

Notice: Fill out COMPLETELY and return to Conservation Division at the address below within 60 days from plugging date.

the same are true and correct, so help me God.

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1239495

Form CP-4
March 2009
Type or Print on this Form
Form must be Signed
All blanks must be Filled

WELL PLUGGING RECORD K.A.R. 82-3-117

OPERATOR: License #:			A	API No. 15	5		
				Spot Description:			
Address 1:			_		Sec	Twp S. R	_ East West
Address 2:			-		Feet from	North / So	uth Line of Section
City:	State:		- -		Feet from	n East / We	est Line of Section
			F	ootages	Calculated from Nea	rest Outside Section C	orner:
Phone: ()					NE NW	SE SW	
Type of Well: (Check one)	Oil Well Gas Well	OG D&A Cathoo	dic c	County:			
Water Supply Well	Other:	SWD Permit #:		-		Well #:	
ENHR Permit #:	Gas	Storage Permit #:					
s ACO-1 filed? Yes	No If not, is v	vell log attached? Yes			•	proved on:	
Producing Formation(s): List	All (If needed attach anot	ther sheet)	b	y:		(KCC Di .	strict Agent's Name,
Depth	to Top: Bo	ottom: T.D					
Depth	to Top: Bo	ottom: T.D					
Depth	to Top: Bo	ottom: T.D		ruggirig (Sompleted		
Show depth and thickness of	f all water, oil and gas for	rmations.					
Oil, Gas or Wate	er Records		Casing Red	ord (Surfa	ace, Conductor & Prod	luction)	
Formation	Content	Casing	Size		Setting Depth	Pulled Out	
ement or other plugs were u	used, state the character	of same depth placed from (bo	ittom), to (top) for each	n plug set.		
Plugging Contractor License	#:		Name:				
Address 1:			Address 2:				
City:			S	state:		Zip:	+
Phone: ()							
Name of Party Responsible f	or Plugging Fees:						
State of	Count	у,	,	SS.			
				Em	nlovee of Operator o	r Operator on abo	ove-described well
	(Print Name			EM	pioyee of Operator o	Detailor on abo	ve-uescribed well,

Submitted Electronically

being first duly sworn on oath, says: That I have knowledge of the facts statements, and matters herein contained, and the log of the above-described well is as filed, and



REMIT TO

Consolidated Oil Well Services, LLC Dept. 970 P.O. Box 4346 Houston, TX 77210-4346

MAIN OFFICE P.O. Box 884

Chanute, KS 66720 620/431-9210 • 1-800/467-8676 Fax 620/431-0012

INVOICE Invoice # 271772

10/16/2014 Invoice Date: Terms: 10/10/10,n/30 Page 1

NAE, INC. 317 SIDNEY BAKER SOUTH, PMB 137 KERRVILLE TX 78028 (830)370-1500

RJ SUTTON 1-13 13-17-29 47717 10/09/2014 KS

Description Hours Unit Price Total CEMENT PUMP (SURFACE) 1.00 1150.00 1150.00 EQUIPMENT MILEAGE (ONE WAY) 40.00 5.25 210.00 Part Number Description Qty Unit Price Total 1104S CLASS "A" CEMENT (SALE) 165.00 18.5500 3060.75 1102 CALCIUM CHLORIDE (50#) 465.00 .9400 437.10 1118B PREMIUM GEL / BENTONITE 310.00 .2700 83.70 Sublet Performed Description Total

Description Hours Unit Price Total 693 MIN. BULK DELIVERY 1.00 543.20 543.20

CEMENT EQUIPMENT DISCOUNT

CEMENT MATERIAL DISCOUNT

Amount Due 5740.82 if paid after 10/26/2014

Parts: 3581.55 Freight: .00 Tax: 230.46 AR 5166.74 Labor: .00 Misc: .00 Total: 5166.74 Sublt: -548.47 Supplies: .00 Change: .00

Signed EUREKA, KS

Date

9995-130

9996-130

-190.32

-358.15



CONSOLIDATED 271777.

TICKET NUMBER	47717
LOCATION_O	kley K.
FOREMAN DA	4040

	FIELD TIQUET O TOPATA
PO Box 884, Chanute, KS 66720	FIELD TICKET & TREATM
	ACRICATO

PO Box 884, Chanute, KS 66720 FIELD TICKET & TREATMENT REPORT							
	r 800-467-8676		CEMEN'	T			Ko.
DATE	CUSTOMER#	WELL NAME & NUM	BER	SECTION	TOWNSHIP	RANGE	COUNTY
10/9/14	5435	RJ Sutton 1-13		/3	17	29	Lane
CUSTOMER / MAILING ADDRE	AE Inc.		Shields 35	TRUCK#	DRIVER	TRUCK#	DRIVER
317 Sid	Iney Bak	STATE ZIP CODE	1W Kinto	693	Cody		
Kerrus le Tx. 78028 JOB TYPE Surface HOLE SIZE 12/4 HOLE DEPTH 226 CASING SIZE & WEIGHT 8 5/8 20						20*	
CASING DEPTH 226 DRILL PIPE TUBING OTHER SLURRY WEIGHT 148 SLURRY VOL 1.36 WATER gallsk CEMENT LEFT in CASING 20'							
DISPLACEMENT 13.43 DISPLACEMENT PSI 200 MIX PSI 150 RATE Mix 4 bbl Permin. Dis. 6 bbl REMARKS: Safty Meeting Rig upon H2 2 Run Casing Break Circulation with Rig Plump Hook up to Pump truck mix 165 sks Com 3%cc 2% Gel Washup Pump tlines							
Pump Age	Kuo to Pe	unp truck mix 16 bls Water Shut in	S SKS C	<u>m 3%cč</u>	2%Gel We	Shup Kump	t Lines
					-		

Cement Did Circulate

ACCOUNT CODE	QUANITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	1/50 00	1150 00
5406	40	MILEAGE	1,75	543,20
5407 A	7.76	Jon Mileage Delivery	1,75	543,20
11045	165 sks	Class "A" Cement	18,55	3060,75
1102	465 *	Calcium Chloride	94	# 437,10
1118 B	165 sks 465 ** 310 **	Bentonite	2.27	8 83 70
	-			
Car.				
-			Sub Total	5484.75
			Less 10%	548.48
			Sub Total	1936,28
			SALES TAX	230.40
vin 3737 P.H., 7	85-662-8000	12	ESTIMATED TOTAL	
.UTHORIZTION_	FORML TANGET	TITLE PUSIL S	DATE	

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



Description

P & A NEW WELL

EQUIPMENT MILEAGE (ONE WAY)

TON MILEAGE DELIVERY

399

399

529

REMAT TO

Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

Invoice Date: 10/21/2014 Terms: 10/10/10,n/30 Page 1

NAE, INC. 317 SIDNEY BAKER SOUTH, PMB 137 KERRVILLE TX 78028 (830)370-1500 RJ SUTTON #1-13 13-17S-29W 46741 10/17/2014 KS

Part Number Description Qty Unit Price Total 1107 FLO-SEAL (25#) 75.00 2.9700 222.75 1118B PREMIUM GEL / BENTONITE 1032.00 .2700 278.64 1131 60/40 POZ MIX 300.00 15.8600 4758.00 Sublet Performed Description Total 9995-130 CEMENT EQUIPMENT DISCOUNT -265.509996-130 CEMENT MATERIAL DISCOUNT -525.93

10 29 1 1 Amou

Amount Due 8290.44 if paid after 10/31/2014

Parts: 5259.39 Freight: .00 Tax: 338.45 AR 7461.41

Labor: .00 Misc: .00 Total: 7461.41 Sublt: -791.43 Supplies: .00 Change: .00

Signed

Date

Hours Unit Price

1395.00

1023.75

5.25

1.00

1.00

45.00

Total

1395.00

1023.75

236.25



CONSOLIDATED 271895

TICKET NUMBER	46741
LOCATION	able US
FOREMAN 72	27/15 Shaw

PO	Box	884,	Cha	nute,	KS	66720
620	-431	-9210	or	800-	467-	8676

FIELD TICKET & TREATMENT REPORT

	r 800-467-8676			CEMEN.		T-7014111111	Davies	Lane
DATE	CUSTOMER#		NAME & NUM		SECTION	TOWNSHIP	RANGE	COUNTY
10-17-14 CUSTOMER	5635	B27	atton #		13	175	29W	lane
CUSTOMER	100			Dighton K	TRUCK#	DRIVER	TRUCK#	DRIVER
MAILING ADDRE				N +01/2/0	399	Sordant		
1301	· Oak :	5 /		winto	991127	0.65		
CITY		STATE	ZIP CODE		STILL	1500		
/tays	Í	STATE 45	67601					
JOB TYPE P	TA	HOLE SIZE_4	586'	HOLE DEPTH		CASING SIZE & V	/EIGHT	
•		DRILL PIPE		- wilminia			OTHER	_
SLURRY WEIGH	r_/3.8		/	WATER gal/sl	k	CEMENT LEFT in	CASING	
DISPLACEMENT		DISPLACEMEN	T PSI	MIX PSI	_	RATE		
REMARKS: 5	afety m	petina	and rio	upon	Hadrille	ng Rig 4	2 plua a	sander
	SKS@ 218	ço'					7-0-3-0	
27 /ks 80							***************************************	_
3 10/14 50C	W.S. Q. 700	1						
4 tholas So	0545@25	D'						
-15/15 20	Shs@ 60			300	SUS CO	140 por 4	950/ 144	Hosea
NH 305h	S RH20	sus						-
					7	hands Mi	les de Cre	<i>\omega</i>
ACCOUNT CODE	QUANITY	or UNITS	D	ESCRIPTION of	SERVICES or PR	ODUCT	UNIT PRICE	TOTAL
540511		1	PUMP CHARG	GE			1395.	1395,0
5406		45	MILEAGE				5.25	236.2
5407A	1	3 Tons	Ton	11/0000	Lelivery		1,75	1023.7
1107		75 H	F63		/		2.97	
				lal			L.v.	222.7
		/1			ما		^	272.7
11188		32 #	Bent	onite g.	el		127	278.69
		/1	Bent		el		^	
INSB		32 #	Bent	onite g.	el		127	278.69
1/188		32 #	Bent	onite g.	el		127	278.69
1/188		32 #	Bent	onite g.	el .		15.86	278.69
1/188		32 #	Bent	onite g.	el		15.86	278.69
1/188		32 #	Bent	onite g.	el		15.86	278.69
1/188		32 #	Bent	onite g.	el .		15.86	278.69
1/188		32 #	Bent	onite g.	el		15.86	278.69
1/188		32 #	Bent	onite g.	el		15.86	278.69
INSB		32 #	Bent	onite g.	el		15.86	278.6
11188		32 #	Bent	onite g.	ol		15.86 Subjetu	278.69
11188		32 #	Bent	onite g.	el	Less 108	15.86	278.69
11188		32 #	Bent	onite g.	el	Less 108	Subtotal Subtotal	278.69
11181		32 #	Bent	onite g.	el	Less 108	Subtotal Subtotal Subtotal Subtotal	278.69
11/8/B 11/3/1		032 # xx 54s	Bent	onite g.	el	Less 108	Subtotal Subtotal	278.69

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



Prepared For:

NAE Inc

317 Sidney Baker S Kerrville, TX 78028

ATTN: Frank Taggart

RJ Sutton #1-13

13-17s-29w Lane,KS

Start Date: 2014.10.16 @ 05:26:01

End Date:

2014.10.16 @ 14:37:01

Job Ticket #: 59046

DST#: 1

Trilobite Testing, Inc 1515 Commerce Parkway Hays, KS 67601 ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.10.19 @ 14:45:24



NAE Inc

13-17s-29w Lane, KS

317 Sidney Baker S Kerrville, TX 78028

RJ Sutton #1-13

Job Ticket: 59046

DST#:1

ATTN: Frank Taggart

Test Start: 2014.10.16 @ 05:26:01

GENERAL INFORMATION:

Formation:

Johnson - Cong L

Deviated:

Whipstock:

ft (KB)

Time Tool Opened: 08:04:31 Time Test Ended: 14:37:01

Interval:

4493.00 ft (KB) To 4520.00 ft (KB) (TVD)

4520.00 ft (KB) (TVD)

Total Depth: Hole Diameter:

7.88 inches Hole Condition: Good

Test Type:

Conventional Bottom Hole (Initial)

Tester:

Brandon TUrley

Unit No:

Reference Elevations:

2754.00 ft (KB)

2743.00 ft (CF)

KB to GR/CF:

11.00 ft

Serial #: 8373

Press@RunDepth:

Inside

245.00 psig @ 2014.10.16

4494.00 ft (KB) End Date:

2014.10.16

Capacity:

8000.00 psig

Start Date: Start Time:

05:26:06

End Time:

14:37:01

Last Calib .:

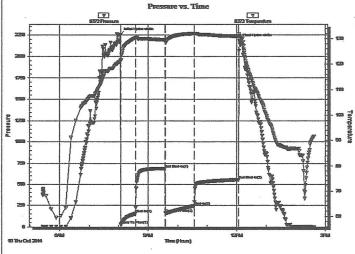
2014.10.16

Time On Btm: Time Off Btm: 2014.10.16 @ 08:04:01 2014.10.16 @ 12:05:31

TEST COMMENT: IF: 1/4" blow BOB in 11 min.

IS: Surface blow built to 8" in 60 min.

FF: BOB in 12 min. FS: BOB in 20 min.



