

Confidentiality Requested:

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  
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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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](mailto: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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Mikol Oil LLC
Well Name	BRUMITT 3
Doc ID	1361009

All Electric Logs Run

Compensated Density Neutron
Dual Induction
Micro
Cement Bond

Form	ACO1 - Well Completion
Operator	Mikol Oil LLC
Well Name	BRUMITT 3
Doc ID	1361009

Tops

Name	Top	Datum
Top Anhydrite	1310	+764
Base Anhydrite	1345	+729
Topeka	3024	-950
Heebner	3248	-1174
Toronto	3268	-1194
LKC	3288	-1214
BKC	3525	-1451
Arbuckle	3665	-1591

Form	ACO1 - Well Completion
Operator	Mikol Oil LLC
Well Name	BRUMITT 3
Doc ID	1361009

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3665-67	200 gal 15% MCA	3667
4	3574-82	500 gal INS acid, 434bbl Plexgel, Plexbor, Clayplex 125 bag sand, 461 bbl fresh water flush	3582
	Cast Iron Bridge Plug		3625





Marc A. Downing		Geologic Report			
Consulting Petroleum Geologist		Drilling Time and Sample Log			
Operator Mikol Oil LLC		Elevation 2074		KB	
Lease Brumitt No. 3-28		2068		DF	
API # 15-163-24339-0000		Casing Record Surface			
Field Wildcat		8 5/8" @ 220'			
Location 527' FSL & 2154' FEL		Production 5 1/2" @ 3725'			
Sec. 28 Twp. 10s Rge. 17w		Electrical Surveys			
County Rooks State Kansas		CNDL, DIL, MEL			
Formation	Sample tops	Log Tops	Datum	Struct Comp	
Top Anhydrite	1318	1310	+764	-1	
Base Anhydrite	1355	1345	+729	-1	
Topeka	3028	3024	-950	FL	
Heebner	3250	3248	-1174	FL	
Toronto	3270	3268	-1194	+4	
LKC	3292	3288	-1214	+2	
BKC	3528	3525	-1451	+2	
Arbuckle	3667	3665	-1591	+10	
Total Depth	3725	3725	-1651		
Reference Well For Structural Comparison Mikol Oil LLC					
Brumitt #1-28		475' FSL & 1590' FEL		Sec. 28-10s-17w	

Drilling Contractor	Royal Drilling, Rig #1	
Commenced	5-7-17	Completed 5-14-17
Samples Saved From	3000	To RTD
Drilling Time Kept From	2900	To RTD
Samples Examined From	3000	To RTD
Geological Supervision From	3000	To RTD

**Summary and Recommendations**

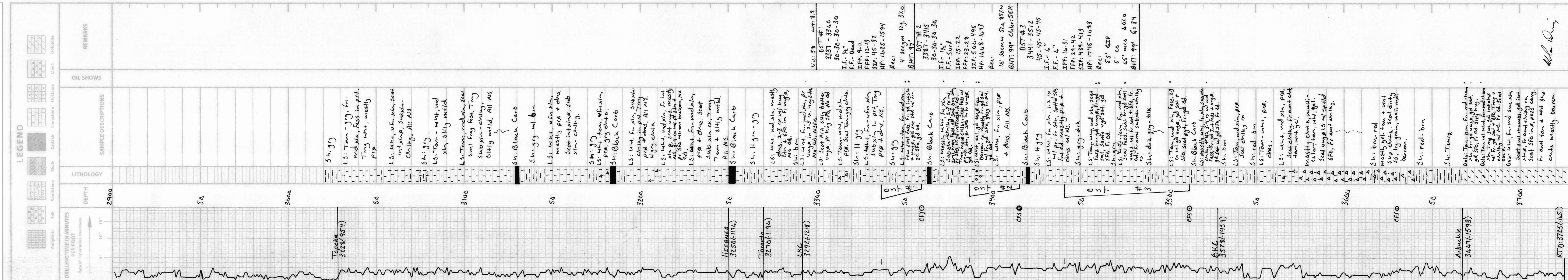
Due to structural position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion.

Perforations:

Arbuckle: 3666-3668 (First, set plug if wet)  
 LKC K: 3498-3500  
 LKC J: 3473-3477  
 LKC I: 3456-3459

Respectfully Submitted,

Marc A. Downing



M.A. Downing

RTD: 3725 (-1651)





**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

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

MA 121

FIELD SERVICE TICKET  
1718 13545 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB 6-1-17	DISTRICT Pratt 15	NEW WELL <input checked="" type="checkbox"/>	OLD WELL <input type="checkbox"/>	PROD <input type="checkbox"/>	INJ <input type="checkbox"/>	WDW <input type="checkbox"/>	CUSTOMER ORDER NO.:		
CUSTOMER Mikol Oil LLC	LEASE Brumitt #3	WELL NO.							
ADDRESS	COUNTY Rooks	STATE KS							
CITY	STATE	SERVICE CREW Jacob Anthony							
AUTHORIZED BY Aven Weaverly	JOB TYPE: Produce LG 2000 free 15750 20%								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM PM	TIME
38749	X 6					ARRIVED AT JOB	6-1-17	AM	9:00
70760	X 6					START OPERATION	6-1-17	AM	11:01
70761	X 6					FINISH OPERATION	6-1-17	AM	17:00
19902/19453	X 6					RELEASED	6-1-17	AM	19:00
						MILES FROM STATION TO WELL			145

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.

SIGNED: \_\_\_\_\_  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
C15824	Plexgel-1-9072-E	gal	82		4510 00
C803	Plexbur-101	gal	18		684 00
C1907	KNE-1 non-emulsifier	gal	10		370 00
C718	Clayplex 650	gal	15		525 00
C608	P5 Liquid Biocide	gal	2		120 00
C507	Drother 10L	gal	1		175 00
C2315	580 ME surfactant	gal	19		798 00
P1101	20/40 mesh Brady Sand hoses	cut	125		3500 00
P402	Arsin coated curable sand	cut	25		2000 00
E101	Heavy Equipment mileage	mi	780		5850 00
E100	Unit mileage - Pickup	mi	130		585 00
E113	Proppant + Bulk Delivery	Tm	975		2437 50
E700	Iron Touch	ea	1		800 00
E435	1800 HHP Tr. Plex free pump	ea	1		6500 00
B200	Blender 0-10 BPM	ea	1		3000 00
E712	Computerized liquid chemical Additive unit	job	1		1800 00
P800	20/40 mesh or smaller Prop pump	cut	125		50 00
P801	16/30 mesh or larger Prop pump	cut	25		28 50
E729	Densometer	ea	1		1250 00

SUB TOTAL

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$
MATERIALS	%TAX ON \$

TOTAL

JWD

SERVICE REPRESENTATIVE 	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: 
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(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.







