

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1244468
OIL & GAS CONSERVATION DIVISION

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

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

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: _____

1244468

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. 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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Tengasco, Inc.
Well Name	Tinkler 1-26
Doc ID	1244468

Tops

Name	Top	Datum
Heebner	1732	-483
LKC	1920	-671
Stark Shale	2184	-935
BKC	2259	-1010
Cherokee	2444	-1195
Miss Spergen	2576	-1327
Miss Warsaw	2584	-1335
Kinderhook	2790	-1541
Hunton Dol	2910	-1661
Maquoketa Sh	3068	-1819
Maquoketa Dol	3171	-1922
Simpson	3253	-2004
Arbuckle	3336	-2087

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1363

Date	Sec.	Twp.	Range	County	State	On Location	Finish
12-10-14	26	15	1	Saline	KS		4:15 AM

Location *Salina & I-35, S to Gypsum Exit, E to*

Lease <i>Tinkler</i>	Well No. <i>1-26</i>	Owner <i>Gypsum, 1E, 1 3/4 N, En 2</i>
Contractor <i>American Eagle #3</i>		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job <i>Surface</i>		Charge To <i>Tengasco</i>
Hole Size <i>12 1/4</i>	T.D. <i>266</i>	
Csg. <i>8 5/8</i>	Depth <i>264</i>	Street
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint <i>20'</i>	Cement Amount Ordered <i>170 sx com, 3% cc, 2% gel</i>
Meas Line	Displace <i>15 1/2 bbl</i>	

EQUIPMENT

		Common <i>170</i>
Pumptrk <i>17</i>	No. Cementer Helper <i>Lonnie W</i>	Poz. Mix
Bulktrk <i>15</i>	No. Driver <i>Tyson</i>	Gel. <i>3</i>
Bulktrk <i>PU</i>	No. Driver <i>Travis</i>	Calcium <i>6</i>

JOB SERVICES & REMARKS

Remarks: <i>cement did circulate</i>	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling <i>179</i>
	Mileage

FLOAT EQUIPMENT

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	Pumptrk Charge <i>Surface</i>
	Mileage <i>78</i>

X Signature *Keith Karlson*

Tax
Discount
Total Charge

ALLIED OIL & GAS SERVICES, LLC 055592

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Russell KS

DATE <u>12-17-14</u>	SEC <u>26</u>	TWP. <u>15</u>	RANGE <u>01</u>	CALLED OUT	ON LOCATION	JOB START <u>4:00 AM</u>	JOB FINISH <u>4:30 AM</u>
LEASE <u>Tinkler</u>	WELL # <u>1-26</u>	LOCATION <u>Gypsum KS 2E 1N</u>			COUNTY <u>Selling</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>			<u>Into</u>				

CONTRACTOR American Eagle #3

TYPE OF JOB PTA

HOLE SIZE 7 7/8 T.D. 3450

CASING SIZE 8 3/8 DEPTH 265

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 16.6 DEPTH 3326

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT

OWNER:

CEMENT AMOUNT ORDERED 125 60/40 490g 1 1/4 45/10

EQUIPMENT

PUMP TRUCK CEMENTER Robert V

409 HELPER Nathan D

BULK TRUCK

473 DRIVER Steve S

BULK TRUCK

DRIVER

COMMON	@		
POZMIX	@		
GEL	@		
CHLORIDE	@		
ASC	@		
<u>60/40 490g 125 sk</u>	@	<u>18.92</u>	<u>2365.00</u>
<u>Cell Stake 324</u>	@	<u>2.97</u>	<u>95.04</u>
<u>Material Disc</u>	@		<u>2460.04</u>
<u>Disc</u>	@	<u>615.01</u>	
HANDLING	@	<u>125 @ 2.48</u>	<u>310.00</u>
Ton MILEAGE	@	<u>405 @ 2.75</u>	<u>1113.75</u>
			TOTAL

REMARKS:

Plugging # 99996

p1 35 sk @ 3326

p2 35 sk @ 315

p3 25 sk @ 60

30 sk in R.H

Thank you!!!

