



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 67665-2635 Hays, KS 67601

Lease: Mishler "F" # 2 Location: 2020 FNL & 330 FEL
N/2-SE-SE-NE
Section 15/ 17S/ 25W
Ness County, KS

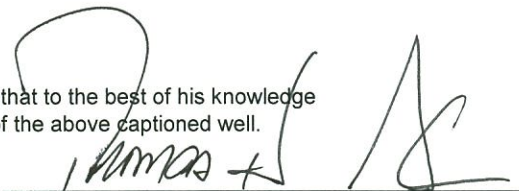
Loggers Total Depth: 4487' API#15- 135-25,600-00-00
 Rotary Total Depth: 4490' Elevation: 2450 GL / 2458 KB
 Commenced: 5/29/2013 Completed: 6/5/2013
 Casing: 8 5/8" @ 220.67'W/150sks Status: Oilwell
5 1/2" @ 4487'W/125sks
(Port Collar @ 1776')

DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shale	<u>0'</u>	Shale	<u>1799'</u>
Dakota Sand	<u>1010'</u>	Shale & Lime	<u>2117'</u>
Shale	<u>1103'</u>	Shale	<u>2567'</u>
Cedar Hill Sand	<u>1281'</u>	Shale & Lime	<u>2936'</u>
Red Bed Shale	<u>1496'</u>	Lime & Shale	<u>3749'</u>
Anhydrite	<u>1771'</u>	RTD	<u>4490'</u>
Base Anhydrite	<u>1799'</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.

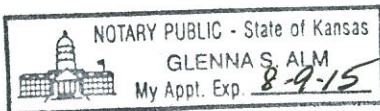

 Thomas H. Alm

Subscribed and sworn to before me on 6-7-13

My Commission expires: 8-9-2015

(Place stamp or seal below)


 Notary Public



ALLIED OIL & GAS SERVICES, LLC 060477

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: At Band 12

DATE <u>5-19-13</u>	SEC. <u>15</u>	TWP. <u>17</u>	RANGE <u>25</u>	CALLED OUT <u>1:30 PM</u>	ON LOCATION <u>4:30 PM</u>	JOB START <u>5:30 PM</u>	JOB FINISH <u>6:00 PM</u>
LEASE <u>Nilda</u>		WELL # <u>F-2</u>		LOCATION <u>Arnold, 45, 1w, 25, 1/2 mte</u>		COUNTY <u>Dan</u>	STATE <u>Ki</u>
OLD OR <input checked="" type="radio"/> NEW (Circle one)							

CONTRACTOR Duraway 3 OWNER Same

TYPE OF JOB Surface

HOLE SIZE 13/4 T.D. _____ CEMENT AMOUNT ORDERED 150 class A 37cc

CASING SIZE 3 7/8 DEPTH 220' 270 Mel

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 15

PERFS. _____

DISPLACEMENT 13 H2O

EQUIPMENT

PUMP TRUCK CEMENTER Tom Michan
572 HELPER Charles Kenyon
BULK TRUCK
599 DRIVER Kevin Weirham
BULK TRUCK
_____ DRIVER _____

REMARKS:

Ran 220' of 8 5/8 csg. Bore circ.
Mixed 150 lbs class A 37cc
270 Mel, displaced with fresh H2O

Cement Red Circulate
T. Frank

CHARGE TO: John O Farmer
STREET _____
CITY _____ STATE _____ ZIP _____

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 X GALEN GASCHLER
SIGNATURE X Galen Gaschler

COMMON	<u>150</u>	@	<u>17.90</u>	<u>2685.00</u>
POZMIX		@		
GEL	<u>3</u>	@	<u>23.40</u>	<u>70.20</u>
CHLORIDE	<u>5</u>	@	<u>64.00</u>	<u>320.00</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>162.09</u>	@	<u>2.48</u>	<u>401.98</u>
MILEAGE	<u>7.4 x 33</u>	@	<u>2.60</u>	<u>634.92</u>
TOTAL				<u>4,112.10</u>