PRESSURE SUMMARY

	Time	, Pressure	Temp	Annotation	24 000000000000000000000000000000000000	
	(Min.)	(psig)	(deg F)			
	0	2256.52	121.39	Initial Hydro-static		
	1	26.77	121.11	Open To Flow (1)		
	31	153.29	130.41	Shut-In(1)		
-	90	689.68	129.46	End Shut-In(1)		
	91	161.93	128.66	Open To Flow (2)		
	150	245.00	132.05	Shut-In(2)		
	240	553.54	130.97	End Shut-In(2)		
	242	2182.57	131.35	Final Hydro-static		
-				n n		
				0		
	8					

Recovery

Length (ft)	Description	Volume (bbl)
186.00	mcw 90%w 10%m	0.91
124.00	w cm 30%w 70%m	1.15
124.00	gocm 20%g 20%o 60%m	1.74
134.00	go 30%g 70%o	1.88
0.00	672 GIP	0.00

Gas Rates

- 8	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



FLUID SUMMARY

NAEInc

13-17s-29w Lane, KS

317 Sidney Baker S Kerrville, TX 78028 RJ Sutton #1-13

Job Ticket: 59046

DST#:1

ATTN: Frank Taggart

Test Start: 2014.10.16 @ 05:26:01

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight:

9.00 lb/gal

Viscosity: Water Loss: 61.00 sec/qt 7.99 in³

Resistivity: Salinity:

Filter Cake:

0.00 ohm.m 2000.00 ppm

1.00 inches

Cushion Type:

Cushion Length:

ft

Oil API: Water Salinity:

36 deg API 22000 ppm

Cushion Volume: Gas Cushion Type:

Gas Cushion Pressure:

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	mcw 90%w 10%m	0.915
124.00	w cm 30%w 70%m	1.147
124.00	gocm 20%g 20%o 60%m	1.739
134.00	go 30%g 70%o	1.880
0.00	672 GIP	0.000

Total Length:

568.00 ft

Total Volume:

5.681 bbl

Num Fluid Samples: 0

Num Gas Bombs:

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 39@90=36

.27@81=22000



Prepared For:

NAE Inc

317 Sidney Baker S Kerrville, TX 78028

ATTN: Frank Taggart

RJ Sutton #1-13

13-17s-29w Lane,KS

Start Date: 2014.10.17 @ 03:54:21

End Date:

2014.10.17 @ 11:19:21

Job Ticket #: 59047

DST#: 2

Trilobite Testing, Inc. 1515 Commerce Parkway Hays, KS 67601 ph: 785-625-4778 fax: 785-625-5620



NAEInc

317 Sidney Baker S Kerrville, TX 78028

ATTN: Frank Taggart

13-17s-29w Lane, KS

RJ Sutton #1-13

Job Ticket: 59047

DST#: 2

Test Start: 2014.10.17 @ 03:54:21

GENERAL INFORMATION:

Time Tool Opened: 06:08:21

Time Test Ended: 11:19:21

Formation:

LKC K

Deviated:

No

Whipstock:

ft (KB)

Test Type: Conventional Straddle (Reset)

Tester:

Brandon TUrley

Unit No:

60

Reference Elevations:

2754.00 ft (KB)

2743.00 ft (CF)

KB to GR/CF:

11.00 ft

Interval: Total Depth: 4183.00 ft (KB) To 4210.00 ft (KB) (TVD)

Hole Diameter:

4587.00 ft (KB) (TVD)

7.88 inches Hole Condition: Good

Serial #: 8373 Press@RunDepth:

Inside

37.30 psig @

4184.00 ft (KB) End Date:

2014.10.17

Capacity:

8000.00 psig

Start Date: Start Time:

2014.10.17 03:54:26

End Time:

11:19:20

Last Calib .:

2014.10.17

Time On Btm: Time Off Btm: 2014.10.17 @ 06:03:51 2014.10.17 @ 09:05:21

TEST COMMENT: IF: 1/4" blow built to 7" in 30 min.

IS: No return.

FF: 2" blow BOB in 43 min.

FS: No return.

		Pressure vs					
	(Y) 8373 Ressure		837	▼ 3 Veroperature			
2000 -			14	nii Pignitro-scholic.	1	- 128	
			. I¥	1	111111	- 115	
1000 -	i A					- 190	
1500 -	/			*		- 105	
(i) (i) (i) (i) (i) (i) (i) (i) (i) (i)			i I			- 120) - 125 - 15	
(D) 1270 -	/ [1		55 SS SS SS T	- de la company
ži. 750 -				1	CO TOTAL	(ase)	1
						- 80 - 75	
200 -	V	1		¥	7	- 70	
250 -	لحو			7	V	- 05	
8 -	G1			, ,,	للحد	- 60	
17FiOd	2014	Were (Hour	2)				
							_

PRESSURE SUMMARY

1				
Time		Pressure	Temp	Annotation
(Min.))	(psig)	(deg F)	×
	0	2137.65	118.35	Initial Hydro-static
	5	15.81	118.07	Open To Flow (1)
,	33	20.73	118.70	Shut-In(1)
	61	422.04	119.34	End Shut-In(1)
	62	19.77	119.27	Open To Flow (2)
1:	21	37.30	119.98	Shut-ln(2)
1	81	519.91	120.78	End Shut-In(2)
1	82	2064.96	121.35	Final Hydro-static
diplomation				
				~
THE STATE OF THE S				,

Recovery

Length (ft)	Description	Volume (bbl)
40.00	ocm 10%o 90%m	0.20
0.00	392 GIP	0.00
Recovery from r	wilting tests	

Gas Rates

Choke (inches) Pressure (psig) Gas Rate (Mcf/d)

Trilobite Testing, Inc

Ref. No: 59047

Printed: 2014.10.19 @ 14:45:02



FLUID SUMMARY

NAE Inc

13-17s-29w Lane, KS

317 Sidney Baker S Kerrville, TX 78028 RJ Sutton #1-13

Job Ticket: 59047

Serial #:

DST#: 2

ATTN: Frank Taggart

Test Start: 2014.10.17 @ 03:54:21

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight:

9.00 lb/gal

Viscosity: Water Loss: 53.00 sec/qt 7.59 in³

Resistivity:

0.00 ohm.m

Salinity: Filter Cake: 1800.00 ppm 1.00 inches Cushion Type:

Cushion Length:

ft

Oil API: Water Salinity: 0 deg API 0 ppm

bbl

Cushion Volume: Gas Cushion Type:

Gas Cushion Pressure:

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	ocm 10%o 90%m	0.197
0.00	392 GIP	0.000

Total Length:

40.00 ft

Total Volume:

0.197 bbl

Num Fluid Samples: 0

Num Gas Bombs:

Laboratory Name: Recovery Comments: Laboratory Location:

Trilobite Testing, Inc

Ref. No: 59047

Printed: 2014.10.19 @ 14:45:03

ROBERT T. HOPKINS, L.G., C.P.G. 709 Harold Ave. Salina, Kansas 67401 cell (785) 819-2460

October 20, 2014

Frank Taggart, President NAE, Inc. 317 Sidney Baker St. Kerrville, Texas 78028

NAE, Inc. - R.J. Sutton 1-13, ap. SE NW SE, Section 13, T17S, R29W, Lane County, Ks.

Frank:

Attached to this summary letter is my lithologic log for the above-captioned well. Based on the poor pressures and marginal oil recovery from the two DSTs, operator has elected to plug and abandon this test.

Significant sample shows and overall quality were as follows (log corrected depths). Slight, fleeting odor (only) in samples is not considered significant:

LKC K	4199-4202'	poor
LKC K	4202-4220°	very poor
top Marmaton	4290-4296°	poor
top Cherokee	4464-4468'	poor
top Cherokee	4474-4478	poor
Johnson zone	4500-4504'	good

Following is a log top comparison of your well to the nearby Slawson Sutton 1-13 and the Gear Virginia 1-13 open-hole logs. These wells are located north and south (respectively) of the subject well:

LOG TOP COMPARISON:

	NAE Sutton1-	13 cor	np to Slawson	comp	to Gear
<u>Formation</u>	O-H log tops	<u>O-</u> :	H log tops	<u>O-H</u>	log tops
top Anhydrite	2131(+626)	+1	(+625)	+4	(+622)
base Anhydrite	2158(+599)	+3	(+596)	+3	(+596)
Topeka Ls.	3658(-901)	-1	(-900)	-1	(-900)
Heebner Sh.	3900(-1143)	-1	(-1142)	-0-	(-1143)
LKC "A"	3938(-1181)	-0-	(-1181)	-0-	(-1181)
G zone Sh.	4093(-1336)	+8	(-1344)	+4	(-1340)
Stark Sh.	4189(-1432)	+2	(-1434)	+1	(-1433)
Base KC	4270(-1513)	+7	(-1520)	+6	(-1519)
top Marmaton	4290(-1533)	+7	(-1540)	+6	(-1539)
Pawnee Ls.	4384(-1627)	+8	(-1635)	+3	(-1630)
Ft. Scott Ls.	4436(-1679)	+9	(-1688)	+3	(-1682)
top Cherokee	4459(-1702)	+9	(-1711)	+4	(-1706)
Johnson zone	4500(-1743)	+11	(-1754)	+4	(-1747)
top Mississippian	4534(-1777)	+9	(-1786)	+4	(-1781)
RTD 4586'			. ,		

If you have any questions, please call me at 785-819-2460. Thank you for this opportunity to serve you!

Sincerely,

Robert T. Hopkins, L.G., C. P. G.

attachments

LIT	HOL)GI	C L()G			ROBERT HOPKINS-consulting geologist
Operator	NAE	= , =	INC.		Locati	on ap	SE NW SE SEC. 13-175-29W
Operator Lease / Well_	SUTT	ON	1-1	3			4~E State K 5 scale 1" = 20'
					denth	this st	
DRILLII	NG TIME	(mi	n/ft)	T T T T T T T T T T T T T T T T T T T			neet - from 3500 to 3680 page 1 of 7
	3 4	5 6		DEPTH	tops	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
				3500			ANHYDRITE 2135-2162 (+622) 85" Surface (59. 226' gry sh.
				_		T	gry sh.
					10 10	士	wh faxla tite 1st., No show MUD VIS 60; wt. 8,7
				+			gry-red sh.
				1			
	\$					井	wh fuxly fossiliterous lst., tite, w.s.
				1	-	11	
				50	8	臣	of fuxlu foss. Ist., tite, w.s.
							gry sh., w/ H. gry silt stone, tite, N.S.
	3			 			SH. TESTS
	-					量	
							gry fixlus foss. /st., tite, n.s. 226'- 34' 730'-34' 1700'-34'
]			de gry sh.
· ·						77	1st., a/a, N.s.
						三	gry sh.
	2			3600			gry faxla st. foss. Ist. file n.s.
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					J.		b/k sh.
]	古	bru-gry faxly foss, Ist., tite, N.S. gry sh.
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>		-		-50 -		十二十	dk gry-blk sh. dk gry faxla foss, lst., fite, N.s.
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	*	+		-			dle gry-blk sh.
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				00 -			

LI	ГНО	LC)G]	IC L	0	G			ROBERT HOPKINS-consulting geologist					
	NA						Locati	Location ap, SE NW SE SEC, 13-175-29W						
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-		_						MCH SHEET	blksh. Kinghill Sh. 3773'					
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					\pm	-		1 4	gry silfstone, tite, N.S.					
			-		\dashv				1.7 SMF5 (ONE) +1(E) M.S.					
					300			141						
					寸			1	gray fuxly foss, Ist., sl. chenty, tite, N.S.					
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						3800		TUI						
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	+				\exists	4			gry sh.					
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		$-\Gamma$		\perp		-	舜		dk gry-blk corb. sh. QuEENhill Sh. 3840					
-51					\exists		- T							
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						60 L		f f						

DepartorNAE, INC.								ROBERT HOPKINS-consulting geologist						
							-	Locati	on	ap, SE NW SE SEC, 13-175-29W				
Lease / We								County	y	ANE State $<$ scale 1" = 20'				
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DRIL	LING	3 TI	ME	(m	in/fi	-1	T			page 5 of 7				
	3				6		DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)				
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							Hb -3900			the box foss /st., corb, w/stylolites, tite, N.S.				
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	>						107		罚	wh fixlu Ist, chalky, sl. p, N.S.				
		>					_		中					
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		1		Δ			-		1-1-	wh-bf fuxln st. say lst., tite, N.S st. charty				
				<i>/</i> \			50		11	U sl. cherty				
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						,	.		<u> </u>	MUD VIS 50; wf 9.0				
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				<						bf fuxlu very cherty lst., Lite, w.s.				
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			=					2		dk gry sh.				
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							-		211	ary ob 1				
	>		1					1	量	gry sh, to soudy sh.				
	>		F					-		of for- medals orlitic 1st., sl. \$, N.S.				
								7		of faxlor comoldic 1st., slfr &, N. s.				
1 3	>						40			MUD VIS 48; w+ 9.0				

	L	II.	HO	L			LU	G			ROBERT HOPKINS-consulting geologist
Opera									Location	on	ap. SE NW SE SEC, 13-175-29W
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						in/f1			tons	lith	
- 1			3 .			6		DEPTH			DESCRIPTION (lithology, DSTs, mud properties)
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										却	of Juda cherty 1st., Lite, a.s
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		2						repairs		11	Il I was Life let M.S
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									,		bf faxla Lite let., N.S. dk gry-b/k Sh.
		>			-	-		4100	31,	111	tan faxles charty foss. Ist., Lite, v.sl. odor, N.S.
			Z	-					Odor	111	tan faxles charty toss. 15t., tite, visl odor, N.S.
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		<	>					CF5		中	to Carlo ala 1 total
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								cFS		11	
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			_<							常	brn-gry granular 1st., sl, cherty, tite, N.S.
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		\leq			U					IAIL	of fuxla very cherty 1st, 51. \$, N.S.
	-									学見	
	4							-		11	a/a, oolitic to vuggy &, N.S. MUD VIS 56; Wt. 9,2
			5			-		CFS		工	bf tite 1st., N.S.
			\rightarrow	>			A		,	77	by the 1st., wis,
=							,	-STARK			blk sh.
			3	>	1	57	12				gry sh., w/ /t, grn siltstone, N.S.
		5	>		STR	ADD	E	-4200	d		gry sh., w/ /t. grn siltstone, N.S. STARK 54 4191(-1434
		haman	>	-	1/		1 .	2	Sl. Show [177	
				>	K		A		-	++-	of fixh tite 1st., N.S., V.Sl. odor, the star specod
\mp			2					-	51. P	1,1	
			>						odor	1	1st, v. sl. star Eodor; tre free ail, No fluorescence
								-20	, P	1	1 3 1 1 5 1 1 5 1 1 1 1 1 1 1 1 1 1 1 1