CHARGE TO: Tengasco

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB 3326'

PUMP TRUCK CHARGE 1 @ 2558.75

EXTRA FOOTAGE @

V MILEAGE 75 @ 4.40 330.00

MANIFOLD @

HV mileage 150 @ 7.70 1155.00

Disc 1366.87 TOTAL 5464.50

PLUG & FLOAT EQUIPMENT

8578 Wooden plug 1 @ 110.00 110.00

Disc 21.50 TOTAL 110.00

To: Allied Oil & Gas Services, LLC.

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

PRINTED NAME SON BRADSHAW

SIGNATURE [Signature]

SALES TAX (If Any)

TOTAL CHARGES 8037.54

DISCOUNT 2009.38 25% IF PAID IN 30 DAYS

6028.16



DRILL STEM TEST REPORT

Prepared For: **Tengasco, Inc.**

PO Box 458
Hays, KS 67601

ATTN: Bob Hopkins

Tinkler #1-26

26-15s-1w Saline,KS

Start Date: 2014.12.13 @ 21:50:00

End Date: 2014.12.14 @ 04:50:45

Job Ticket #: 60994 DST #: 1

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

Printed: 2014.12.17 @ 09:32:19



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Tengasco, Inc.

26-15s-1w Saline,KS

PO Box 458
Hays, KS 67601

Tinkler #1-26

Job Ticket: 60994

DST#: 1

ATTN: Bob Hopkins

Test Start: 2014.12.13 @ 21:50:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:55:45

Time Test Ended: 04:50:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 76

Interval: 2582.00 ft (KB) To 2599.00 ft (KB) (TVD)

Reference Elevations: 1249.00 ft (KB)

Total Depth: 2599.00 ft (KB) (TVD)

1242.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8789

Inside

Press@RunDepth: 48.70 psig @ 2583.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.12.13

End Date:

2014.12.14

Last Calib.: 2014.12.14

Start Time: 21:50:02

End Time:

04:50:45

Time On Btm: 2014.12.14 @ 00:55:30

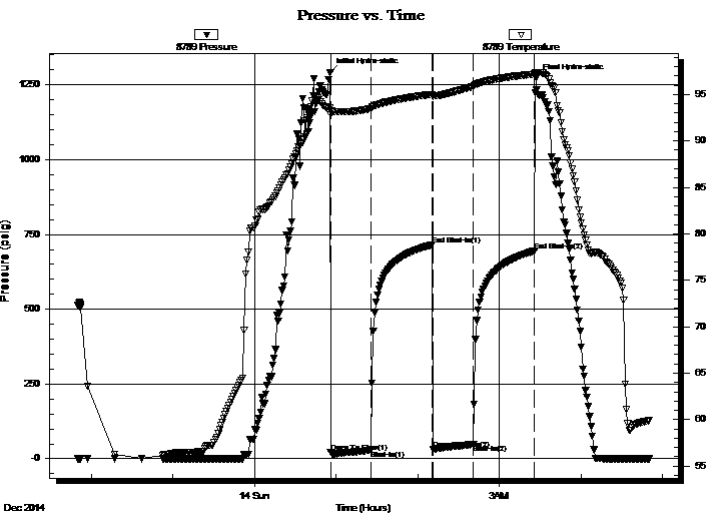
Time Off Btm: 2014.12.14 @ 03:27:00

TEST COMMENT: 30-IF-Built to 2 1/2"

45-ISI-No Return

30-FF-Built to 1"

45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1291.88	93.53	Initial Hydro-static
1	21.33	92.80	Open To Flow (1)
30	29.79	93.52	Shut-In(1)
75	714.86	95.01	End Shut-In(1)
76	32.35	94.79	Open To Flow (2)
106	48.70	95.87	Shut-In(2)
151	695.06	97.18	End Shut-In(2)
152	1272.63	97.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
78.00	MW, 40%m, 60%w	0.38

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Tengasco, Inc.

