1269785

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

Kansas Corporation Commission

OIL & GAS CONSERVATION DIVISION

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	SecTwpS. R East _ West
Address 2:	Feet from North / South Line of Section
City:	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
□ Oil         □ WSW         □ SWD         □ SIOW           □ Gas         □ D&A         □ ENHR         □ SIGW	Elevation: Ground: Kelly Bushing:
GSW Sigw Sigw GSW Temp. Abd.	Total Vertical Depth: Plug Back Total Depth:
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used? Yes No
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	·
Deepening Re-perf. Conv. to ENHR Conv. to SWD	Drilling Fluid Management Plan
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer	(Data must be collected from the Reserve Pit)
	Chloride content:ppm Fluid volume:bbls
Commingled Permit #:	Dewatering method used:
Dual Completion Permit #:	
SWD Permit #:	Location of fluid disposal if hauled offsite:
ENHR Permit #:	Operator Name:
GSW Permit #:	Lease Name: License #:
	Quarter Sec TwpS. R
Spud Date or Date Reached TD Completion Date or Recompletion Date	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** 

Confidentiality Requested:

Yes No

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:



Operator Name: \_ Lease Name: \_\_ Well #: \_ 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). No **Drill Stem Tests Taken** Yes Loa Formation (Top), Depth and Datum Sample (Attach Additional Sheets) Name Top Datum No Samples Sent to Geological Survey Yes No J Yes Cores Taken No Electric Log Run \_\_\_ Yes List All E. Logs Run: CASING RECORD New Used Report all strings set-conductor, surface, intermediate, production, etc. Size Hole Size Casing Weight Setting Type of # Sacks Type and Percent Purpose of String Drilled Set (In O.D.) Lbs. / Ft. Depth Cement Used Additives ADDITIONAL CEMENTING / SQUEEZE RECORD Purpose: Depth Type of Cement # Sacks Used Type and Percent Additives Top Bottom Perforate **Protect Casing** Plug Back TD Plug Off Zone Did you perform a hydraulic fracturing treatment on this well? Yes No (If No, skip questions 2 and 3) Yes Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? No (If No, skip question 3) Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? (If No, fill out Page Three of the ACO-1) Yes PERFORATION RECORD - Bridge Plugs Set/Type Acid, Fracture, Shot, Cement Squeeze Record Shots Per Foot Specify Footage of Each Interval Perforated Depth (Amount and Kind of Material Used) TUBING RECORD: Size: Set At: Packer At: Liner Run: Yes No Date of First, Resumed Production, SWD or ENHR. Producing Method: Gas Lift Flowing Pumping Other (Explain) **Estimated Production** Bbls. Oil Bbls Gas Mcf Water Gas-Oil Ratio Gravity Per 24 Hours METHOD OF COMPLETION: **DISPOSITION OF GAS:** PRODUCTION INTERVAL: Open Hole Perf. Dually Comp. Commingled Sold Used on Lease (Submit ACO-5) (Submit ACO-4) (If vented, Submit ACO-18.) Other (Specify)

Form	ACO1 - Well Completion						
Operator	Knighton Oil Company, Inc.						
Well Name	Kachelman 4						
Doc ID	1269785						

### Tops

Name	Тор	Datum
Anhydrite	852	+1122
Heebner	3514	-1540
Lansing	3684	-1710
ВКС	3944	-1970
Mississippian	4038	-2064
Viola	4120	-2146
Simpson Shale	4278	-2304
Arbuckle	4330	-2356

Form	ACO1 - Well Completion						
Operator	Knighton Oil Company, Inc.						
Well Name	Kachelman 4						
Doc ID	1269785						

### Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	''		Type and Percent Additives
Surface	12.2500	8.6250	23	270	common		60/40 pozmix
Production	7.8750	5.500	15.5	4340	common	260	AA2

### **Summary of Changes**

Lease Name and Number: Kachelman 4

API/Permit #: 15-185-23903-00-00

Doc ID: 1269785

Correction Number: 2

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	12/05/2014	11/02/2015
Save Link	//kcc/detail/operatorE ditDetail.cfm?docID=12 34193	//kcc/detail/operatorE ditDetail.cfm?docID=12 69785
Tubing Set At	31.00	4100

Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1 August 2013 Form must be Typed Form must be Signed All blanks must be Filled

# Yes No

Confidentiality Requested:

### CONFIDENTIAL **WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License #			API No. 15				
Name:			Spot Description:				
Address 1:			SecTwpS. R				
Address 2:			F	eet from North /	South Line of Section		
City: Stat	te: Zip:	+	F	Feet from East /	West Line of Section		
Contact Person:			Footages Calculated from	Nearest Outside Section	Corner:		
Phone: ()				w □se □sw			
CONTRACTOR: License #			GPS Location: Lat:	, Long: .			
Name:				(e.g. xx.xxxxx)	(e.gxxx.xxxxx)		
Wellsite Geologist:			Datum: NAD27	NAD83 WGS84			
Purchaser:			County:				
Designate Type of Completion:			Lease Name:	\	Nell #:		
New Well Re-E	Entry [	Workover	Field Name:				
	_	_	Producing Formation:				
☐ Oil ☐ WSW	SWD	SIOW	Elevation: Ground: Kelly Bushing:				
☐ Gas ☐ D&A	☐ ENHR	SIGW	Total Vertical Depth:	Plug Back Total	Depth:		
☐ OG	GSW	Temp. Abd.	Amount of Surface Pipe Set and Cemented at: Feet				
☐ CM (Coal Bed Methane) ☐ Cathodic ☐ Other (Core,	Fundado ):			Collar Used? Yes			
If Workover/Re-entry: Old Well Info							
Operator:				cement circulated from:			
Well Name:			feet depth to:	w/	sx cmt.		
Original Comp. Date:	Original Tota	al Depth:					
Deepening Re-perf.	Conv. to ENI	HR Conv. to SWD	Drilling Fluid Manageme				
Plug Back	Conv. to GS\	N Conv. to Producer	(Data must be collected from	the Reserve Pit)			
Commingled	Permit #		Chloride content:	ppm Fluid volum	e: bbls		
Dual Completion			Dewatering method used:				
SWD			Location of fluid disposal i	if hauled offsite:			
ENHR	Permit #:						
GSW Permit #:							
				License #:			
Spud Date or Date Reac	ched TD	Completion Date or	QuarterSec	TwpS. R	East West		
Recompletion Date		Recompletion Date	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:						



Confidentiality Requested:

Yes No

### Kansas Corporation Commission Oil & Gas Conservation Division

1223604

Form ACO-1
August 2013
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# CONFIDENTIAL WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	SecTwpS. R 🔲 East 🗌 West
Address 2:	Feet from North / South Line of Section
City:	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxx)  Datum: NAD27 NAD83 WGS84
Wellsite Geologist:	
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
☐ New Well ☐ Re-Entry ☐ Workover	Field Name:
☐ Oil ☐ WSW ☐ SWD ☐ SIOW	Producing Formation:
Gas D&A ENHR SIGW	Elevation: Ground: Kelly Bushing:
☐ OG ☐ GSW ☐ Temp. Abd.	Total Vertical Depth: Plug Back Total Depth:
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used? Yes No
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	
☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD	Drilling Fluid Management Plan
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer	(Data must be collected from the Reserve Pit)
Commingled Permit #:	Chloride content:ppm Fluid volume:bbls
Dual Completion Permit #:	Dewatering method used:
SWD Permit #:	Location of fluid disposal if hauled offsite:
ENHR Permit #:	
GSW Permit #:	Operator Name:
	Lease Name: License #:
Spud Date or Date Reached TD Completion Date or	QuarterSecTwpS. R East West
Recompletion Date Recompletion Date	Countv: 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 Approved by: Date:

KOLAR Document ID: 1223604

### Page Two

Operator Name:					Lease Nam	ne:			Well #:	
Sec Tw	pS. F	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 Yes No Log Formation (Top), Depth and Datum Sample  (Attach Additional Sheets)										
								Datum		
Cores Taken Electric Log Run Geologist Repor List All E. Logs F	t / Mud Logs		Y€  Y€	es No						
			Repo		RECORD [	Nev	w Used rmediate, producti	on. etc.		
Purpose of St		ze Hole Orilled	Siz	e Casing (In O.D.)	Weight Lbs. / Ft.		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
				ADDITIONAL	OF MENTING /					
Purpose:	[	Depth	Typo	of Cement	# Sacks Use		EEZE RECORD	Typo a	nd Percent Additives	
Perforate Protect Ca Plug Back	Top	Bottom	туре	or cement	# Sacks Use	,u		туре а	ia Percent Additives	
Plug Off Z										
Did you perform     Does the volum     Was the hydraul	e of the total base	fluid of the hyd	draulic fra	cturing treatmen		•	Yes ns? Yes	No (If No	, skip questions 2 an , skip question 3) , fill out Page Three o	,
Date of first Produ	ction/Injection or	Resumed Produ	uction/	Producing Meth			Coolift 0	thor (Fundain)		
Estimated Produc	otion	Oil Bb	le.	Flowing Gas	Pumping  Mcf	Wate		ther <i>(Explain)</i> bls.	Gas-Oil Ratio	Gravity
Per 24 Hours		Oli Bb	15.	Gas	IVICI	vvale	ı Di	JIS.	Gas-Oil Hallo	Gravity
DISPO	OSITION OF GAS	S:		N	METHOD OF CO	MPLE.	TION:		PRODUCTIO	N INTERVAL:
Vented	Sold Use	d on Lease		Open Hole		Dually		nmingled	Тор	Bottom
(If vente	ed, Submit ACO-18	.)			(5	SUDITIIL I	ACO-5) (Subi	mit ACO-4)		
Shots Per Foot	Perforation Top	Perforation Bottom						Record		
TUBING RECOR	D: Size:		Set At:		Packer At:					

Form	ACO1 - Well Completion
Operator	Knighton Oil Company, Inc.
Well Name	Kachelman 4
Doc ID	1223604

### Tops

Name	Тор	Datum
Anhydrite	852	+1122
Heebner	3514	-1540
Lansing	3684	-1710
ВКС	3944	-1970
Mississippian	4038	-2064
Viola	4120	-2146
Simpson Shale	4278	-2304
Arbuckle	4330	-2356

Form	ACO1 - Well Completion
Operator	Knighton Oil Company, Inc.
Well Name	Kachelman 4
Doc ID	1223604

### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	4128-4132	Acidize 250 gal	Viola
4	4136-4146	Acidize 250 gal	Viola
4	4166-4172	Acidize 250 gal	Viola

Form	ACO1 - Well Completion
Operator	Knighton Oil Company, Inc.
Well Name	Kachelman 4
Doc ID	1223604

### Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	12.2500	8.6250	23	270	common		60/40 pozmix
Production	7.8750	5.500	15.5	4340	common	260	AA2

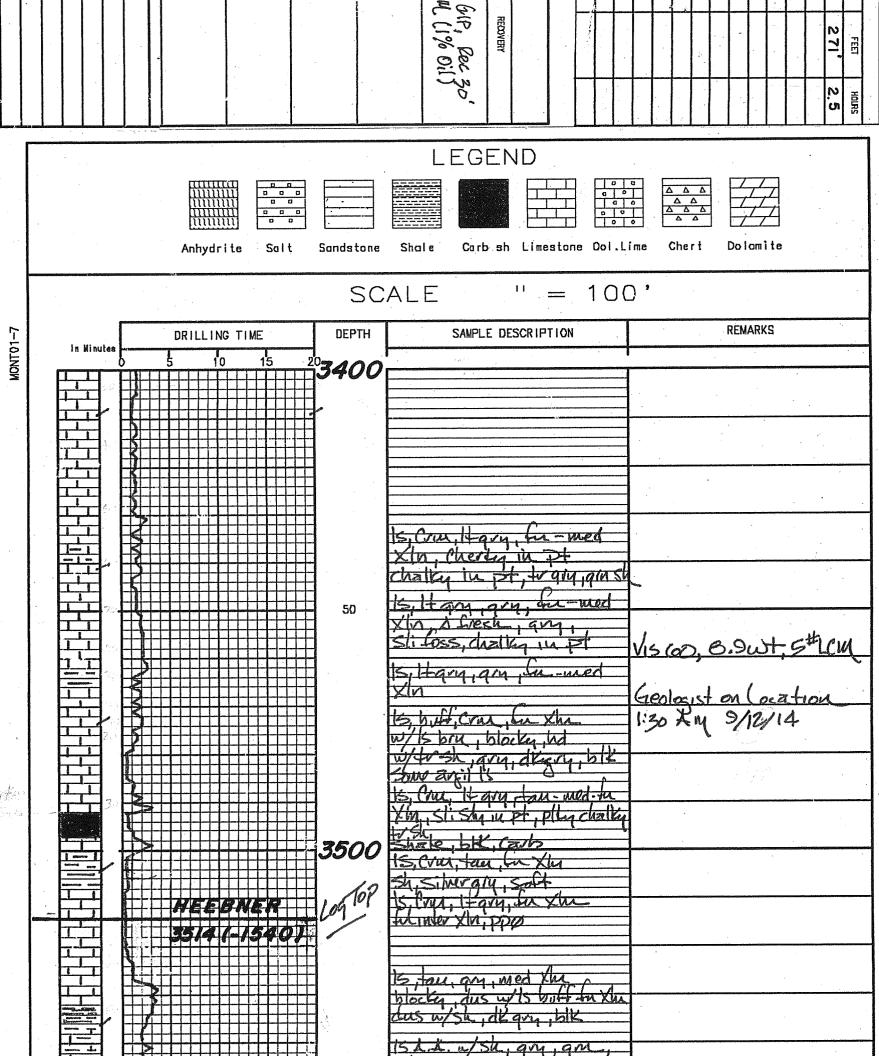
# DAVID D MONTAGUE

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			HEEBNER 3514 (-1540)
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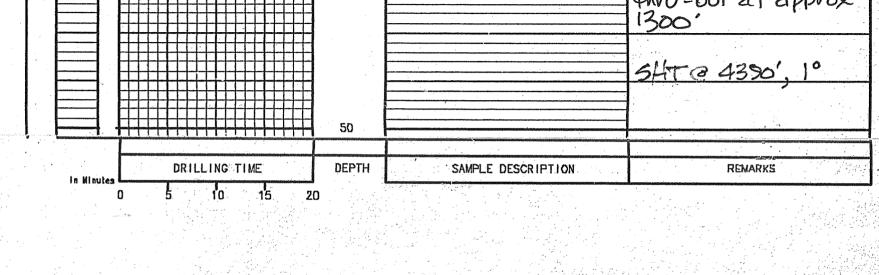


