KOLAR Document ID: 1364420

Confiden	tiality Requeste	d:
Yes	No	

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form ACO-1 January 2018 Form must be Typed Form must be Signed All blanks must be Filled

WELL COMPLETION FORM

		DECODIDEIO		
WELL	HISTORY	- DESCRIPTIO	N OF WELL	& LEASE

OPERATOR: License #	API No.:
Name:	Spot Description:
Address 1:	S. R East West
Address 2:	Feet from Direction South Line of Section
City: State: Zip:	+ Feet from Deast / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
CONTRACTOR: License #	, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
	Field Name:
	Producing Formation:
☐ Oil ☐ WSW ☐ SWD □ Gas □ DH □ EOR	Elevation: Ground: Kelly Bushing:
Gas DH EOR	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?
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	
Well Name:	
Original Comp. Date: Original Total D	
Deepening Re-perf. Conv. to EOR	Conv. to SWD Drilling Fluid Management Plan
	Conv. to Producer (Data must be collected from the Reserve Pit)
	Chloride content: ppm Fluid volume: bbls
SWD Permit #:	Location of fluid disposal if hauled offsite:
EOR Permit #:	Operator Name:
GSW Permit #:	
	Quarter Sec TwpS. R [] East [] West
•	npletion Date or 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 Drill Stem Tests Received					
Geologist Report / Mud Logs Received					
UIC Distribution					
ALT I II III Approved by: Date:					

KOLAR Document ID: 1364420

Operator Nam	ne:			Lease Name:	Well #:
Sec	Twp	S. R	East West	County:	

Page Two

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 (Attach Additional Sh	eets)	Y	es 🗌 No			og Formatio	n (Top), Depth	and Datum	Sample
Samples Sent to Geolog	*		és 🗌 No	Ν	lame	e		Тор	Datum
Cores Taken Electric Log Run Geologist Report / Mud List All E. Logs Run:			ies No ies No ies No						
		Repo	CASING I] Ne	w Used rmediate, productio	on, etc.		
Purpose of String	Size Hole Drilled		ze Casing tt (In O.D.)	Weight Lbs. / Ft.		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
			ADDITIONAL	CEMENTING /	SQU	EEZE RECORD			
Purpose: Perforate	Depth Top Bottom	Туре	e of Cement	# Sacks Used	k		Type and	Percent Additives	
Protect Casing Plug Back TD Plug Off Zone									
 Did you perform a hydra Does the volume of the is Was the hydraulic fractu Date of first Production/Inj 	total base fluid of the h ring treatment informa	nydraulic fra tion submit	acturing treatment	al disclosure regis	-	Yes ns? Yes Yes	No (If No, s	kip questions 2 ar kip question 3) ill out Page Three	
Injection:			Flowing	Pumping		Gas Lift 🗌 O	ther <i>(Explain)</i>		
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wate	er Bb	ls.	Gas-Oil Ratio	Gravity
DISPOSITION	I OF GAS:		M	ETHOD OF COM	IPLE	TION:			ON INTERVAL:
Vented Sold (If vented, Subm	Used on Lease		Open Hole		-		mingled	Тор	Bottom
	oration Perfora Top Botto		Bridge Plug Type	Bridge Plug Set At		Acid,		ementing Squeeze	
TUBING RECORD:	Size:	Set At:		Packer At:					

Form	ACO1 - Well Completion
Operator	TDI, Inc.
Well Name	DERRICK 3
Doc ID	1364420

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	12.25	8.625	25	206	Common	3% gel, 2% cc

OPERATOR						
Company: Address:	TDI, INC. 1310 BISON ROAD HAYS, KANSAS 67601-9696					
Contact Geologist: Contact Phone Nbr: Well Name: Location: API: Pool: State:	TOM DENNING 785-628-2593 DERRICK # 3 E2 SE SW SE, SEC.4-T15S-R18W 15-051-26,883-00-00 IN FIELD KANSAS	Field: Country:	DINGES USA			
TDI, Inc. Scale 1:240 Imperial						

Well Name: DERRICK #3 Surface Location: E2 SE SW SE, SEC.4-T15S-R18W Bottom Location: API: 15-051-26,883-00-00 License Number: 4787 Spud Date: 8/4/2017 Time: 4:15 PM Region: ELLIS COUNTY Drilling Completed: 8/9/2017 Time: 4:23 AM Surface Coordinates: 330' FSL & 1595' FEL Bottom Hole Coordinates: Ground Elevation: 2022.00ft K.B. Elevation: 2032.00ft Logged Interval: 0.00ft To: 0.00ft Total Depth: 3646.00ft Formation: ARBUCKLE Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type:	Vertical
Longitude:	-99.3243787
Latitude:	38.7703904
N/S Co-ord:	330' FSL
E/W Co-ord:	1595' FEL

LOGGED BY



Company: SOLUTIONS CONSULTING, INC. Address: 108 W 35TH HAYS, KS 67601

Phone Nbr: (785) 639-1337 Logged By: GEOLOGIST

HERB DEINES Name:

	CONTRACTOR		
	CONTRACTOR		
Contractor:	SOUTHWIND DRILLING INC.		
	4		
Rig #:	I		
Big Type:	MED ROTARY		
Spud Date:	8/4/2017	Time:	4:15 PM
TD Date:		Time [.]	4·23 AM

I D Dato.	0,0,001,
Rig Release:	8/9/2017

Time: 9:00 PM

ELEVATIONS

K.B. Elevation: 2032.00ft K.B. to Ground: 10.00ft Ground Elevation: 2022.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON NEGATIVE RESULTS OF TWO DSTS, LOW STRUCTURE OF WELL AND LACK OF SHOWS AND RESERVOIR DEVELOPMENT IN LKC AND ARBUCKLE.

NO OPEN HOLE LOGS WERE RAN ON THIS WELL.