26-15s-1w Saline,KS

PO Box 458
Hays, KS 67601

Tinkler #1-26

Job Ticket: 60994

DST#: 1

ATTN: Bob Hopkins

Test Start: 2014.12.13 @ 21:50:00

Tool Information

Drill Pipe:	Length: 2454.00 ft	Diameter: 3.80 inches	Volume: 34.42 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 35.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	2582.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	38.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2562.00	
Shut In Tool	5.00			2567.00	
Hydraulic tool	5.00			2572.00	
Packer	5.00			2577.00	21.00 Bottom Of Top Packer
Packer	5.00			2582.00	
Stubb	1.00			2583.00	
Recorder	0.00	8289	Inside	2583.00	
Recorder	0.00	6668	Outside	2583.00	
Perforations	13.00			2596.00	
Bullnose	3.00			2599.00	17.00 Bottom Packers & Anchor
Total Tool Length:	38.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Tengasco, Inc.

26-15s-1w Saline,KS

PO Box 458
Hays, KS 67601

Tinkler #1-26

Job Ticket: 60994

DST#: 1

ATTN: Bob Hopkins

Test Start: 2014.12.13 @ 21:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

38000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 3.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
78.00	MW, 40%m, 60%w	0.384

Total Length: 78.00 ft Total Volume: 0.384 bbl

Num Fluid Samples: 0

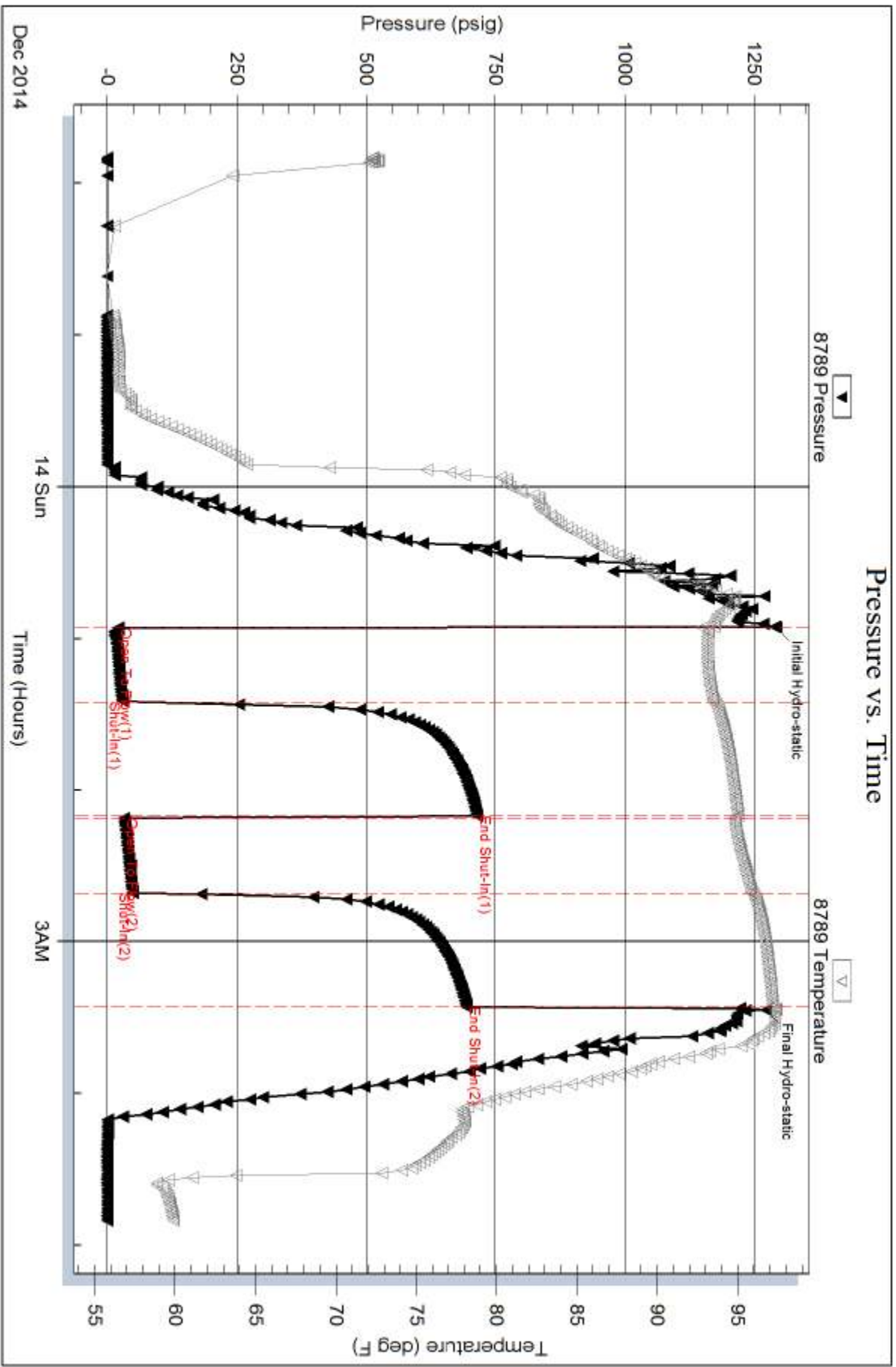
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .36 @ 58 degrees = 38,000 Salinity