Customer Mihul Oil LLC		Lease No.		Date 5-1-17	
Lease Bremitt		Well # 3			
Field Order # 13545A	Station P. 15 KS	Casing 5 1/2	Depth	County Books	State KS
Type Job Profile LG 2000 Frac 1st stage 2BE			Formation Lvsd shale sand	Legal Description 20-10S-17W	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
5 1/2	2 3/8	4	32 holes					
Depth	Depth	From	To	Pre Pad		Max		5 Min.
		3574	3582					
Volume	Volume	From	To	Pad		Min		10 Min.
5.25								
Max Press	Max Press	From	To	Frac		Avg		15 Min.
2000	2000							
Well Connection	Annulus Vol.	From	To			HHP Used		Annulus Pressure
2 3/8								
Plug Depth	Packer Depth	From	To	Flush		Gas Volume		Total Load

Customer Representative Aron Weir	Station Manager Justin Westerman	Treater Jacob A. Dany
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Service Units	70206	19900	9964	29903	19892	75775	78668				
Driver Names	Sparth	EJ	Tim	Chuck	Dominic	Jason	John				

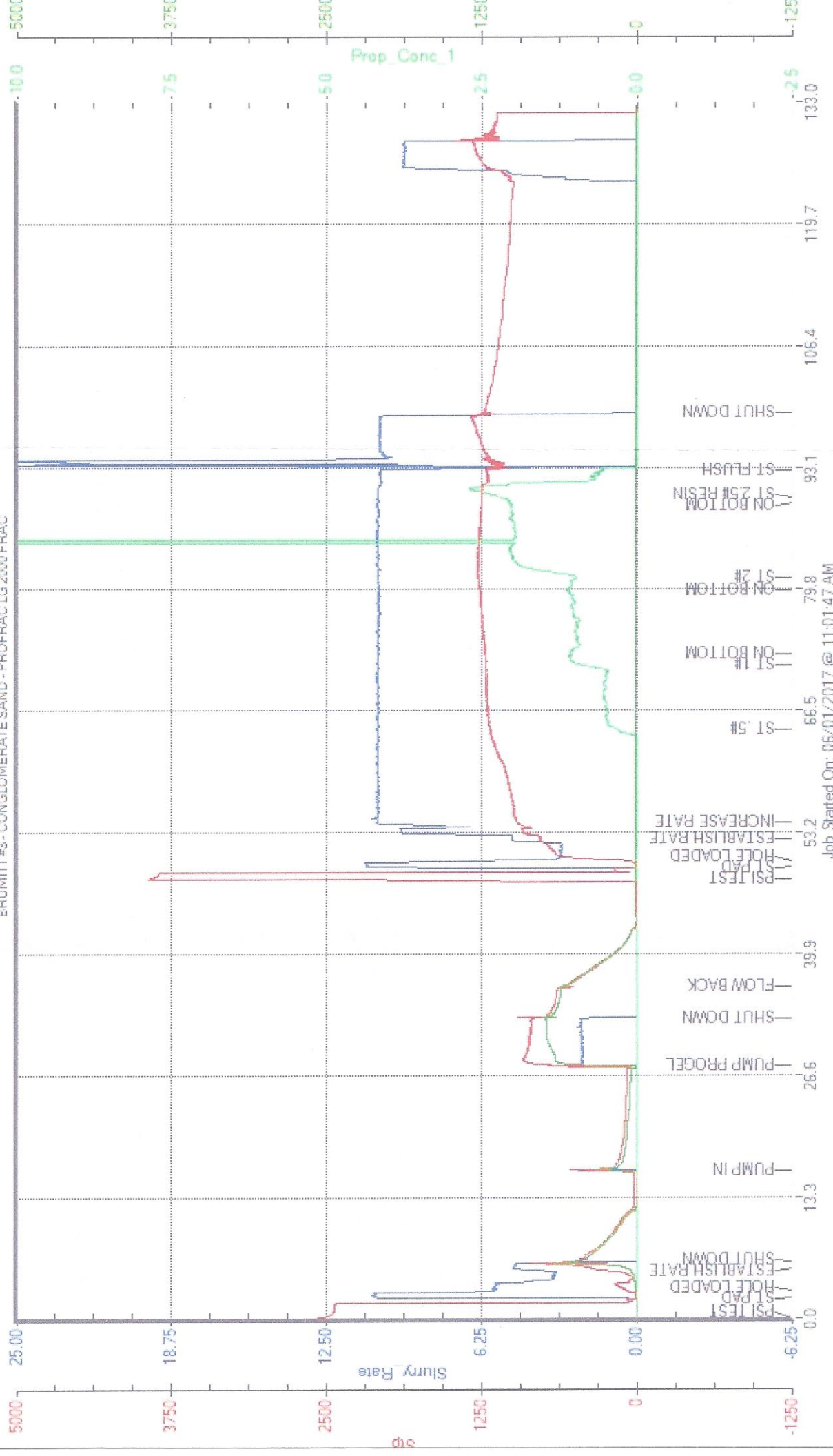
Time	Casing Pressure	Tubing Pressure	Bbbs. Pumped	Rate	Service Log
9:00					on location, safety meeting, setup
11:01	0	2625			Pressure Test
11:03	0	6		10.7	start 1428 gallon Pad
11:04	0	90	8	5.8	Hole loaded
11:07	70	346	18	5	Establish rate
11:08	527	481	22.8	0	Shot Down Backside pressured up
11:17	169	378	22	2.3	Pump In Fluid out Annulus
12:14	574	719	22	2.2	Pump gel
12:19	685	758	34	0	Shot Down
12:22	597	585	34	0	Flow back 10 bbls Pull Tubing
15:39	3927				Pressure Test
15:41	0			10.8	start 5700 gallon Pad
15:41	515		8	3.1	Hole loaded
15:44	776		51	5	Establish rate
15:45	958		66	10.5	Increase rate
15:56	1176		170	10.5	start 3000 gallon .5 20/40
16:03	1212		243	10.5	start 4000 gallon 1# 20/40
16:04	1215		255	10.5	.5 20/40 on Bottom
16:11	1255		328	10.5	1# 20/40 on Bottom
16:12	1275		343	10.5	start 3500 gallon 2# 20/40
16:20	1247		428	10.5	2# 20/40 on Bottom





# MIKOL OIL LLC

BRUMITT #3 - CONGLOMERATE SAND - PROFRAC LG 2000 FRAC



Job Started On: 06/01/2017 @ 11:01:47 AM

# 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. **055**

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-9-17	28	10	17	Rooks	KS		2:15AM

Location *saline River Rd & codell Rd SW, 5N*

Lease <i>Brumitt</i>	Well No. <i>3-28</i>	Owner
Contractor <i>Royal</i>		To Quality Oilwell Cementing, Inc.
Type Job <i>Surface</i>		You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Hole Size <i>12 1/4</i>	T.D. <i>221</i>	Charge To <i>Mikol Oil</i>
Csg. <i>8 5/8</i>	Depth <i>221</i>	Street
Tbg. Size	Depth	City
Tool	Depth	State
Cement Left in Csg.	Shoe Joint <i>20</i>	The above was done to satisfaction and supervision of owner agent or contractor.
Meas Line	Displace <i>12 3/4 bbl</i>	Cement Amount Ordered <i>150 80/20, 3%cc, 2%gel</i>

