

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1245328  
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: \_\_\_\_\_

1245328

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 <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  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
<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> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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**MORNING DRILLING REPORT**

1517 Exploration, LLC

**SOUTHWIND DRILLING, INC.**

HRG No. 2

Well Name: East Kirkpatrick Unit #1  
 Location: 728 FNL & 2266 FWL  
 Section: 35-245-13W  
 County: Stafford  
 API: 15-165-23926-00-00

Elevation: GL 1913'  
 KB 1922'  
 Est. TD: 4200'

Rig No. 2 (Parker B4) (Serial) 620 417 0716  
 Pg. No. 2 (Dodge) 620 5 175901  
 Southwind Drilling Office 620 564-3800



Surface Casing: Ran 19 joints of new 2 3/8" 5.50" casing, Tally @ 741.81', Set @ 755.51', used 400 sacks of 6040, 3% cc, 2% gel cement circulated, by Gushy (Ticket #1153), plug down @ 7:00 am on 02.25.15.

Production Info: Ran 158 joints of 1.58, 5 1/2" casing, Tally @ 4184', Set @ 4199', used 200 sacks of A/L, 6040, 30 sacks for Rat hole, 20 sacks for Mouse hole, cemented, by Basic (Ticket #12301A), job complete @ 11:00 pm on 03.07.15.

Rotary Total Depth: 4200'  
 Log Total Depth: 4197'

Geologist: Jim Musgrove

7:00 A.M. Depth: 4200' 7:00 A.M. Current Operation: TEAR DOWN

Spud Date & Time:	02/24/15	02/25/15	02/26/15	02/27/15	02/28/15	03/01/15	03/02/15	03/03/15	03/04/15	03/05/15	03/06/15	03/07/15	03/08/15	Total
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	
Total Depth (7:00am)	0	757	1485	2205	2785	3325	3810	3962	3829	3915	4019	4200	4200	4200
Daily Progress	757	728	720	580	540	285	52	163	90	95	190	0	0	4200
Pl. Per Hr.	103.93	78.63	37.40	31.24	25.41	21.92	18.91	16.72	12.85	13.85	16.80	#DRW01	#DRW01	33.47
Current Operation (7:00am)	Rig Up	Cement	Drilling	Drilling	Drilling	Drilling	TWWT	CTCH	Drilling	CTCH	CTCH	TCPL	TCPL	
Formation	Surface	Surface	Lime / Shale	Lime / Shale	Lime / Shale	Lime / Shale	Lansing	Lansing	Lime / Shale	Lansing	Viola	Lime / Shale	Tear Down	
Fuel Used (34.5 Gall/Inch)	241.50	345.00	517.50	517.50	552.00	448.50	275.00	379.50	379.50	379.50	414.00			4450.50
Survey (degree & depth)	1 1/4' @ 757'						1' @ 3610'					3/4' @ 4200'		

Mud Cost	\$0.00	\$0.00	\$1,429.34	\$3,543.74	\$1,143.11	\$0.00	\$1,710.76	\$752.88	\$0.00	\$1,149.82	\$541.48			\$11,271.23
Weight (# / Gal)			10.1	5.4	6.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	9.3
Via (Funnel)			32	80	80	53		49			50			
Water Loss (cc)								12.0						

Bit #1	Bit #2	Bit #3	Bit #4	Bit #5	Bit #6	Bit #7	Bit #8	Bit #9	Bit #10	Bit #11	Bit #12	Bit #13	Bit #14	Bit #15
Bit Make / Type	Reed													
Bit Size	12 1/4"													
Bit Hours	7.50													7.50
Bit Make / Type		Reed R24 A	Reed R24 A	Reed R24 A	Reed R24 A	Reed R24 A								
Bit Size		7 7/8"	7 7/8"	7 7/8"	7 7/8"	7 7/8"								
Bit Hours		9.50	19.25	18.25	21.25	13.00								81.25
Bit Make / Type							Reed R24 A	Reed R24 A	Reed R24 A	Reed R24 A				
Bit Size							7 7/8"	7 7/8"	7 7/8"	7 7/8"				
Bit Hours							2.75	9.75	7.00	6.00				25.50
Bit Make / Type											Reed R24 A			
Bit Size											7 7/8"			
Bit Hours											11.25			11.25
Bit Cumulative Hours	7.50	8.50	19.25	18.25	21.25	13.00	2.75	9.75	7.00	6.00	11.25	0.00	0.00	125.50
Weight on Bit (WOB)	10,000	15,000	20,000	26,000	35,000	35,000	30,000	35,000	35,000	35,000	35,000	35,000	35,000	
RPM	120	80	80	80	80	80	80	80	80	80	80	80	80	
Pump Pressure	800	600	600	650	850	850	850	800	800	825	850	850	850	
Drilling (Rotating) Hours	7.50	8.50	19.25	18.25	21.25	13.00	2.75	9.75	7.00	6.00	11.25	0.00	0.00	125.50