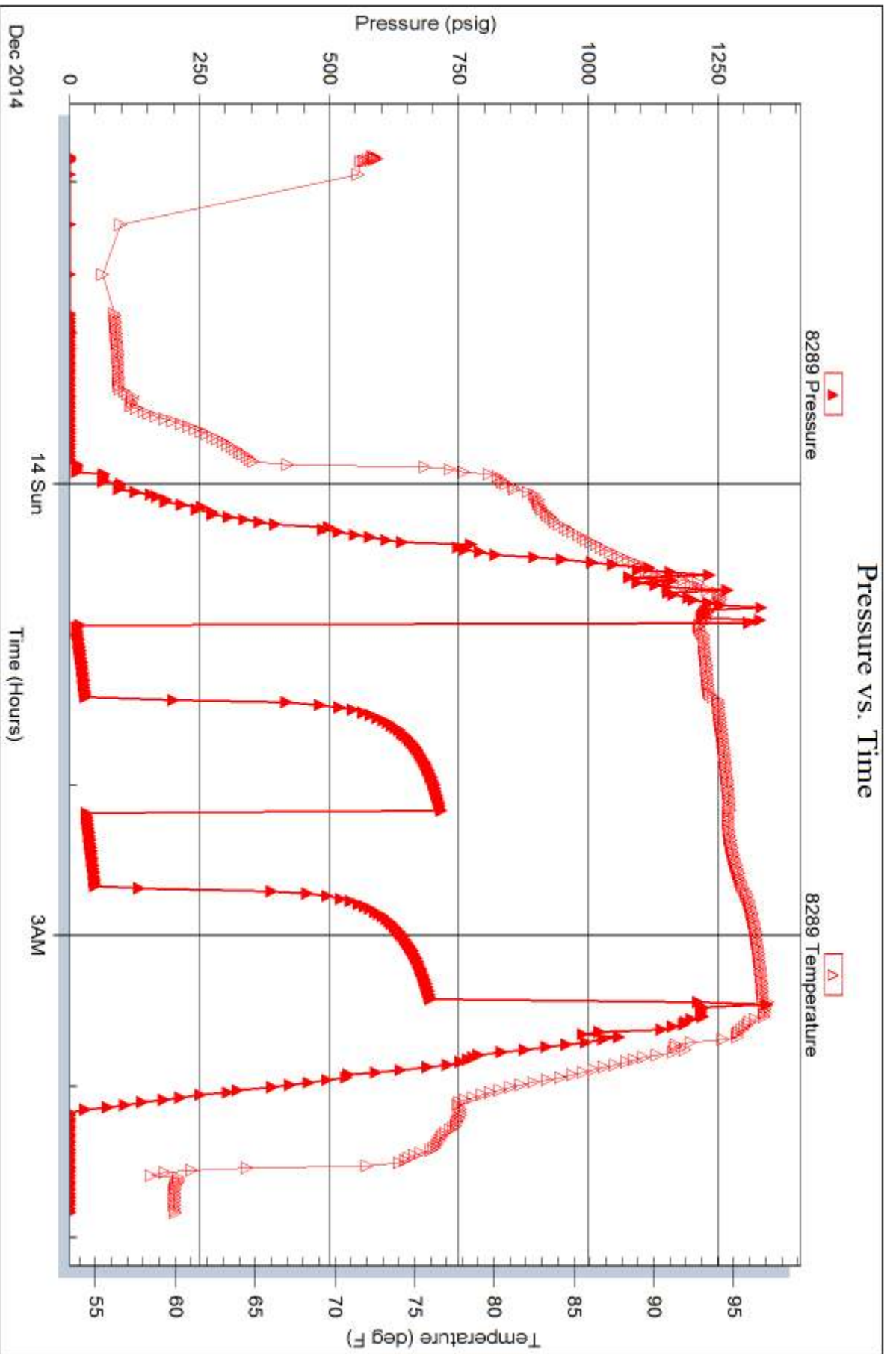
Serial #: 8289

Inside

Tengasco, Inc.