LITHOLOGIC LOG									ROBERT HOPKINS-consulting geologist						
perato	or	VAE	=, -	IN	۷,			Locati	ion	ap. SE NW SE Sec. 13-175-29W					
ease /	Well_		S	177	ON	1-	- 13	Count	.V	State scale 1" = 20'					
					Action in the result for the page		l loll	Juepui	T						
1	RILLI						DEPTH	tops	lith	DESCRIPTION (lithology, DSTs, mud properties)					
	Í			I	L	1	-Z <i>O</i>	snows	graph						
	5		10	use	+/<			Show		oolitic 1st., sl. of, the free all, v. sl. star no fluor. ble sh. bf the 1st., n.s., sl. cherty					
	<						+		111	bf tota 1st., N.S., sl. cherty					
							1		771	by faxles fite /st.s.v.s. [MUD VIS 55; wt 9.2]					
			- 1	L				-		b/ faxl, tota /st. y.s. [MUD VIS 55; Wt 4.2					
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		5							111						
)					†		11	to be fuxlu /st., sl. foss., Lite, N.s.					
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	+								Tarana and	Pleasan ton 4283					
									華	gry sandy shale Pleasantin 4283 dk gry fixles very foss. Ist., gd vug b, N.S., NO oder					
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+	_	19					./-	chow &	+	wh fuxlus let., tite, v. sl, odon No free oil free str.					
			\geq				4300	30000		· · · · · · · · · · · · · · · · · · ·					
										wh fuxlus let., tite, v. sl. odon, No free oil, tre str., dle gry - blk sh.					
		5					-			If fuxla tite 1st., N.S.					
		2	/	>			-		111	Mud vis 59; wt 9.2					
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							-		Market I	1/. 1 1/ 1/ 12/17/					
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1			2	_						dk gry sh.					
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-	-	-		744-				-	17	, v					
1			5				. [/\\						
									77	bf-gry med xlu lst, sl. loss, tite, N.S.					
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								-	111	/1/2 / Mus vis 53; w+9.3					
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-	1	_	-1			-	,,	51.	A T	Harris LS. 4300.					
-		_					.].	odor	1/4/	Hyry very charty 1st (blue cht), frocture \$, v.sl. odor, N.s.					
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				\perp			4400 L		1 1	bf-ton fixen totalst., N.S.					

	HOL						ROBERT HOPKINS-consulting geologist
Operator	NAE	=, =	INC	,	Locati	on	ap. SE NW SE Sec. 13-175-29W
ease / Well_	SUT	TON	1 -	-13	Count	y L	ANE State /< 5 scale 1" = 20"
GL	KB 27	57	(me	asure from '	denth	this el	
				Journal Holling	Jucpan	T 113 31	neet - from 4400 to 4580 page 6 of
1 2	NG TIMI			DEPTI	1	lith .	DESCRIPTION (lithology, DSTs, mud properties)
i ī	ĬĪ	5	<u> </u>	4400	shows	graph	
		47		7700			I /st., a/a, N.S.; pyritic MUD VIS 54; wt. 9.
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						=	gra-gry liny sh.
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	5					7	bf fuxly fite 1st., N.s Ft. Scott 4435(-167
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						for any	blk sh., carb
115	7			F+5c			Il lander let el torre
	2					, ,	bf faxlis 15t., s1. p, N.s
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	A COLUMN					1 /	
				50		The state of the s	dk gry sh.
		>				7	dk gry sh. dk bris fossiliterous Ist., tite, Nis Cherokee 4458(-170
		1		Cher			v v
	1						Whilst. sl. vuggy Ø, trc. str., no odor, no free ail (poor fluo dk gry sh6/k sh; pyritic (poor fluo
					show B	1	pyritics st. ruggy P, tre. Str., No odor, No free oil.
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				7	si, K		dk gry sh 6/k sh; pyritic (poor fluo
					show &	11	gry 1st, st. vuggy p, tre star, v. st. odor, No free on
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				_		11	very foss, w/ shale streaks
							very toss, w/ shale streaks
	-						
				_		Total Control	blk carb sh.
				-	and	- Marian	15t, N.S. Johnson Zone 4500(-174
	<u> </u>		1 5	0 11500	Show	4-17-14	grn-gry sondy sh, Johnson Zone 4500(-174
		> /:	-1	4500		11	who foss st. vuggy & free oil, gdstin (NGLOMERATE 4507' sh. green pyritic sst., sl. b, N.S. sh. grn-gry pyritic sst., sl-fr & N.S.
		- / 1		CONAL.	441		sh. (Marrows ?)
				Congl.			green pyritic sst. sl. p, N.S.
			91/				sh, vignay
116				CFS			grn-gry pilettic >>1, >1- fr 4) 10.3.
++-		1		₩			(PIPE STRAP H 10Ng deV = 4
					la de		9/a, N.S. DST #1: 4493-452
							alk gry - blk carb sh. Interson Zone + Congloman
			-	M	-	11	1. M. J. 2011 1 11 12 12 12 12 12 12 12 12 12 12 12
						TT	buff for x/, solitic 1st, tite, N.S. REC: 134 go (70% oil) + 124 Mississippian 4530(-1773) 186' MW + 672 GIP 20/14: 1st, ala tite n.S.
					-		4530 1773 JOHN 20 19 124 WEM
					1	1	M1951951PPIAN TJJU(-1/12) 166 MW + 6/2 GIL
	$\leq \Box$			-	Ī	1	11.11 1.11 30", 60", 60", 90"
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				50	=		1/ 5/ 504/ 5
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	5			-	T	1	9ry foxlor armular let HP: 27.57-2193
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				1		7	ton-brus dolonite, liny, comoldie w/some vuggy \$, N.S.
1/ 1			_	1 go l	5	7	tre brus chert

	LITHOLOGIC LOG								ROBERT HOPKINS-consulting geologist						
	OperatorNAE, INC.								Location ap. SE NW SE SEC. 13-175-29W						
	Lease/Well SUTTON 1-13								Count	y	State $1 \le 10^{-4}$ State $1 \le 10^{-4}$				
GL	GLKB_2757_* (measure from *) DRILLING TIME (min/ft)									depth this sheet - from 4580 to $4586'$ RTD page 7 of 7					
-	DF	RILLI	ING	TIMI	Ξ (n	nin/f	t)	DEPTH	tops	lith	DESCRIPTION (lithology, DSTs, mud properties)				
_	1	2	3	4	5	6	7	8	shows	graph	oh				
	V						1	80		7	dolomite, a/a, N.S. DST=2 4183-4212				
E	\uparrow						-	RTD	45	36	STRADDLE - K Zone				
F				1					3		REC: 392'GIR, 40'				
		-									OCM (10% 011)				
								<u> </u>			30" 30"-60"-60"				
				-		+					FP: 15-20" 19-37				
	-					+		+			SIP: 422-519#				
											HP: 2137-2064				
		+						<u> </u>		-	THE TAN GEMINI OH logo, GID, MICTO, SONIC				
	-	+									FP: 15-20, 19-37 SIP: 422-519 HP: 2137-2064 Ot TD, nan Genini OH logo, GD, MICTO, SONIC Followed by Straddle DST; PEA				
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NEUTRON

COMPENSATED DENSITY

Log Measured From Permanent Datum Well Location: Field County Company NAE, INC Lane Walnut Fork Souhwest RJ Sutton #1-13 ಚ 1474' FSL & 1970' FEL TWP 17S RGE 29W KB 11' AGL Ground Level API #: 15 101 22540 State Elevation 2746 Kansas K.B. 2757 D.F. 2756 G.L. 2746 Other Services Elevation ME P

<<< Fold Here >>>

Maximum Recorded Temperature

Time Logger on Bottom Time Circulation Stopped

Equipment Number

_ocation

Witnessed By Recorded By

Gus Pfanenstiel

Hays, KS

Bob Hopkins

Rm@BHT

70@112degf

10:00 p.m.

12:01 a.m.

112degf

T127

.32@72degf 82@72degf

.1@72degf

Calculated

Source of Rmf / Rmc Rmc @ Meas. Temp Rmf @ Meas. Temp Rm @ Meas. Temp pH / Fluid Loss Density / Viscosity

Source of Sample

Bit Size Casing Logger

Type Fluid in Hole

Chemical

77/8

10.5/7.6 9.3/53 Bottom Logged Interval

Casing Driller

8 5/8" @ 226

226

3600 4564 4587 4586

Top Log Interval

Depth Logger Depth Driller Run Number

Company

Well

Field

County

State

Drilling Measured From

8

0-17-14

One

NAE, INC.

Lane

Kansas

RJ Sutton #1-13

Walnut Fork Souhwest

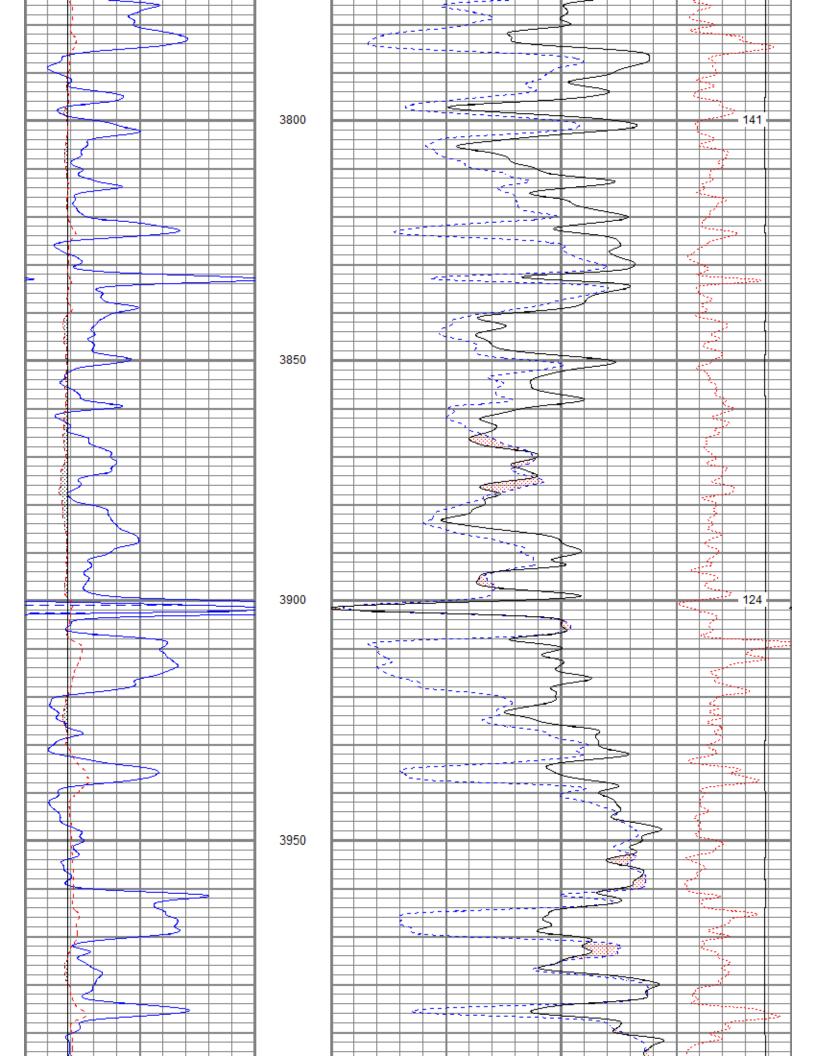
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