Daywork Hrs. (on Operator's time)														
Rat Hole (> 75 Hrs)														0.00
Wait on Cement		12.00												12.00
Trip	1.25						9.00							41.00
Circulate	0.50						3.25	3.90	3.25	3.25	3.25	3.25	3.25	23.00
Tool							6.50	1.90	0.75	1.25	1.00			5.00
Trailing								6.00	3.00	3.00	3.00			15.00
Clean Floor after DST														0.00
LDOP / LDCC													4.00	4.00
Run Casing / Circ / Cement	3.00													6.50
Logging													2.00	5.25
Wait on Monitor Pump				1.25										1.25
Wait on Orders														0.00
Get Slips														0.50
Nipple Down/Jet Collar														0.50
Billable Hours	4.75	12.00	0.00	1.25	0.00	9.00	33.25	13.25	13.75	11.25	11.75	15.75	0.00	115.00

Non-Billable Hours (Southwind's time)														
Rig Up / Tear Down	2.00													13.50
Drill Mouse Hole												7.50	4.00	0.00
Drill Rat Hole (< 75 hrs)	0.50													0.50
Drill Plug		0.25												0.25
Circulate / Trip (Surface)	0.75													0.75
Rig Repair	2.75		0.25	1.50			0.50		0.50	1.50				7.00
Connections	3.25	1.75	2.25	1.50	1.75	0.75		0.50	0.25	0.25	0.50			12.75
Jet/Displace	0.50	0.25	1.50	1.00		0.50	0.25							4.00
Surveys	0.25		0.25								0.25			0.75
Rig Check		0.25	0.75	0.50	1.00	0.50	0.25	0.50	0.25	0.25	0.25	0.25		4.75
Trip Time (PTH)	1.75													1.75
Trip Time plugged bit														2.25
Mix Mud									2.25	2.75				2.75
Lost Circulation (< 2 hrs)														0.00
Lay Down Kelly / Mix & RH													0.50	0.50
Non-Billable Hrs.	11.75	2.50	4.75	4.50	2.75	2.00	1.00	1.00	0.25	4.75	1.00	8.25	4.00	51.50

Postage Cost	\$ 9,462.50	\$ 9,100.00	\$ 9,000.00	\$ 7,250.00	\$ 6,750.00	\$ 3,302.50	\$ 650.00	\$ 2,037.50	\$ 1,125.00	\$ 1,167.50	\$ 2,375.00	\$ -	\$ -	\$ 52,500.00
Daywork Cost	\$ 1,062.50	\$ 4,200.00	\$ -	\$ 437.50	\$ -	\$ 3,150.00	\$ 7,087.50	\$ 4,637.50	\$ 4,812.50	\$ 4,837.50	\$ 4,112.50	\$ 5,512.50	\$ -	\$ 40,250.00
Combined Est. Cost*	\$ 11,125.00	\$ 13,300.00	\$ 9,000.00	\$ 7,687.50	\$ 6,750.00	\$ 6,452.50	\$ 7,737.50	\$ 6,675.00	\$ 5,937.50	\$ 5,125.00	\$ 6,487.50	\$ 5,512.50	\$ -	\$ 92,750.00

\*Please note that this is estimated footage & daywork cost only. Additional charges will apply on invoice that are change, water transfer, pump, etc.