DRILL STEM TESTING BY TRILOBITE TESTING INC: TWO (2) CONVENTIONAL TESTS

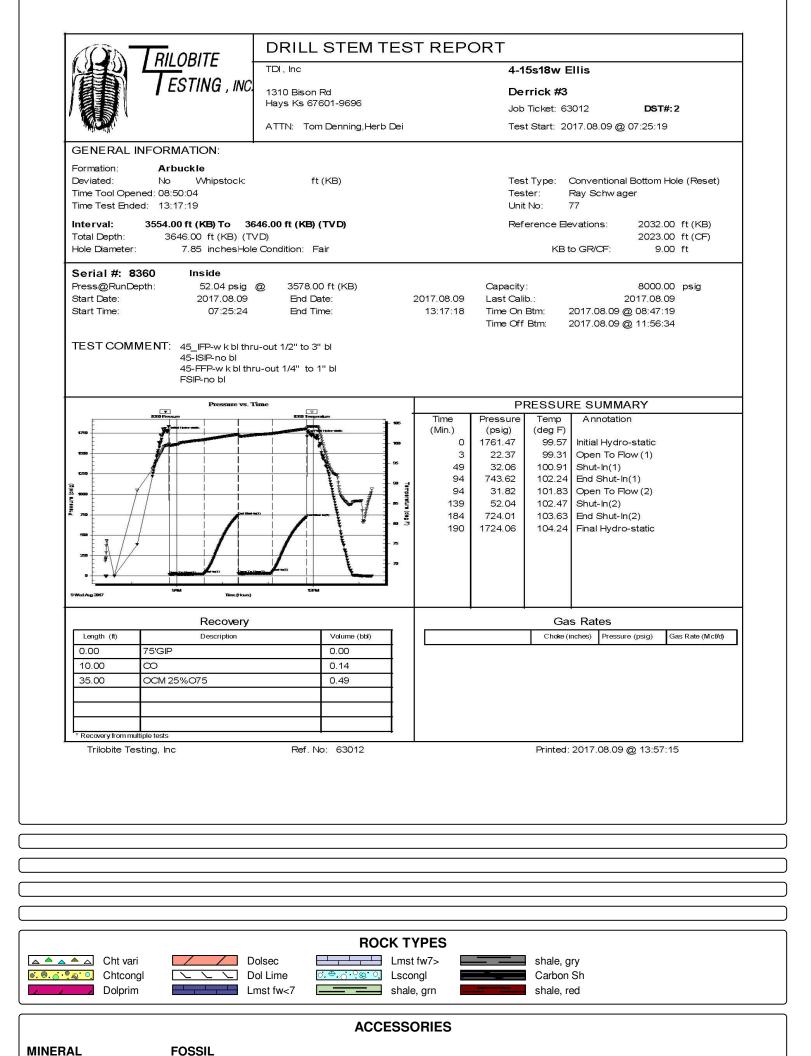
E2 SE	ERRICK # 3 2 SE SW SE EC.4-15S-18W D32'KB	DERRICK UNIT #1 SE SE SE SE SEC.4-15-18NW KB 2037'	DERRICK # 2 S2 NW SW SE SEC.4-15-18W KB 2029'
FORMATION	SAMPLE TOPS	LOG TOPS	LOG TOPS
Anhydrite	1209 +823	+ 830	+ 824
B-Anhydrite	1245 +787	+ 790	+788
Topeka	3005 - 973	- 964	- 969
Heebner Sh.	3279-1247	-1248	-1241
Toronto	3299-1267	-1264	-1261
LKC	3332-1300	-1298	-1293
ВКС	3564-1532	-1528	-1527
Arbuckle	3638-1606	-1586	-1595
RTD	3646-1614	-1713	-1721

SUMMARY OF DAILY ACTIVITY

8-04-17	RU, Spud 4:15 PM, set 8 5/8" surface casing to 206' w/ 150 sxs
	Common 2%gel 3%cc, WOC 8 hrs, slope 3/4 degree @207'.
8-05-17	207', WOC, drill plug at 7:45AM
8-06-17	1815' drilling
8-07-17	2751', drilling, displaced 2732' to 2759'
8-08-17	3481', drilling, CFS 3630', CFS 3636', short trip 28 stands, TOWB,
	DST # 1 3554' to 3636'

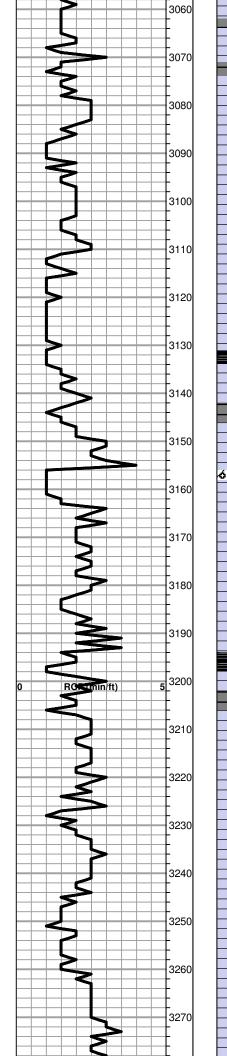
8-09-17 3646' TIWB, drilling, CFS 3646', RTD 4:23 AM @ 3646', TOWB, DST # 2 3554' to 3646', decision to plug and abandon, LDDP/plug, RD

RILOBITE	DRILL STEM TES	ST REPO	ORT				
	TDI , Inc		4-1	5s18w E	Ellis		
TESTING , INC.	1310 Bison Rd		De	rrick #3			
	Hays Ks 67601-9696		Job	Ticket: 63	3011	DST#:1	
	ATTN: Tom Denning, Herb Dei		Tes	t Start: 20	017.08.08 @	9 19:40:24	
GENERAL INFORMATION:							
Formation: Arbuckle Deviated: No Whipstock:			Тее	t Turney 1	Conventions	Doffere Liel	e (Initial)
Deviated: No Whipstock: Fime Tool Opened: 21:08:49	ft (KB)		Tes		Ray Schwa	al Bottom Hol ger	e (miliai)
Fime Test Ended: 00:59:33			Unit	No:	77		
nterval: 3554.00 ft (KB) To 363			Ref	erence 🖂	evations:	2032.00	
Fotal Depth: 3636.00 ft (KB) (TVE Hole Diameter: 7.85 inchesHole C				KB t	:o GR/CF:	2023.00 9.00	
				57660 <u>8</u>		1000 C C C C C C C C C C C C C C C C C C	
Serial #: 8360 Inside Press@RunDepth: 38.36 psig @	2 3568.00 ft (KB)		Capacity			8000.00	psig
Start Date: 2017.08.08	End Date:	2017.08.09	Last Cali	b.:		2017.08.09	
Start Time: 19:40:24	End Time:	00:59:33	Time On Time Off			@ 21:06:34 @ 23:15:04	
				Dan.	2017.00.00	@ 20.10.04	
TEST COMMENT: 30-IFP-w k bl ,died 30-ISIP-no bl	in 22 min						
30-FFP-no bl							
30-FSIP-no bl							
Pressure vs. Tim 530 Pressure	e T		PI	RESSUF	RESUMM	ARY	
	5309 Temporature	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotatio	on	
	- 100	(14111.)	(psig) 1744.92	105.59	Initial Hydr	o-static	
		3	24.52	streament in the Area (1995)	Open To F	191 9	
		33 64	25.79 39.18	105.73 106.06			
			25.93		Open To F		
3000		94	38.36		Shut-In(2)		
		124 129	55.25 1723.40	106.64	End Shut-I Final Hydr		
		120	11 20. 10	101.01	, indiriyan	olulio	
3FM SFM KOTM Tue-Aug 2017 Time (Hours)	THPM 9Wed 14M						
Recovery				Ga	l s Rates		
Length (ft) Description	Volume (bbl)			Choke (i		ure (psig) Ga	s Rate (Micf/d)
10.00 mud w/show of oil in tool	0.14			22 - 22		ann ann	



Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)

					Printed by GEOstrip VC Striplog	version 4.0.8.15 (www.grsi.ca)
Curve Track #1						Curve Track #3
ROP (min/ft)	Cored Interval DST Interval DST Interval	DST	Lithology	Oil Show	Geological Descriptions	1:240 Imperial
	5					
	2900				BEGIN 1' DRILL TIME FROM 2900' TO RTD BEGIN 10' WET AND DRY SAMPLES FROM 3000' TO RTD	SET 8 5/8" SURFACE CASING TO 206' W/ 150 SXS COMMON 2%GEL 3%CC
	2910 				ANHYDRITE TOP 1209+823 ANHYDRITE BASE 1245+787	SLOPE 3/4 DEGREE @ 207'
	2920					
	2930					
$\left\{ \right.$	2940					
	2950					
$\mathbf{\Sigma}$	2960				Shale, It-med gray, soft blocky	
S	2970				Lime, med brn, fnxln, slightly fossiliferous	
	2980 				Shale, It gray, soft stickly clumps	
	2990 				Shale, It-med gray, soft blocky	
0 ROP (min/ft)	3000 -				Lime, med brn-med grayish brn, fnxln, fn-vfxln TOPEKA SAMPLE TOP 3005-973	
	- 3010 -				Lime, It-med brn, fn-vfxIn with few clumps of sticky chalk	
	3020				Lime, It-med brn, fnxln, slightly fossiliferous	
S	3030				Lime, It brn-It gray, fnxIn, slightly fossiliferous	
	3040 				Lime, It brn, fnxln with sticky chalk in part	
	3050 				Lime, crm-lt brn-lt gray, slightly fossiliferous with sticky chalk	



Lime, It brn-It gray, fnxln, slight bedded chalk, fusulinids

Lime, tl brn-lt gray, fnxln with micro xln in part

Lime, It-med brn-med grayish brn, fn-vfxln, slightly fossiliferous

Lime, It-med brn, fnxln with bedded chalk in part

Lime, It-med brn-It grayish brn, fn-vfxln, fusulinids in part

Lime, It-med brn, fnxln-granular in part, slightly fossiliferous

Lime, It-med brn, fnxln-granular, bedded chalk, slightly fossiliferous Shale, black carbonaceous, blocky

Lime, It-med brn, fnxIn, slightly fossiliferous

Shale, It gray, soft sticky clumping

Lime, crm, fn-micro xIn

Lime, It brn, granular with fossil fragments, NS,NFO, no wet cut

Lime, crm-lt brn, fn-vfxln, slight bedded chalk with lt white wash

Lime, crm-lt brn, fn-vfxln, slight bedded chalk and slightly fossiliferous

Lime, It brn-It gray, fn-vfxIn

Shale, black carbonaceous, blocky

Lime, It-med brn-It gray, fnxln, slightly fossiliferous

Lime, It-med brn, fnxln with slight bedded chalk, NS

Lime, It-med brn, fnxln, NS

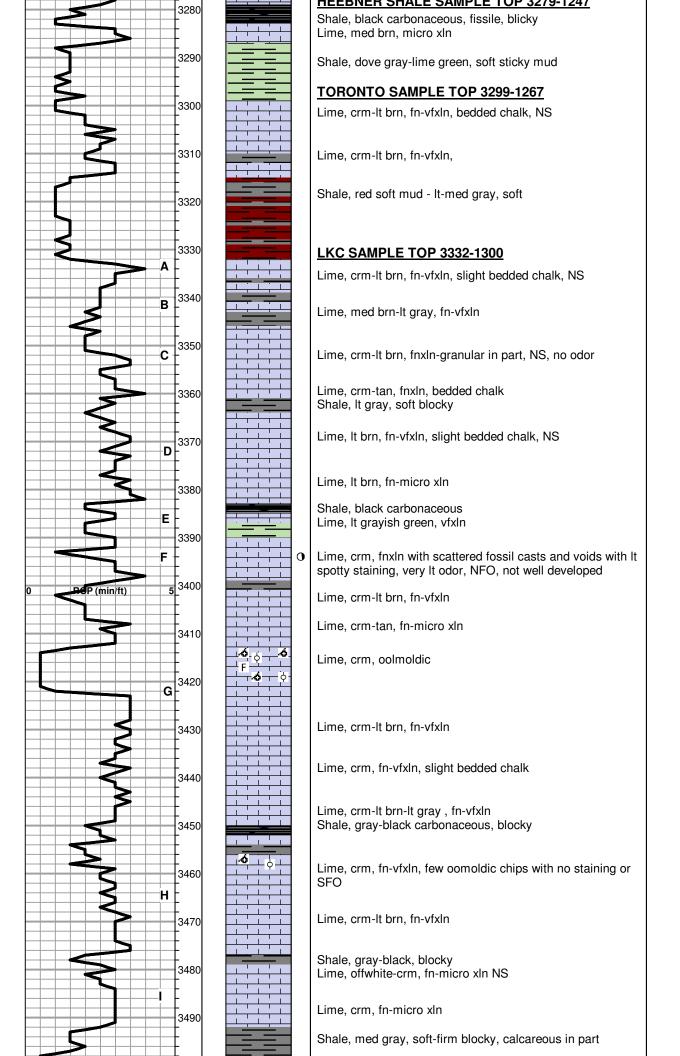
Lime, It-med brn, fn-micro xln, slight fossiliferous