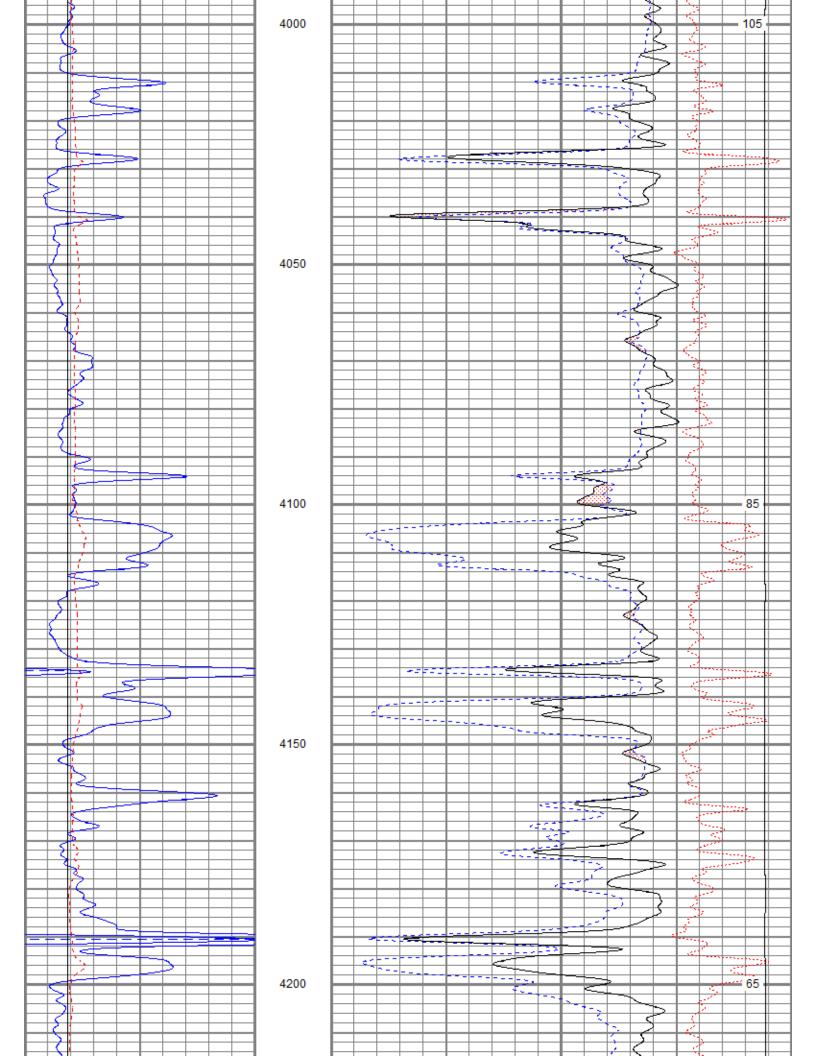
Comments

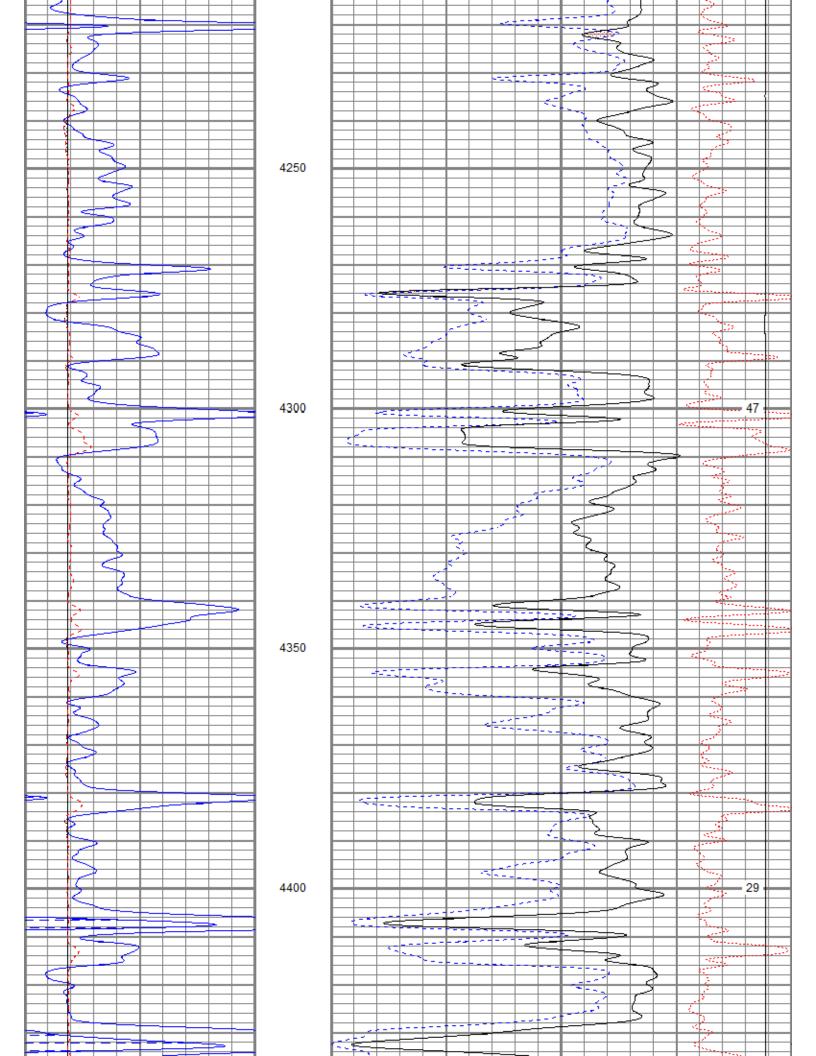


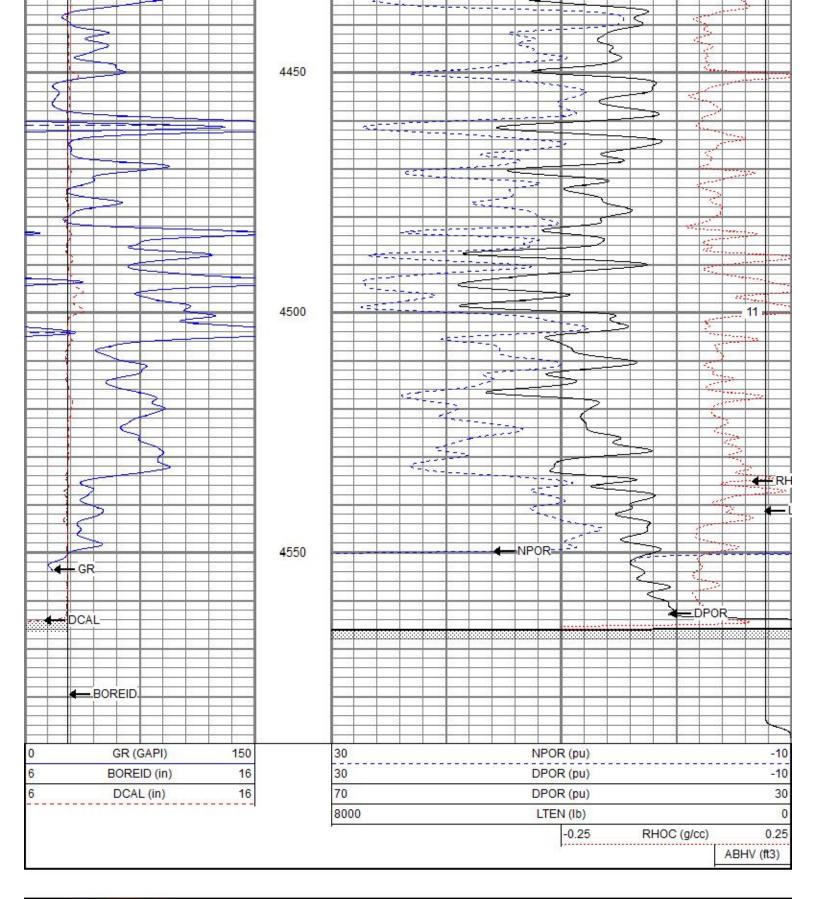
Main Pass

Database File naerjsutton#1-13oh.db Dataset Pathname pass2 Presentation Format kcdnl Dataset Creation Fri Oct 17 00:21:42 2014 Charted by Depth in Feet scaled 1:240 -10 GR (GAPI) 150 30 NPOR (pu) 30 -10 6 BOREID (in) 16 DPOR (pu) 70 16 DCAL (in) DPOR (pu) 30 6 8000 LTEN (lb) 0 -0.25 0.25 RHOC (g/cc) ABHV (ft3) 3650 3700 158 57 3750







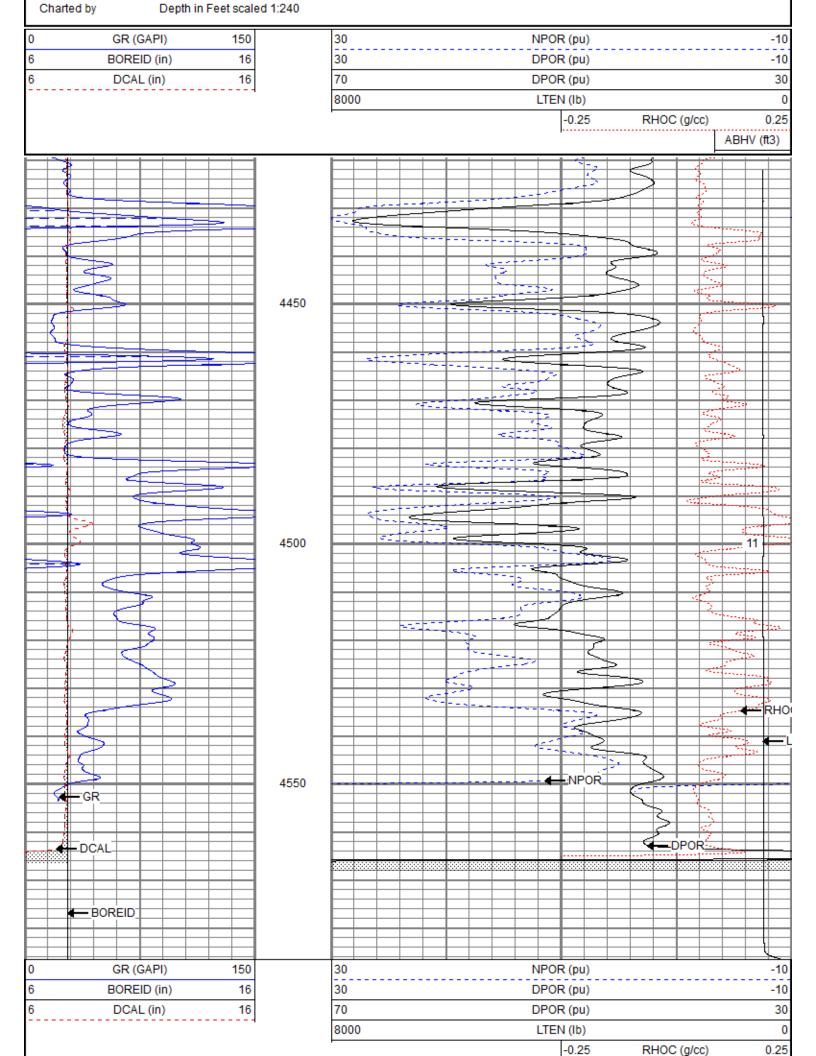




Repeat Pass

Database File naerjsutton#1-13oh.db Dataset Pathname pass1

Presentation Format kcdnl
Dataset Creation Fri Oct 17 00:15:04 2014



Database File Dataset Pathname Dataset Creation	naerjsutton pass1 Fri Oct 17 0	#1-13oh.db 0:15:04 2014	Cali	ibration Repo	rt				
			Dual Induct	tion Calibratio	n Report				
	Surfac Down	-Model: ce Cal Performe hole Cal Perfor Survey Verificat		-	1842-ADM Fhu Apr 10 16: Fhu Apr 10 16: Fhu Apr 10 16:	42:12 2014			
Surface Calibrat	ion								
		Readings			References		Results		
Loop:	Air	Loop		Air	Loop		m	b	
Deep Medium	0.014 0.003	0.660 0.761	V V	0.000	350.000 400.000	mmho/m mmho/m	541.845 527.924	-7.742 -1.569	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep Medium	0.013 0.003	0.663 0.761	V V	0.000	350.000 550.000	mmho/m mmho/m	538.740 726.060	-6.964 -2.265	
Downhole Calib	ration								
		Readings			References		Results		
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep Medium Shallow	-0.857 0.187 2.543	351.396 400.090 0.024	mmho/m mmho/m V	-0.737 0.077 500.000	351.280 399.987 2.000	mmho/m mmho/m Ohm-m	0.999 1.000 197.760	0.118 -0.110 -3.000	
After Survey Ver	ification								
		Readings		Targets			Results		
Internal:	Zero	Cal		Zero	Cal		m'	b'	
Deep Medium Shallow	0.000 0.000 0.000	0.000 0.000 0.000	mmho/m mmho/m Ohm-m	-0.857 0.187 500.000	351.396 400.090 2.000	mmho/m mmho/m Ohm-m	0.999 1.000 1.000	0.118 -0.110 0.000	
			Compensated I	Density Calib	ration Report				
	Sourc Maste Before		erformed: :ation Performed: ion Performed:	(2501DHT-DHT csv-j12 / Thu Oct 02 12:5				
Master Calibration	on								
		Density		F	ar Detector	Near Detecto	or .		
Magnesium Aluminum		1.750 2.660	g/cc g/cc	-	711.36 133.07	284.22 183.42	•		
		Spine Angle :	= 75.36	ı	Density/Spine I				
		Size			Reading				
Small Ring Large Ring		7.80 14.00	in in	-	6234.28 10469.70				

Refore Survey Verification

Boloto Carro, Formodion											
	Target		Measured								
	g/cc			g/cc							
	g/cc			g/cc							
	g/cc			g/cc							
After Survey Verification											
	Target		Measured								
	g/cc			g/cc							
	g/cc			g/cc							
	g/cc			g/cc							
	Gamma Ray Calibration Report										
Serial Number:		2001									
Tool Model:		OH									
Performed:		Thu Oct 09 11:41:16 2014									
Calibrator Value:		1.0	GAPI								
Background Reading:		0.0	cps								
Calibrator Reading:		1.0	cps								
Sensitivity:		0.2300	GAPI/cps								
Neutron Calibration Report											
Serial Number:		5108									
Tool Model:		PROBE									
Performed:		Tue Jun 03 06:35:57	2014								
Calibrator Value:		1	NAPI								
Calibrator Reading:		1	cps								
Sensitivity:		1	NAPI/cps								

Sensor	Offset (ft)		Schematic	Description	Length (ft)		Weight (lb)	
NEU	36.50		<u> </u>	None	0.75	1.50	5.00	
NEO	30.50			NEU-PROBE (5108) Probe	4.92	3.63	85.00	
GR	30.56		-	GR-OH (2001)	3.56	3.25	40.00	
LSD	22.02	F	<u> </u> 91	DHT (2501DHT) Digital High Temp CDL Tool	9.69	4.00	201.00	
DCAL	21.73	-/ _I	쁜 _					
SSD	21.48	<i>∐</i>						
HEADVOLT	19.71							
SP	10.60	7		DIL-ADM (1842)	19.71	4.00	300.00	
CILD	10.60			Dual Induction				
CILM	6.89	_/						
RLL3	1.70							
Dataset: naerjsutton#1-13oh.db: field/well/run1/pass1								
				63 ft				
				1.00 lb				
			O.D.: 4.0	0 in				



DUAL INDUCTION LOG

Well Field

Company NAE, INC

Walnut Fork Souhwest RJ Sutton #1-13

API #: 15 101 22540

State

Kansas

Other Services CDNL

 \leq

K.B. 2757 D.F. 2756 G.L. 2746

Elevation

Elevation

2746

subject to our general terms and conditions set out in our current Price Schedule. Comments

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also

Bit Size

Type Fluid in Hole

Chemical

77/8

10.5/7.6 9.3/53 Casing Logger

Casing Driller

8 5/8" @ 226

226

4585 4587 4586

200

Top Log Interval

Bottom Logged Interval

Depth Logger Depth Driller Run Number

Company

Well

Field

County

State

Drilling Measured From Log Measured From Permanent Datum

8

KB 11' AGL Ground Level

10-17-14

One

NAE, INC.