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	0			·	in XIM, Seed open in couple ye's	Ø, nsfo, no odor
					5510,511 Mai	Andy's Mud
		曲曲			15 Come why of X hy, NOS	VIS 61, 9.0 WT, 7.2 WL Chl 3000 PPM, 6#LCM
				3800	15, Com, in the, dus	
					15, Com, It gry, fu-vta	
	量划				15, Cru, gry, brn, foss	Is, tau, litho in pt
ringspr Ringspr Rings					Compact, NVB, to Shara	24 Stand Short-trip
	000				Cire 40 min	SHT 1°
	<b>打造</b>		-a - CF5		15 cm, wh, for XIn w/ool 15,	Strap 1.09 Short
	聞				75fo, tenrodor	
	<b>三</b>				15 tau; 14 gry, tight, litho in	VIS 47, 8-8 WH, 4#LCW
	<del>直</del> 当				pt, oly, while, fresh	
i i ta	山山。			50	15, A.A. W/Sh. dkgry, gry	Dila @ 3850 @ 7 AM 9/013/14
	田				15 tau. Cris, te Xus, 4055,	9/013/14
State	H			,	Scot (DC) SSAO IN HOW PCS	
					Circ do "spl	Adding Premix
:			##   CF3		By Cirus, la VIN, dissipply Chally, 15, Ciru, Stiloss, few	
	量			. *	THES W/ (WHOVXIMED, SSTO ON BREAK	DST No.1, 3807-3827 30-60-30-60, SB, off
	三				15, Chu, tay, fix x lu, dus w/ 15, gry, foss, hd	BOB in 4 min., 750 GIP,
					2 2 4 4 4 4 4 4 5 5 1 4 4 5 5 1 4 4 5 5 1 4 5 5 1 4 5 5 5 1 4 5 5 5 5	Rec 30' VSOCM (1% 0il)
	EGIRMADA, 10000A			4	Shalen, ary, aru-ary	BHP 740-704
				3900	15, qvy, far, for Xter dus	FP 14-15: 18-20 HP 1848-1836
	哥			F	Is, white, see, In the.	BHT 109° Diamond Testing (Jason M.)
	H				ten pesu/spt bright thou, 15to	Diamond lesting (Jason M.)
	曲				Lew Ve's 55to on break	Andris Mud
	u				B.tan. Cru. It gry. fu Xlu	VISG6, 9.0 W, BWL
	胃。				mostly dus circ 20" spl-	5000 chl, 5# LCM
					Sh, litte (frace and) Is hingly dy	
			<b>C</b> 5		CIR 40"301	
			BKC		15, 4 gry, gry, blocky, das	
			39441-19701	50	Sh. It green, to bill	
Ł						1 L + #/
4.50	<b>H</b>					V1555, 8.9wt, 6#(cm
	量				& Hary gry w/com titles	
	工工					
					15. gry, 17 gry par xm, ous	

		R		d.	Cough, Shales, blk, red, gry	
	GEOTERATURA				Silt House, Is, tay, bon	
	dispersions minimum minimum descriptions			4000	the gry green	
					Xu, Challey	
-	三				15, Crue, du the, ost w/pr	
	distriction districts or many				ooca, pr Jis &, tr resd. 8tm	
	Gorango Grows			legipp	Sh, green, bill, gry	
			1/25/55/00/	N	15, gry, dus, Dhy	
	崽		0381-2064)	/	5h, qru, green-red	
	· 000			50	Chest who open fresh	
I				ວນ	Sharps 15, 1, tho	
	A - A -				12070-80 Spl, Chev-, weath	
	1				15, gry, dis, blodly	
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	喜				Chart A.K.	
	Systems Sizes			je Na	shighwed, an-red, s	
1	ame.				Cough Vais Color Sh. &	
				,	(oug) V21 (6(0 54, 2	11 / 1/20
	STATE OF THE PARTY			4100		V1550, 9.20H, 6# Lay
				4100		V1550, 9. Zult, 6# Lay
				4100	Sh. green, red-gry, quy	V1550, 9.20H, 6# Lay
			V10LA 120(-2146)	4100	the four whe fresh	V1550, 9. Zult, 6# Lay
			V104A 120(-2146)	4100	Sh. green, red-arm, and Chest, Low, who trush Sh. green, red-arm, and Sh. dus Chert, who orange fresh Chert, Chu, doloustic in	V1550, 9.20H, 6# Lay
			V10LA 120(-2146)	4100	Sh. qui, quy (5, fau, bun, dus Chett, fau, wh tresh Sh. green, red-gra, quy (5, Crus, med 8h, dus Chert, wh, orange, fresh Alett, Crus, dolonatic in pt, weath, trigolitic in pt Scat Str. 5to on break	V1550, 9.20H, 6# Lay
			V104A 120(-2146)	4100	Sh. green, red-arm, and Sh. green, red-arm, dus Sh. green, red-arm, and Sh. dus Chert, who, orange , fresh Sheet, Cru, dolongt, c.i., weath, trigolitic in pt scat St. s. s. fo on break w/dolo, white In Sh. 115	V1550, 9.20H, 6# Cay
			V10LA 120(-2146)	<b>4100</b> 50	Sh. green, red-gra, quy (5, fran, bru, dus Sh. green, red-gra, quy (5, Cha, med 8 h, dus Chert, wh, orange, fresh Otet, Cha, doloustic in St, weath. trigolitic in pt scat Sta, Sto on break w/ dolo, white In 8 h, 185	V1550, 9.20H, 6# Lay
			V10LA 120(-2146)		The foundation of the state of	V1550, 9.20H, 6# Lay
			V104A 120(-2146)		Sh. green, red-gra , gry 15, from used & h., dus Chert, who orange , fresh Chert, who orange , fresh St. weath. frigolitic in pt Scat St. , Sto on break whole, white In Xthe, is colo, crash fresh when xthe even Sat, sto, gil odor Chert, who to , fresh who seat dob, In Xthe, less of show gd odor	V1550, 9.20H, 6# Lay
			V10LA 120(-2146)		Sh. green, red-gra, gry Chert, wh, orange, fresh Whole, Cru, for fresh who on break Whole, Cru, fu Xla, gr, where xlugge even Sat, sto, gd odor Chert, who has fresh who seat deb, in Xla, less of show gd odor Philit who fresh, deb, Cruspad	V1550, 9.20H, 6# Lay
			V104A 120(-2146)		Sh. green, red-gra, gry 15, from used & h., dus Chert, who orange fresh Chert, who orange fresh Chert, Com, dolount, cin st, weath, frozonthe upt scat Str., Sto on break whole, white In Xh, his colo, Cran fu Xh, gr where xhuge even sat, sto, git odor Chert, who to, fresh of scat dolo, In Xh, less of show gd odor Chert, who, fresh, dolo, Crupact less of, less show, S, dus Chert & dolo & A w/15%	V1550, 9.20H, 6# Lay
			V10LA 120(-2146)		Sh. green, red-gra, quy 15, from und 8h, dus Chest, tou, und 8h, dus Chest, who orange fresh Chest, Com dolount, cin st, weath frigother upt Scat Stan, 5to on break whole, crus, fu Xla, ga interxluge even Sat, sto, gil odor Chest, white a fresh of Scat dolo, an Xla, gresh of Scat dolo, fu Xla, less of show gol odor Phort, who, fresh, dolo, compact less of tess show, 15, dus	V1550, 9.20H, 6# Lay
			V10LA 120(-2146)	50	Chest, tou, any fresh.  Sh. green, red-gra, gry 15, from used 8th, das Chest, who, orange fresh.  Chest, Cru, dolonitic in St. weath, trigolitic in pt Scat Ston, 5 to on break w/dolo, white In Xth, 115 dolo, Cru, fu Xla, go interxluge even Sat, 5to, go odor Chest, who to fresh w/ Scat dolo, In Xla, fresh w/ Scat dolo, fresh, who, fresh, dolo, Cruspad less of, less show, 15, dus Chest who, fresh, dolo, Cruspad bright Spothy floor, 15% bright Spothy floor, 15%	V1550, 9.20H, 6# Lay
			V10LA 120(-2146)	50	Sh. green, red-gra , gry 15, from med & h., dus Chert, who orange , fresh Chert, who orange , fresh Sh. green, red-gra , gry 15, Cru, med & h., dus Chert, who orange , fresh Scat Str., sto on break whole, white In Xth, us clop, Crus, fu Xlu, gri wer xlug even Sat, sto, gil odor Chert, who fresh , fresh of Scat dob, in Xlu, less of show gd odor Phirt who, fresh, dolo, Cruspad less of boss show, 15, dus bright Spothy floor, 15% bright Spothy floor, 15%	V1550, 9.2 uH, 6# Lay