Tinkler #1-26

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60994

Printed: 2014, 12, 17 @ 09:32:20



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60994

Well Name & No. Tinkler #1-26 Test No. 1 Date 12-13-14
 Company Tengasco, Inc Elevation 1249 KB 1242 GL
 Address 1327 Noose RD P.O. Box 458 Hays, KS 67601
 Co. Rep / Geo. Bob Hopkins Rig American Eagle 3
 Location: Sec. 26 Twp. 15s Rge. 1w Co. Saline State KS

Interval Tested 2582-2599 Zone Tested Mississippi
 Anchor Length 17' Drill Pipe Run 2454 Mud Wt. 9.4
 Top Packer Depth 2577 Drill Collars Run 121 Vis 45
 Bottom Packer Depth 2582 Wt. Pipe Run 0 WL 618
 Total Depth 2599 Chlorides 1,800 ppm System LCM 3

Blow Description IF- Buite to 2 1/2" 1500
ISI- No Return
FF- Buite to 1"
FSI- No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>78'</u>	<u>MW</u>			<u>60%</u>	<u>40%</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 78 BHT 97 Gravity — API RW 136 @ 58° F Chlorides 38,000 ppm

(A) Initial Hydrostatic 1,291 Test 1650 T-On Location 21:45
 (B) First Initial Flow 21 Jars _____ T-Started 21:50
 (C) First Final Flow 29 Safety Joint _____ T-Open 00:56
 (D) Initial Shut-In 714 Circ Sub _____ T-Pulled 03:26
 (E) Second Initial Flow 32 Hourly Standby _____ T-Out 04:51
 (F) Second Final Flow 48 Mileage 230 RT XR Comments Loaded Tools on
 (G) Final Shut-In 695 Sampler 356.50+356.50 12-15-14
 (H) Final Hydrostatic 1,272 Straddle _____ Motel 11:00am.
 Ruined Shale Packer
 Ruined Packer

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 45 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 2363.00
 Final Shut-In 45 Accessibility _____ MP/DST Disc't _____
 Sub Total 2363.00

Approved By _____ Our Representative Phil Gose Thank You

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator Tengasco, Inc.
 Lease / Well TINKLER 1-26
 GL KB 1249' (measure from *)

Location 944 FNL, 743 FWL, SEC 26-15S-1W
 County SALINE State KS scale 1" = 20'
 depth this sheet - from 1780 to 1960' page 2 of 11

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								80			siltstone, a/a, n.s. ↓
								1800			
											gry sh to sandy sh.
											dk gry sh., w/trc gry sdy sh. ↓
								50			
											dk gry - blk sh.
								Br			tan fnxln lst., sl. foss., tite, n.s. Brown Ls. 1879(-630)
											gry sh. lst., a/a
								1900			red - gry sh. MUD VIS 56; wt 9.1
											dk gry sh.
											gry sh. LANSING 1923(-674)
								LKC			bf-gry fnxln lst., pyritic, tite, n.s.
											dk gry fnxln oolitic lst., sl. φ, n.s.
											dk gry sh.
								50			bf-gry oolitic lst., sl. φ, n.s.
								60			

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator TENGASCO, INC.