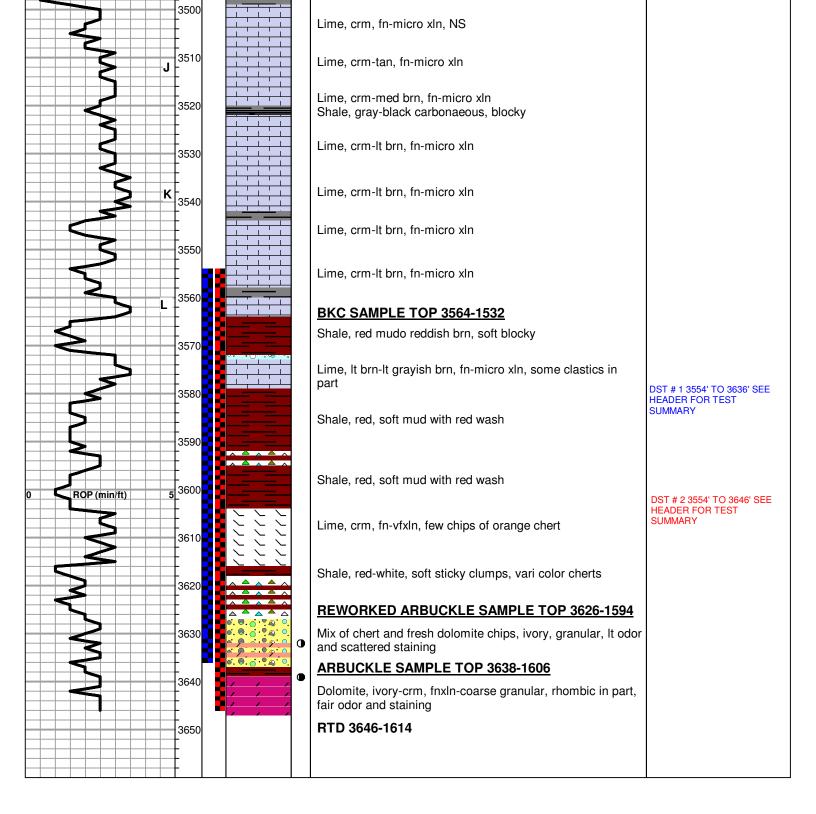
Lime, It-med brn-med grayish brn, fn-vfxln

Lime, It brn, fnxln-slightly granular in part, NS

Lime, It brn, fnxln, bedded chalk with It white wash

LEEDNED CUALE CAMPLE TOD 2070 1047





GLOBAL OIL FIELD SERVICES, LLC

3072

REMIT TO	24 S. Linc Russell, K			SEJ	SERVICE POINT:					
	itussen, it	5 07005		ame tag ingoxig st to even e stational to test terminal to e		SEIC(15)	in and address of the local			
DATE 9: 4-17	SEC.	TWP	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH			
LEASE	WELL#.	rit compa in	LOCATION	Darrick#3	STOMER, For part	COUNTY	STATE			
OLD OR NEW (CIRCLE ONE)									
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TYPE OF JOB	authoring	Aller	A16 151674	OWNER						
HOLE SIZE 1211	KEHCO.	<u>יי</u> יייייייייייייייייייייייייייייייייי	.D. 207'	CEMENT						
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EXTRA FOOTAGE

MILEAGE _

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CHARGE TO:	TDI						
STREET		1020010	and onte	nemoho	in bris lat	entre il	initale

24 S. Lincoln

Global Oil Field Services, LLC

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NA	ME	A	
SIGNATURE	Septield	Hood	REMORERO

PLUG & FLOAT EQUIPMENT

@

@

@ a

TOTAL

	_ @	29909.90		NOPT:
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SALES TAX (If Any)	er ann for mainteau		
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GLOBAL OIL FIELD SERVICES, LLC

	4 S. Linco ussell, KS			SERVICE POINT:					
DATE 8-9-17	SEC.	TWP 15	RANGE 13 W	CAI	LED OUT	ON LOCATION	JOB START	JOB FINISH	
LEASE DEARING	WELL #. 3	2010/08/21	LOCATION	ides(b)	thing shift to care		COUNTY EUS	STATE	
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Global Oil Field S	ervices, L	LC	when the way defectly		hand the stand the	where the the	@	Gaugian	
ou are hereby requ	ested to re	nt cement	ing equipment and		omo see to s		@		
urnish cementer and	helper(s) to	assist ow	ner or contractor to				@		
o work as is listed.	The above	work was	done to satisfaction		-		@		
id supervision of ov	vner agent	or contract	or I have read and				@		

understand the "GENERAL TERMS AND CONDITIONS"
listed on the reverse side.
PRINTED NAME LALILY Dear
SIGNATURE Cien Breams

TOTAL

SALES TAX (If Any)_

TOTAL CHARGES_

DISCOUNT

___ IF PAID IN 30 DAYS



DRILL STEM TEST REPORT

Prepared For: TDI, Inc

1310 Bison Rd Hays KS 67601-9696

ATTN: Herb Deines

Derrick #3

4-15s18w Ellis,KS

 Start Date:
 2017.08.08 @ 19:40:24

 End Date:
 2017.08.09 @ 00:59:33

 Job Ticket #:
 63011
 DST #: 1

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

Printed: 2017.08.09 @ 15:08:28

	DRILL STEM TES		ORT				
	TDI, Inc		4-15	s18w El	lis,KS		
ESTING , II	C. 1310 Bison Rd Hays KS 67601-9696			ick #3			
	ATTN: Herb Deines			icket: 630 Stort: 201		DST#	
· M)/••4](·	ATTN: Herb Deines		Test	Start. 201	7.08.08 @	19.40.24	•
GENERAL INFORMATION:							
Formation:ArbuckleDeviated:NoWhipstockTime Tool Opened:21:08:49Time Test Ended:00:59:33	ft (KB)		Test T Teste Unit N	er: Ra	onventional ay Schwag 7		Hole (Initial)
Total Depth: 3636.00 ft (KB)	3636.00 ft (KB) (TVD) (TVD) ole Condition: Fair		Refer	rence ⊟ev KB to	ations: GR/CF:	2023.0	00 ft (KB) 00 ft (CF) 00 ft
Serial #: 8360InsidePress@RunDepth:38.36 psiStart Date:2017.08.0Start Time:19:40:2TEST COMMENT:30-IFP-w k bl 30-ISIP-no bl	B End Date: 4 End Time:	2017.08.09 00:59:33	Capacity: Last Calib. Time On Bt Time Off B	tm: 20	2 017.08.08 @ 017.08.08 @	2017.08.0 2017.08.0	34
30-FFP-no bl 30-FSIP-no bl 9705500 Pressure 530 Pressure	5. Time 830 Tempentre			ESSURE	E SUMMA		
530 Presure	1300 Tempenture	Time (Min.) 0 3	Pressure (psig) 1744.92 24.52		Annotation Initial Hydro Open To Flo	-static	
		33 64	25.79 39.18	105.73 106.06	Shut-In(1) End Shut-In	(1)	
		64 94	25.93 38.36		Open To Flo Shut-ln(2)	ow (2)	
		124 129	55.25 1723.40	106.64	End Shut-In Final Hydro		
	75						
574 974 1074 874 974 1074 8 Tue Aug 2017 Time (*	na n						
Recove	y		· · · · ·	Gas	Rates		
Length (ft) Description	Volume (bbl)			Choke (inc		e (psig)	Gas Rate (Mcf/d)
10.00 mud w/show of oil in	tool 0.14						
<u> </u>	Bef No: 63011				2017 08 09 (