	1 35				Chort who Exects	the constant attack
-	328				chevt, who fresh - clobe, fuxla, bright floor	V1551, 9.1 WH, 7# LCW
	200			<b>]</b>	because less	
	区公			-	15, com, dus	
	393	1 H		1		
	瑟			1	Chert, Smokey bray, white fresh, bright fluor along frac	
	XX			-	7753	
	200			1	Wastly Chert, with, Smoking gry	
*	7.57			1	Sion, gest dolo	
٠	<del>从</del>			1	- 1 9/2 L (MS10)	
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	44	▍▐▔		50.	Chest, Wh. Susker gry, fresh	
	714			1		
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	PA			1		
		r iii	<u> </u>	1	dolo Is com, Havy, In XIn	1. 10 02.11 2410
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	Carlos comme		SIMPSON SI	r Le	foss, there, who ary fresh	
23	strant data		4278 1-23	74)	Sh. 61K, rieen, red	
	Approve ton districtions			1		
	State Contract Contra				Inc in Gh, green, waxy	
	, <u> </u>				Sh. gry, grn, to st, gry	
	dimension of the			1200	Cray, Su-wed ary compact	
	f access and			7300	Clear, fu wed gru, compact w/ dolo sst, fight, Chest wh, any	
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			<del>\$                                      </del>	]	A-A-,56 INC 55+	
,ä.				1	traut blk shale	
1	Continue Conto		<del>\$                                      </del>		<u>.</u>	
	101			1	dolo, it gry, com fu xtin	
	3/8		ARBUCKLE		dus, their who fresh	Nels 0 1228 0 7141
	169				dolo, tau, cou, fu xly, suc	D14 @ 4328 @ 7AM 9/14/14
-	10/	世缘	<u> </u>		pr interxing, Chert, Gesh	1/14/14
· .	120			_f :	Edw. dolo. Sti An whose of	
	-4			]		
	101					
					dolo, gry in xlu, gd wterxlu	
	1/2			50		
				50	dolo, gry in xlu, gd wterxlu	
	1/2			50	dolo, gry, fu Xlu, gd ruserxlu B, sluggy & in >+ Chent, who wash	Andy's Mud
	1/2			<b>50</b>	dolo, gry, fuxlu, gd wterklu Chent, who, frosh dolo, Cru, It gry, fuxlu	Andy's Mud V VIS 53, 9.5 Wt BWL
	1/2			<b>50</b>	dolo, gry, fu xlu, gd ruterxlu  B, singer, & in >t  Chent, who tresh  dolo, Cruz, It gry, fu xh  Sue in pt, pr-tr interxhis	Andris Mud V VIS 53, 9.5 wt, 8 W.L. Ch. 5000 0011. 5#1 Cul
	1/2			50	dolo, gry, fuxlu, gd wterklu Chent, who, frosh dolo, Cru, It gry, fuxlu	Andris Mud V Vis 53, 9,5 wt, 8 W.L. Chl 5000 ppu, 5#LCM
	1/2			50	dolo, gry, fu xlu, gd ruterxlu  B, ivssy & m >t  Chent, who wash  dolo, Cruz, It gry, fu xh  Sue in pt profer interxluse  Slinol w/ooce	Andris Mud V Vis 53, 9.5 wt, 8 W.L. Chil 5000 ppm, 5#LCM
	1/2			50	dolo, gry, fu Xlu, gd wterxlu  B, ivse, & in Pt  Chent, who, trosh  dolo, Crue, It gry, fu Xlu  Sie in pt, pr-hr werxho io  Sie tol w/ooce  dolo, Crue, It gry, fu Xlu	Andris Mud V Vis 53, 9.5 wt, 8 W.L. Chl 5000 ppm, 5#LCM
	1/2			50	dolo, gry, fu Xlu, gd wterxtu  Chent, who trosh  dolo, Cran, It gry, fu Xh  Sue in pt pr-fr interxhis  Sli tol w/ooc &  dolo, Crun, It gry, fu Xh  Sue in pt, Scat Juggy &	VIS 53, 9.5 Wt, BW.L. Chl 5000 ppu, 5#LCM
	1/2			50	dolo, gry, fu Xlu, gd wterxlu  B, ivse, & in Pt  Chent, who, trosh  dolo, Crue, It gry, fu Xlu  Sie in pt, pr-hr werxho io  Sie tol w/ooce  dolo, Crue, It gry, fu Xlu	VIS 53, 9.5 Wt, 8 W.L. Chl 5000 ppu, 5#LCY
	1/2			50	dolo, gry, fu Xlu, gd wterxtu  Chent, who trosh  dolo, Cran, It gry, fu Xh  Sue in pt pr-fr interxhis  Sli tol w/ooc &  dolo, Crun, It gry, fu Xh  Sue in pt, Scat Juggy &	VIS 53, 9.5 Wt, 8 W.L. Chl 5000 ppu, 5#LCY
	1/2			50	dolo, gry, fu Xlu, gd wterxtu  Chent, who trosh  dolo, Cran, It gry, fu Xh  Sue in pt pr-fr interxhis  Sli tol w/ooc &  dolo, Crun, It gry, fu Xh  Sue in pt, Scat Juggy &	VIS 53, 9.5 wt, 8 W.L. Chl 5000 ppm, 5#LCM Chl 5000 ppm, 5#LCM Peached TD @ 10 Am 5/14/14
	1/2			50	dolo, gry, fu Xlu, gd wterxlu  B, ivsey, & in Pt  Chent, who, trosh  dolo, Cran, It gry, fu Xlu  Sue in pt pr-fr inder xhr is  Si tol w/ooce  dolo, Crun, It gry, fu Xlu  Gue in pt, Scat Juga y d  PPP, pv-fr inder Xlu  g	Reached TD @ IDAM 20 Stand Short trip
	1/2			50	dolo, gry, fu Xlu, gd wterxlu  B, ivsey, & in Pt  Chent, who, trosh  dolo, Cran, It gry, fu Xlu  Sue in pt pr-fr inder xhr is  Si tol w/ooce  dolo, Crun, It gry, fu Xlu  Gue in pt, Scat Juga y d  PPP, pv-fr inder Xlu  g	Reached TD @ IDAM 20 Stand Short trip
	1/2			50	dolo, gry, fu Xlu, gd wterxlu  B, ivsey, & in Pt  Chent, who, trosh  dolo, Cran, It gry, fu Xlu  Sue in pt pr-fr inder xhr is  Si tol w/ooce  dolo, Crun, It gry, fu Xlu  Gue in pt, Scat Juga y d  PPP, pv-fr inder Xlu  g	Reached TD @ IDAM 20 Stand Short trip
	1/2			50	dolo, gry, fu Xlu, gd wterxlu  B, ivsey, & in Pt  Chent, who, trosh  dolo, Cran, It gry, fu Xlu  Sue in pt pr-fr inder xhr is  Si tol w/ooce  dolo, Crun, It gry, fu Xlu  Gue in pt, Scat Juga y d  PPP, pv-fr inder Xlu  g	Reached TD @ IDAM 20 Stand Short trip
	1/2			50	dolo, gry, fu Xlu, gd wterxlu  B, ivsey, & in Pt  Chent, who, trosh  dolo, Cran, It gry, fu Xlu  Sue in pt pr-fr inder xhr is  Si tol w/ooce  dolo, Crun, It gry, fu Xlu  Gue in pt, Scat Juga y d  PPP, pv-fr inder Xlu  g	Resched TD @ 10 Am  Play 14  20 Stand Short trip  Circ 90 min  Hole lost 20 bbl mud  while Circ-
	1/2			50	dolo, gry, fu Xlu, gd wterxlu  B, ivsey, & in Pt  Chent, who, trosh  dolo, Cran, It gry, fu Xlu  Sue in pt pr-fr inder xhr is  Si tol w/ooce  dolo, Crun, It gry, fu Xlu  Gue in pt, Scat Juga y d  PPP, pv-fr inder Xlu  g	Reached TD @ IDAM 20 Stand Short trip





API No.

Pioneer Energy Services

Company Knighton Oil Company Inc. Well Kachelman No. 4 Ground Level Kelly Bushing Kelly Bushing Albano West Stafford 330' FSL & 1350' FEI 9/14/2014 CNL / CDI 4390 4369 4390 3390 12 Ft. Above Perm. Datum Elevation 1962 Dual Compensated Porosity Log GDX LTB Other Services Elevation 1974

15-185-23,903-00-00

County

Field

Location

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.

Date Run Number

)epth Driller

ottom Logged Interval op Logged Interva pe Fluid In Hole

Log Measured From Drilling Measured From Permanent Datum

### Comments

Thank you for using Log-Tech, Inc. (785) 625-3858

Hwy. 281 & Hwy. 50 Junction, 5 South to 50th Rd., 9.5 West, North Into.

Database File: knighton\_oil\_kachelman\_4hd.db

Dataset Pathname: DIL/knigstck

Run No.

맑

From 21/8

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Size .625

23#

Casing Record From 8

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Borehole Record

Dave Montague

Fischer Hays

*N*itnessed By Recorded By -quipment

One

Wo

7.875

Operating Rig Time

Location

108

2.5 Hours

Max. Rec.

Temp.

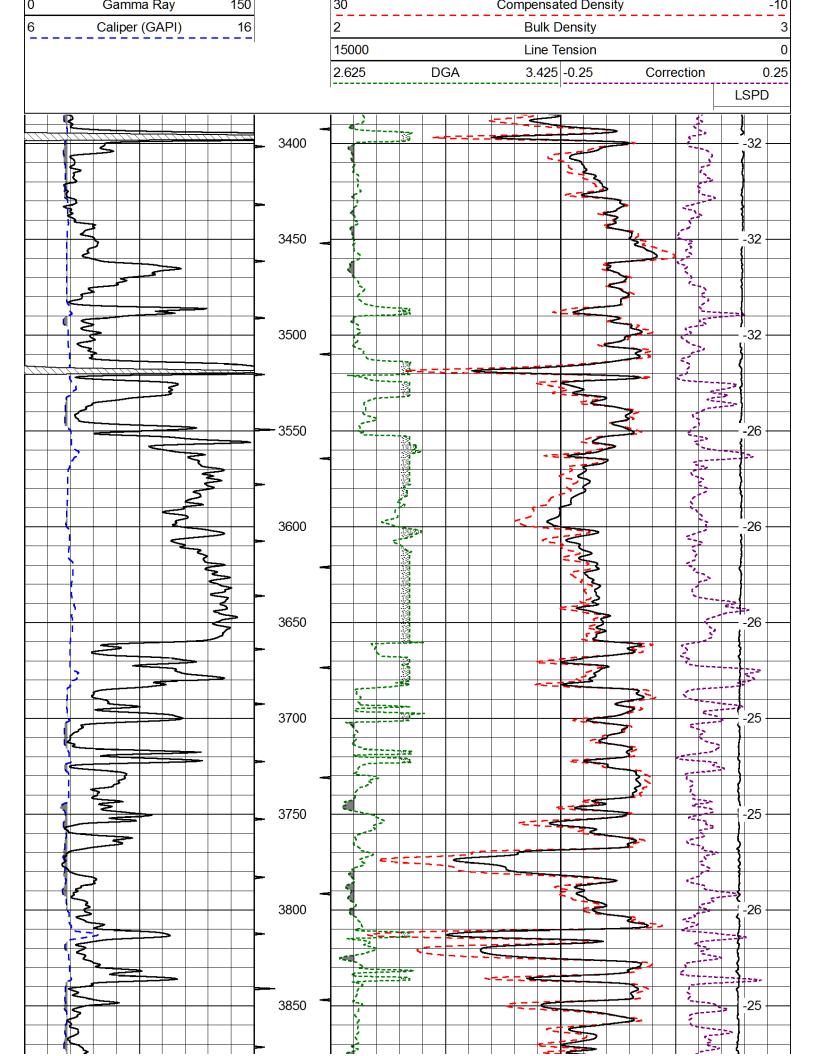
Level Density Salinity, PPM CI

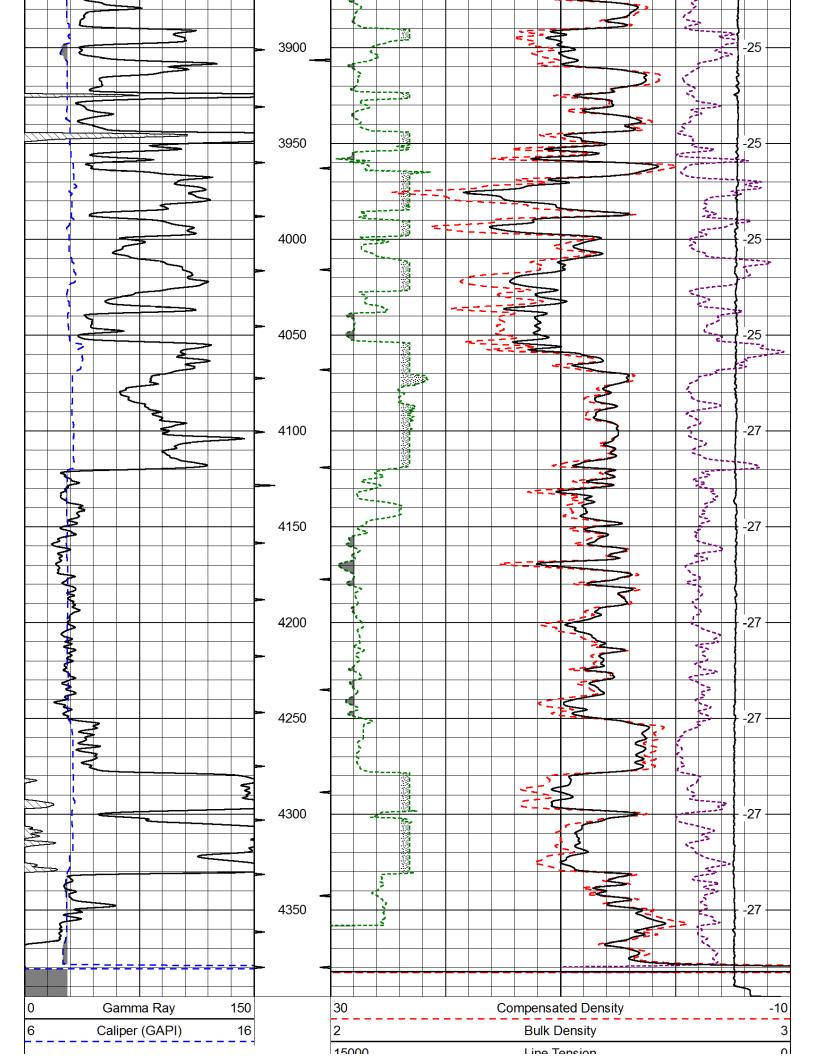
Chemica

5000 9.0 Full 120

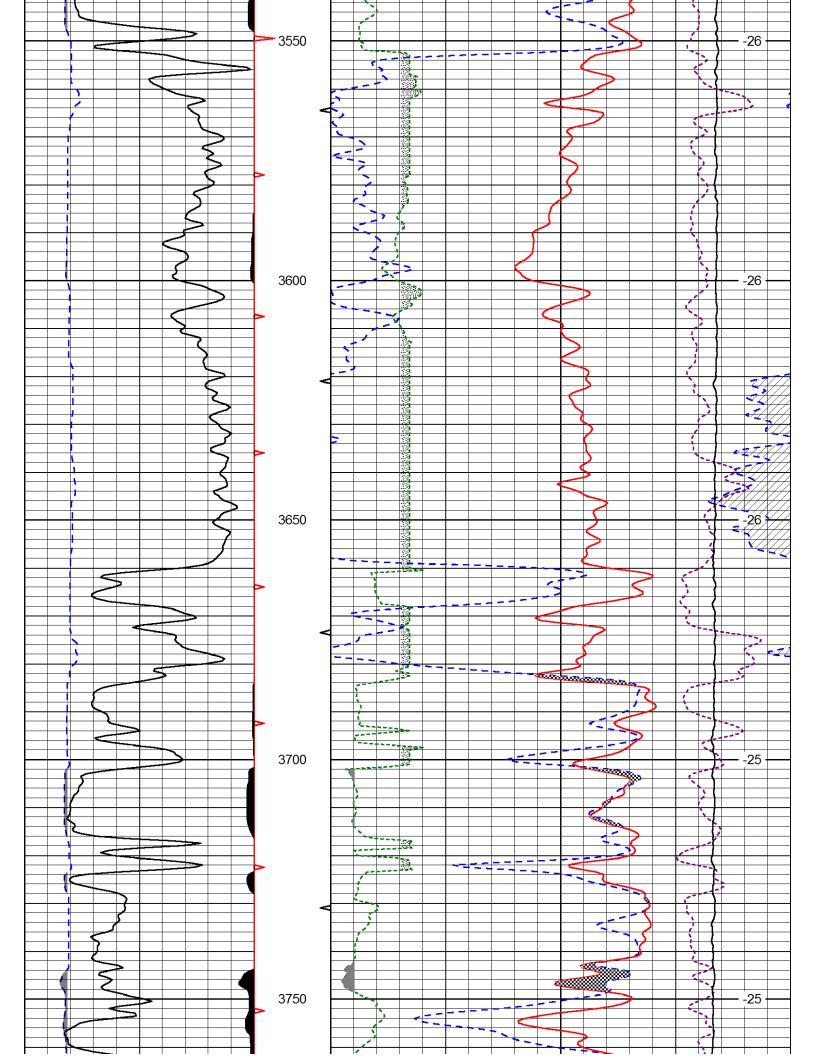
Presentation Format:

