



Discovery Drilling

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

DRILLER'S LOG

Operator: John O. Farmer, Inc. Lic# 5135 Contractor: Discovery Drilling Co., Inc. LIC#31548
370 West Wichita Avenue - P.O. Box 352 PO Box 763
Russell, KS 67665 Hays, KS 67601

Lease: Dumler "A" # 1 Location: 1220 FSL - 1390 FEL
NE/NE/SW/SE
Section 5/ 13S/ 15W
Russell County, KS

Loggers Total Depth: 3281' API#15- 167-23,840-00-00
 Rotary Total Depth: 3280' Elevation: 1847 GL / 1855 KB
 Commenced: 12/3/2012 Completed: 12/8/2012
 Casing: 8 5/8" @ 222'W/150sks Status: D & A

DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shale	<u>0'</u>	Shale	<u>958'</u>
Dakota Sand	<u>351'</u>	Shale & Lime	<u>1563'</u>
Shale	<u>410'</u>	Shale	<u>2020'</u>
Cedar Hill Sand	<u>447'</u>	Shale & Lime	<u>2500'</u>
Red Bed Shale	<u>659'</u>	Lime & Shale	<u>2976'</u>
Anhydrite	<u>927'</u>	RTD	<u>3280'</u>
Base Anhydrite	<u>958'</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.

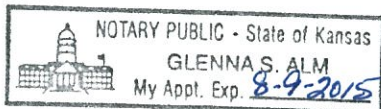
Thomas H. Alm

Subscribed and sworn to before me on 12-10-12

My Commission expires: 8-9-2015

(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. 6239

Date	12-4-12	Sec.	S	Twp.	13	Range	15	County	Russell	State	KS	On Location		Finish	2.45 AM
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Location Graham Black top 4 N West into

Lease Dumlek A Well No. 1 Owner

Contractor Discovery 2 To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish
Type Job Surface cementer and helper to assist owner or contractor to do work as listed.

Hole Size 12 1/4 T.D. 222 Charge To J.P. Farmer

Csg. 8 5/8 Depth 222.13 Street

Tbg. Size Depth City State

Tool Depth 12 3/4 BBL The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 20ft Shoe Joint 20ft Cement Amount Ordered 150 3% CC 290 gal

Meas Line Displace

EQUIPMENT

Pumptrk 5 No. Cementer Walt Common 150

Bulktrk 8 No. Helper Ble H Poz. Mix

Bulktrk pu No. Driver Konnie W Gel. 3

JOB SERVICES & REMARKS

Remarks: Hulls

Rat Hole Salt

Mouse Hole Flowseal

Centralizers Mud CLR 48

Baskets CFL-117 or CD110 CAF 38

D/V or Port Collar Sand

Handling 158

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge Surface

Mileage 13

Signature Gene W... Tax

Discount

Total Charge

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. 6112

Date	12-8-12	Sec.	5	Twp.	13	Range	15	County	Russell	State	Ks	On Location		Finish	5:00AM
Lease	Dumler A			Well No.	1		Owner	4 1/4 N, W Hnto							
Contractor	Discovery			#2			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.								
Type Job	Plug														
Hole Size	7 7/8"			T.D.	3280'		Charge To	J.O. Farmer							
Csg.				Depth			Street								
Tbg. Size	4 1/2" D.P.			Depth	940'		City	State							
Tool				Depth			The above was done to satisfaction and supervision of owner agent or contractor.								
Cement Left in Csg.				Shoe Joint			Cement Amount Ordered	160 SX 60/40 4% Gel 1/4#							
Meas Line				Displace	H2O 1000		Flo-seal								
EQUIPMENT							Common	96							
Pumptrk	15	No.	Cementer	Nick			Poz. Mix	64							
Bulktrk	10	No.	Driver	Billy			Gel.	6							
Bulktrk	P.W.	No.	Driver	Rick			Calcium								
JOB SERVICES & REMARKS							Hulls								
Remarks:							Salt								
Rat Hole							Flowseal	50#							
Mouse Hole							Kol-Seal								
Centralizers							Mud CLR 48								
Baskets							CFL-117 or CD110 CAF 38								
D/V or Port Collar							Sand								
	940' - 25 SX						Handling	166							
	475' - 80 SX						Mileage								
	40' - 10 SX w/ plug						FLOAT EQUIPMENT								
	Rathole - 30 SX						Guide Shoe								
	Mousehole - 15 SX						Centralizer								
	Cement did Circulate.						Baskets								
							AFU Inserts								
							Float Shoe								
							Latch Down								
							w/ 1 - Dry hole plug								
							Pumptrk Charge	plug							
							Mileage	13							
							Tax								
							Discount								
							Total Charge								

X Signature

Steve Wick