**EQUIPMENT**

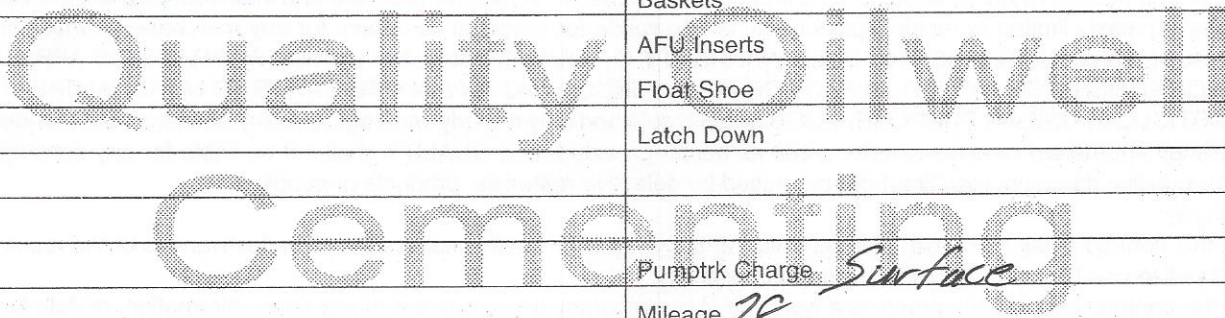
Pumptrk <i>18</i>	No.	Cementer <i>Travis</i>	Common <i>120</i>
		Helper	Poz. Mix <i>30</i>
Bulktrk <i>3</i>	No.	Driver	Gel. <i>3</i>
		Driver <i>Tony</i>	Calcium <i>6</i>
Bulktrk	No.	Driver	
		Driver	

**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>159</i>
	Mileage

**FLOAT EQUIPMENT**

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down



Pumptrk Charge *Surface*  
Mileage *28*

X Signature *Henry Buey*

Tax
Discount
Total Charge



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. **162**  
S-15-17

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
S-14-17	28	10	17	Rooks	Ks		12:00PM

Location **Codell Rd + River Rd, 1W, 3 1/2 N**

Lease	Well No.	Owner
<b>Brumitt</b>	<b>3</b>	<b>WINTO</b>

Contractor	Type Job	Charge To
<b>Royal I</b>	<b>Longstring</b>	<b>Mikol oil LLC.</b>

Hole Size	T.D.	Street
<b>7 7/8"</b>	<b>3725'</b>	

Csg.	Depth	City
<b>5 1/2" 15.50 #</b>	<b>3724'</b>	

Tbg. Size	Depth	State

Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
<b>Port Collar</b>	<b>1307' #54</b>	

Cement Left in Csg.	Shoe Joint	Cement Amount Ordered
<b>21'</b>	<b>21'</b>	<b>175 Com 10% Salt 5% G. Isomite</b>

Meas Line	Displace	<b>3/4 of 1% CFR 500 gal mud Clear 48</b>
	<b>88 BUS</b>	

EQUIPMENT		Common
Pumptrk	No.	<b>175</b>
<b>18</b>	<b>1</b>	

Cement	Helper	Poz. Mix
<b>Tim</b>		

Bulktrk	No.	Driver	Gel.
<b>3</b>	<b>1</b>	<b>Jordan</b>	

Bulktrk	No.	Driver	Calcium
<b>p.u.</b>	<b>1</b>	<b>Rick</b>	

JOB SERVICES & REMARKS		Hulls
Remarks:		

Rat Hole	Salt	<b>14</b>

Mouse Hole	Flowseal	<b>KCH 29d</b>

Centralizers	Kol-Seal	<b>20 BUS 750 #</b>
<b>1,3,5,7,9,11 S3</b>		

Baskets	Mud CLR 48	<b>500 gal</b>
<b>54</b>		

D/V or Port Collar	CFL-117 or CD110 CAF 38	<b>25 #</b>
<b>#54 1307'</b>		

pipe on bottom break	Sand	<b>130 #</b>
<b>Circulation pump</b>		

500 gal mud Clear 48 pump to BUS KCL	Handling	<b>196</b>

spacer plug Rothole w/ 30sx plug mousehole	Mileage	

w/ 15 sx Cement 5 1/2" Casing w/	FLOAT EQUIPMENT	
<b>130 sx Shut down wash pump p/t</b>	Guide Shoe	<b>Port Collar</b>

lines Displaced plug w/ 88 BUS KCL. Release + held.	Centralizer	<b>6 turbos 1 Reg</b>

Lift pressure	Baskets	<b>1</b>
<b>600 #</b>		

Land plug to	AFU Inserts	
<b>1500 #</b>		

	Float Shoe	<b>1</b>

	Latch Down	<b>1</b>

	Rotating head	

X Signature **[Handwritten Signature]**

Pumptrk Charge **prod string**  
Mileage **28**

Tax	
Discount	
Total Charge	



# 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. 175

Date	5-25-17	Sec.	28	Twp.	10	Range	17	County	Rooks	State	Ks	On Location		Finish	1:00PM
------	---------	------	----	------	----	-------	----	--------	-------	-------	----	-------------	--	--------	--------

Lease Beumitt Location Codell - 2w to 22 Rd, 45, w/Intro

Well No. 3 Owner To Quality Oilwell Cementing, Inc.

Contractor Western well Service 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 Port Collar Charge To Mikd oil

Hole Size 5 1/2" T.D.  Depth  Street

Csg.  Depth  City  State

Tbg. Size  Depth  City  State

Tool Port Collar Depth 1300' The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg.  Shoe Joint  Cement Amount Ordered 200 QMDC 1/4# Flo-seal

Meas Line  Displace 6 1/2 BBLs used 115

**EQUIPMENT** Common 115 80% Q mbr

Pumptrk 16 No.  Cementer Travis Poz. Mix

Bulktrk 3 No.  Driver Jordan Gel.

Bulktrk pu No.  Driver Rick Calcium

**JOB SERVICES & REMARKS** Hulls

Remarks: Test tool to 1000# held Salt

Rat Hole open tool + established a blow Flowseal 50#

Mouse Hole mix 115 SX QMDC 1/4# Flo-seal Kol-Seal

Centralizers + Displaced w/ 6 1/2 BBLs Closed Mud CLR 48

Baskets tool + test tool 1000# + held CFL-117 or CD110 CAF 38

D/V or Port Collar Run 5 JTS + wash Sand

Clean Rigged down Handling 200

Cement did Circulate Mileage

**FLOAT EQUIPMENT** Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge port collar Job  
Mileage 28

Tax   
Discount   
Total Charge

X Signature Jim W...





