



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1231566
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: _____



1231566

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Hupfer Operating, Inc.
Well Name	Heine 3
Doc ID	1231566

Tops

Name	Top	Datum
Heebner	2835	-1050
Toronto	2858	-1070
Douglas	2866	-1079
Brown Lime	2951	-1166
Lansing	2980	-1195
Base K.C.	3245	-1460
Arbuckle	3273	-1480
RTD	3284	-1499



Discovery Drilling

P.O. Box 763 • Hays, KS 67601 • OFFICE (785) 623-2920 • CELLULAR (785) 635-1511

DRILLER'S LOG

Operator: Hupfer Operating, Inc. Lic# 30380 Contractor: Discovery Drilling Co., Inc. LIC#31548
P.O. Box 3912 PO Box 763
Shawnee, KS 66203-0912 Hays, KS 67601

Lease: Heine # 3 Location: 990 FSL - 330 FWL
NW/SW/SW
Section 28/ 19S/ 10W
Rice County, KS

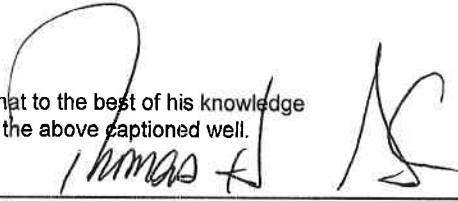
Loggers Total Depth: 3282' API#15- 159-22,791-00-00
Rotary Total Depth: 3284' Elevation: 1777 GL - 1785 KB
Commenced: 9/4/2014 Completed: 9/10/2014
Casing: 8 5/8" @ 3276'WV/120sks Status: Oilwell

DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shale	<u>0'</u>	Shale	<u>399'</u>
Dakota Sand	<u>74'</u>	Shale & Lime	<u>1229'</u>
Shale	<u>100'</u>	Shale	<u>2068'</u>
Cedar Hill Sand	<u>149'</u>	Shale & Lime	<u>2274'</u>
Red Bed Shale	<u>206'</u>	Lime & Shale	<u>2871'</u>
Anhydrite	<u>394'</u>	RTD	<u>3284'</u>
Base Anhydrite	<u>399'</u>		

STATE OF KANSAS)
) ss
COUNTY OF ELLIS)

Thomas H. Alm of Discovery Drilling states that to the best of his knowledge the above and foregoing is a true and correct log of the above captioned well.



Thomas H. Alm

Subscribed and sworn to before me on _____

My Commission expires: _____

(Place stamp or seal below)

Notary Public

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. 631

Date	9-9-14	Sec.	28	Twp.	19	Range	10	County	Rice	State	Ks	On Location		Finish	EISA
Lease								Well No.		Location					
Heine								3		Ellinwood, Ks - E to 3rd Rd, 1/2 S					

Contractor	Discovery 2	Owner	E Into
Type Job	Longstring	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"	Charge To	Hupfer operating
Csg.	5 1/2" New 15.50#	Street	
Tbg. Size		City	
Tool		State	
Cement Left in Csg.	35.30'	The above was done to satisfaction and supervision of owner agent or contractor.	
Meas Line		Cement Amount Ordered 170 Com 10% Salt 5 1/2 Gilsorik	
Displace	77 BLS	500 gal mud Clear 48	

EQUIPMENT

Pumptrk	16	No.	Cementer	Billy	Common	170
			Helper		Poz. Mix	
Bulktrk	14	No.	Driver	Chad	Gel.	
			Driver		Calcium	
Bulktrk	p.u.	No.	Driver	Rick	Hulls	
			Driver		Salt	16

JOB SERVICES & REMARKS

Remarks:
Rat Hole
Mouse Hole
Centralizers 2, 7, 9, 11
Baskets 5
D/V or Port Collar. Pipe on bottom break
Circulation, pump 500 gal mud
Clear 48, plug Rathole w/ 30 sy
plug mousehole w/ 20 sy, Hook to
Casing + mix 120 sy Cement.
Shut down wash pump &
lines Released plug & Displaced
plug w/ 77 BLS.
Released & held
Lift pressure 600 #
Land plug 40 1600 #

Flowseal	
Kol-Seal	850#
Mud CLR 48	500 gal
CFL-117 or CD110 CA# 38	
Sand	
Handling	194
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	4 turbo's
Baskets	1
AFU Inserts	
Float Shoe	
Latch Down	1
1- Packer shoe	
Pumptrk Charge	prod string
Mileage	19

X Signature *[Handwritten Signature]*

Tax	
Discount	
Total Charge	

QUALITY OILWELL CEMENTING, INC.