Lane

SEC 13

TWP 17S RGE 29W

1474' FSL & 1970' FEL

Kansas

RJ Sutton #1-13

Walnut Fork Souhwest

Location:

County

Lane

pH / Fluid Loss Density / Viscosity

Maximum Recorded Temperature

Time Logger on Bottom Time Circulation Stopped

Equipment Number

Location

Gus Pfanenstiel

Hays, KS

Bob Hopkins

Witnessed By Recorded By Rm@BHT

70@112degf

10:00 p.m.

12:01 a.m.

112degf

<<< Fold Here >>>

T127

.32@72degf 82@72degf

.1@72degf

Calculated

Source of Rmf / Rmc Rmc @ Meas. Temp Rmf @ Meas. Temp Rm @ Meas. Temp Source of Sample

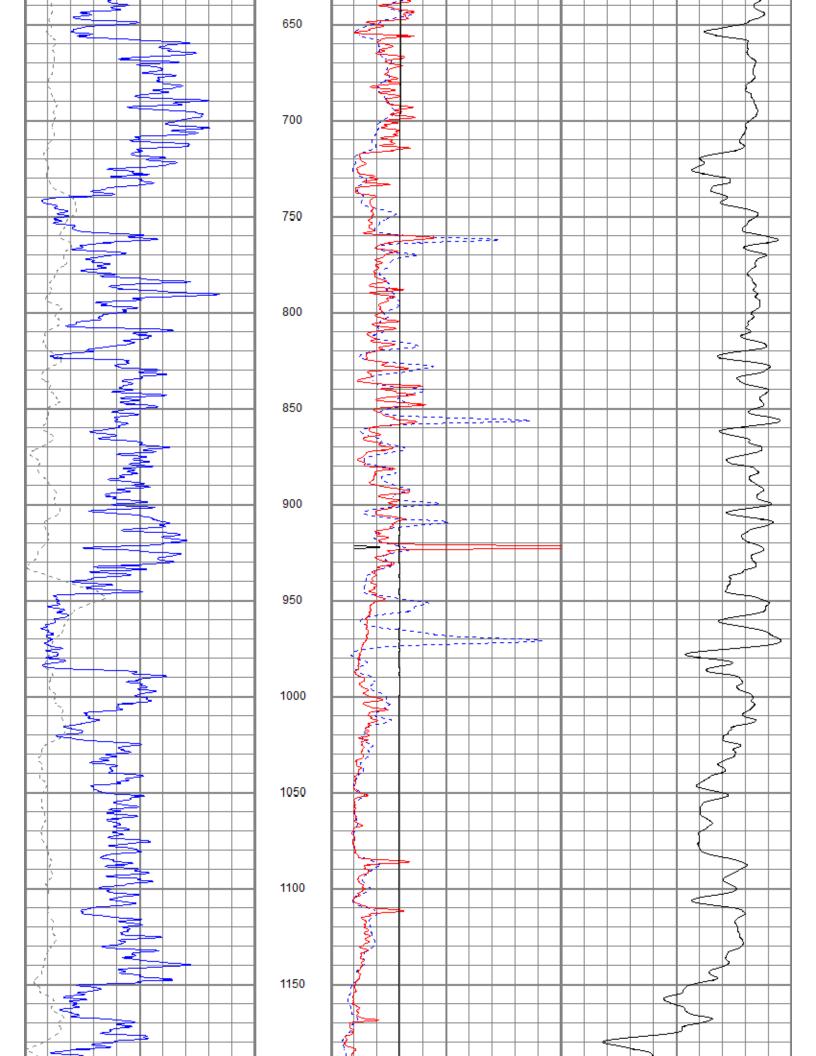


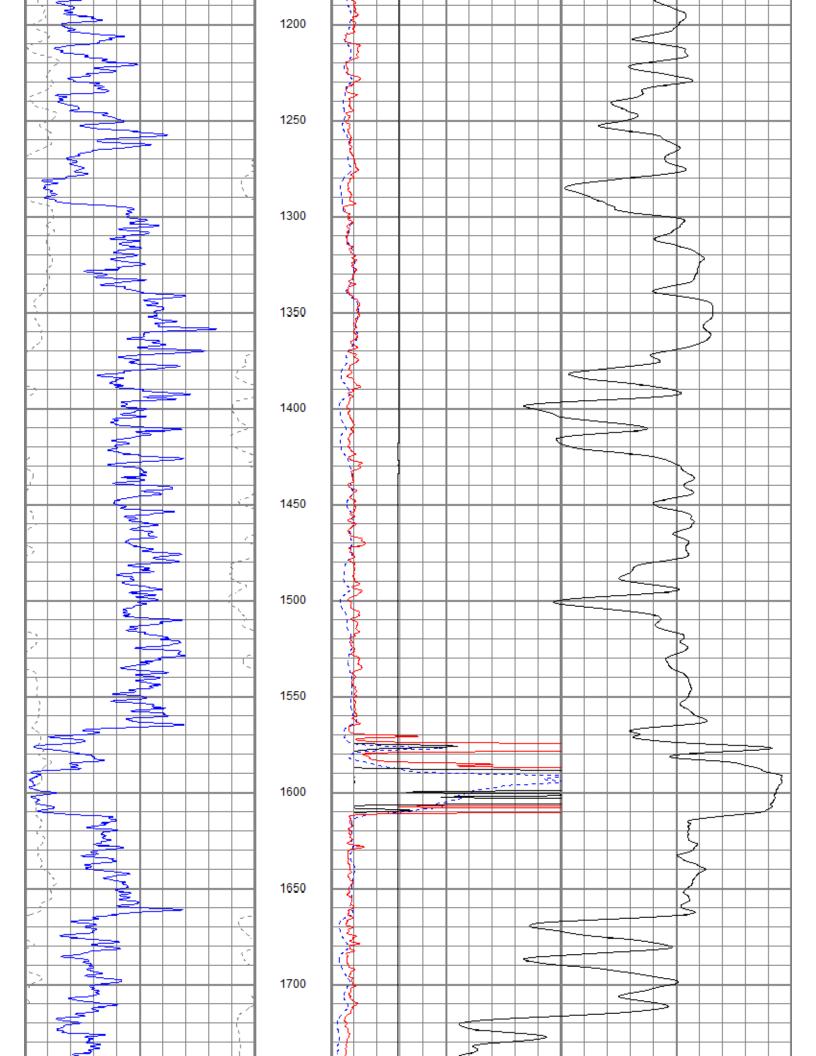
Main Pass

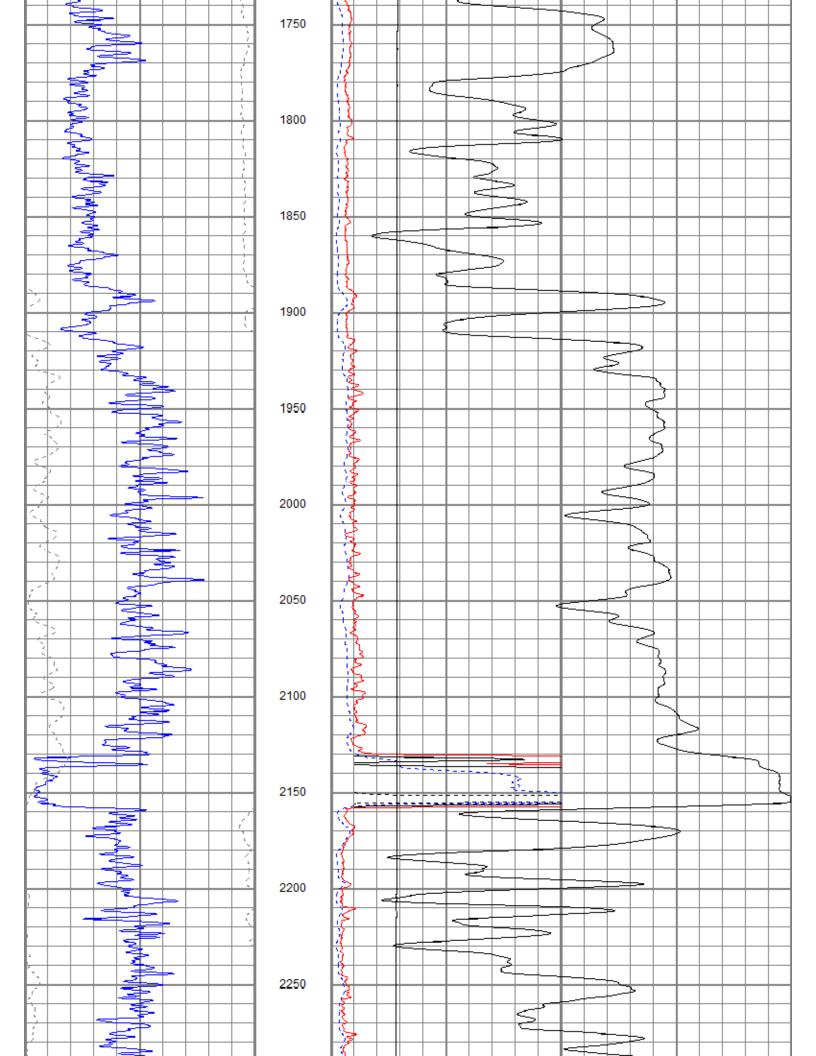
Dataset Pathname pass2 Presentation Format kdillin2 Fri Oct 17 00:21:42 2014 Dataset Creation Charted by Depth in Feet scaled 1:600 GR (GAPI) 150 0 RILD (Ohm-m) 50 0 -200 SP (mV) 0 RLL3 (Ohm-m) 50 1000 CILD (mmho/m) 10000 LTEN (lb) 0 50 500 RILD x 10 (Ohm-m) 50 500 RLL3 x 10 (Ohm-m) 250 300 350 400 450 500 550 600