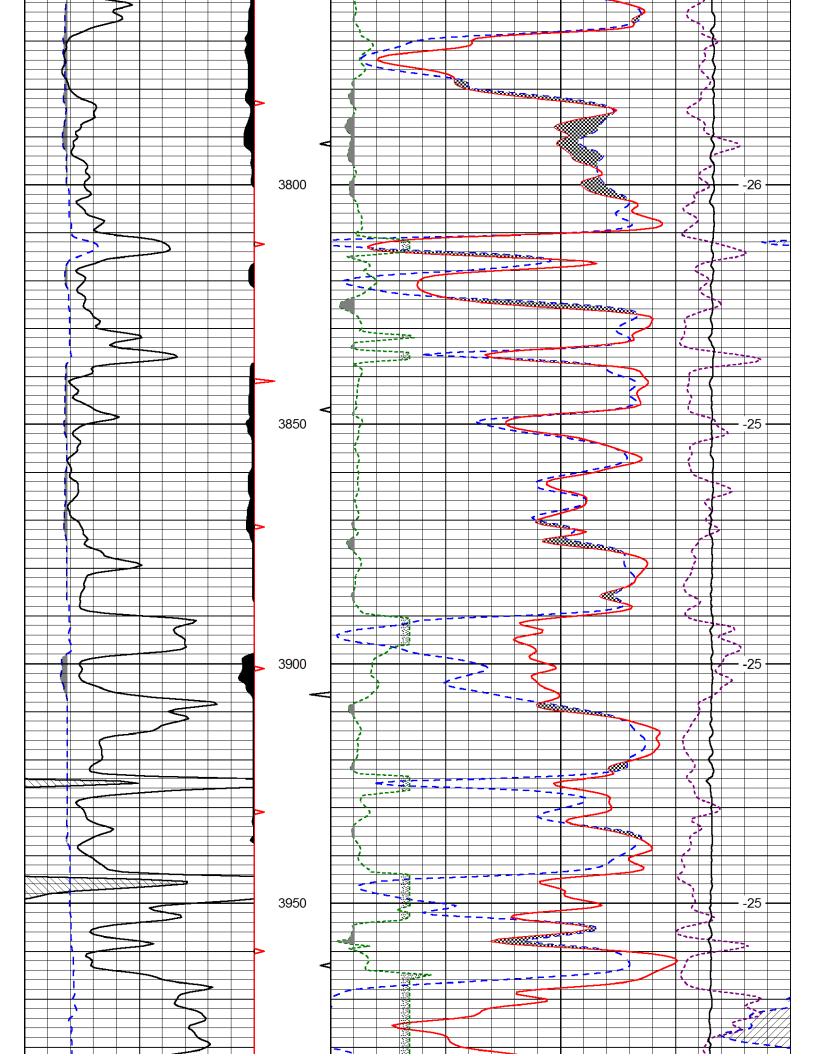
**Dataset Creation:** Sun Sep 14 17:45:36 2014 Charted by: Depth in Feet scaled 1:600

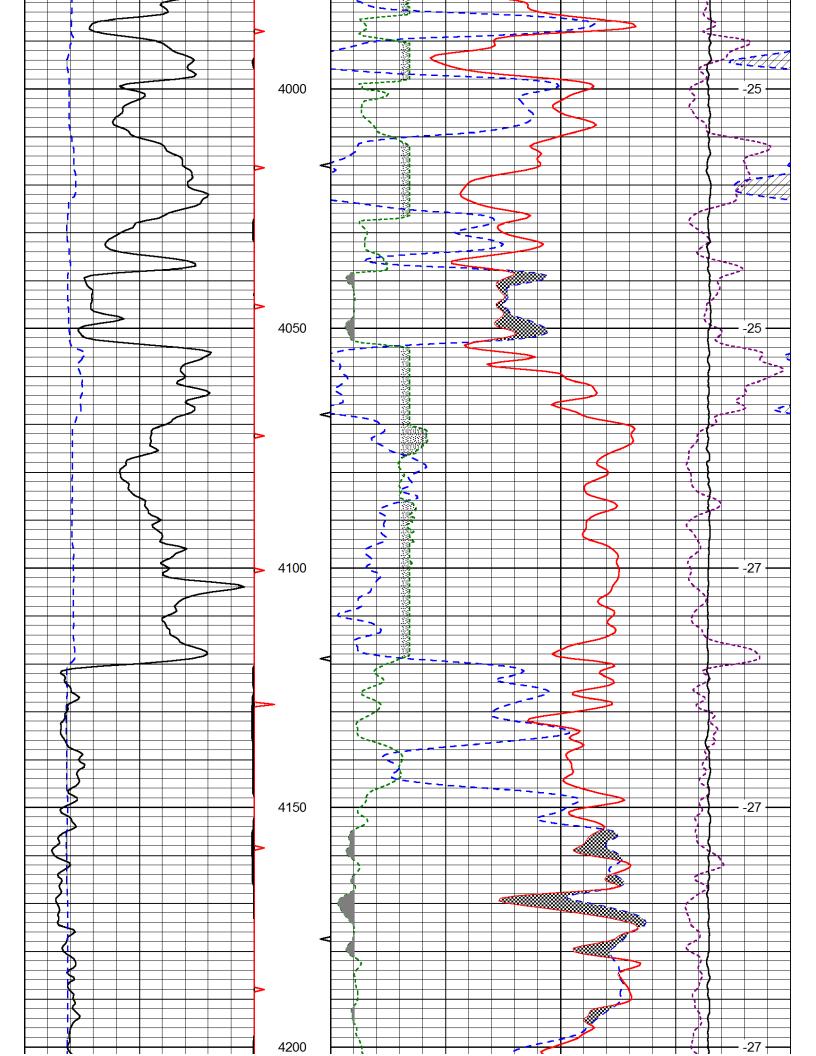


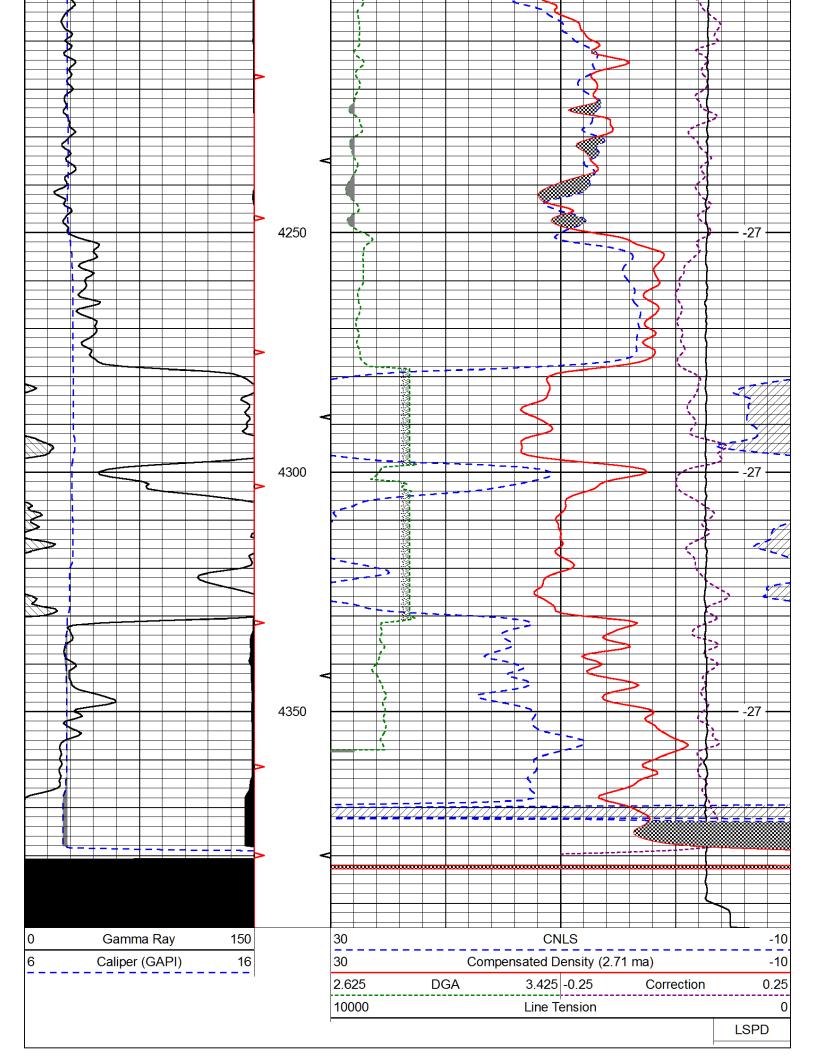


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		2.625	DGA		3	.425	-0.2	25	Co	orrect	ion		0.25
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Database File: knighton oil	_kachelman_	4hd db											
Dataset Pathname: DIL/knigstck		_ 1114.45											
Presentation Format: cndlspec													
Dataset Creation: Sun Sep 14	17:45:36 20	14											
Charted by: Depth in Fee	et scaled 1:24	40											
Gamma Ray 150	0	30				CN	ILS						-10
Caliper (GAPI) 10		30		Con	noncat			ity (2.71				. – – –	-10
Caliper (GAF1)	<u>-</u>												
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API No.

15-185-23,903-00-00

Pioneer Energy Services

Dual Induction Log

Log Measured From Drilling Measured From Permanent Datum Location Field County Company Knighton Oil Company Inc. Ground Level Kelly Bushing Kelly Bushing Albano West Kachelman No. 4 Stafford 330' FSL & 1350' FEI <u>4390</u> 12 Ft. Above Perm. Datum Elevation 1962 GDX LTB Other Services CNL/CDL Elevation 1974

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

Thank you for using Log-Tech, Inc. (785) 625-3858

Hwy. 281 & Hwy. 50 Junction, 5 South to 50th Rd., 9.5 West, North Into.

Database File: knighton\_oil\_kachelman\_4hd.db

DIL/knigstck Dataset Pathname:

Presentation Format: dil2in

Witnessed By Recorded By

Dave Montague

Hays

100

<<< Fold Here >>>

Fischer

quipment Number

ource of Rmf / Rmc

<u>@</u>

lemp

lemp Temp

.49 65

**@**(**@**)

Charts

@

Hours

<u>perating Rig Time</u>

Rec.