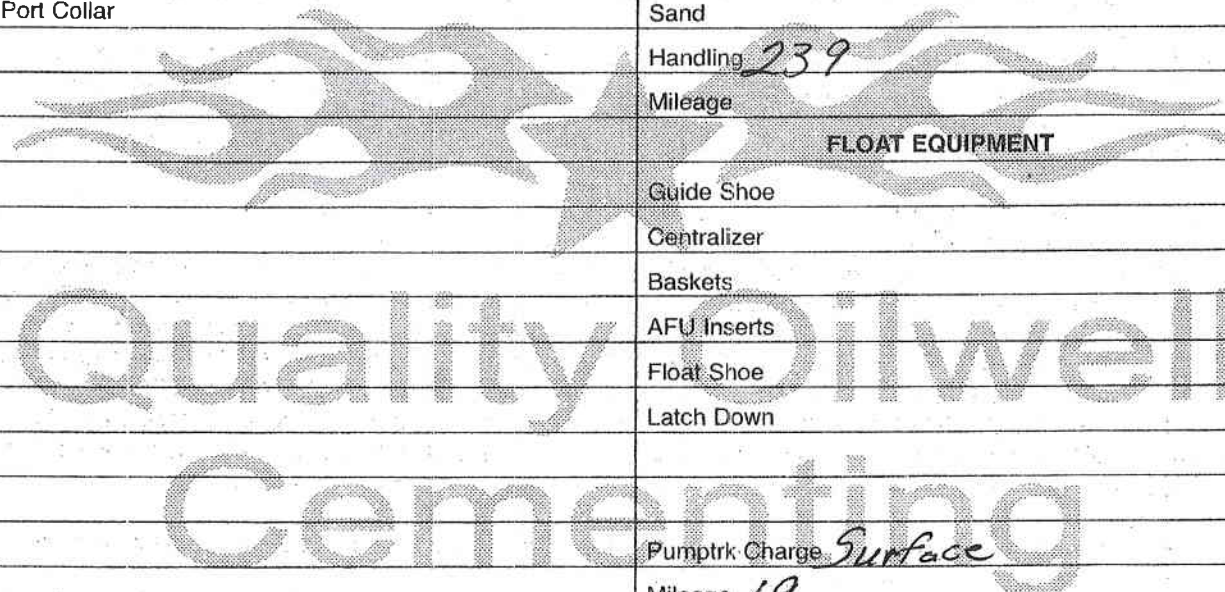
Federal Tax I.D.# 20-2886107

ne 785-483-2025
il 785-324-1041

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

No. 627

Date	9-4-14	Sec.	28	Twp.	19	Range	10	County	Rice	State	Ks	On Location		Finish	8:00 PM
Lease								Heine		Well No.		3			
Contractor								Discovery 2		Owner		Els Stay by free Row			
Type Job								Surface		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				12 1/4"		T.D.		304'		Charge To Hupfer operating					
Csg.				8 5/8"		Depth		304'		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.				20'		Shoe Joint		20'		Cement Amount Ordered 225 Common 3% CC 2% CC					
Meas Line				Displace		18 BCS		Yub Flowseal							
EQUIPMENT															
Pumptrk		16	No.	Cementer		Billy		Helper		Common 225					
Bulktrk		3	No.	Driver		Lennie		M		Poz. Mix					
Bulktrk		piu.	No.	Driver		Rick				Gel. 5					
				Driver						Calcium 9					
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 239			
												Mileage			
FLOAT EQUIPMENT															
												Guide Shoe			
												Centralizer			
												Baskets			
												AFU Inserts			
												Float Shoe			
												Latch Down			
												Pumptrk Charge Surface			
												Mileage 19			
												Tax			
												Discount			
												Total Charge			
X Signature															



HEINE #3 - S2 OF SW/4 Sec. 28-19-10W, Rice CO.

DST'S & COMPLETION

DRILL STEM TESTS: HEINE #3

DST #1: Lansing 2956' to 3086'. 30-45-30-60. Recovered 126' GIP and 50 ' VSOCM.
ISIP - 363, FSIP 420, IFP 27-27, FFP 26-35.

DST #2: Arbuckle - 3243' to 3279'. 45-45-45-60. Recovered 365' GIP, 68' muddy oil,
70% oil and 25' clean gassy oil. ISIP 705, FSIP 705, IFP 14-29, FFP 34-42.

DST #3: Arbuckle - 3243 to 3284'. 45-45-45-60. Strong blow with blow back.
Recovered 675' GIP, 240' oil and heavy oil cut mud. ISIP 747, FSIP 676,
IFP 15-58, FFP 66-85.

COMPLETION: Drilled Packer Shoe - Swab down, Good show of oil. Acidized w/
250 gals. 15% mud acid. Swab down. Swabbed 6 BFPH, 50^{o/b} oil.
Overnight fill up 1850' with 950' oil on top. Run tubing & rods.