Location 944 FNL, 743 FWL, SEC. 26-155-1W

Lease / Well TINKLER 1-26

County SALINE State KS

scale 1" = 20'

GL KB 1249 (measure from *)

depth this sheet - from 1960 to 2140

page 3 of 11

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								60			bf-gry oolitic lst., fite, n.s.
											blk carb sh.
											wh foxln fite lst., n.s. MUD vis 56; wt 9.3
											gry sh.
								2000			bf-gry foxln granular lst., sl. ϕ , n.s.
											gry sh. ↓
											dk gry-blk sh; w/ frc gry siltstone
											bf foxln fite lst., n.s.; sl. fossiliferous
								50			gry medxln oolitic/foss. lst., sl. ϕ , n.s.
											gry sh.
											dk gry-blk sh. MUD vis 56; wt 9.2
											tan foxln fite lst., n.s.
								2100			blk sh.
											-gry sh.
											bf foxln fite lst., sl. foss., n.s.
											gry foxln fite lst., n.s.
								40			

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator TENGASCO, INC.

Location 944 FNL, 743 FWL, SEC. 26-155-1W

Lease / Well TINKLER 1-26

County SALINE State KS

scale 1" = 20'

GL KB 1249' (measure from *)

depth this sheet - from 2140' to 2320'

page 4 of 11

DRILLING TIME (min/ft)								DEPTH	tops	lith	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8		shows	graph	
								40			gry fn-med xln fite lst., n.s.
								50			white chalk, exc ϕ , n.s.
											bf fn-med xln fite lst., n.s.
											Stark Sh. 2189(-940)
								STARK			a/a, sh. foss.
											blk fissile sh.
								2200			bf-gry fn xln fite lst., n.s. SH Test 1° MUD VIS 49, wt. 9.5 BIT TRIP-PLUGGED BIT PIPE STRAP 0.65 long
								HP			blk pyritic sh; blocky wh fn-co xln lst., fite, n.s. Hushpuckney Sh. 2220'
								50			wh-gry fn-med xln lst., fite, n.s.
								BKC			gry sh. BKC 2262(-1013)
											grn sh to siltstone
											blk sh.
											dk brn fn xln foss lst., fite, n.s.
											gray sh.
											dk gry fite lst., n.s.
								2300			gry-blk sh; w/ trc. siltstone
											bf fn xln fite lst., n.s.
											gry sh.
								20			

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator TENGASCO, INC.

Location 944' FNL, 743' FWL, SEC. 26-15s-1w

Lease / Well TINKLER 1-26

County SALINE State KS

scale 1" = 20'

GL KB 1249' (measure from *)

depth this sheet - from 2320 to 2500'

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DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								20			gry sh. bf foxln tite lst., n.s. lst., afa, n.s. gry sh.
								50			lt. gry siltstone blk sh. wh frag sst., sl. φ, n.s.
											tan foxln tite lst., n.s. blk sh.
											bf foxln tite lst., n.s. gry sh. dk brn - gry foss lst., tite, n.s.
								2400			blk sh. gry sh. bf tite lst., n.s. blk sh. gry clay gumbo - siltstone gry sh., w/ tite lst., n.s.
								CK			gray tite lst., n.s., sl. cherty gry sh.
								50			yellow soft sh., clayey dk brn med ln lst., tite, n.s. lt. to dk gry sh.
											brn lst., afa, n.s.; sl. cherty gry sh. lst., afa, n.s. gry sh. blk sh.
								2500			

MUD VIS 45, wt 9.4

Cherokee 2446(-1197)

MIX, SET
MUD VIS 51, wt 9.0

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator TENGASCO, INC.
 Lease / Well TINKLER 1-26
 GL KB 1249' (measure from *)

Location 944 FNL, 743 FNL, SEC 26-15S-1W
 County SALINE State KS scale 1" = 20'
 depth this sheet - from 2680 to 2860' page 7 of 11

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								80		△△ △△ △△ △△	wh fresh - tripolitic chert, w/ 10% wh. lst., n.s. exc. φ
								2700		△△ △△ △△ △△	↓ MUD VIS 56; wt 9.0
										△△ △△ △△ △△	
										△△ △△ △△ △△	a/a, some gry spiculitic chert
								50		△△ △△ △△ △△	bf fuxln lst., sh. foss., tite, n.s.
										△△ △△ △△ △△	Northview Sh. 2765' Compton Ls. 2770'
										△△ △△ △△ △△	olive sh., blocky, waxy
										△△ △△ △△ △△	wh - bf fu-med xln tite lst., n.s.
										△△ △△ △△ △△	a/a, w/ ltr vuggy φ, n.s.
								2800 KH		△△ △△ △△ △△	KINDERHOOK 2804(-1555)
										△△ △△ △△ △△	gray - blk sh, w/ gry siltstone
										△△ △△ △△ △△	grn v. gr. sst., tite, n.s. MUD VIS 54; wt 9.1
										△△ △△ △△ △△	grn - gry sh; w/ siltstone
										△△ △△ △△ △△	grn - gry sh.
								50		△△ △△ △△ △△	lt - dk gry sh.
								60		△△ △△ △△ △△	