ensity / Viscosity

Fluid in Hole

Chemica

.875

5000

asing Driller

Log Interva

Interval

4389 250

@

ource of Sample

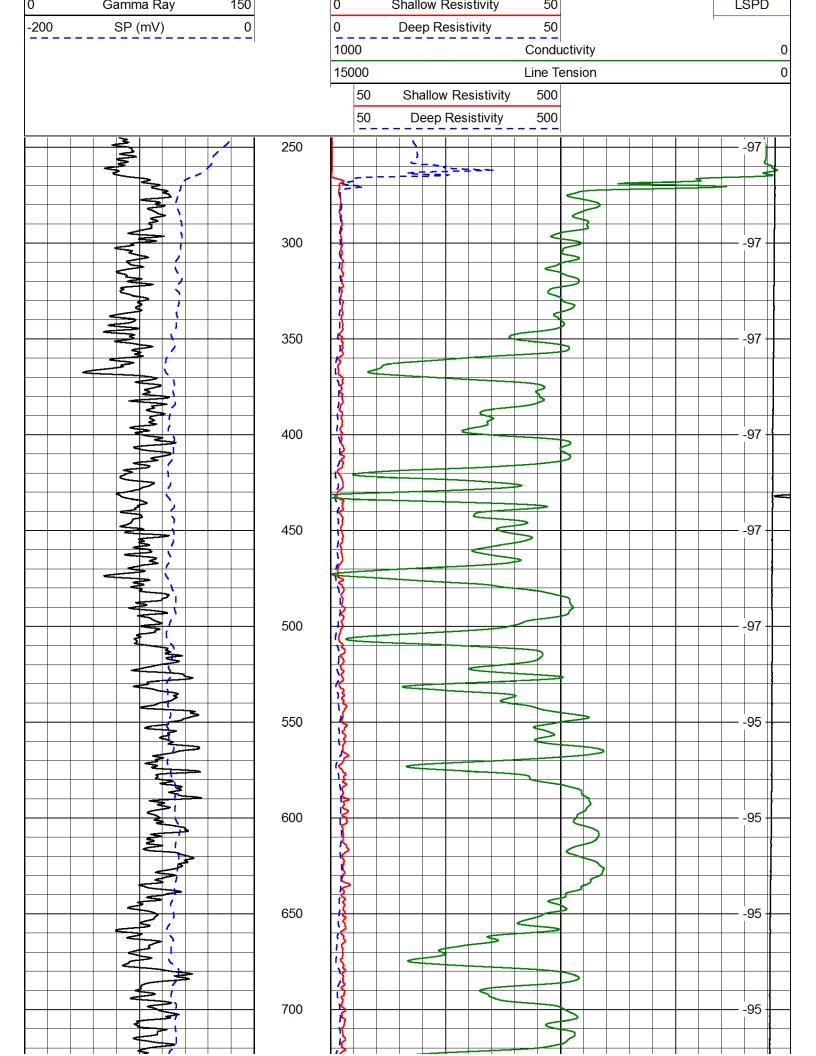
Flowline

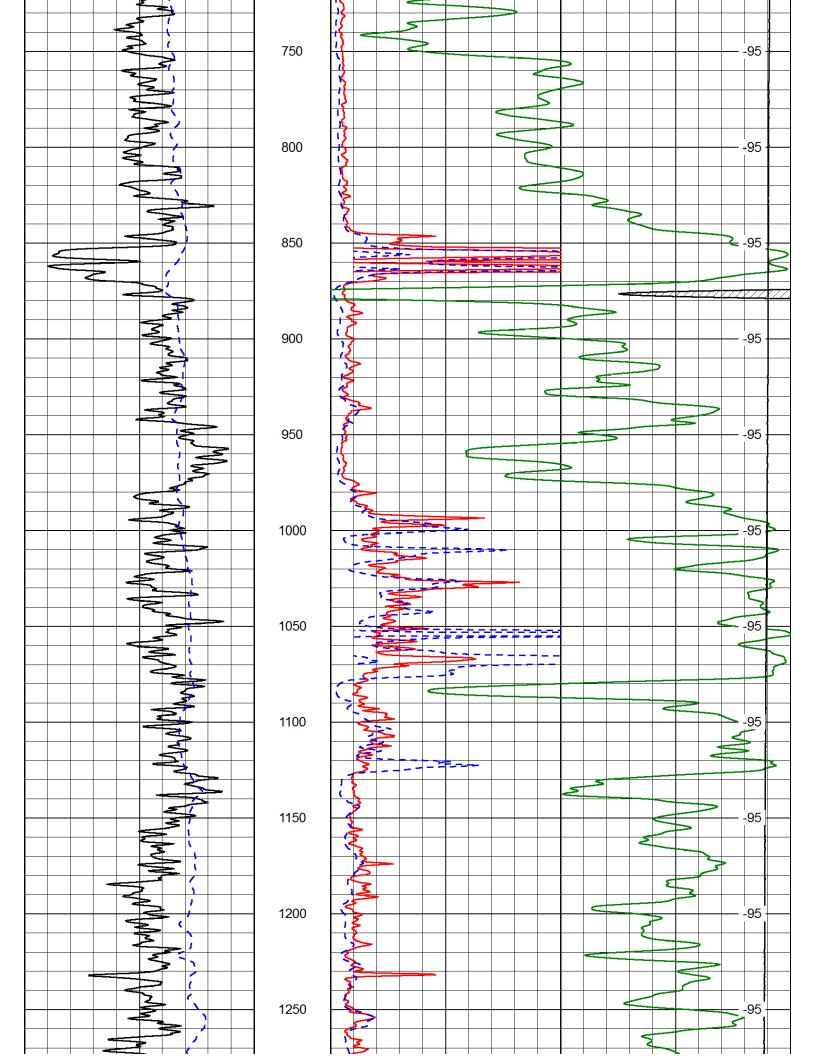
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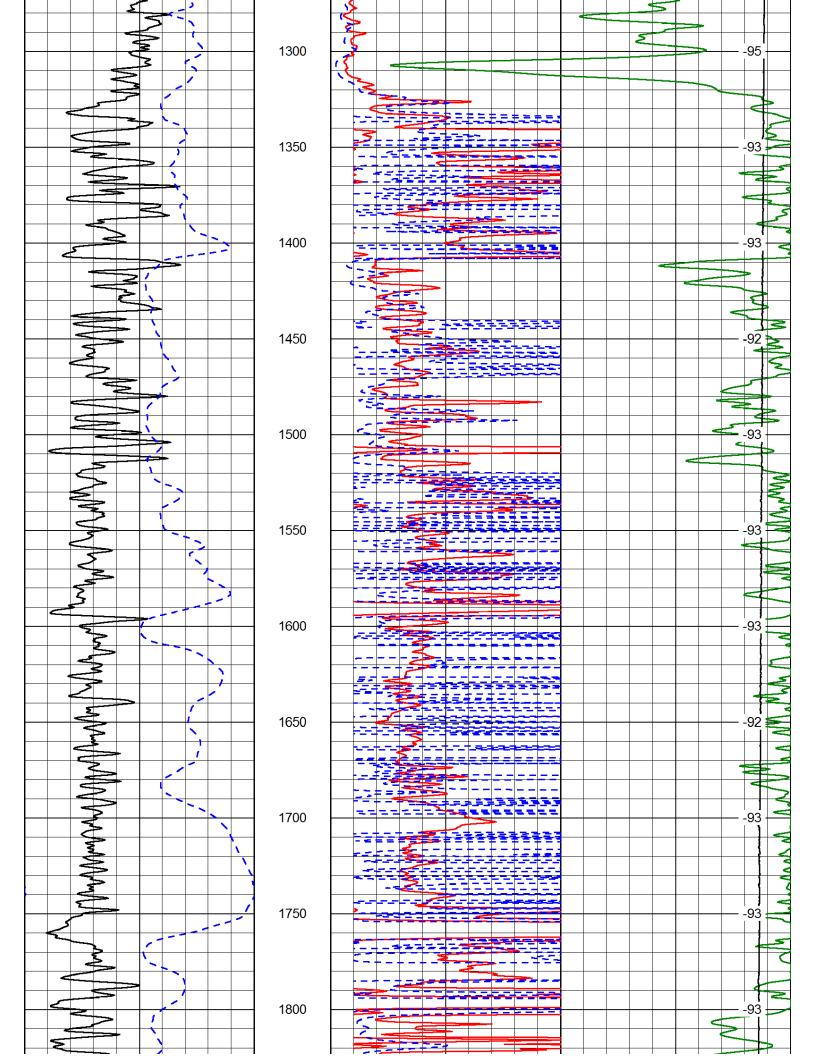
56

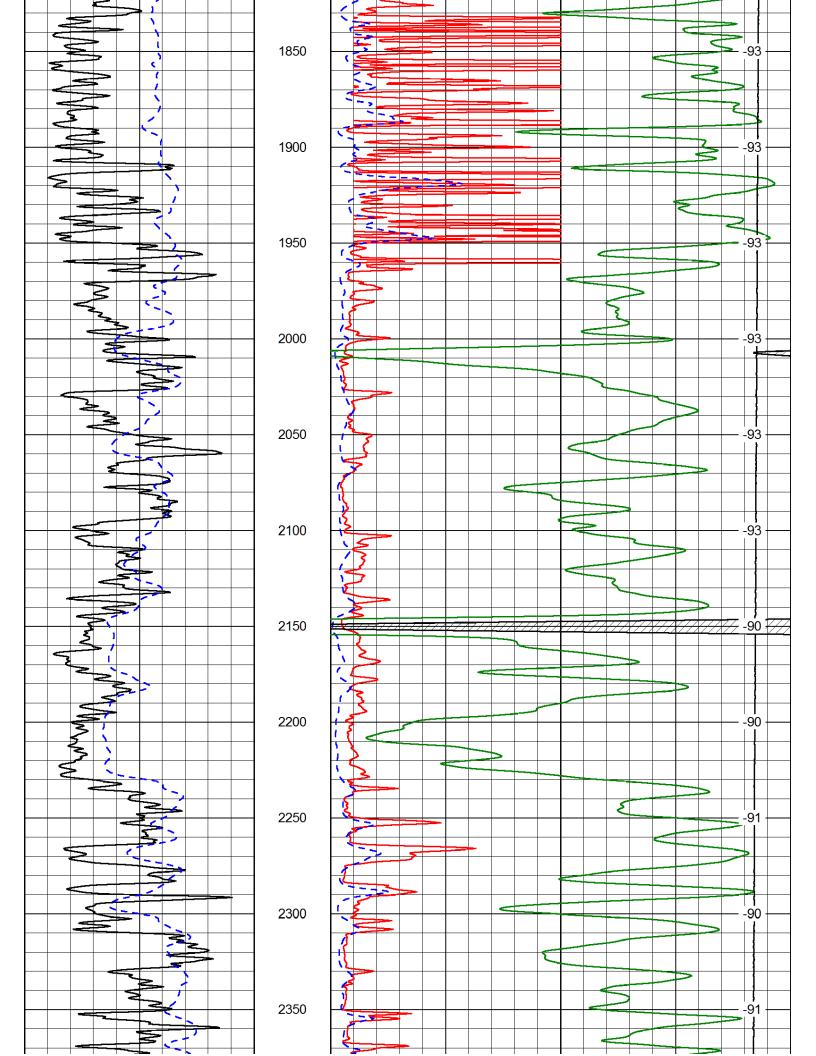
Fluid Loss

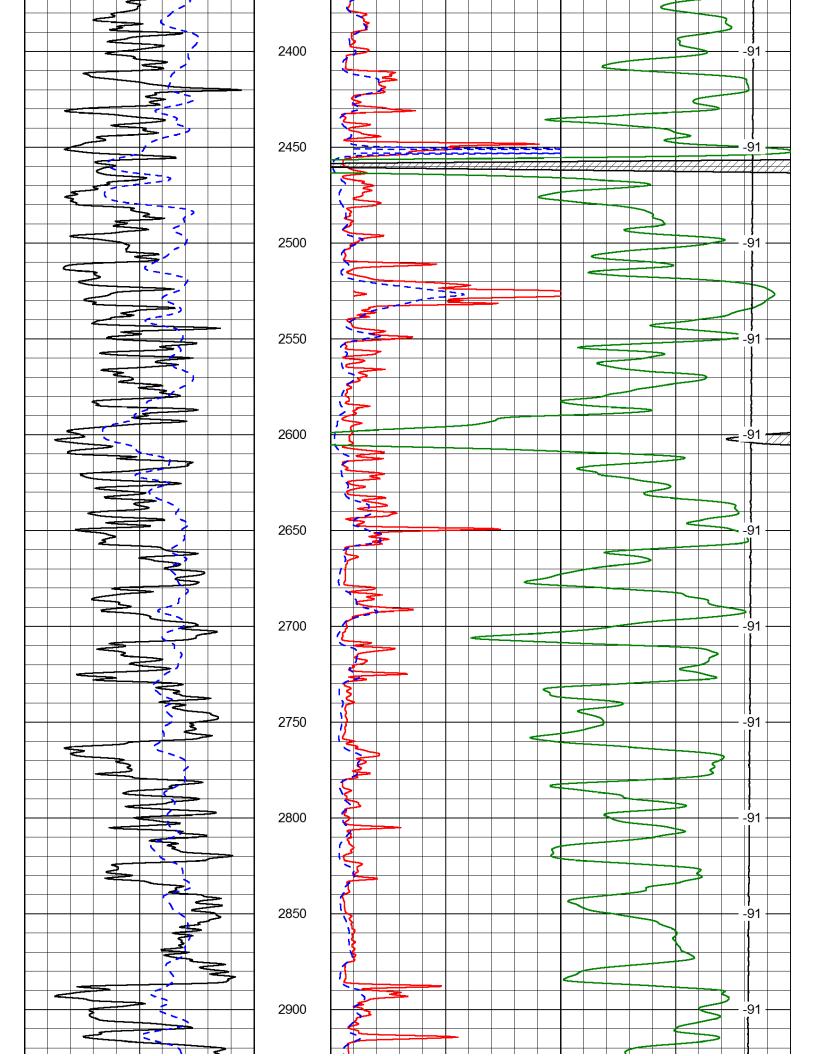
**Dataset Creation:** Sun Sep 14 17:45:36 2014 Charted by: Depth in Feet scaled 1:600