	DRILL STEM TES	ST REP	ORT			
RILOBITE	TDI, Inc		4-15s18w	Ellis,KS		
ESTING , INC	TO TO BIOOTTING		Derrick #	3		
	Hays KS 67601-9696		Job Ticket:	63011	DST#	#: 1
	ATTN: Herb Deines		Test Start:	2017.08.08	@ 19:40:24	
GENERAL INFORMATION:	+					
Formation:ArbuckleDeviated:NoWhipstock:Time Tool Opened:21:08:49Time Test Ended:00:59:33	ft (KB)		Test Type: Tester: Unit No:	Conventior Ray Schw 77		Hole (Initial)
Interval:3554.00 ft (KB) To3Total Depth:3636.00 ft (KB) (1Hole Diameter:7.88 inches Ho			Reference KI	Elevations: B to GR/CF:	2023.0	00 ft (KB) 00 ft (CF) 00 ft
Serial #:8673OutsidePress@RunDepth:psigStart Date:2017.08.08Start Time:19:40:49		2017.08.09 00:59:58	Capacity: Last Calib.: Time On Btm: Time Off Btm:		8000.0 2017.08.0	00 psig 09
TEST COMMENT: 30-IFP-w k bl ,di 30-ISIP-no bl 30-FFP-no bl 30-FSIP-no bl	ed in 22 min					
Pressure vs. 863 Pressure	Time 557 Temperature		PRESSU	JRE SUM	MARY	
5 TE-Ag 2817		Time (Min.)	Pressure Temp (psig) (deg F		tion	
Recovery			G	Bas Rates		
Length (ft) Description 10.00 mud w / show of oil in t	Volume (bbl) ool 0.14		Chok	e (inches) Pres	sure (psig)	Gas Rate (Mcf/d)
	Ref. No: 63011			.d. 2017 08 (

10DAT	RILO	RITE	DRI	LL STE	MTEST	REPO	RT	TOOL DIAGRAM
			TDI, Inc	;			4-15s18w Ellis,KS	
	I EST	TING , INC.	10100	ison Rd			Derrick #3	
			Hays K	S 67601-969	6		Job Ticket: 63011	DST#: 1
			ATTN:	Herb Deines			Test Start: 2017.08.08 @	9 19:40:24
Tool Informatio	n		ļ					
Drill Pipe:	Length:	3551.00 ft	Diameter:	3.80 in	ches Volume:	49.81 bb	I Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 in	ches Volume:	0.00 bb	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 in	ches Volume:	0.00 bb	Weight to Pull Loose:	55000.00 lb
		40.00 ft			Total Volume:	49.81 bb	Tool Chased	0.00 ft
Drill Pipe Above K		18.00 ft 3554.00 ft					String Weight: Initial	46000.00 lb
Depth to Top Pack Depth to Bottom F		3554.00 ft					Final	46000.00 lb
Interval between								
Tool Length:	rackers.	103.00 ft						
Number of Packer	rs:	2	Diameter:	7.75 in	ches			
Tool Comments:		-						
Tool Descriptic	on	Lei	ngth (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	b		1.00			3534.00		
Shut In Tool			5.00			3539.00		
Hydraulic tool			5.00			3544.00		
Packer			5.00			3549.00	21.00	Bottom Of Top Packer
Packer			5.00			3554.00		
Stubb			1.00			3555.00		
Perforations			13.00			3568.00		
Recorder			0.00	8360	Inside	3568.00		
Recorder			0.00	8673	Outside	3568.00		
Blank Spacing			65.00			3633.00		

3636.00

82.00

Total Tool Length: 103.00

3.00

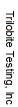
Bullnose

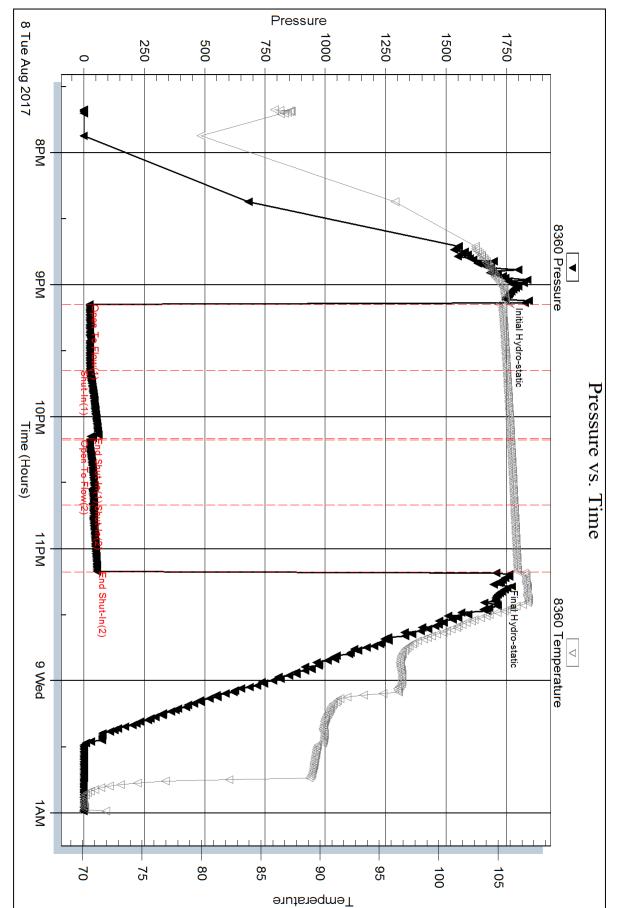
Bottom Packers & Anchor

		DRI	LL STEM TEST F	REPORT	Γ	FLU	ID SUMMAR
		TDI, Inc			4-15s18w	Ellis,KS	
	RILOBITE		ison Rd IS 67601-9696		Derrick #3		F#. 4
					Job Ticket: 6		Г#: 1
		ATTN:	Herb Deines		Test Start: 2	2017.08.08 @ 19:40:2	24
Mud and Cu	shion Information						
	el Chem		Cushion Type:			Oil API:	deg API
Nud Weight:	10.00 lb/gal		Cushion Length:		ft	Water Salinity:	ppm
/iscosity:	52.00 sec/qt		Cushion Volume:		bbl		
Nater Loss:	8.35 in ³		Gas Cushion Type:				
Resistivity:	ohm.m 3900.00 ppm		Gas Cushion Pressure	:	psig		
Salinity: Filter Cake:	1.00 inches						
Recovery In	formation						
			Recovery Table				
	Leng	gth	Description		Volume]	
	ft	10.00	mud w/show of oil in tool		bbl 0.140		
	L Total Length:		.00 ft Total Volume:	0.140 bbl	0.140	2	
					0		
	Num Fluid Sam Laboratory Nai		Num Gas Bombs:	0	Serial #		
	Recovery Com		Laboratory Location	1.			
		monto.					