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Mikol Oil LLC  
 1407 Washington Circle  
 Hays, KS 67601  
 ATTN: Marc Downing

**28/10s/17w Rooks KS**  
**Brumitt #3**  
 Job Ticket: 65447      **DST#: 1**  
 Test Start: 2017.05.12 @ 08:30:00

## GENERAL INFORMATION:

Formation: **LKC "D"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:14:15  
 Time Test Ended: 13:38:30  
**Interval: 3337.00 ft (KB) To 3360.00 ft (KB) (TVD)**  
 Total Depth: 3360.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: James Winder  
 Unit No: 83  
 Reference Elevations: 2073.00 ft (KB)  
 2067.00 ft (CF)  
 KB to GR/CF: 6.00 ft

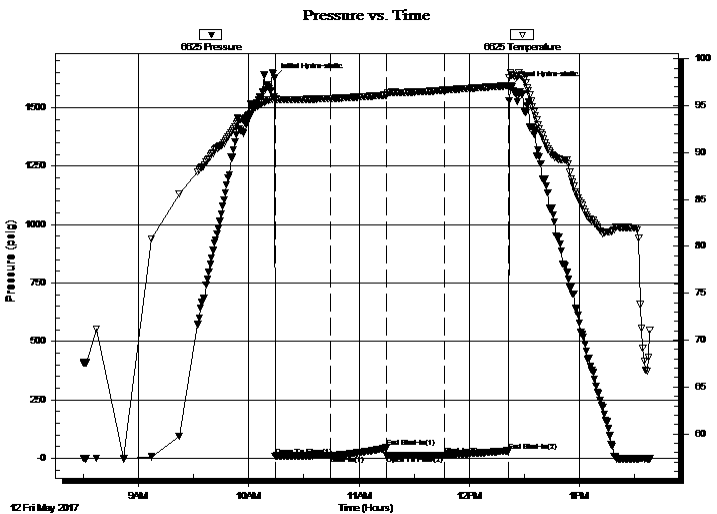
## Serial #: 6625

Inside

Press@RunDepth: 13.21 psig @ 3338.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2017.05.12      End Date: 2017.05.12      Last Calib.: 2017.05.12  
 Start Time: 08:30:05      End Time: 13:38:29      Time On Btm: 2017.05.12 @ 10:14:00  
 Time Off Btm: 2017.05.12 @ 12:23:00

**TEST COMMENT:** 30 - IF: Blow built to 1/2", died back to 1/4" at close  
 30 - IS: No blow back  
 30 - FF: No blow  
 30 - FS: No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1625.42	95.95	Initial Hydro-static
1	8.74	95.71	Open To Flow (1)
31	11.38	95.76	Shut-In(1)
61	44.95	96.12	End Shut-In(1)
61	12.37	96.13	Open To Flow (2)
93	13.21	96.64	Shut-In(2)
128	32.15	97.13	End Shut-In(2)
129	1593.54	98.27	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
4.00	Mud w /Oil spots 96%m, 3%o, 1%g	0.06

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Mkol Oil LLC  
1407 Washington Circle  
Hays, KS 67601  
ATTN: Marc Downing

**28/10s/17w Rooks KS**  
**Brumitt #3**  
Job Ticket: 65447      **DST#: 1**  
Test Start: 2017.05.12 @ 08:30:00

## 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:	ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 12000.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
4.00	Mud w /Oil spots 96% <sub>m</sub> , 3% <sub>o</sub> , 1% <sub>g</sub>	0.056

Total Length: 4.00 ft      Total Volume: 0.056 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