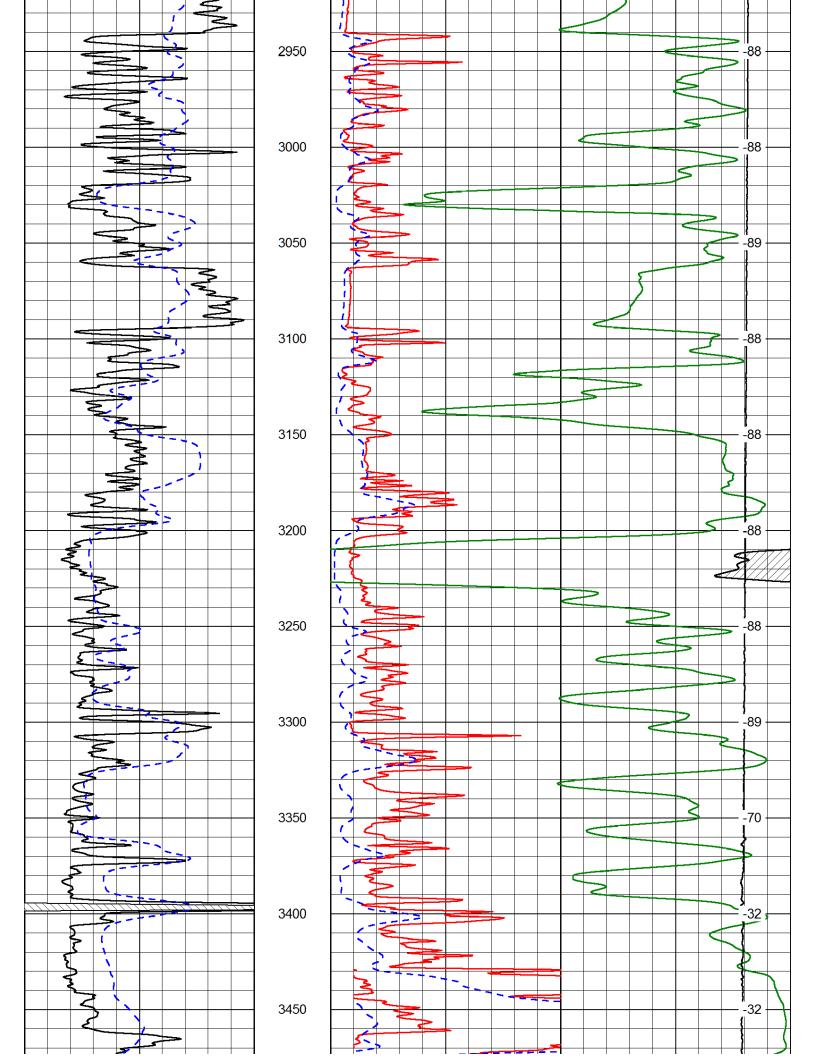


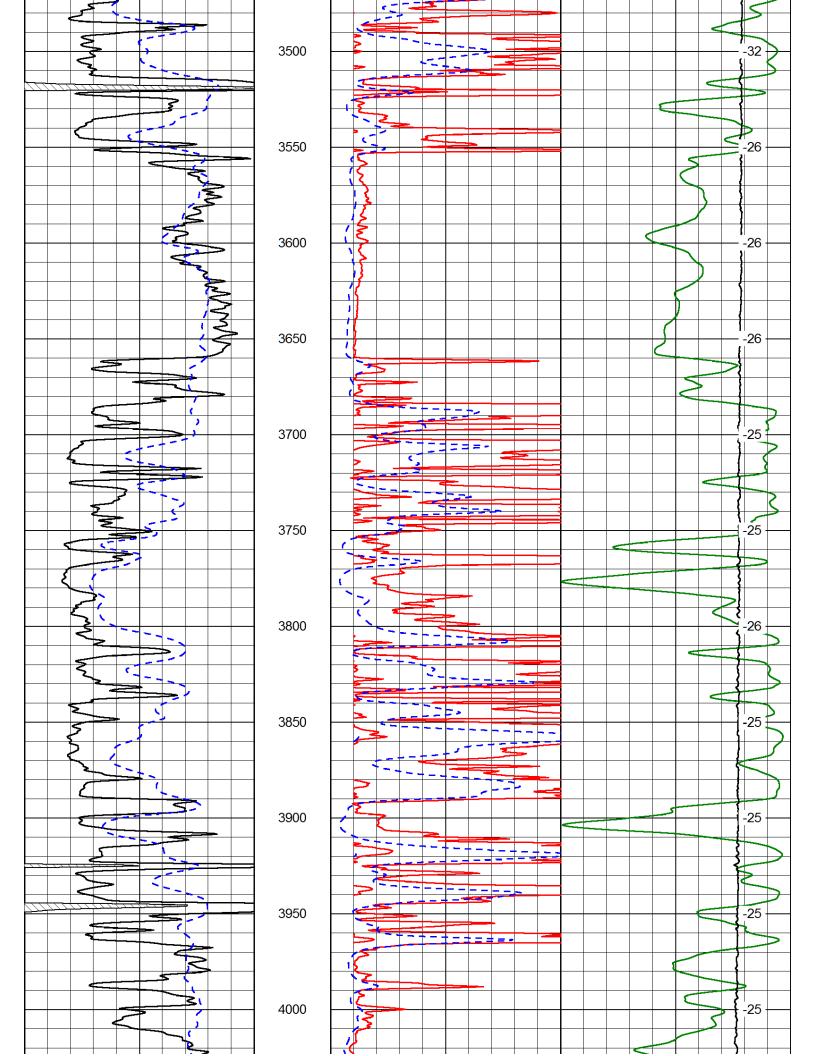


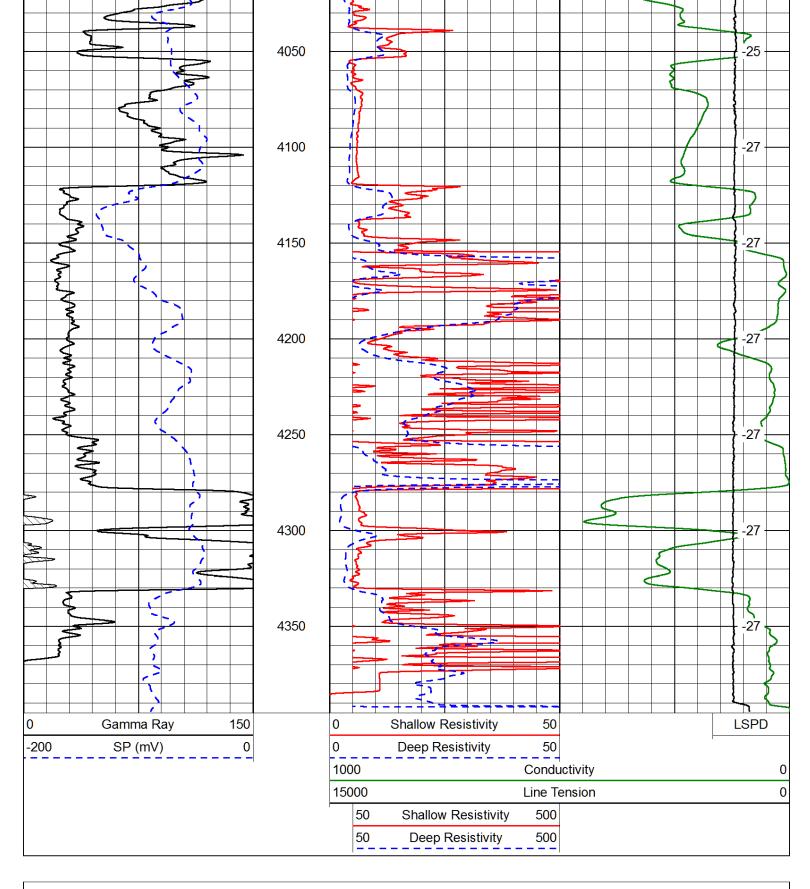












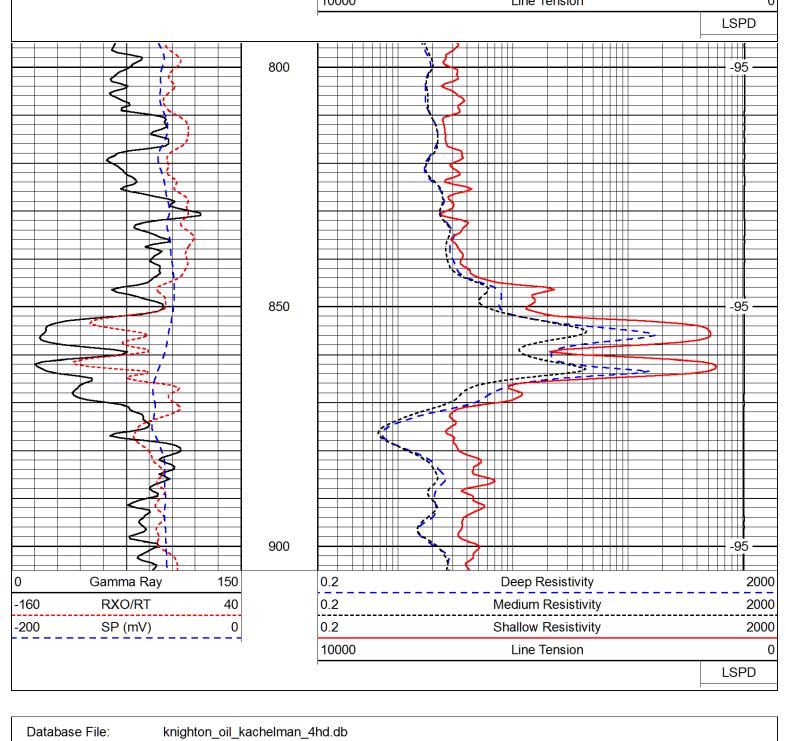
knighton\_oil\_kachelman\_4hd.db DIL/knigstck Database File:

Dataset Pathname:

Presentation Format: dil

**Dataset Creation:** Sun Sep 14 17:45:36 2014 Depth in Feet scaled 1:240 Charted by:

<b></b>			40000	1: ± :	0
-200	SP (mV)	0	0.2	Shallow Resistivity	2000
-160	RXO/RT	40	0.2	Medium Resistivity	2000
0	Gamma Ray	150	0.2	Deep Resistivity	2000

