°47'19.62" (99.788783)	LONGITUDE = 99°47'19.77" (99.788825)
NAD 27 (AS-DRILLED BOTTOM HOLE)	NAD 27 (AS-DRILLED SURFACE LOCATION)
LATITUDE = 39°07'10.76" (39.119656)	LATITUDE = 39°07'53.83" (39.131619)
LONGITUDE = 99°47'18.19" (99.788386)	LONGITUDE = 99°47'18.34" (99.788428)

**UINTAH ENGINEERING & LAND SURVEYING**  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 09-27-13	DATE DRAWN: 10-01-13
PARTY C.B. J.P. S.S.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE McELVAIN ENERGY, INC.	

CERTIFICATE  
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

*Robert S. 11451*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 1451  
STATE OF KANSAS  
10-08-13



**McELVAIN ENERGY, INC.**

AS-BUILT SITE PLAN FOR

FAULKNER 5 #3H

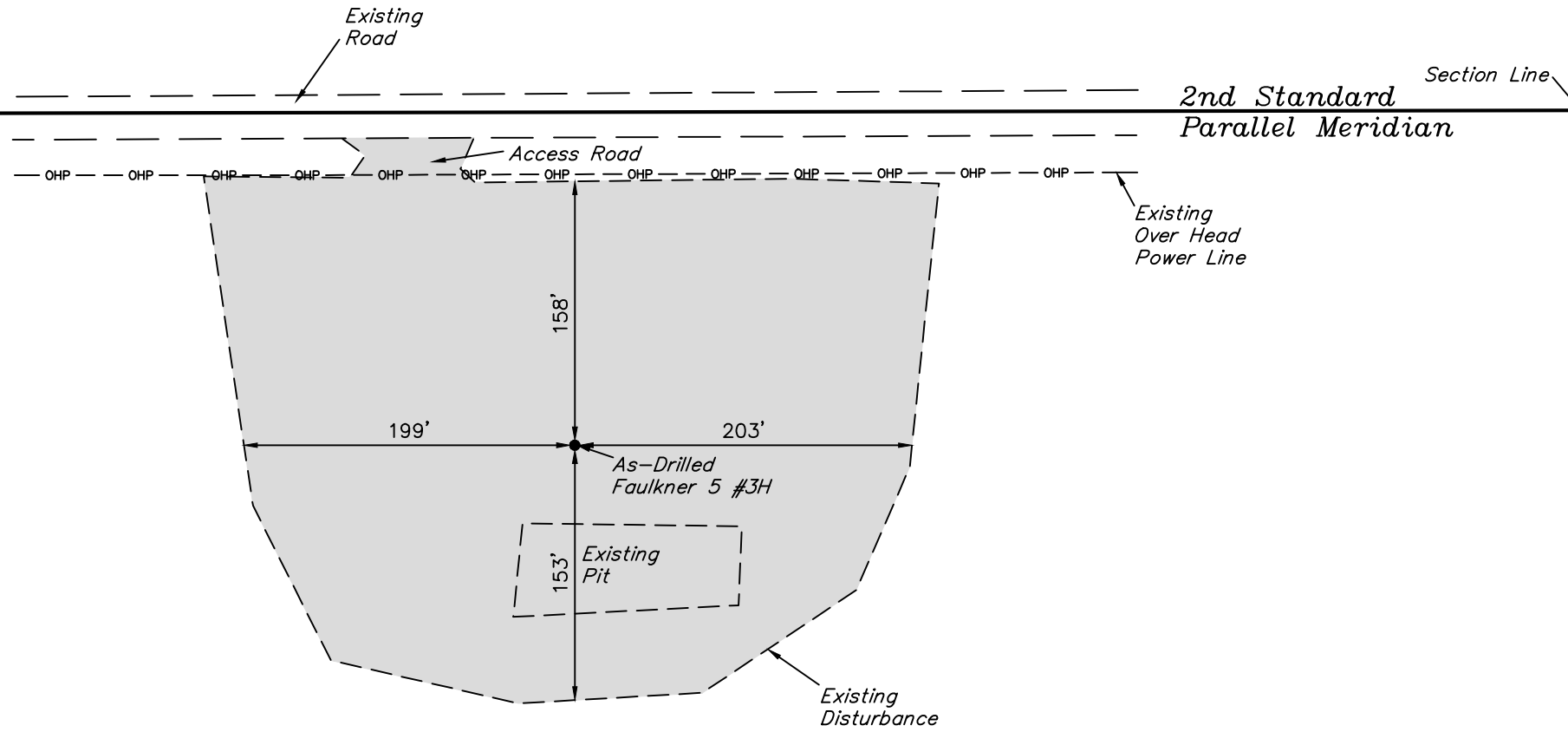
SECTION 5, T11S, R22W, 6th P.M.

200' FNL 1981' FWL

SCALE: 1" = 100'  
DATE: 10-01-13  
DRAWN BY: S.S.

Section 32  
Section 33  
SW Cor. Sec. 33,  
Re-Established Using  
Curvature of 2nd Parallel  
(Not Set on Ground)

Section 33  
Section 5



T10S  
T11S

1/16 Section Line

1/4 Section Line

PAD DISTURBANCE = ± 2.673 ACRES  
ROAD DISTURBANCE = ± 0.039 ACRES  
TOTAL = ± 2.712 ACRES