Serial #: 6625

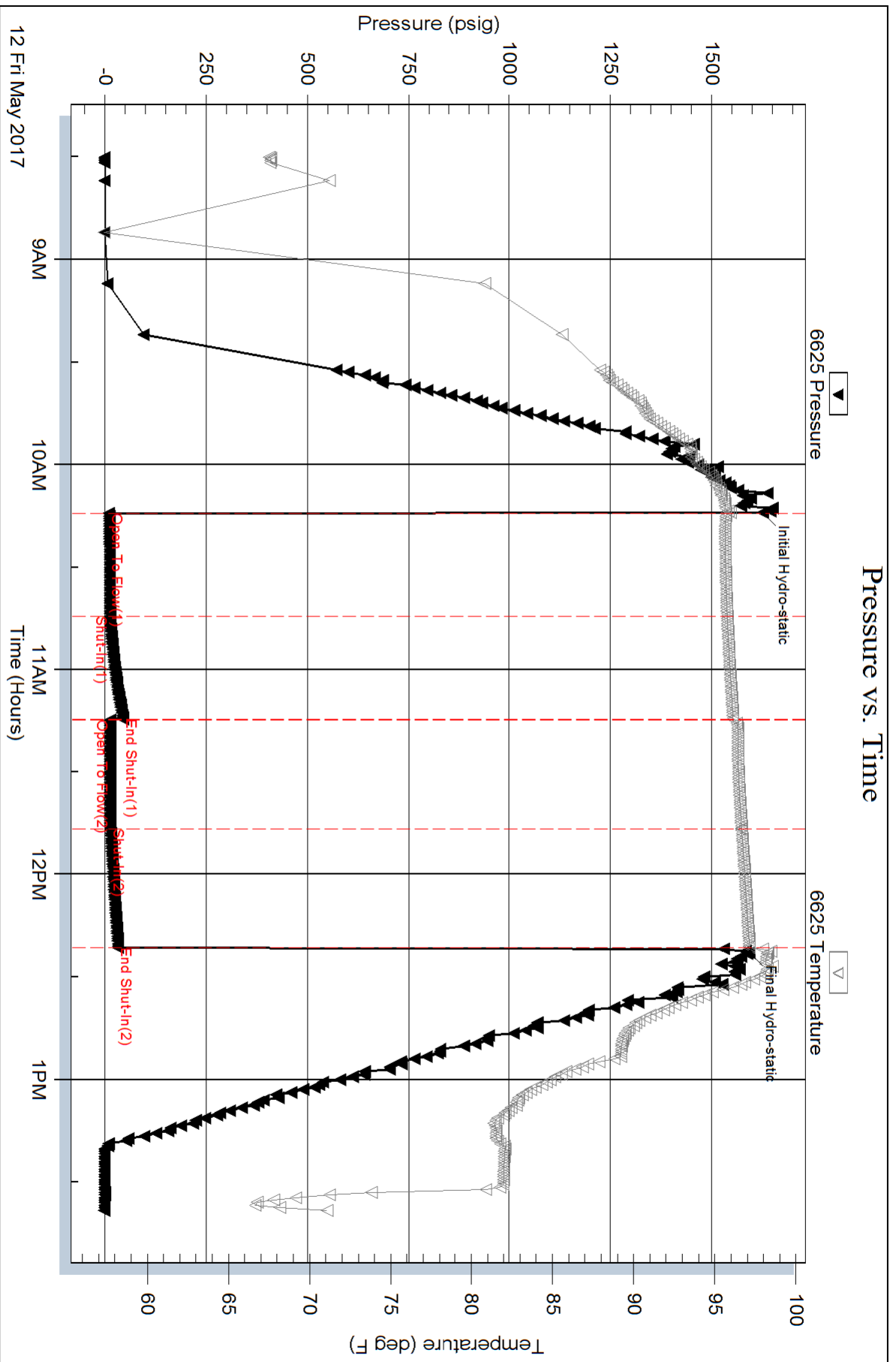
Inside

Mkol Oil LLC

Burnt#3

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 65447

Printed: 2017.05.12 @ 13:55:55

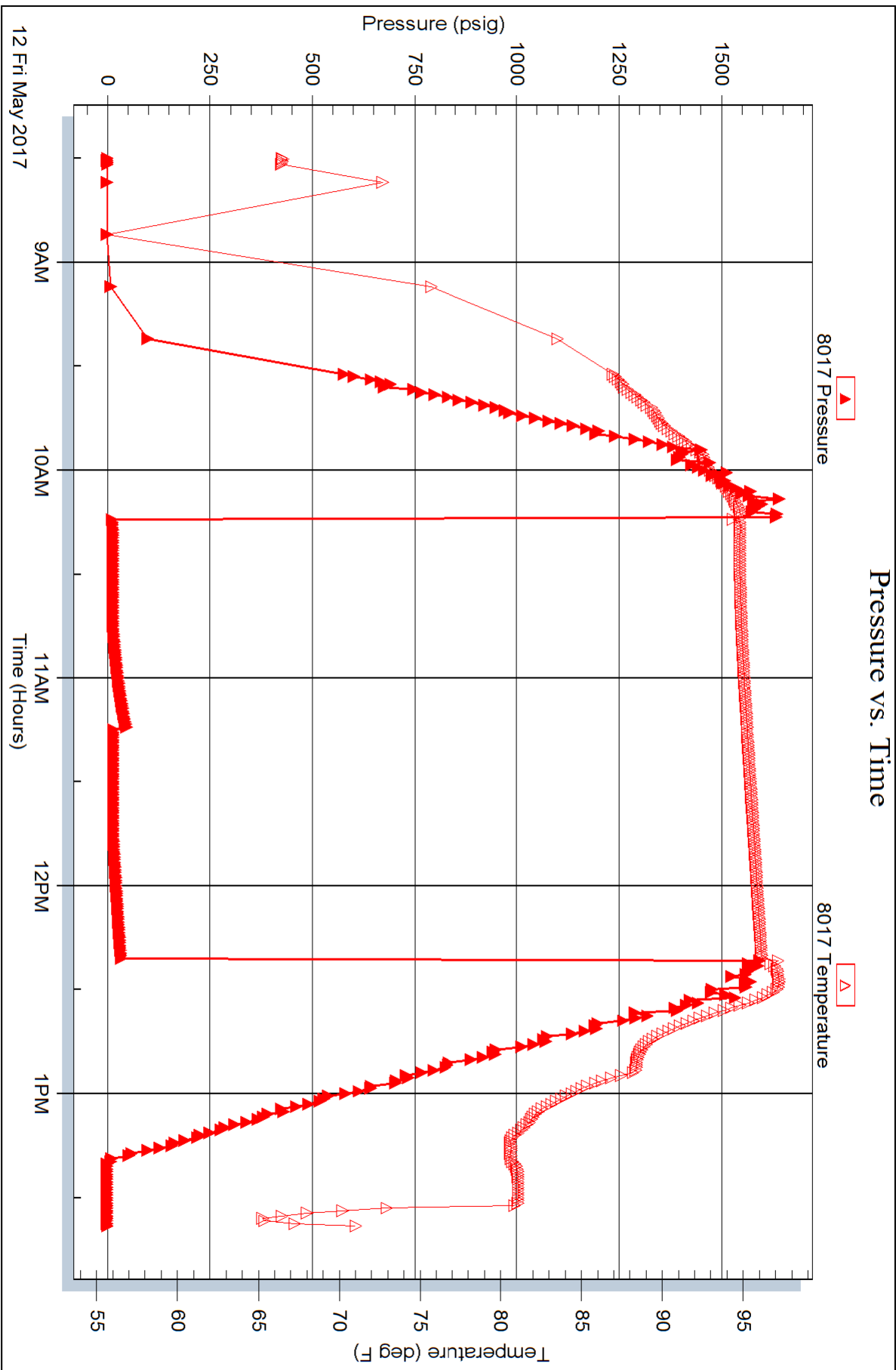
Serial #: 8017

Outside

Mkol Oil LLC

Burnt#3

DST Test Number: 1







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Mkol Oil, LLC  
 1407 Washington Circle  
 Hays, KS 67601  
 ATTN: Marc Downing

**28-10S-17W Rooks, KS**  
**Brumitt #3**  
 Job Ticket: 63189 **DST#: 2**  
 Test Start: 2017.05.12 @ 21:07:42

## GENERAL INFORMATION:

Formation: **LKC "G"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:38:18  
 Time Test Ended: 03:12:48  
 Interval: **3387.00 ft (KB) To 3415.00 ft (KB) (TVD)**  
 Total Depth: 3415.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brannan Lonsdale  
 Unit No: 73  
 Reference Elevations: 2073.00 ft (KB)  
 2067.00 ft (CF)  
 KB to GR/CF: 6.00 ft

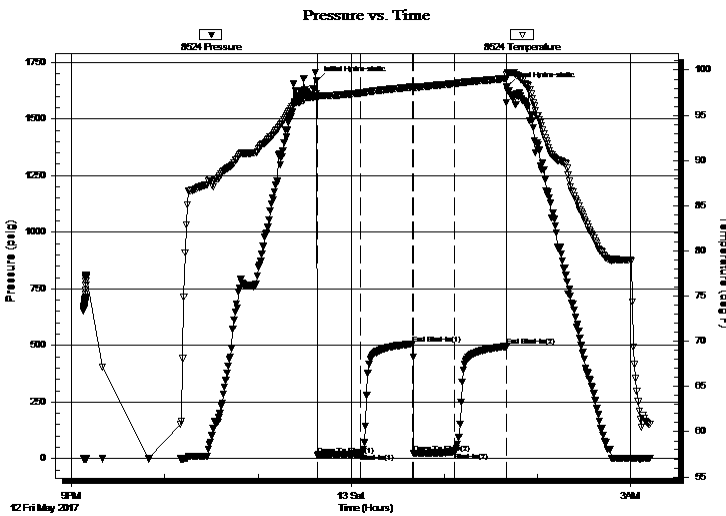
## Serial #: 8524

Outside

Press@RunDepth: 27.94 psig @ 3388.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.05.12 End Date: 2017.05.13 Last Calib.: 2017.05.13  
 Start Time: 21:07:43 End Time: 03:12:48 Time On Btm: 2017.05.12 @ 23:38:03  
 Time Off Btm: 2017.05.13 @ 01:40:18