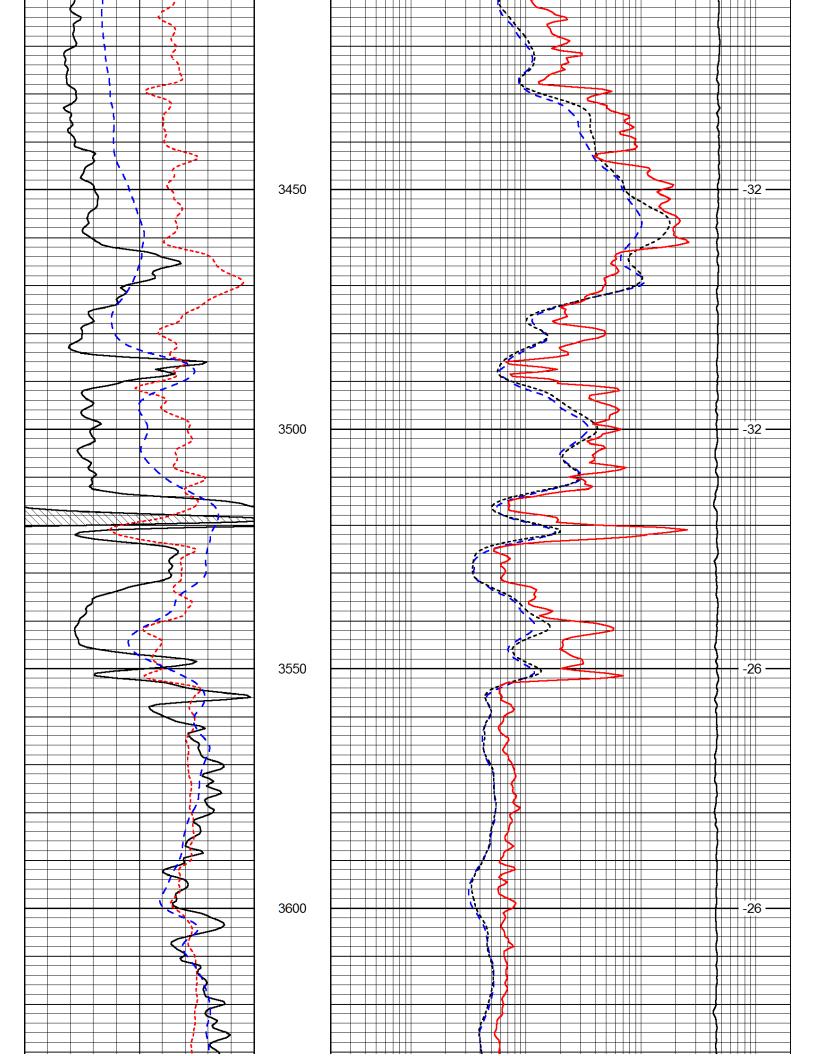


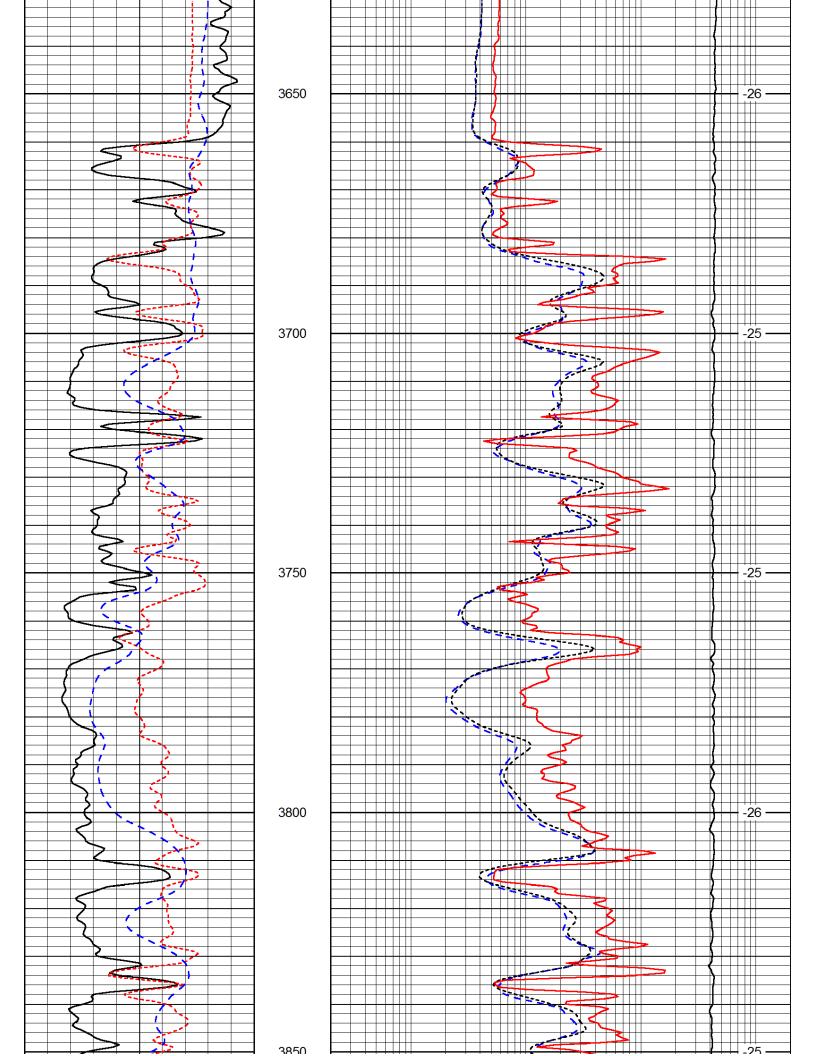
Dataset Pathname: DIL/knigstck

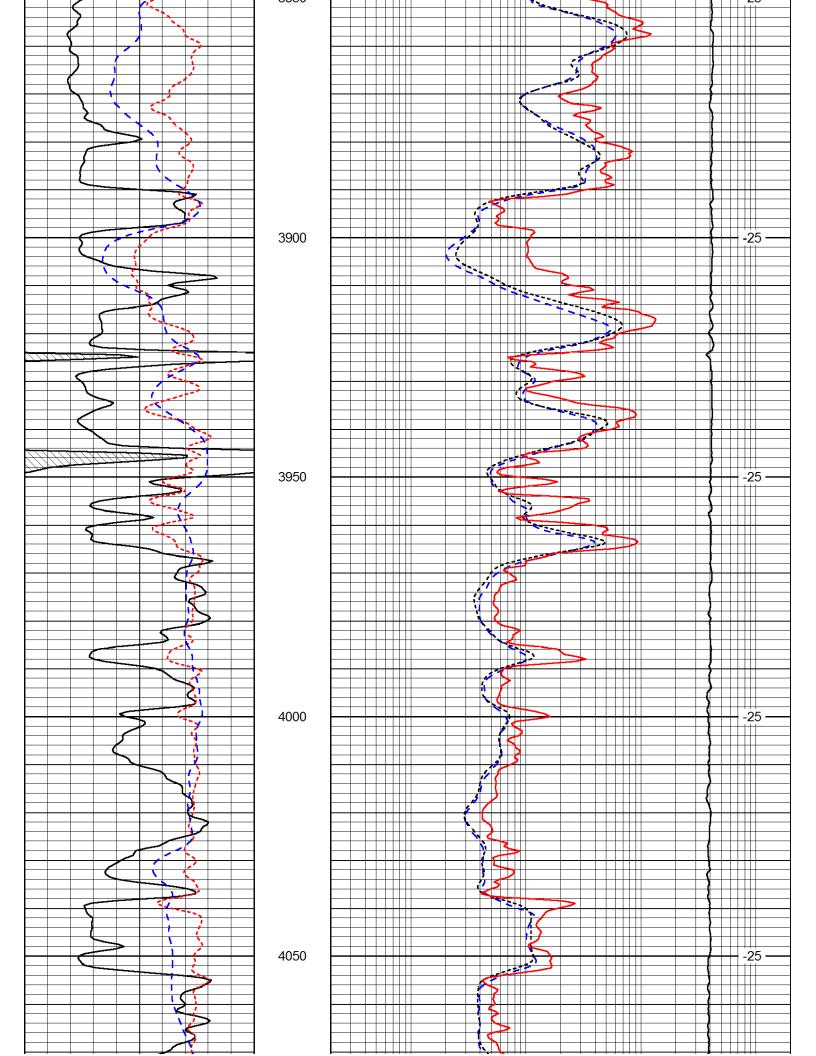
Presentation Format: dil

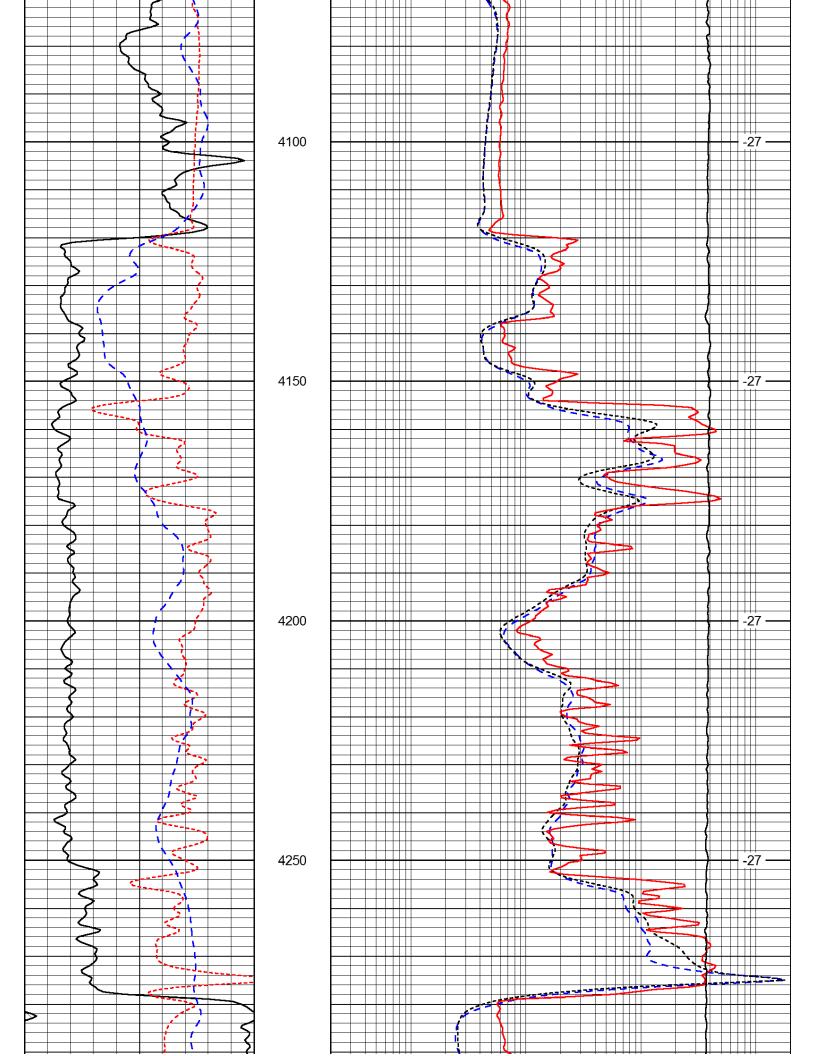
Dataset Creation: Sun Sep 14 17:45:36 2014 Charted by: Depth in Feet scaled 1:240

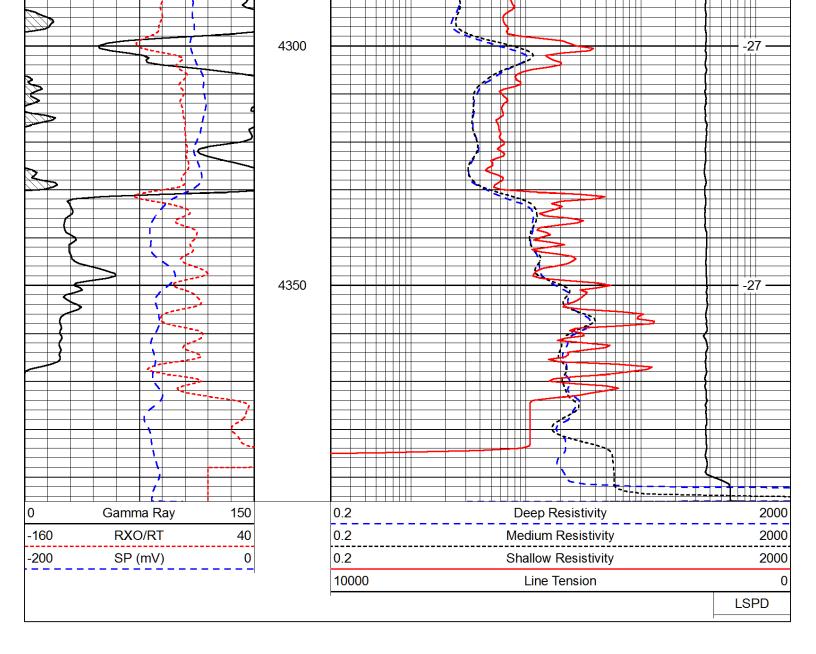
0	Gamma Ray	150		0.2	Deep Resistivity	2000		
-160	RXO/RT	40		0.2	Medium Resistivity	2000		
-200	SP (mV)	0		0.2	Shallow Resistivity	2000		
				10000	Line Tension	0		
						LSPD		
			3400			-32		













PAGE	CUST NO	YARD #	INVOICE DATE					
1 of 1	1006184	1718	09/15/2014					
TANYOTCE NUMBER								

TNAOTCE NOWREK 91594557

Pratt

(620) 672-1201

B KNIGHTON OIL COMPANY INC

1 1700 N WATERFRONT PKY, BLDG 100

L WICHITA

KS US

67206

o ATTN:

KNIGHTON

LEASE NAME

Kachelman

LOCATION

COUNTY

Stafford

KS

STATE

JOB DESCRIPTION

Cement-New Well Casing/Pi

JOB CONTACT

јов #	EQUIPMENT #	PURCHASE	ORDER NO.		TERMS	DUE DATE
40765051	20920				Net - 30 days	10/15/2014
			QTY	U of M	UNIT PRICE	INVOICE AMOUN
or Service Dates	: 09/09/2014 to 09	9/09/2014		***		
		• • - • •			,	
040765051						
						·
	nt-New Well Casing/Pi C	9/09/2014			,	
Cement 8 5/8" Surfa	ice		•			
60/40 POZ	- 15 · · · · · · · · · · · · · · · · · ·		300.00	EA	9.24	2,771.6
Celloflake	ree er ree in		69.00		2.85	
Calcium Chloride	0.5.1011111		774.00		0.81	
"Wooden Cmt Plug, "Unit Mileage Chg (F			1.00 25.00		123.18 3.27	
Heavy Equipment Mi	•		50.00		5.39	
	I. Chgs., per ton mil		323.00		1.69	
Depth Charge; 0-500			1.00		769.89	
Blending & Mixing S	=		300.00		1,08	
Plug Container Util. ( "Service Supervisor,			1.00 1.00		192.47 134.73	1
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	•				,	
	: •					
	÷					
1 3 3	•					
i i	• • ;					
1					÷	1.5
Committee of the Commit						

PLEASE REMIT TO:

SEND OTHER CORRESPONDENCE TO:

BASIC ENERGY SERVICES, LP BASIC ENERGY SERVICES, LP

PO BOX 841903 DALLAS, TX 75284-1903

801 CHERRY ST, STE 2100 FORT WORTH, TX 76102

SUB TOTAL

6,035.84

TAX

256.96

INVOICE TOTAL

6,292.80



DISTRICT PraTT

DATE OF JOB

10244 NE Hwy. 61 P.O. Box 8613 Pratt, Kansas 67124 Phone 620-672-1201

# FIELD SERVICE TICKET

11-25-14

1718 **11136** A DATE TICKET NO. OLD PROD INJ WDW CUSTOMER ORDER NO.: WELL NO. STATE/SS TOR LONGSTring TRUCK CALLED TIME ARRIVED AT JOB 9-15-14 START OPERATION

CUSTOMER Knighton Inc. LEASE Kachelman COUNTY STAFFORT **ADDRESS** SERVICE CREW JOSH Hanson Agron 6 ibson CITY STATE **AUTHORIZED BY** JOB TYPE: CNW **EQUIPMENT#** HRS **EQUIPMENT#** HRS **EQUIPMENT#** 45 m/n 19826 -19905 70959 -19918 45 Min FINISH OPERATION RELEASED 800 MILES FROM STATION TO WELL CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered). The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP. (WELL OWNER, OPERATOR, CONTRACTOR OR AGENT) ITEM/PRICE REF. NO. MATERIAL, EQUIPMENT AND SERVICES USED UNIT QUANTITY **UNIT PRICE** \$ AMOUNT AA2 CEMENT 260 4.420 00 cement 850 00 232 00 1408 704 b 00 cement friction Reducer 16 522 129 144 1.080 1,020 41 Latch DOWN PLUG AUTO FILL Shoe 60 400 360 00 770 29 750 Mi 25 mi 3.50 00 TM 35 520 31D 434 ÍVB 250