SERVICE

DEPTH OF JOB	<u>220</u>			
PUMP TRUCK CHARGE				<u>1512.25</u>
EXTRA FOOTAGE		@		
MILEAGE	<u>HVM 33</u>	@	<u>7.70</u>	<u>254.10</u>
MANIFOLD		@		
	<u>LVM 33</u>	@	<u>4.40</u>	<u>145.20</u>
		@		
TOTAL				<u>1,911.55</u>

PLUG & FLOAT EQUIPMENT

	@			
	@			
	@			
	@			
	@			
TOTAL				

SALES TAX (If Any) _____
TOTAL CHARGES 608.65
1204.73
DISCOUNT _____ IF PAID IN 30 DAYS
4,818.92

JOB LOG

SWIFT Services, Inc.

DATE 5 Jun 13 PAGE NO.

CUSTOMER John O Farmer WELL NO. #2 LEASE Mischler JOB TYPE cement long string TICKET NO. 24378

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								175sk SA-2 w/1/2" floccle 5 1/2" x 14" casing total pipe = 4491' 107jts TD = 4490' shoe jt 20 1/2' Centralizers 1, 3, 5, 7, 9, 11, 15, 18, 21, 23, 25 Port Collar "65-1776"
	1630							on loc TRK 114
	1700							start 5 1/2" 14" casing in well
	1845							Drop ball - circulate - ROTATE
	1920		12					Pump 12 bbl (500gal) mud flush Pump 20 bbl KCL flush
	1926		20					
	1926		10					Plug RH - MH 30sk - 20sk
	1930	4 3/4	32					200 mix SA-2 cement 125sk @ 15.3ppg
	1942							Drop latch plug
								wash out pump & lines
	1945	6 3/4					200	Displace plug
		6 3/4	105				150	
	2000	6 3/4	109				1700	hand plug
	2001							Release pressure to truck - dried up
	2010							wash truck
								Rack up
	2045							job complete - back Blaine, Flint, T J & Dave

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. 7912

Date	6-11-13	Sec.	Twp.	Range	County	State	On Location	Finish
					Ness	Ks		1:00PM
Lease	Mischler F			Well No.	2			
Contractor	J + M well service			Location	Arnold, ks - 45, 1W, 1/2 S, W/4			

Type Job	Port Collar	Owner	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		Charge To	J. O. Farmer
Csg.	8 1/2"	Street	
Tbg. Size	2 1/2"	Depth	1776'
Tool	Port Collar	City	
		State	
Cement Left in Csg.		The above was done to satisfaction and supervision of owner agent or contractor.	
Meas Line	Displace 9 BLS	Cement Amount Ordered	250 QMBC 1/4# Flo seal

EQUIPMENT

Pumptrk	16	No.	Cementer Helper	Lonnie W.	Common	160 QMBC 1/4 Flow used
Bulktrk	8	No.	Driver	David L.	Poz. Mix	
Bulktrk	p.u.	No.	Driver	Rick	Gel.	8
			Driver		Calcium	

JOB SERVICES & REMARKS

Remarks:		Hulls	
Rat Hole	test tool to 1000#	Salt	
Mouse Hole	open tool, pump 85X	Flowseal	62#
Centralizers	gel + 160' 5X QMBC 1/4#	Kol-Seal	
Baskets	Flo seal + Displaced w/ 9 BLS	Mud CLR 48	
D/V or Port Collar	of water, shut down,	CFL-117 or CD110 CAF 38	
	Closed tool test to 1000#	Sand	
	Run 5 Jts + wash clean.	Handling	250
		Mileage	

FLOAT EQUIPMENT

	Rigged down,	Guide Shoe	
		Centralizer	
		Baskets	
		AFU Inserts	
		Float Shoe	
		Latch Down	

Pumptrk Charge	port collar
Mileage	24

X Signature *Use Only*

Tax
Discount
Total Charge