TEST COMMENT: 30- IF- Weak blow built slowly to 1.5"  
 30- IS- No blow  
 30- FF- Weak surface blow  
 30- FSI- No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1668.12	97.39	Initial Hydro-static
1	14.58	96.83	Open To Flow (1)
29	21.79	97.46	Shut-In(1)
62	506.41	98.13	End Shut-In(1)
63	22.96	98.05	Open To Flow (2)
89	27.94	98.49	Shut-In(2)
122	495.19	99.05	End Shut-In(2)
123	1643.35	99.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	SOCMW, 5%O 10%M 85%W	0.14

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Mkol Oil, LLC  
1407 Washington Circle  
Hays, KS 67601  
ATTN: Marc Downing

**28-10S-17W Rooks, KS**  
**Brumitt #3**  
Job Ticket: 63189      **DST#: 2**  
Test Start: 2017.05.12 @ 21:07:42

## 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:	55000 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 12000.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	SOCMW, 5%O 10%M 85%W	0.142

Total Length: 10.00 ft      Total Volume: 0.142 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: RW: .14@60deg

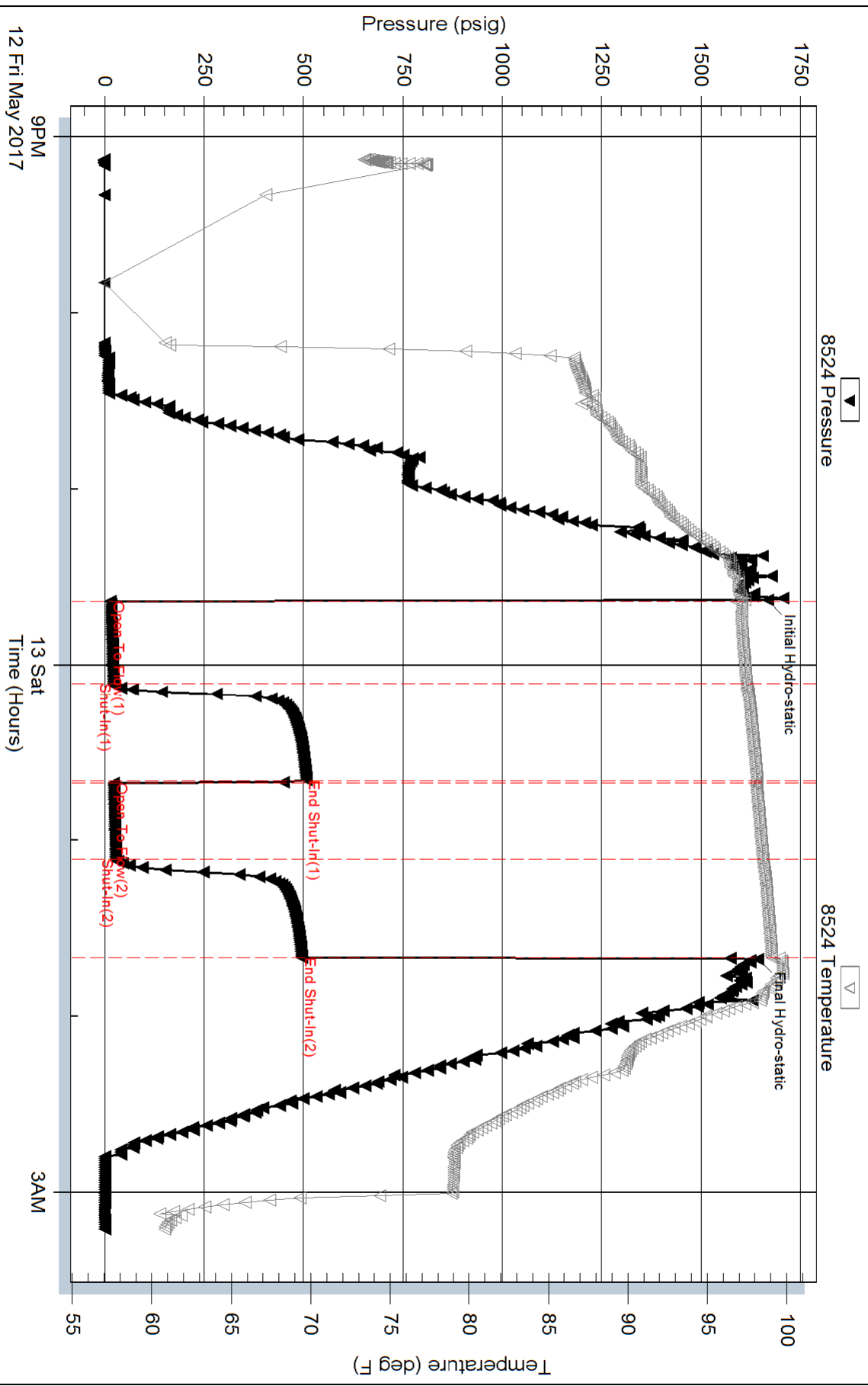
Serial #: 8524

Outside Mikol Oil, LLC

Burnt# 3

DST Test Number: 2

### Pressure vs. Time



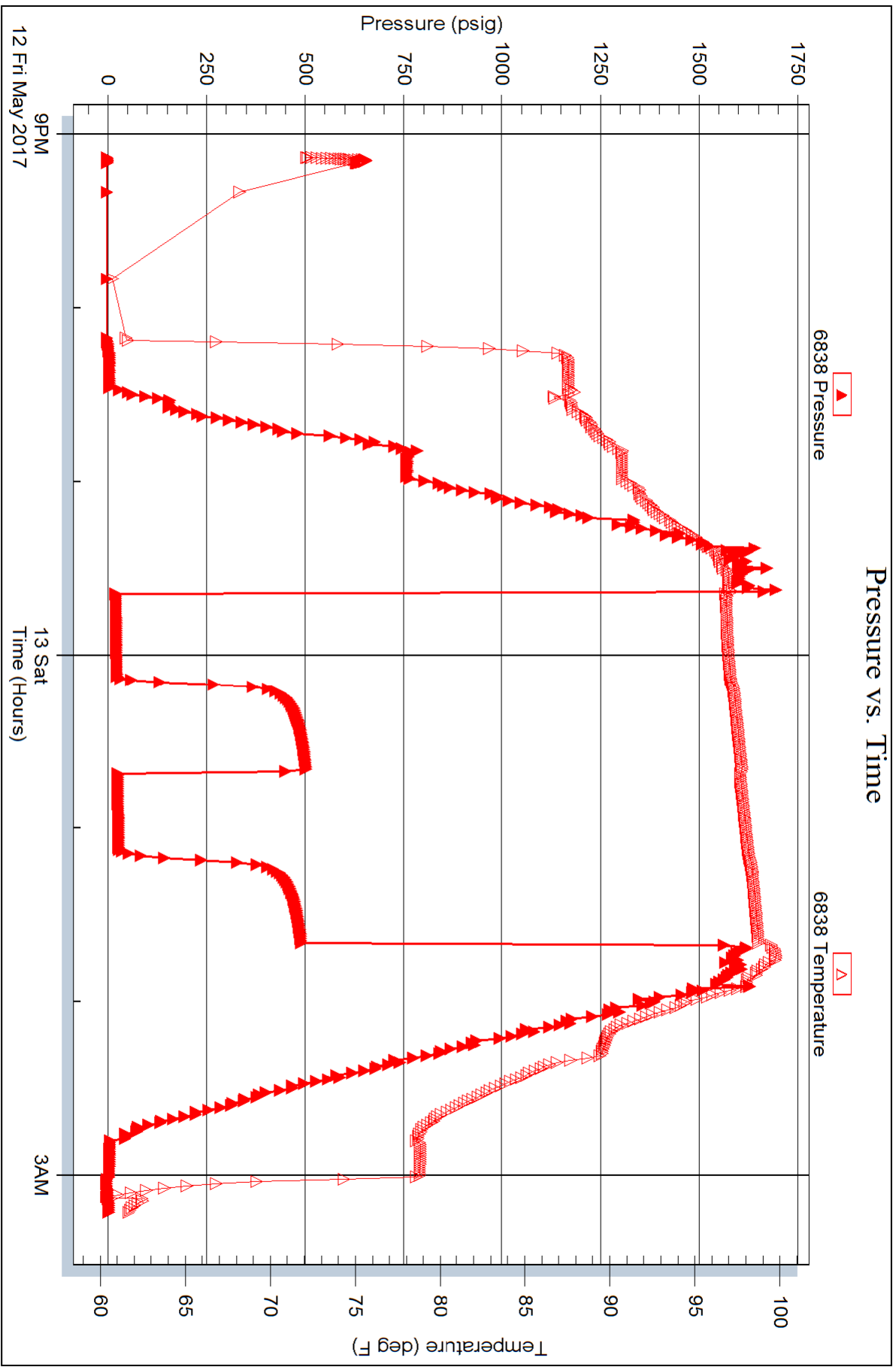
Serial #: 6838

Inside

Mkol Oil, LLC

Burnt#3

DST Test Number: 2







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Mkol Oil, LLC  
 1407 Washington Circle  
 Hays, KS 67601  
 ATTN: Marc Downing

**28-10S-17W Rooks, KS**

**Brumitt #3**

Job Ticket: 63190

**DST#: 3**

Test Start: 2017.05.13 @ 13:15:02

## GENERAL INFORMATION:

Formation: **LKC "I-K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:15:08  
 Time Test Ended: 19:42:23  