	CHEMICAL / ACI	D DATA:		SU	B TOTAL 12, 3	337 6
			SERVICE & EQUIPMENT	%TAX ON \$		
			MATERIALS	%TAX ON \$		
					TOTAL	
				_		
•				1	•	·

REPRESENTATIVE

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE OF DER NO



### TREATMENT REPORT

Custome   Sach   et man   Final   From   To   Final   From   To   Final   From   From   To   Final   Fro			ervic									340000000000000000000000000000000000000		
Casing   Find   First   From   From   To   Find   From   Flush   Gas Volume   Total Load      Customer Representative   Station Manager   Fee   From   Flush   From   Fr	Customer	nighton	Oil CO	. Inc. L	ease No.							11,		
Field Pipes   Station PraTT   Casing 5//2   Depth 4340   County 57affor   State K 5 Type Job C NW LONG 57 n/Mg   Formation   Logal Observation   I - 25 - 1/2  PIPE DATA   PERFORATING DATA   FLUID USED   TREATMENT RESUME  Rate   PRESS   SIP  Depth 4340   Depth   From   To   Pro Pad   Max   S. Min.  Volume   In 2   Volume   From   To   Pro Pad   Min   In Min.  Max Pross   Max Press   From   To   Frac   Avg   Is Min.  Well Connection   Annulus Vol.   From   To   Flush   Gas Volume   Total Load    Custome Representative   Station Manager   Fev/n   Teeter   The    Service Unite   974   From   To   Flush   Gas Volume   Total Load    Custome Representative   Station Manager   Fev/n   Teeter   The    Service Unite   974   From   To   Flush   Gas Volume   Total Load    Custome Representative   Station Manager   Fev/n   Teeter   The    Service Unite   974   From   To   Flush   Gas Volume   Total Load    Custome Representative   Station Manager   Fev/n   Teeter   The    Service Unite   975   70559   19917   Agryn    Names   Tulking   Total Load   Teeter   The    Service Unite   975   From   To   Flush   Gas Volume   Teeter   The    Service Unite   975   Total Load    Service		ich al u	nan	٧	Vell# L	1					-			
Type Job C N Long S 7 ring  PIPE DATA  PERFORATING DATA  PERFORATING DATA  FLUID USED  TREATMENT RESUME  RATE PRESS ISIP  RATE PRESS ISIP  Depth 1349 Depth From To Pro Pad Max  Volume In John To Pro Pad Max  Prom To Pro Pad Max  P	Field Order	Station	n 🛆				Casing 6	1/2 Dept	h 4390	Count	y 57	affor	d	State 5
Tubing Size   Shots/Ft   Acid   RATE   PRESS   ISIP	Type Job	cnw		Tring				Formation	n			Legal D	escription	11-25-14
Depth 4390 Depth From To Pro Pad Max 5 Min.  Volume 102 Volume From To Pad Min 10 Min.  Max Press Max Press From To Frac Avg 15 Min.  Well Connection Annulus Vol. From To Frac Avg 15 Min.  Well Connection Annulus Vol. From To Flush Gas Volume Gas Volume Total Load  Customer Representative Station Manager Kevin Treater The C  Service Units 1982 1995 70959 19919 88943  Divor Jish Name Time Pressure Bibls. Pumped Rate Service Log  O115 Bibls. Pumped Bibls. Pumped Rate Service Log  O115 Bibls. Pumped Bibls. Pumped Rate Service Log  O116 Sign Pressure Bibls. Pumped Bibls. Pumped Rate Service Log  O117 Bibling Time Pressure Bibls. Pumped Bibls. Pumped Rate Service Log  O118 Sign Pressure Bibls. Pumped Bibls. Pump		E DATA	PERF	FORATING	DATA		FLUID (	JSED		-	TREA	TMENT	RESUM	<b>IE</b>
Volume   1/2   Volume   From   To   Pad   Min   10 Min   10 Min   Max Press   Max Press   From   To   Frac   Avg   15 Min				Ac	id			RATE	PRE	SS	ISIP			
Max Press			From	То		Pre	Pad	**********************	Мах				5 Min.	
Well Connection   Annulus Vol.   From   To   From   To   Flush   Gas Volume   Total Load				То	·				Min				10 Min.	
Plug   Pather   Prom   To   Flush   Gas Volume   Total Load			From	То	···	Fra	ac						ļ	***************************************
Customer Representative   Station Manager KeV/N   Treater TPE		<u> </u>	From	То										
Service Units   1982	7//		epth From	То					Gas Volur	ennigia de la	anderitioner mann	daneminateminikejaisjakjainik	Total Lo	oad
Driver   T/Sh			Y	<i>/</i>	1		ager Kev			Trea	iter J	700		
Names		19826	19905/	70959	19918									
Pressure   Pressure   Bbls. Pumped   Rate   Service Log		5051		Aqi	Vn_			JOE						
Run 103 Tts of 51/2 Csg & 153#	Time			Bbls. Pum	ped		Rate				Servi	ice Log		
Tuibos on 3-5-7-9-11-15-15     0300	<u>0115</u>						····	On LOC	15050	271	me	POT in	25	
Tuibos on 3-5-7-9-11-13-15     0300	***************************************							Run I	<u>03 TTS</u>	0 F	5/2	C59	0 15	<i></i>
Tuibos on 3-5-7-9-11-15-15     0300							·	Bas/se	7 on 7	OP.	<u>05</u>	AUTOS	FILL SU	noe
SS on BOTTOM   CITE WITH BIY   DO 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A2 (//							Turbos	on 3	<u>-5-</u>	7-9	לויווי	5-15	
SSS ON BOTTOM   CITE WITH BIG   NOOK UP TO PUMP TBK STAIT JOB   NUMBER STAIT JOB   NUMBER STAIT JOB   NUMBER STAIT HOU DISP   NUMBER STAIT HOU DISP   NOOK UP SHOW STAIT HOU DISP   NOOK UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DISP   NOOK UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLuy BH ! MH   NO KNOW UP STAIT HOU DOWN   PLUY BH ! MH   NO KNOW UP STAIT HOU DOWN   PLUY BH ! MH   NO KNOW UP STAIT HOU DOWN   PLUY BH ! MH   NO KNOW UP STAIT HOU DOWN   PLUY BH ! MH   NO KNOW UP STAIT HOU DOWN   PLUY BH ! MH   NO KNOW UP STAIT HOU DOWN   PLUY BH ! MH   NO KNOW UP STAIT HOU DOWN   PLUY BH ! MH   NO KNOW UP STAIT HOU DOWN   PLUY BH ! MH   NO KNOW UP STAIT HOU DOWN   PLUY BH ! MH   PLUY BH ! MH	0200									ing	250	5		
12   Multiple   12   Multiple   13.00   63   5   Mill stace   14.00   15.00	0020						,	1/			<u> </u>	re W		ly
12   mud flush   5   Had sfacer   200   63   5   m/x 200 260 sK of AA2 cement Q 15.35   6   Shut Down Clear Pump 1 Lines   150   6   Belease Plug Start Had Disp.   400   65   6   List PSF   400   92   400   Stow Bate   0700   1500   102   & Plug Down   Plug Down   Plug BH 1 MH	0000							<del>, , , , , , , , , , , , , , , , , , , </del>	_	<u>um</u>	0 7/7	1K 57	917 J	DB
5 Had statem  200 63 5 m/x 200 260 sts of AA2 cement Q 15.35	0600	200					3							
300   63   5   m/x 200 360 5/K of A A2 cement Q 15.3   6   Shut Down Clear Pump 1 Lines   150   6   Belegse Plug Start H20 Disp.   400   65   6   List P57   400   92   450   Show Bate   9100   1500   102   6   Plug Down   9100   Plug B H 1 m H									_					
150   6   Shut Down Clear Pump ! Lines   150   6   Belease Plug Start Had Disp.   400   65   6   Lift PSF   400   92   400   Stow Bate   1500   102   6   Plug Down   Plug RH ! MH   Plug RH ! MH		2.40						1728 S	ralen	1	, ,	1.0		0 12 2 F
92 400 Stow Bate 0700 1500 102 & Plug Down Plug BH ! MH		200			<u></u>			MIX 20 d60 S/5 of AA2 cement & 15.					15.5	
92 400 Stow Bate 0700 1500 102 & Plug Down Plug BH ! MH		150		<u> </u>				Shul U	ut Down Clear Pump ! Lines					
92 400 Stow Bate 0700 1500 102 & Pluy Down Pluy BH ! MH				65	<u>'</u>			1) eleas	t rug	2/4	<u> </u>	1760 D	15P.	
Plug BH ! MH								5/3/ F	2# 2020					
Plug BH ! MH	0700							D-0W 1	Dane					
	0100	1200		100			10	1649	vown					
		J						Plan	RH F	W FI				
JOB Complete Thypk you Joe								1-47 1	1.1.	<u> </u>				
Thunk you Joe								JU	B Con	plei	re			
Jol Jol									hank V	14				
									7	JU	L.			



# DIAMOND TESTING, LLC P.O. Box 157 HOISINGTON, KANSAS 67544-0157

(800) 542-7313

# DRILL-STEM TEST TICKET FILE: 1/2 achelmost 1 55 /

11		•	
$\bigcirc$	TIME ON:	7:35	Poper
	TIME OFF:_	3:08	AM

Company Knighton Dit Company In-	Lease & Well No. Kachelma	ta to
and the second s	Charge to Knighton Oil	
Elevation KB 1974 Formation Deam		
Date C1-12-11 Sec. 11 Twp. 25 S Ra	angel <sup>-(</sup> _W County <u>-</u>	State_KANSAS
Test Approved By	Diamond Representative	
Formation Test No. Interval Tested from 3807	ft. to 3 \ 2 7 ft. To	tal Depth_ ? ? 2 7 ft.
Packer Depth 3802 ft. Size 6 3/4 in.	Packer depth	
Packer Depth 3 80 7 ft. Size 6 3/4 in.	Packer depth	<del></del>
Depth of Selective Zone Set	•	
Top Recorder Depth (Inside) 3 7 7 3 ft.	Recorder Number 5513	Cap. ジャッコ P.S.I.
Bottom Recorder Depth (Outside) 3794 ft.	Recorder Number 55 88	
Below Straddle Recorder Depth ft.	Recorder Number	
Mud Type Chemical Viscosity 61	Drill Collar Length	ft. I.D. <u>2 1/4</u> in.
Annual Control of the	Weight Pipe Length_	
Chlorides 3,000 P.P.M.	Drill Pipe Length 3 7 75	ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number	Test Tool Length 32	_ft. Tool Size3 1/2-IF in.
Did Well Flow? NO Reversed Out NO		_ft. Size <u>4 1/2-FH</u> in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in.	Surface Choke Size 1	_ in. Bottom Choke Size 5/8 in.
Blow: 1st Open: Strong, BOB in 4 min No Blow		
2nd Open: Stong Bob on Open No E	36mback	
Recovered 32 ft. of VSSCM 1% O.1, 99	1. Mod	
Recovered 3 ft. of Tatal Flui		
Recovered ft. of		
Recovered ft. of		
Recovered ft. of 750' Cas In Pige		Price Job
Recovered ft. of		Other Charges
Remarks:		Insurance
		Total
Time Set Packer(s) 10:04 P.M. A.M. P.M. Time Started Off Bo	ttom 1:04 A.M. P.M. Ma	eximum Temperature 10 9
Initial Hydrostatic Pressure	(A) 1848 P.S.I.	
Initial Flow PeriodMinutes 3	(B) / <sup>1</sup> / P.S.I.	o (C) 1.5 P.S.I.
Initial Closed In PeriodMinutes	(D) 740 P.S.I.	
Final Flow PeriodMinutes 3>	(E)/ <sup>9</sup> P.S.I. t	o (F) 2 5 P.S.I.
Final Closed In PeriodMinutes	(G) 704 P.S.I.	
Final Hydrostatic Pressure	(H) <u>/ 8 3 6</u> P.S.I.	
Diamond Testing, LLC shall not be liable for damages of any kind to the property or personne	of the one for whom a test is made or for any k	ss suffered or sustained, directly or indirectly,



### **JASON MCLEMORE**

CELL # 620-617-0527

### General Information

Company Name Knighton Oil Company, Inc.

 Contact
 David Montague
 Job Number
 K171

 Well Name
 Kachelman #4
 Representative
 Jason McLemore

Unique Well ID DST #1 Drum 3807-3827 Well Operator Surface Location DST #25-14w-Stafford Prepared By Jason McLemore

Field Albano West Qualified By David Montague
Well Type Vertical Test Unit 6

**Test Information** 

Representative Jason McLemore
Test Type Drill Stem Test Well Operator Knighton Oil Company, Inc.

Formation Drum Report Date 2014/09/13
Well Fluid Type 01 Oil Prepared By Jason McLemore

Test Purpose (AEUB) Initial Test

 Start Test Date
 2014/09/12 Start Test Time
 19:35:00

 Final Test Date
 2014/09/13 Final Test Time
 03:08:00

### Test Results

RECOVERED:

30 VSOCM, 1% Oil, 99% Mud

30 TOTAL FLUID