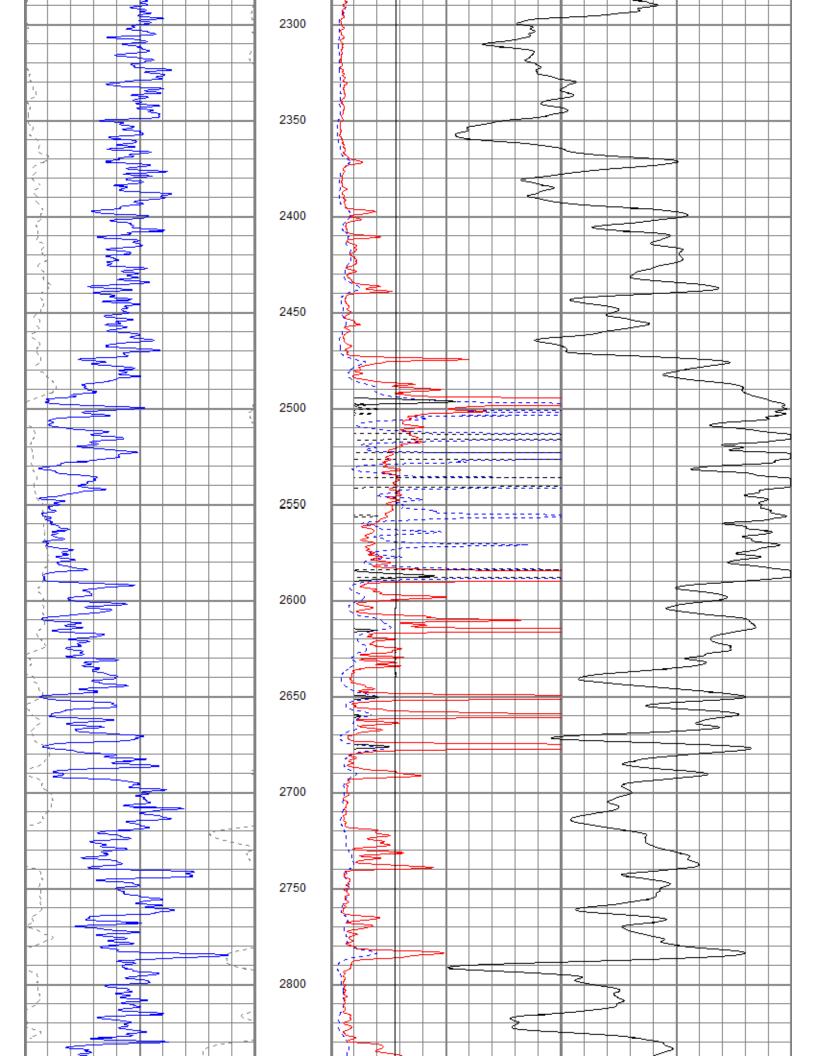
Database File

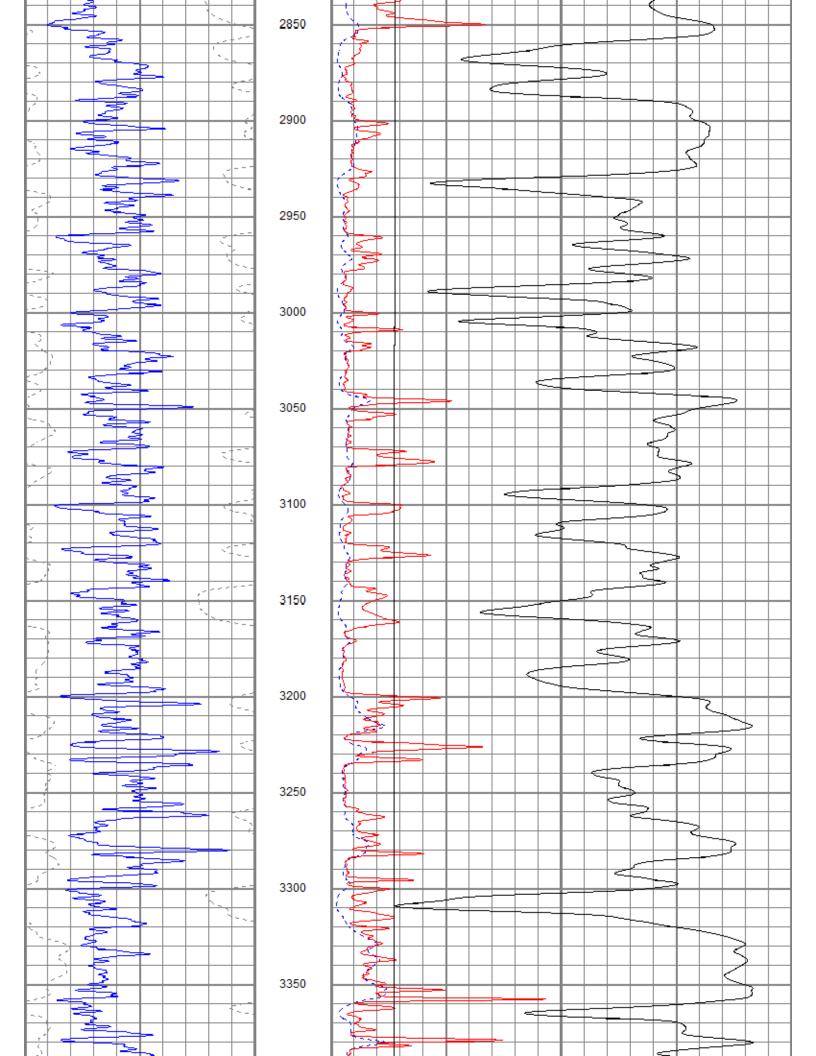
naerjsutton#1-13oh.db

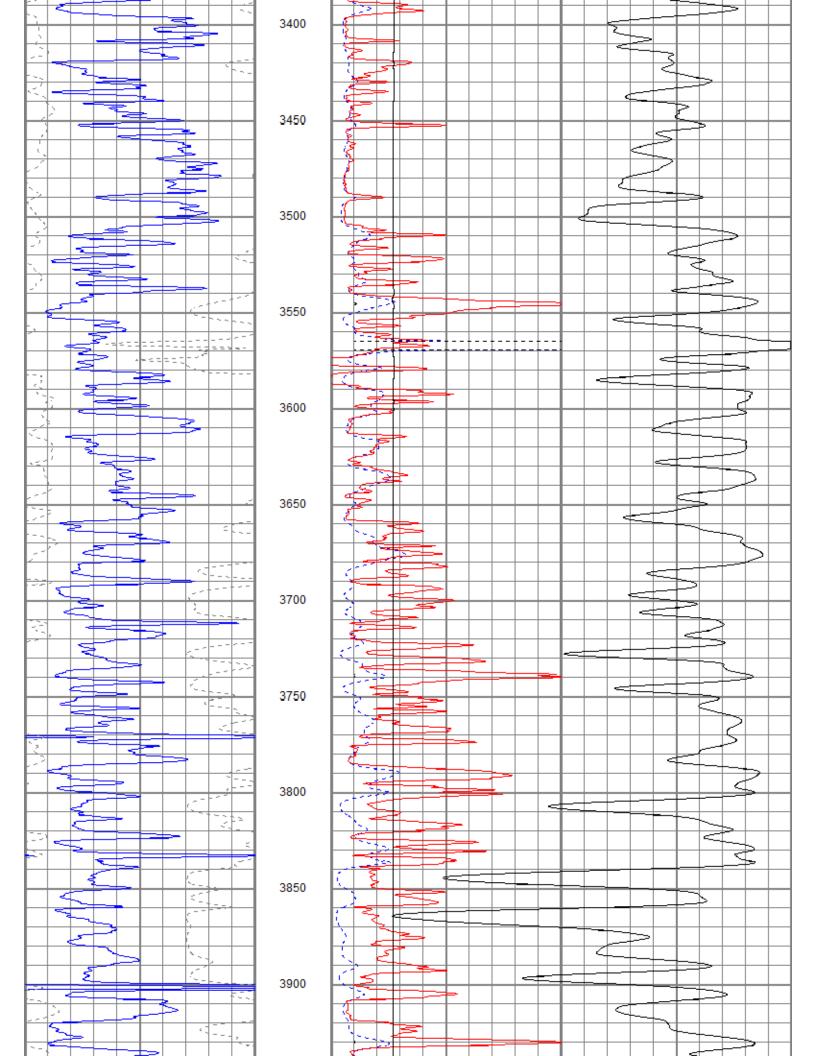


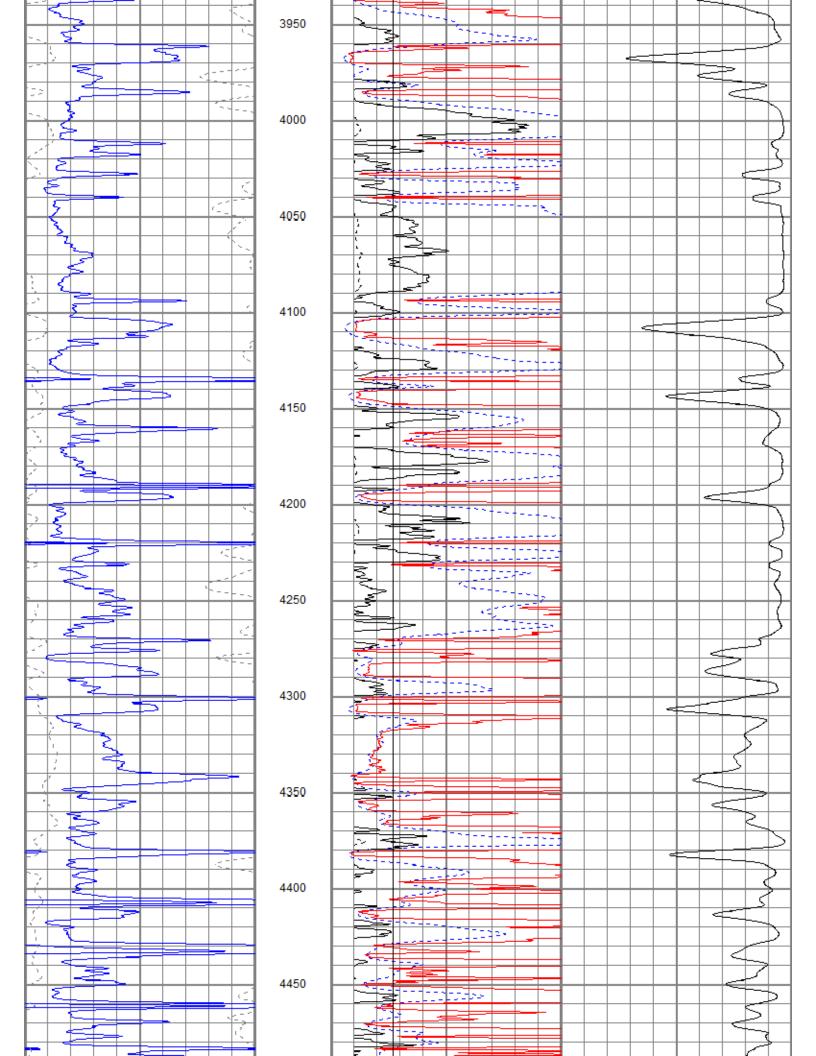


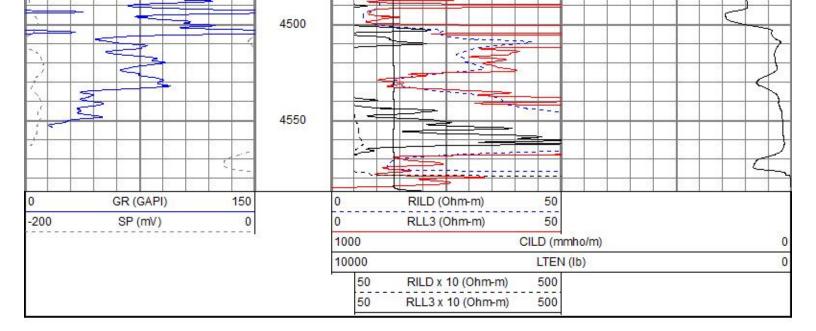














Main Pass

Database File naerjsutton#1-13oh.db

Dataset Pathname pass2 Presentation Format kdil

Dataset Creation Fri Oct 17 00:21:42 2014
Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150	0.2	RILD (Ohm-m)	2000
-100	SP (mV)	100	0.2	RLL3 (Ohm-m)	2000
			0.2	RILM (Ohm-m)	2000
		21	00		
5					
		21	50		
0	GR (GAPI)	150	0.2	RILD (Ohm-m)	200