Printed: 2017.08.09 @ 15:08:28

Ref. No: 63011





Derrick #3

DST Test Number: 1

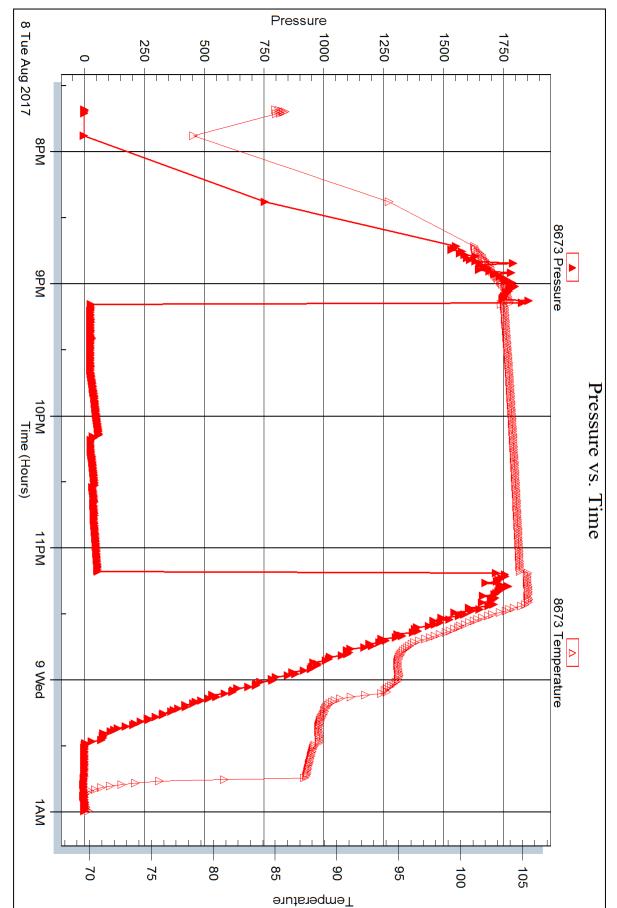
Serial #: 8360 Inside

TDI, Inc

Printed: 2017.08.09 @ 15:08:29

Ref. No: 63011





Derrick #3

DST Test Number: 1

Serial #: 8673

Outside

TDI, Inc



DRILL STEM TEST REPORT

Prepared For: TDI, Inc

1310 Bison Rd Hays KS 67601-9696

ATTN: Herb Deines

Derrick #3

4-15s18w Ellis,KS

 Start Date:
 2017.08.09 @ 07:25:19

 End Date:
 2017.08.09 @ 13:17:19

 Job Ticket #:
 63012
 DST #: 2

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

RILOBITE			ORT				
	TDI, Inc		4-1	5s18w E	Illis,KS		
ESTING , INC	1310 Bison Rd		De	rrick #3			
	Hays KS 67601-9696		Job	Ticket: 63	3012	DST	#:2
	ATTN: Herb Deines		Tes	t Start: 20)17.08.09 (@ 07:25:19)
GENERAL INFORMATION:							
Formation:ArbuckleDeviated:NoWhipstock:Time Tool Opened:08:50:04Time Test Ended:13:17:19	ft (KB)		Tes	ter: I	Conventior Ray Schw 77		Hole (Reset)
nterval:3554.00 ft (KB) To3Total Depth:3646.00 ft (KB) (THole Diameter:7.88 inches Hol			Ref	erence Ele KB t	evations: to GR/CF:	2023.	00 ft (KB) 00 ft (CF) 00 ft
Serial #: 8360InsidePress@RunDepth:52.04 psigStart Date:2017.08.09Start Time:07:25:24TEST COMMENT:45_IFP-w k bl thr 45-ISIP-no bl45-FFP-w k bl thr FSIP-no bl	End Date: End Time:	2017.08.09 13:17:18	Capacity Last Cali Time On Time Off	b.: Btm: 2		8000. 2017.08. 9 @ 08:47: 9 @ 11:56:	19
Pressure vs.			PI	RESSUF	RE SUM	MARY	
1750 Prosure 1750 Prosure 17	333 Kerpendare 333 Kerpendare 534 Kerpendare	94 139	Pressure (psig) 1761.47 22.37 32.06 743.62 31.82 52.04 724.01 1724.06	Temp (deg F) 99.57 99.31 100.91 102.24	Annota Initial Hyc Open To Shut-In(1 End Shut Open To Shut-In(2 End Shut	tion Flow (1)) -In(1) Flow (2)) -In(2)	
Recovery				Ga	s Rates		
Length (ft) Description	Volume (bbl)			Choke (i	nches) Pres	sure (psig)	Gas Rate (Mcf/d)
0.00 75'GIP 10.00 CO	0.00						
35.00 OCM 25% O75	0.49						
* Recovery from multiple tests							

	DRILL STEM TE	ST REP	ORT		
RILOBITE	TDI, Inc		4-15s18	w Ellis,KS	
ESTING , INC.	TO TO DISOTTING		Derrick	#3	
	Hays KS 67601-9696		Job Ticke	t: 63012	DST#:2
	ATTN: Herb Deines		Test Star	t: 2017.08.09 (@ 07:25:19
GENERAL INFORMATION:					
Formation:ArbuckleDeviated:NoWhipstock:Dime Tool Opened:08:50:04Dime Test Ended:13:17:19	ft (KB)		Test Type Tester: Unit No:	e: Convention Ray Schwa 77	nal Bottom Hole (Reset) ager
Interval:3554.00 ft (KB) To36Total Depth:3646.00 ft (KB) (TVHole Diameter:7.88 inches Hole				e Elevations: KB to GR/CF:	2032.00 ft (KB) 2023.00 ft (CF) 9.00 ft
Serial #: 8673 Outside					
Press@RunDepth: psig Start Date: 2017.08.09	@ 3578.00 ft (KB) End Date:	2017.08.09	Capacity: Last Calib.:		8000.00 psig 2017.08.09
Start Time: 2017.08.09 Start Time: 07:25:43	End Time:	13:17:37	Time On Btm: Time Off Btm:		2017.00.03
F ▲ I		Time	Pressure Ter	mp Annotat	tion
1750		Time (Min.)	Pressure Ter (psig) (deg		tion
					tion
	95 90 90 90 90 90 90 90 90 90 90 90 90 90	(Min.)			tion
reso reso		(Min.)	(psig) (de	Gas Rates	tion sure (psig) Gas Rate (Mcf/d)
roo co co co co co co co co co	Volume (bbl) 0.00	(Min.)	(psig) (de	Gas Rates	
roo roo roo roo roo roo roo roo		(Min.)	(psig) (de	Gas Rates	
reso reso	Volume (bbl) 0.00 0.14	(Min.)	(psig) (de	Gas Rates	
reso reso	Volume (bbl) 0.00 0.14	(Min.)	(psig) (de	Gas Rates	