 Interval: **3441.00 ft (KB) To 3512.00 ft (KB) (TVD)**  
 Total Depth: 3512.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brannan Lonsdale  
 Unit No: 73  
 Reference Elevations: 2073.00 ft (KB)  
 2067.00 ft (CF)  
 KB to GR/CF: 6.00 ft

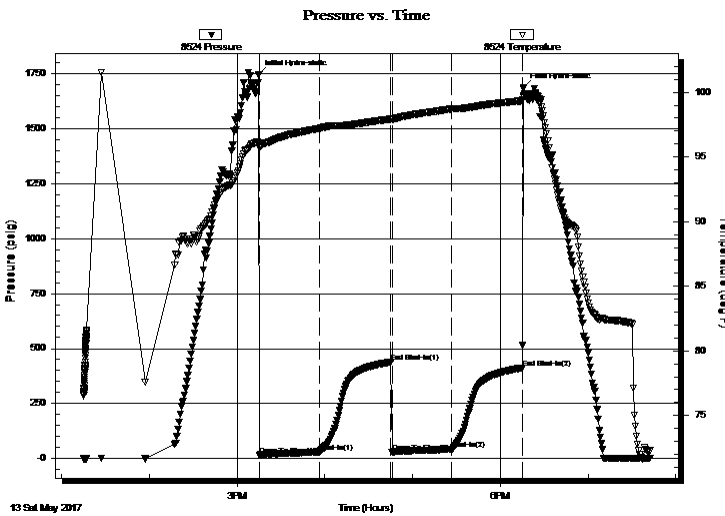
## Serial #: 8524

**Outside**

Press@RunDepth: 42.25 psig @ 3442.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.05.13 End Date: 2017.05.13 Last Calib.: 2017.05.13  
 Start Time: 13:15:03 End Time: 19:42:23 Time On Btm: 2017.05.13 @ 15:14:53  
 Time Off Btm: 2017.05.13 @ 18:15:38

TEST COMMENT: 45- IF- Slow build to 6"  
 45- IS- No blow  
 45- FF- Slow build to 6"  
 45- FSI- No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1745.00	96.09	Initial Hydro-static
1	16.34	95.67	Open To Flow (1)
42	30.65	97.20	Shut-In(1)
91	439.04	97.92	End Shut-In(1)
91	28.82	97.88	Open To Flow (2)
132	42.25	98.71	Shut-In(2)
180	412.50	99.33	End Shut-In(2)
181	1683.35	99.67	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	MCO, 40%M 60%O	0.92
5.00	CO	0.07
0.00	55' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Mkol Oil, LLC  
1407 Washington Circle  
Hays, KS 67601  
ATTN: Marc Downing

**28-10S-17W Rooks, KS**  
**Brumitt #3**  
Job Ticket: 63190      **DST#: 3**  
Test Start: 2017.05.13 @ 13:15:02

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 34 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 8000.00 ppm		
Filter Cake: inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	MCO, 40%M 60%O	0.921
5.00	CO	0.071
0.00	55' GIP	0.000

Total Length: 70.00 ft      Total Volume: 0.992 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