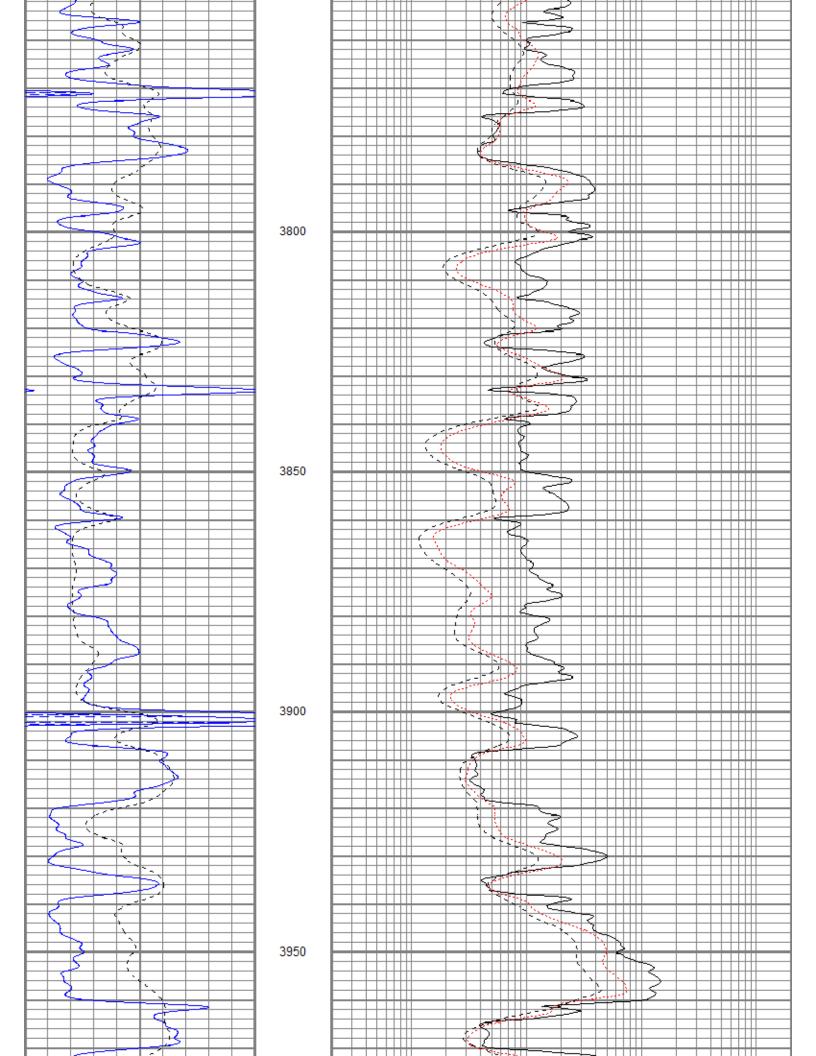
Main Pass

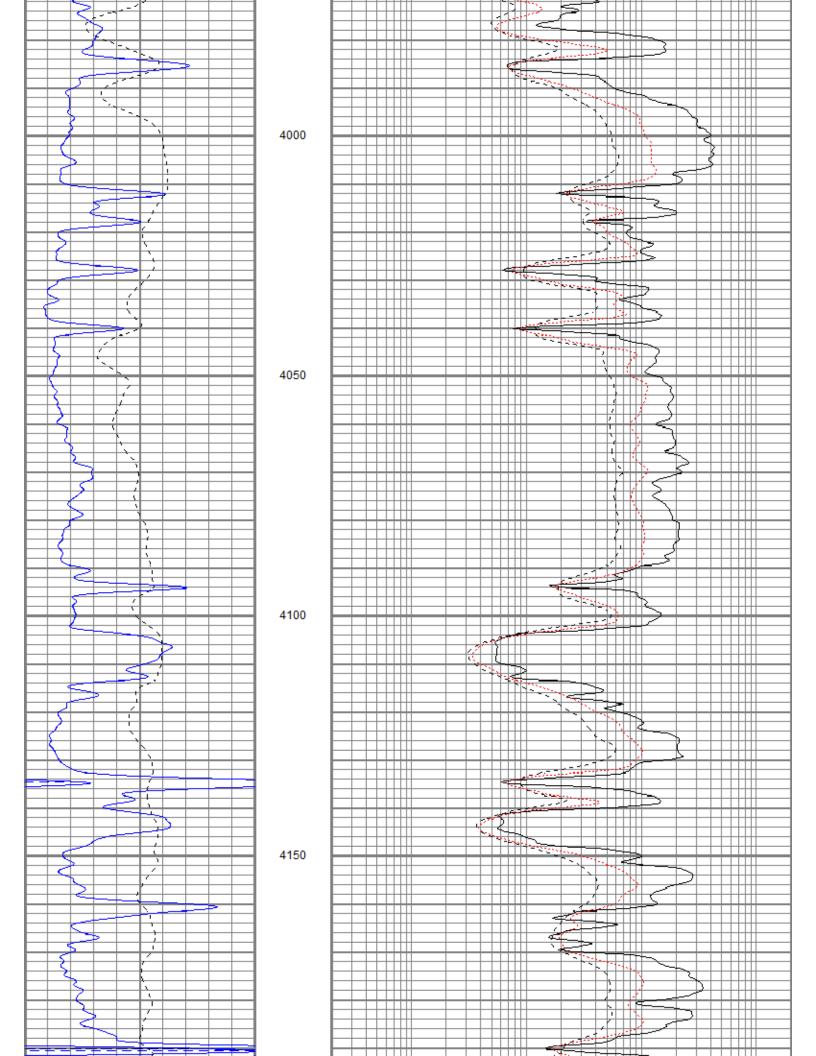
Database File naerjsutton#1-13oh.db

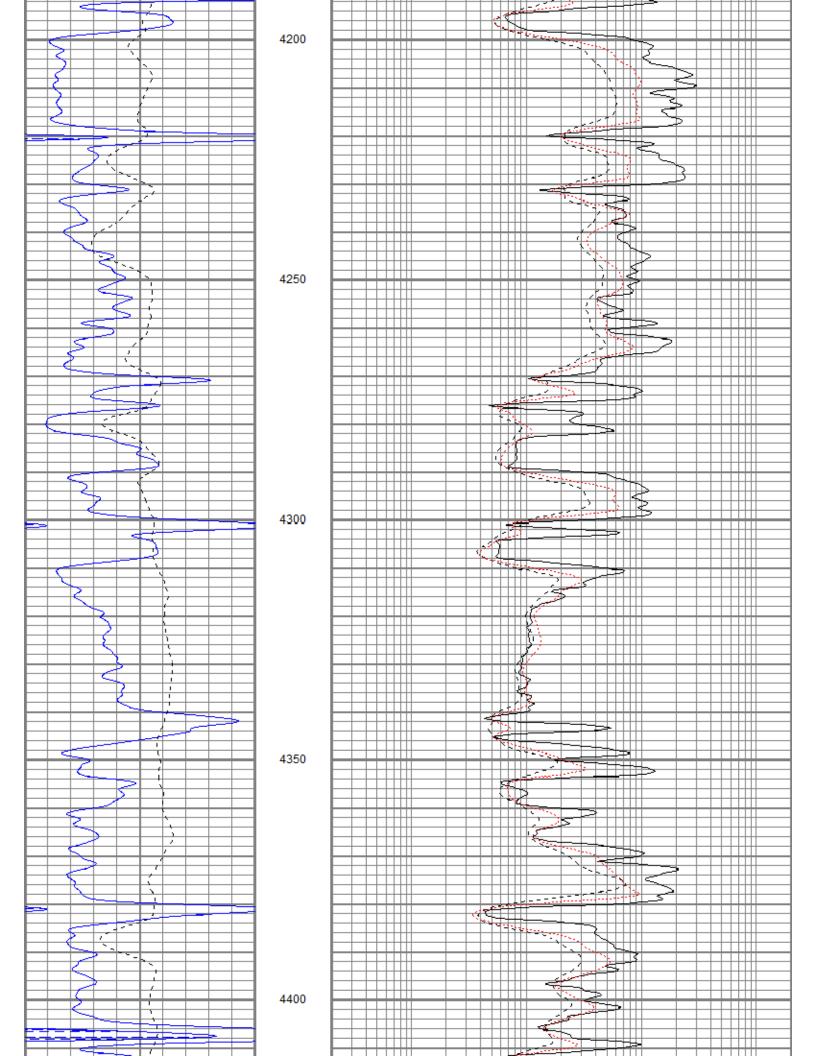
Dataset Pathname pass2 Presentation Format kdil

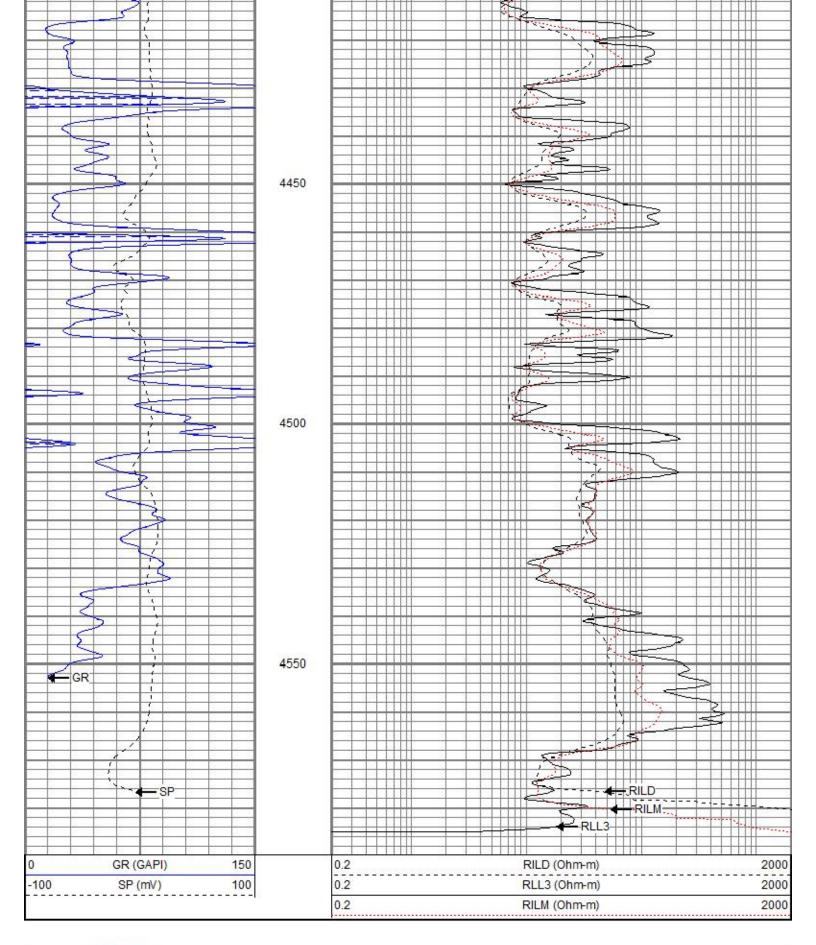
Dataset Creation Fri Oct 17 00:21:42 2014
Charted by Depth in Feet scaled 1:240

	GR (GAPI)	150	0.2	RILD (Ohm-m)	200
00	SP (mV)	100	0.2	RLL3 (Ohm-m)	200
			0.2	RILM (Ohm-m)	200
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Repeat Pass

Presentation Format kdil Dataset Creation Fri Oct 17 00:15:04 2014 Depth in Feet scaled 1:240 Charted by 0 GR (GAPI) 150 0.2 RILD (Ohm-m) 2000 100 0.2 -100 SP (mV) RLL3 (Ohm-m) 2000 0.2 RILM (Ohm-m) 2000 4450 4500 4550 0 GR (GAPI) 150 0.2 RILD (Ohm-m) 2000 0.2 -100 SP (mV) 100 RLL3 (Ohm-m) 2000 0.2 2000 RILM (Ohm-m)

Database File

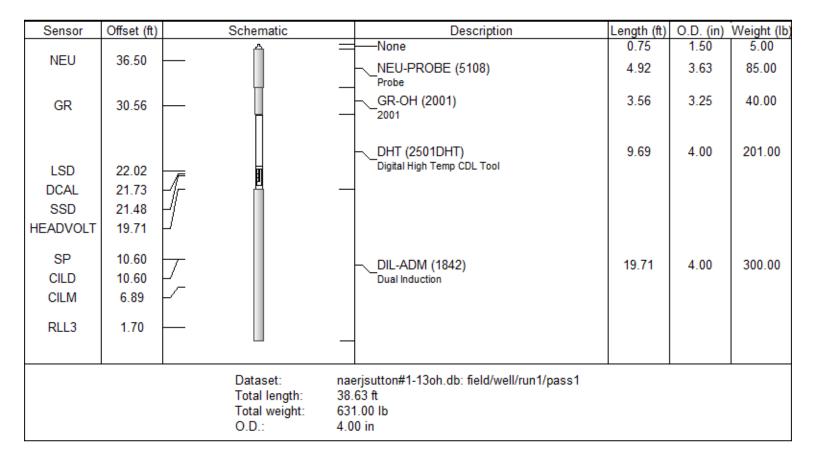
Dataset Pathname

naerjsullon# 1-13on.db

pass1

Database File naerjsutton#1-13oh.db Dataset Pathname pass1 Dataset Creation Fri Oct 17 00:15:04 2014 **Dual Induction Calibration Report** Serial-Model: 1842-ADM Surface Cal Performed: Thu Apr 10 16:42:08 2014 Downhole Cal Performed: Thu Apr 10 16:42:12 2014 After Survey Verification Performed: Thu Apr 10 16:42:14 2014 Surface Calibration Readings References Results Loop: Air Loop Air Loop b m Deep 0.014 0.660 0.000 350.000 mmho/m 541.845 -7.742Medium 0.003 0.000 400.000 -1.5690.761 mmho/m 527.924 Internal: Zero Cal Zero Cal m b Deep 0.013 0.663 ٧ 0.000 350.000 mmho/m 538.740 -6.964 Medium 0.003 0.761 ٧ 0.000 550.000 mmho/m 726.060 -2.265Downhole Calibration Readings References Results Internal: Cal Zero Zero Cal m b Deep -0.857351.396 mmho/m -0.737351.280 mmho/m 0.999 0.118 400.090 399.987 -0.110Medium 0.187mmho/m 0.077 mmho/m 1.000 Shallow 2.543 0.024 ٧ 500.000 2.000 Ohm-m 197.760 -3.000After Survey Verification Readings Targets Results Cal b' Internal: Zero Cal Zero m 0.000 0.000 -0.857351.396 0.999 0.118 Deep mmho/m mmho/m Medium 0.000 0.000 mmho/m 400.090 mmho/m 1.000 -0.1100.187Shallow 0.000 0.000 0.000 Ohm-m 500.000 2.000 Ohm-m 1.000 Compensated Density Calibration Report Serial-Model: 2501DHT-DHT Source / Verifier: csv-j12 / Master Calibration Performed: Thu Oct 02 12:56:38 2014 Before Survey Verification Performed: After Survey Verification Performed: Master Calibration Far Detector Near Detector Density 284.22 Magnesium 1.750 g/cc 711.36 cps Aluminum 2.660 g/cc 133.07 183.42 cps Spine Angle = 75.36 Density/Spine Ratio = 0.525 Size Reading Small Ring 7.80 6234.28 in Large Ring 14.00 in 10469.70 Before Survey Verification Target Measured g/cc g/cc

	g/cc g/cc	g/cc	
After Survey Verification			
	Target	Measured	
	g/cc g/cc g/cc	 g/cc g/cc	
	Gamr	ma Ray Calibration Report	
Serial Number: Tool Model: Performed:	200 ⁻ OH Thu	1 Oct 09 11:41:16 2014	
Calibrator Value:	1.0	GAPI	
Background Reading: Calibrator Reading:	0.0 1.0	cps cps	
Sensitivity:	0.23	300 GAPI/cps	
	Ne	utron Calibration Report	
Serial Number: Tool Model: Performed:	5108 PRC Tue		
Calibrator Value:	1	NAPI	
Calibrator Reading:	1	cps	
Sensitivity:	1	NAPI/cps	





MICRO RESISTIVITY LOG

Log Measured From Permanent Datum Company NAE, INC. SEC 13 Lane Walnut Fork Souhwest RJ Sutton #1-13 1474' FSL & 1970' FEL TWP 17S RGE 29W KB 11' AGL Ground Level API #: 15 101 22540 State Elevation

Well

Field

<<< Fold Here >>>

Maximum Recorded Temperature

Time Logger on Bottom Time Circulation Stopped

Equipment Number

Location

Witnessed By Recorded By

Gus Pfanenstiel

Hays, KS

112degf

T127

Bob Hopkins

Rm@BHT

70@112degf

10:00 p.m. 1:31 a.m.

.32@72degf 82@72degf

.1@72degf

Calculated

Source of Rmf / Rmc Rmc @ Meas. Temp Rmf @ Meas. Temp Rm @ Meas. Temp Source of Sample pH / Fluid Loss Density / Viscosity Bit Size Casing Logger

Type Fluid in Hole

Chemical

77/8"

10.5/7.6 9.3/53 Bottom Logged Interval

Casing Driller

8 5/8" @ 226

226

3600 4585 4587 4586

Top Log Interval

Depth Logger Depth Driller Run Number

Company

Well

Field

County

State

Drilling Measured From

8

2746

Elevation

K.B. 2757 D.F. 2756 G.L. 2746

10-17-14

One

NAE, INC.