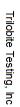
	RITE	DRI	LL STE	TOOL DIAGRAM				
	RILOE		TDI, Inc	:			4-15s18w Ellis,KS	
	ESI	TING , INC.	1310 Bi	ison Rd			Derrick #3	
			Hays K	S 67601-96	96		Job Ticket: 63012	DST#:2
			ATTN:	Herb Deines	5		Test Start: 2017.08.09 @	07:25:19
Tool Information								
Drill Pipe: L	ength:	3550.00 ft	Diameter:	3.80 ir	nches Volume:	49.80 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe: L	ength:	0.00 ft	Diameter:	0.00 ir	nches Volume:	0.00 bbl	Weight set on Packer	: 25000.00 lb
Drill Collar: L	ength:	0.00 ft	Diameter:	0.00 ir	nches Volume:	0.00 bbl	Weight to Pull Loose:	55000.00 lb
Drill Pipe Above KB		17.00 ft			Total Volume:	49.80 bbl		0.00 ft
Depth to Top Packe		3554.00 ft					String Weight: Initial	46000.00 lb
Depth to Bottom Packe		5554.00 ft					Final	46000.00 lb
Interval between Pa		92.00 ft						
Tool Length:		113.00 ft						
Number of Packers	:	2	Diameter:	7.75 ir	nches			
Tool Comments:								
Tool Description		Lei	ngth (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub			1.00			3534.00		
Shut In Tool			5.00			3539.00		
Hydraulic tool			5.00			3544.00		
Packer			5.00			3549.00	21.00	Bottom Of Top Packer
Packer			5.00			3554.00		
Stubb			1.00			3555.00		
Perforations			23.00			3578.00		
Recorder			0.00	8360	Inside	3578.00		
Recorder			0.00	8673	Outside	3578.00		
Blank Spacing			65.00			3643.00		

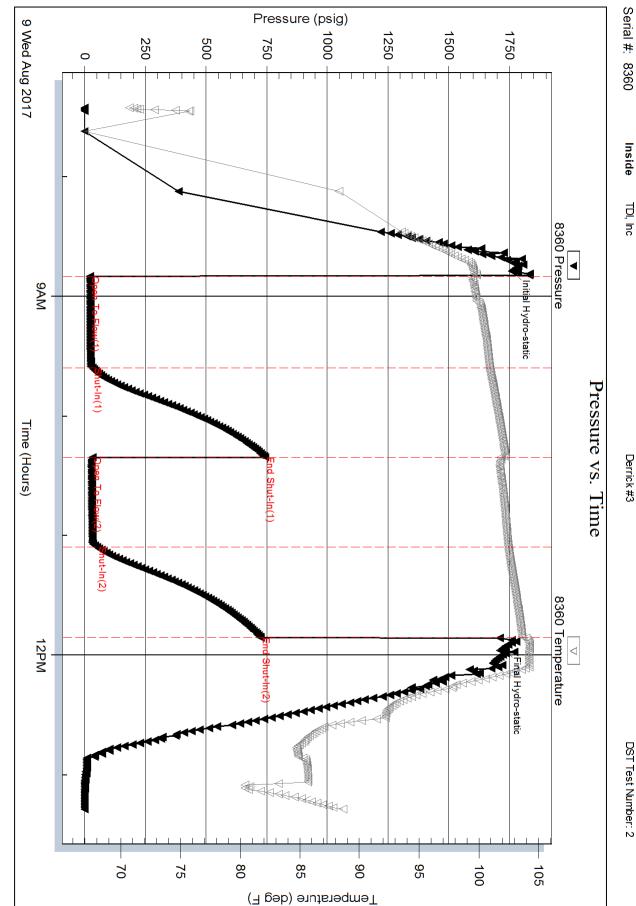
Total Tool Length: 113.00

an-		DRI	LL S1	TEM TEST R	EPORT	Г		FLUID S	UMMARY
	RILOBITE	TDI, Inc	;			4-15s18w	Ellis,KS		
	ESTING , INC.	1310 E	Bison Rd			Derrick #3	3		
		Hays k	KS 67601-	-9696		Job Ticket: 6	63012	DST#: 2	
		ATTN:	Herb Dei	ines		Test Start: 2	2017.08.09 @	07:25:19	
Mud and Cu	ushion Information	ļ							
• •	el Chem			ushion Type:			Oil API:		deg API
Mud Weight:	9.00 lb/gal			ushion Length:		ft	Water Salinit	y:	ppm
Viscosity: Water Loss:	49.00 sec/qt 8.35 in³			Cushion Volume: Bas Cushion Type:		bbl			
Resistivity:	ohm.m			as Cushion Pressure:		psig			
Salinity:	6800.00 ppm					psig			
Filter Cake:	1.00 inches								
Recovery In	nformation		_	·					
	Leng	ıth	۲ 	Recovery Table		Volume	7		
	ft			Description		bbl	_		
		0.00	75'GIP			0.000	_		
		10.00 35.00	CO OCM 259	%075		0.140 0.49 ²	_		
	Total Length:		.00 ft	Total Volume:	0.631 bbl	0.40	1		
						Carial #			
	Num Fluid Sam Laboratory Nar			Num Gas Bombs: Laboratory Locatior	0	Serial #			
	Recovery Com								
	····· ,								