DST #1 Info - Footage Interval: 3570' - 3610' Recovery: 500' Gas In Pipe 50' Mud	Lansing "A-C"	DST #2 Info - Footage Interval: 3610' - 3662' Recovery: 180' Murdy Water	"Lansing"
DST #3 Info - Footage Interval: 3660' - 3777' Recovery: 70' Mud	"Lansing"	DST #4 Info - Footage Interval: 3778' - 3830' Recovery: 70' Mud	Lansing "J-K"
DST #5 Info - Footage Interval: 3960' - 4010' Recovery: 60' Oil Cut Mud	"Viola"	DST #6 Info - Footage Interval: Recovery:	

Anhydrite @ 740' - 772'

Displaced @ 2594'



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 1193

Date 2-25-15	Sec. 36	Twp. 24	Range 13	County Stafford	State Ks	On Location	Finish 7:00 AM
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Lease East Kirkpatrick unit Location 281 & 50 Jct - 3E to 30 Rd, 25  
Well No. 1 Owner to 20 Rd 1/2 E

Contractor Southwind 2 To Quality Oilwell Cementing, Inc.  
Type Job Surface 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 12 1/4" T.D. 757' Charge To HD Exploration

Csg. 8 5/8" Depth 755' Street

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 17.40' Shoe Joint 17.40' Cement Amount Ordered 400 60/40 3% CC 2% Gel

Meas Line Displace 47 PLS 1/4 # Fls 5 gal

**EQUIPMENT**

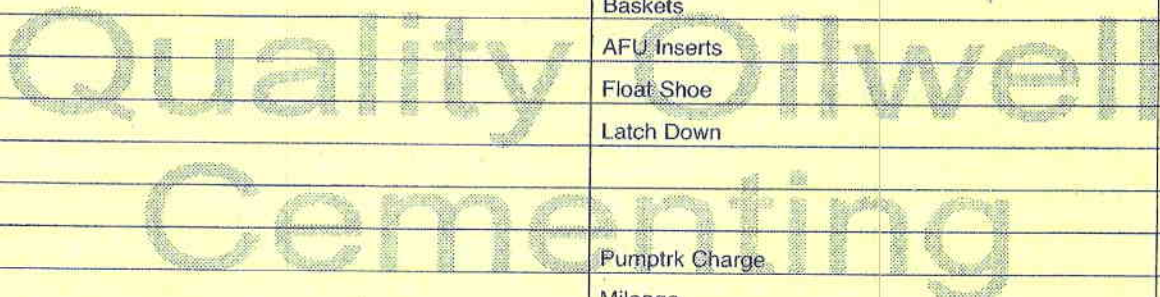
Pumptrk 20	No.	Cementer		Common
		Helper	Billy	Poz. Mix
Bulktrk 21	No.	Driver	had	Gel.
		Driver	Rock	Calcium

**JOB SERVICES & REMARKS**

Remarks: Cement did Circulate	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
	Sand
	Handling
	Mileage

**FLOAT EQUIPMENT**

Guide Shoe	Baffle plate
Centralizer	Rubber plug
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	



Signature: *Tom R...* Tax \_\_\_\_\_  
Discount \_\_\_\_\_  
Total Charge \_\_\_\_\_



# BASIC

energy services, L.P.

Ticket # 12301 A.

## TREATMENT REPORT

Customer HHD Exploration LLC		Lease No.		Date	
Lease East Kirkwood tract		Well # 1		3/7/15	
Field Order # 12301A	Station Pratt KS	Casing 5 1/2	Depth 4192	County Stafford	State KS
Type Job 3/4 Long Slurry CNW			Formation	Legal Description 36 24 15	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
Depth 4192	Depth	From	To	Pre Pad	Max			5 Min.
Volume 99	Volume	From	To	Pad	Min			10 Min.
Max Press 2000	Max Press	From	To	Frac	Avg			15 Min.
Well Connection 5 1/2	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush	Gas Volume			Total Load

Customer Representative C. Caldwell Roberts	Station Manager Kenna Bradley	Treater Scott Edwards
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Service Units	27463	19460	35923
Driver Names	Shannon	Kevin	Scott

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
6:30					On location Safety Meeting P. 1 up
7:30					Ran that equipment. Busted out #7
					Trucks 4, 5, 7, 9, 11, 13, 15
9:30					Truck calculations 1 hour
10:19	300			4.5	Run 200 FC1 1100
10:23	500		20	4.5	Run 1000 1100 1100 1100
10:26	500		12	5	Run 1100 1100 1100
10:27	400		3	5.5	Run 150 500 500 500
10:55	0		41.2		Shut down
					Check pump & lines clean
10:40	20			5.5	Release Plug shut Displacement
10:53	300		76	5.7	1100 Pressure
10:56	500		14	3	Reduce Rate
11:00	700		10	3	Plug landed
11:00	1500				Pressure up on plug
11:01	0				Release pressure NO Returns
11:05	0		8	2.5	Run 1000 1100 1100 1100
11:10	0		6	2.5	Plug 2000 1100 1100 1100
					Shut down 11:10