Lane

Kansas

RJ Sutton #1-13

Walnut Fork Souhwest

Location:

County

Kansas

Other Services

CONL

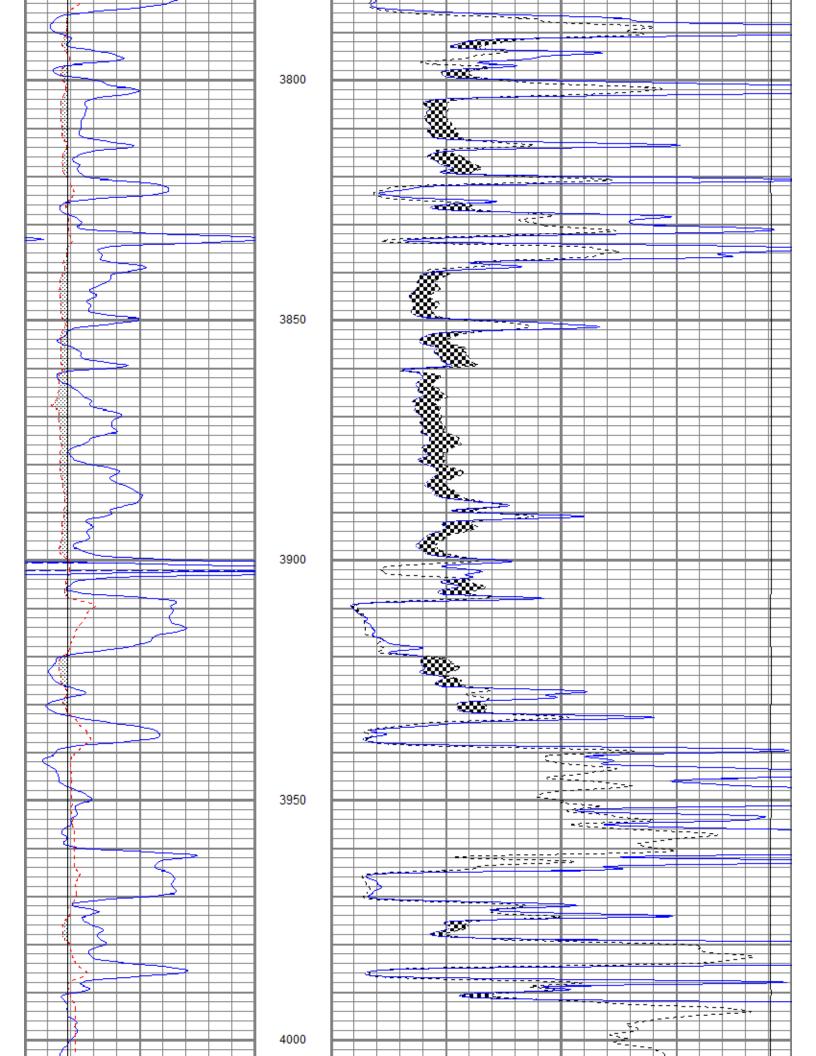
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

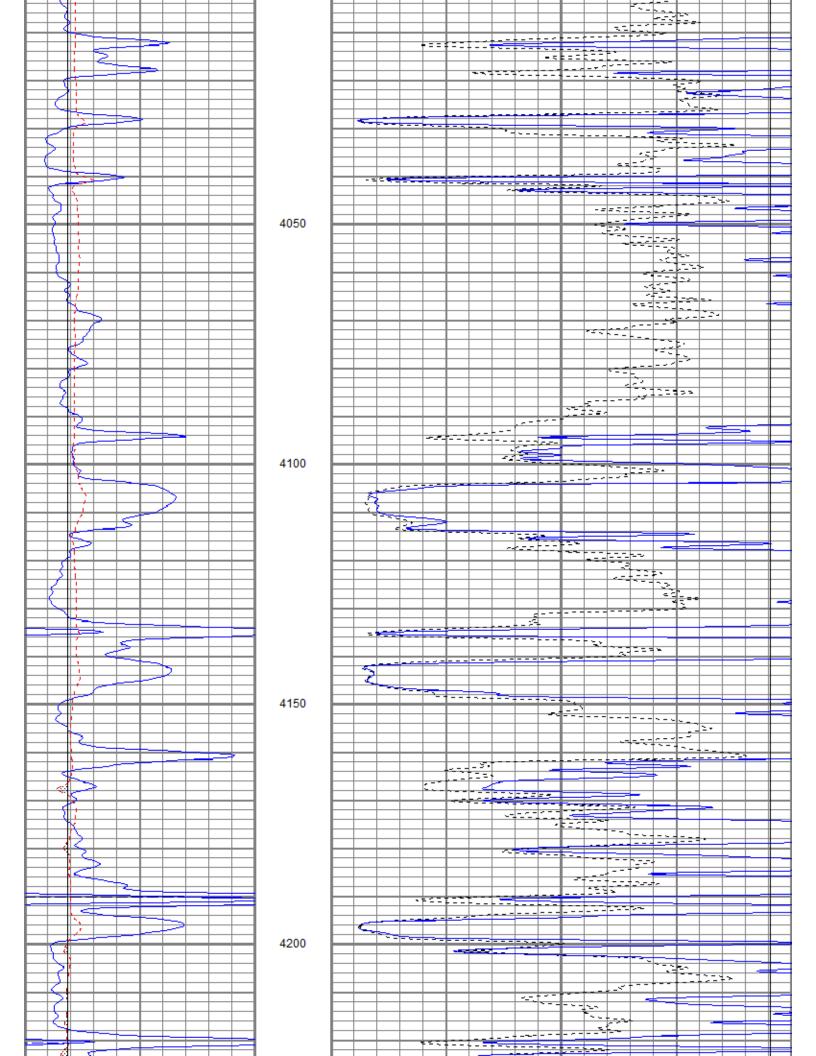
Comments

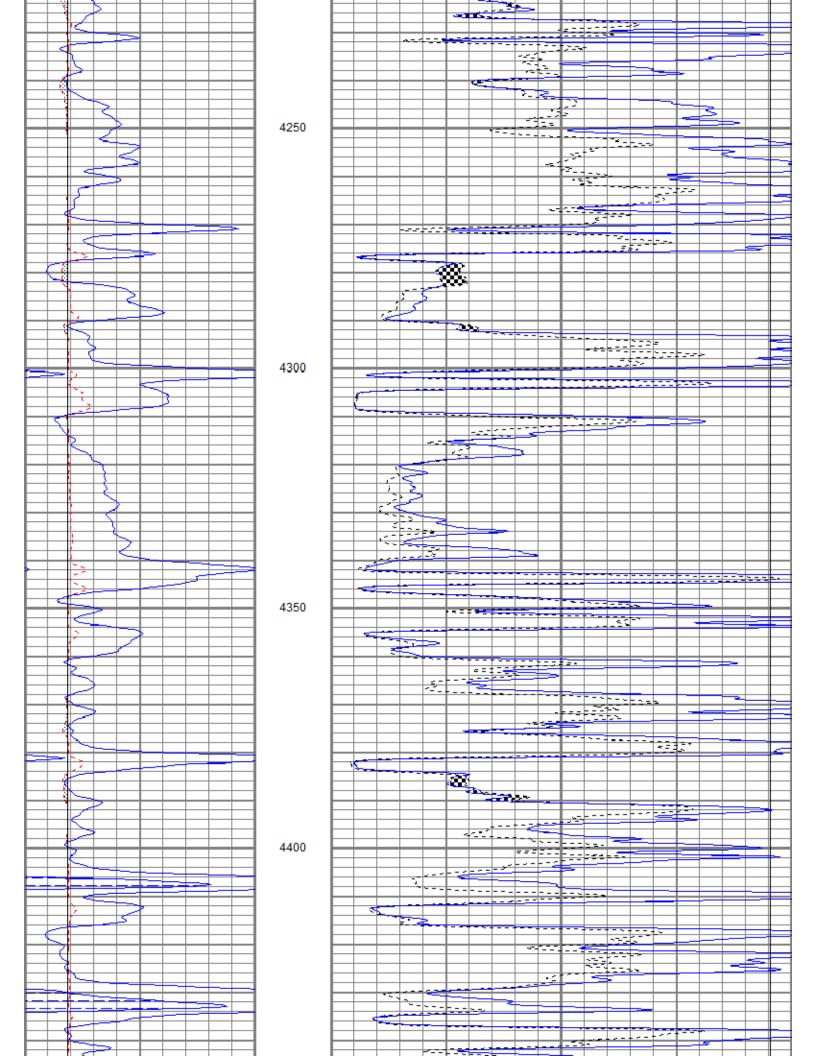


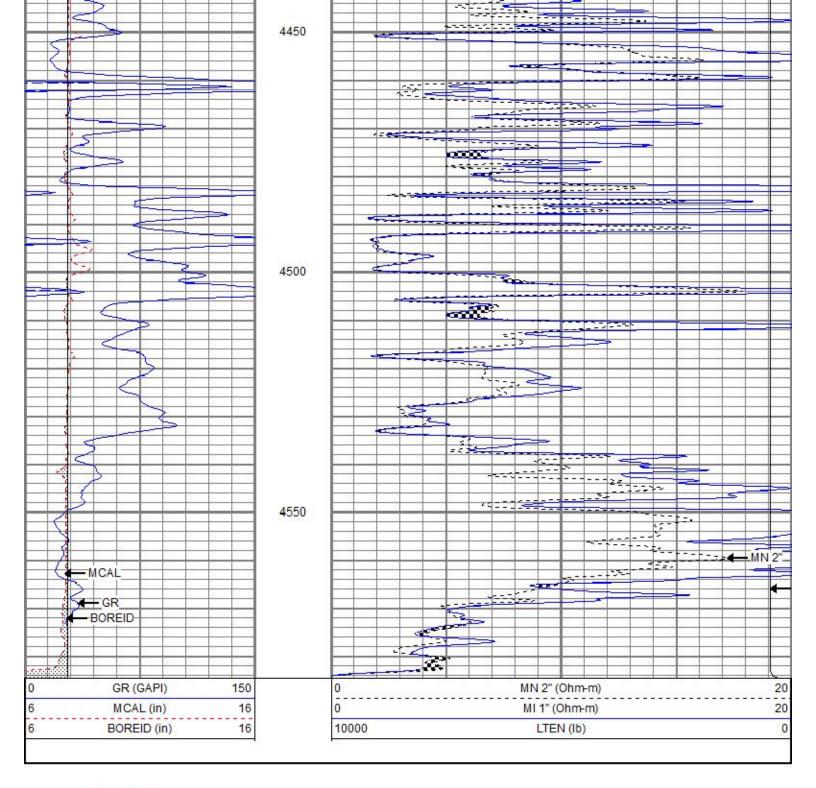
Main Pass

Da Pro Da	atabase File ataset Pathname esentation Format ataset Creation narted by	naerjsutton#1-130 pass4 kml Fri Oct 17 01:43:00 Depth in Feet scal	6 2014																	
0	GR (GA	PI) 150		0							MN	2" (Ohm	-m)						20
6	MCAL ((in) 16		0							MI	1" ((Ohm	m)		 		 		20
6	BOREID	(in) 16		10000							ı	LTE	V (lb)						0
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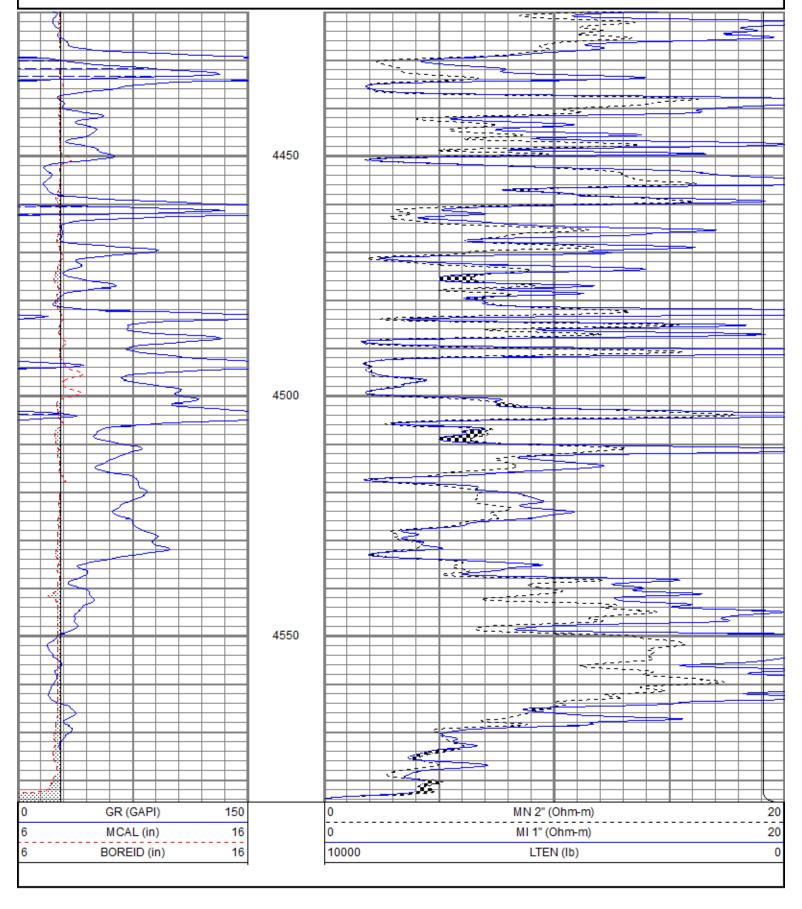
Repeat Pass

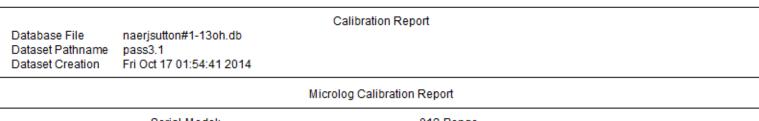
Database File Dataset Pathname Presentation Format naerjsutton#1-13oh.db

pass3.1 kml

Dataset Creation Charted by Fri Oct 17 01:54:41 2014 Depth in Feet scaled 1:240

0	GR (GAPI)	150	0	MN 2" (Ohm-m)	20
6	MCAL (in)	16	0	MI 1" (Ohm-m)	20
6	BOREID (in)	16	10000	LTEN (lb)	0





Serial-Model: Performed:

012-Pengo Fri Oct 17 01:32:43 2014

	Zero	Cal		Zero	Cal		m	b
Normal	0.0057	0.4380	V	0.0000	10.0000	Ohm-m	23.1300	-0.1320
Inverse	0.0079	0.5640	V	0.0000	8.3000	Ohm-m	14.9261	-0.1182
Caliper	2.6540	5.4386	V	6.9000	14.0000	in	2.5497	0.1329
			Gamma R	Ray Calibration	Report			
Serial Nu	ımber:		2000					
Tool Mod	lel:		P2000					
Performe	d:		Fri Nov 0	1 23:01:15 20	13			
Calibrato	r Value:		1.0	C	SAPI			
Backgrou	ınd Reading:		0.0	c	ps			
Calibrato	r Reading:		1.0	C	ps			
Sensitivit	v:		0.2200	(API/cps			

References

Results

Readings

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	8.38		——GR-P2000 (2000) ——	3.67	3.25	40.00
MCAL MI MN	1.30 1.30 1.30		ML-Pengo (012)	6.97	3.50	100.00
		Dataset: Total length: Total weight: O.D.:	naerjsutton#1-13oh.db: field/well/run1/pass3.1 10.63 ft 140.00 lb 3.50 in			