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Ref. No: 63012



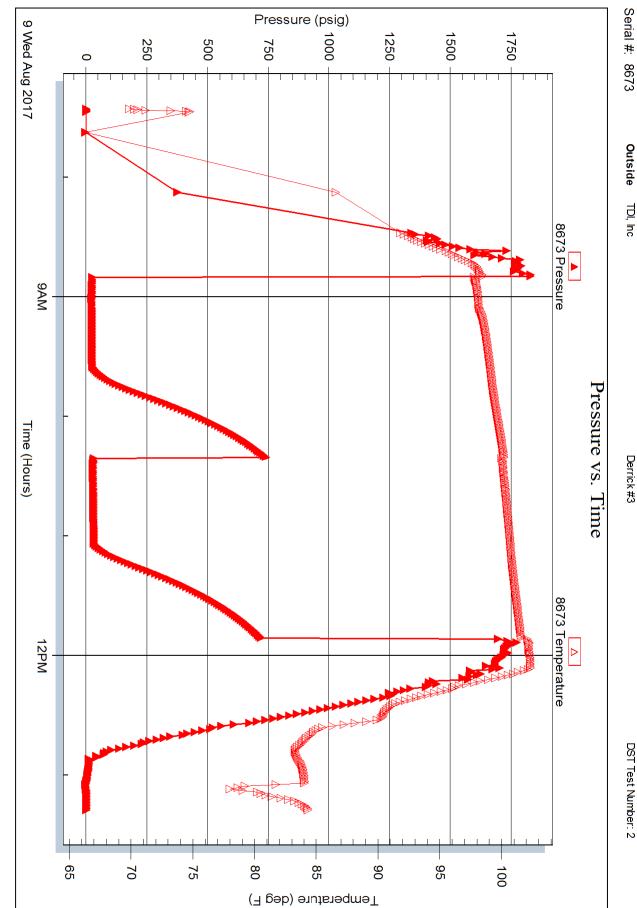


Derrick #3

Printed: 2017.08.09 @ 15:05:43

Ref. No: 63012





Derrick #3

DST Test Number: 2

410 RILOBITE ESTING INC. 1515 Commerce Parkway	• Hays, Kansas 67601		Test T NO. 6	i cket 3011	
Well Name & No. <u>Derrick #3</u> Company <u>TOT Inc</u> Address <u>1310 Bison Rd. Have</u> Co. Rep / Geo. <u>Here Dernes</u> Location: Sec. <u>4</u> Twp. <u>15</u> Interval Tested <u>3554-3636</u> Anchor Length <u>82</u> Top Packer Depth <u>3554</u> Bottom Packer Depth <u>3554</u> Bottom Packer Depth <u>3636</u> Blow Description <u>TFP - Weak Blow</u> <u>TSTP</u> No BLC	_ Drill Pipe Run _ Drill Collars Run _ Wt. Pipe Run _ Chlorides32	RI <u>g 3047</u> co. <u>Ellis</u> ebuckle 3551	<u>32</u> <u>Kulind</u> <u>Mud</u> <u>Vis</u> <u>WL</u>	<u>52</u> 8.4)GL
$\frac{FFP - NO Blow}{FSTP - NO Blow}$ $\frac{FSTP - NO Blow}{FSTP - NO Blow}$ $\frac{Feet of Mud}{Feet of Mud}$		%gas	%oil	%water	%mud
Rec Feet of/51000000000000000000000000000000000	<u>(/ opg /00</u>)	%gas %gas	<u>%oil</u> %oil	%water %water	%mud %mud
Rec Feet of		%gas	%oil	%water	%mud
Rec Feet of	······································	%gas	%oil	%water	%mud
Rec Total BHT /00	Gravity - API	RW@		prides	
(A) Initial Hydrostatic/744	Test 1050	····· <u></u> C	T-On Locatio	1	ppm
(B) First Initial Flow 24	□ Jars		T-Started	1940	<u> </u>
(C) First Final Flow 25	Safety Joint		T-Open	2115	
(D) Initial Shut-In39	Circ Sub		T-Pulled	2315	
(E) Second Initial Flow 25	Houriv Standby		T-Out	0120	
(F) Second Final Flow 38			Comments_		
(G) Final Shut-In 55	Mileage 20 KT				
(H) Final Hydrostatic 1723	Sampler				
	G Straddle		Q Ruined S	ihale Packer	
Initial Open 30	Shale Packer		Q Ruined P	acker	
20	Extra Packer		🛛 Extra Coj	pies	
•••	Extra Recorder		Sub Total	0	
- / / /	Day Standby		Total10	65	
Final Shut-InOO	C Accessibility		MP/DST Di	sc't	
	Sub Total1065	<u> </u>		-	
Approved By	Our Rei	presentative 0	11	Thank	•

Our Representative RAYSchwagy Thank you

ATIO ATION A	• Hays, Kansas 67601	Test NO.	Ticket 63012	
Well Name & No. <u>Deerick #3</u> Company <u>T.D.I. I.A.</u> Address <u>1310 Bison Rd Hay</u> Co. Rep / Geo. <u>Herb Deines</u> Location: Sec. <u>4</u> Twp. <u>15</u>	Elevi Elevi Elevi	ation <u>2032</u>	Date <u>8-9-</u> KB <u>2023</u>	/2 GL
Interval Tested <u>3557-3646</u> Anchor Length <u>92</u> Top Packer Depth <u>3549</u> Bottom Packer Depth <u>3557</u> Total Depth <u>3646</u> Blow Description <u>TFP - Weak B</u> <u>TSTP NO BLE</u>	_ Zone Tested <u>ARDU</u> _ Drill Pipe Run <u>35</u> _ Drill Collars Run _ Wt. Pipe Run		Mud Wt. <u>9, 1</u> Vis <u>49</u> WL <u>7, 8</u> LCM <u>2</u> *	
$\begin{array}{c c} \hline FSTP & NOBLe \\ \hline Rec & 25 & Feet of \\ \hline GTP \\ \hline Rec & 10 & Feet of \\ \hline C & D \\ \hline Rec & 35 & Feet of \\ \hline C & D \\ \hline \hline Rec & Feet of \\ \hline \end{array}$	¢س % %	gas %oil gas %oil gas 25%oil gas %oil	%water %water %water %water	%mud %mud 25%mud
Rec Feet of Rec Total 4/5 BHT 10.3 (A) Initial Hydrostatic 1.76 1.76 (B) First Initial Flow 2.2 1.2 (C) First Final Flow 32 1.2 (D) Initial Shut-In 2.4/3 1.2	Gravity 28 API RW_ Test 1050 Jars Safety Joint Circ Sub	gas %oil F T-On Lo T-Starte T-Open_ T-Pulled T-Out	$\frac{\text{%water}}{\text{Chlorides}}$ $\frac{0725}{0725}$ $\frac{0725}{0850}$ $\frac{1150}{0725}$	<u>%mud</u> <u>%mud</u>
(E) Second Initial Flow 3 (F) Second Final Flow 52 (G) Final Shut-In 724 (H) Final Hydrostatic 1724 Initial Open 45 Initial Shut-In 45	 Hoofrly Standby	Comme	nts ned Shale Packer ned Packer a Copies	
Final Flow 45 Final Shut-In 45	Day Standby Accessibility Sub Total	Total	1065 T Disc't	uk.

RAYSchwagt you

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