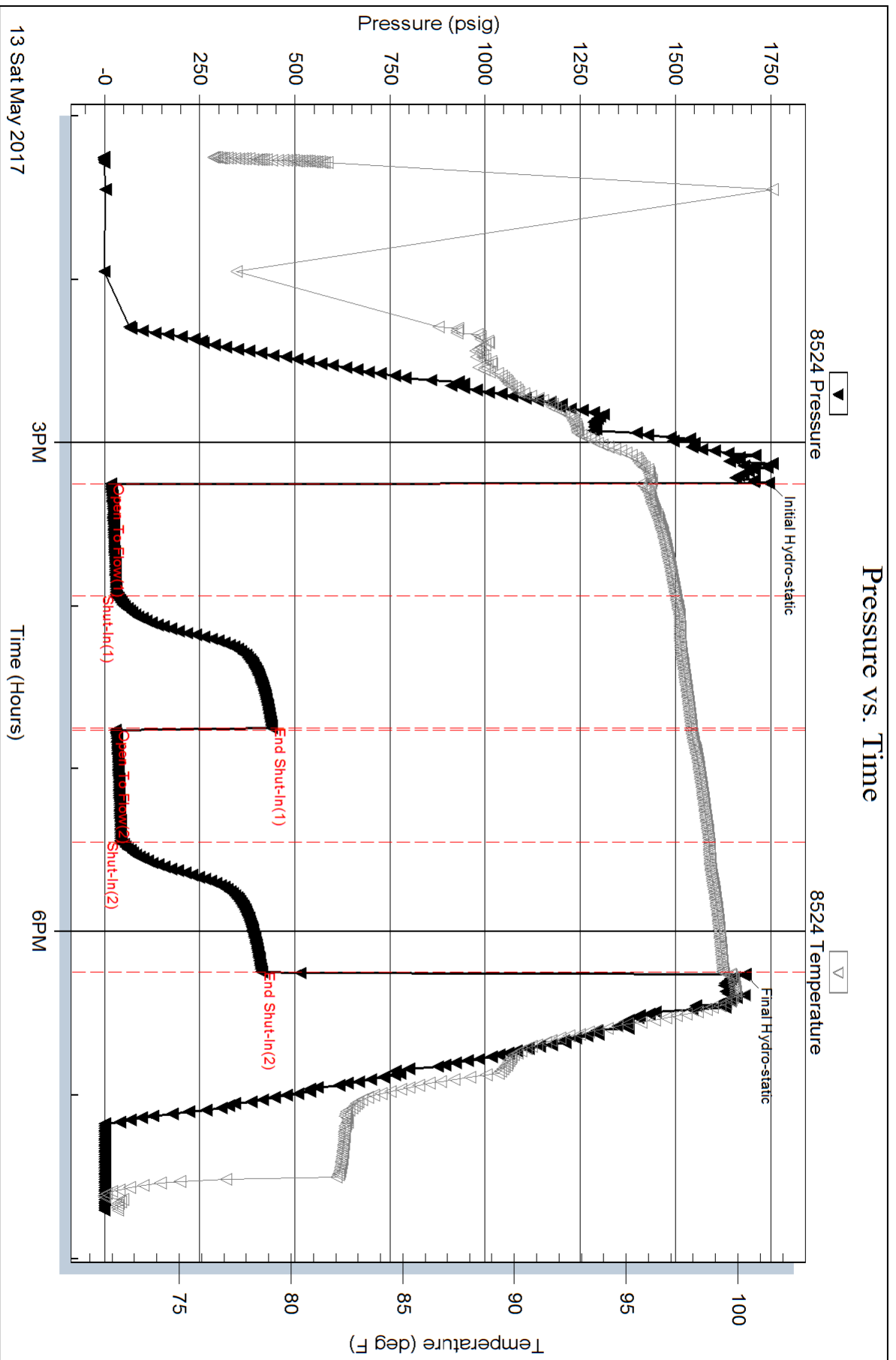
Serial #: 8524

Outside Mikol Oil, LLC

Burnt#3

DST Test Number: 3

### Pressure vs. Time



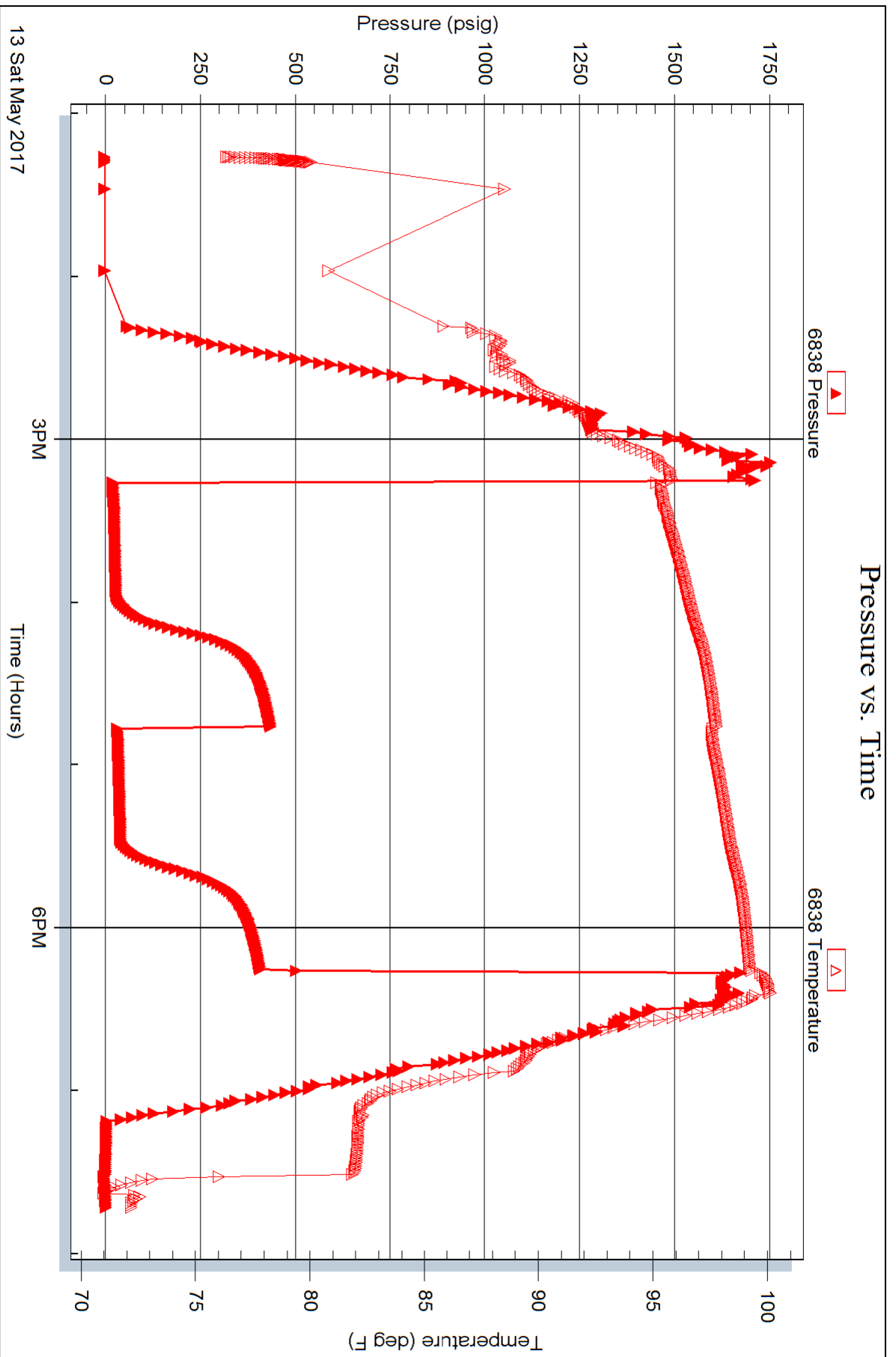
Serial #: 6838

Inside

Mkol Oil, LLC

Burnt#3

DST Test Number: 3







\*Total Water Volume sources may include fresh water, produced water, and/or recycled water. \*\*Information is based on the maximum potential for concentration and thus the total may be over 100%.  
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers' Material Safety Data Sheets (MSDS).

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