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator TENGASCO, INC.
 Lease / Well TINKLER 1-26
 GL KB 1249' (measure from *)

Location 944 FNL, 743 FWL, SEC. 26-155-1W
 County SALINE State KS scale 1" = 20'
 depth this sheet - from 2860 to 3040 page 8 of 11

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								60			lt-dk gry sh. ↓
								2900			blk shy sst, tite, n.s. Misener S.D. 2906' pyritic
								Hunt			Hunt 2911(-1662) bf med-coxln lst., sl. φ, n.s. abundant wh. fresh chert; NO ugs visible
											↓
											lst, a/a; w/ lens (< 10%) fresh chert, sl. φ, n.s.
								50			↓
											tan dolomite, granular to sucrosic; exc φ, n.s. w/ 10% wh-bnn fresh chert
											lost circulation regained immediately
								3000			wh granular dolomite, w/ lst., 25% wh fresh chert, gd φ, n.s.
											lt grn. shale
											dolomite, a/a, n.s.
								40			

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator TENGASCO, INC.

Location 944 FNL, 743' FWL, SEC. 26-15S-1W

Lease / Well TINKLER 1-26

County SALINE State KS

scale 1" = 20'

GL KB 1249' (measure from *)

depth this sheet - from 3040' to 3220'

page 9 of 11

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								40			wh dolomite, a/a, granular, fair ϕ , n.s., 25% chert
								50			exc ϕ , n.s., juggy
								M sh.			Maquoketa Sh. 3067(-1818) gray siltstone, n.s.
											MUD VIS 60; wt 9.6
								3100			grn-gry sh to sandy shale
											VIS > 100 (?) JET PITS, ADD MUD
											lt-dk gry sh.
								50			
											MUD VIS 60; wt 9.4
								Mg D.			Maquoketa Dol. 3173(-1924) brn-gry granular dolomitic sst., sl. ϕ , n.s. sl. fossiliferous
								CFS \odot Viola			a/a, better pinpoint ϕ , n.s.
								CFS \odot			bf-brn tite dolomite, n.s., w/ gry-wh-brn fresh chert
								3200			ViOLA 3181(-1932)
											dolomite, a/a, brown fresh chert, sl ϕ , n.s.
								20			

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator TENGASCO, INC.
 Lease / Well TINKLER 1-26
 GL KB 1249 (measure from *)

Location 944 FNL, 743' FWL, SEC, 26-15s-1w
 County SALINE State KS scale 1" = 20'
 depth this sheet - from 3220 to 3400' page 10 of 11

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								20			wh chalky lst. w/ 40% brown fresh chert; sl-φ, n.s. MUD VIS 47; wt. 9.6
								50	Simp		<u>Simpson 3254(-2005)</u>
											bf fossiliferous chalky lst., sandy, sl. φ, n.s.
											gray fine sst., well rounded, well cemented, n.s. micaceous
											green sh., soft, clayey
											wh fine med gr sst., well cemented, limy, n.s.
											tan granular dolomite, sl. sandy, lite, n.s.
								3300			gray cogr sst., well cemented, n.s.; micaceous well rounded grains
											blue-gray sh. MUD VIS 60; wt. 9.3
											gry-wh med gr sst., poor φ; well cemented, mica, n.s. <u>Arbuckle 3336(-2087)</u>
									Arb		lt gry sh to sdy sh.
									CFS		brown sucrosic dolomite, fair vuggy φ, n.s., w/ 10% brown fresh chert
								50			brn-gry fossiliferous granular dolomite, fair φ, n.s.
											trc gry-wh, fresh foss. chert, pyritic
								3400			

