

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 Recompletion Date _____ 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. 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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TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-21	Mooney	Hodgeman	Pickrell Rig #10	Oil	Development	5 1/2 Longstring	Gideon
PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT			
575D	Mileage - 1 Way	45	Miles	6.00	270.00			
579D	Pump Charge - Two-Stage & Top To Bottom Longstring	1	Job	2,050.00	2,050.00			
408-5	5 1/2" D.V. Tool & Plug Set	1	Each	3,375.00	3,375.00			
403-5	5 1/2" Cement Basket	2	Each	275.00	550.00			
407-5	5 1/2" Insert Float Shoe With Auto Fill	1	Each	325.00	325.00			
409-5	5 1/2" Turbopulver	6	Each	90.00	540.00			
417-5	5 1/2" D.V. Latch Down Plug & Baffle	1	Each	200.00	200.00			
325	Standard Cement	175	Sacks	14.50	2,537.50			
284	Calsal	8	Sack(s)	40.00	320.00			
283	Salt	1,100	Lb(s)	0.25	275.00			
292	Halad 322	100	Lb(s)	8.50	850.00			
276	Flocele	125	Lb(s)	3.00	375.00			
330	Swift Multi-Density Standard (MIDCON II)	225	Sacks	18.00	4,050.00			
281	Mud Flush	500	Gallon(s)	1.50	750.00			
221	Liquid KCL (Clayfix)	2	Gallon(s)	25.00	50.00			
290	D-Air	10	Gallon(s)	42.00	420.00			
581D	Service Charge Cement	400	Sacks	2.00	800.00			
583D	Drayage	922	Ton Miles	1.00	922.00			
Subtotal					18,659.50			
Sales Tax Hodgeman County					1,118.24			
7.65%								
Total					\$19,777.74			

We Appreciate Your Business!

BILL TO
 D K Operating, Inc.
 621 Benton Street
 Jetmore, KS 67854

- Acidizing
- Cement
- Tool Rental

DATE	9/4/2021
INVOICE #	33882

Invoice

9-28-21
 ck 4604



SWIFT
 Services, Inc.
 P. O. Box 466
 Ness City, KS 67560
 Off: 785-798-2300



CHARGE TO: **DK Operating**
 ADDRESS
 CITY, STATE, ZIP CODE

TICKET **33882**

PAGE **1** OF **2**

SERVICE LOCATIONS
 1. **Ness City, KS**
 2.
 3.
 4.

WELL/PROJECT NO. **3-21**
 TICKET TYPE SERVICE SALES
 CONTRACTOR **Pickrell D&G**
 WELL TYPE **Oil**
 INVOICE INSTRUCTIONS

LEASE **MOONEY**
 COUNTY/PARISH **Hodgeman**
 RIG NAME/NO. **10**
 JOB PURPOSE **Development Long String 5 1/2"**

STATE **KS**
 SHIPPED **VI CT**
 CITY **Hanston**
 DELIVERED TO **LOCATION**
 WELL PERMIT NO.

DATE **9-4-2021**
 ORDER NO.
 WELL LOCATION **Hanston BE to NE PR**
3/4-E, S-INTD

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT							
576		1					45	mi	6.00	270.00
579		1		MILEAGE T.R.#112			1	job	2,050.00	2,050.00
408		1		DV Tool + Plug Set	5 1/2	IN	1	EA	3375.00	3375.00
403		1		CMT Baskets	5 1/2	IN	2	EA	275.00	550.00
407		1		INSERT Float Shoe w/ Acte fill	5 1/2	IN	1	EA	325.00	325.00
409		1		Turbolizers	5 1/2	IN	6	EA	90.00	540.00
417		1		DV Latch down Plug + Baffle	5 1/2	IN	1	EA	200.00	200.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.
X

DATE SIGNED **9-4-2021** TIME SIGNED **3:45** A.M. P.M.

REMIT PAYMENT TO:
SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?
 WE UNDERSTOOD AND MET YOUR NEEDS?
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?
 ARE YOU SATISFIED WITH OUR SERVICE?
 YES NO CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL **1**
7310.00
2
11,349.52
 Total
18,659.52
 Total
1118.24
 TOTAL
1977.74

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES. The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR **Gudrun Fuchs** APPROVAL

Thank You!



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 33882

DATE 9-4-2021 PAGE 2 OF 2

WELL Moxney #321

CUSTOMER Dh Operating

SECONDARY REFERENCE/
PART NUMBER

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		TIME	DESCRIPTION	QTY		U/M	UNIT PRICE	AMOUNT
		LOC	ACCT			QTY	U/M			
385		1			STANDARD CMT		175	sks	14.92	2637.50
284		1			Calseal		8	sks	40.00	320.00
283		1			Salt		1100	lbs	0.25	275.00
292		1			HAHCL-322		100	lbs	8.50	850.00
270		1			Flocele		125	lbs	3.00	375.00
330					Swift Multi-density Cement		225	sks	18.00	4050.00
281		1			Mud Flush		500	gal	1.40	700.00
221		1			Liquid KCL		2	gal	25.00	50.00
290		1			D-Air		10	gal	42.00	420.00
581		1			SERVICE CHARGE		400	CUBIC FEET	2.00	800.00
583		1			MILEAGE CHARGE		922	TON MILES	1.00	922.00
						LOADED MILES	45			
						TOTAL WEIGHT	40965			
CONTINUATION TOTAL										11,349.50

WELL NO.	LEASE	JOB TYPE	TICKET NO.
3-21	Mcowley	Two-stage	33882

CUSTOMER	CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS	TUBING	CASING
DK OPERATING							

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS	TUBING	CASING	DESCRIPTION OF OPERATION AND MATERIALS
0500							ON LOCATION 5 1/2" 1716/EE RTD: 4.394' DV: #73 1330' TP: 4.393' SS: 31.73' Turbo: 2.1, 3.4, 5 Basket: 71.73
0615							Start 5 1/2" 1716/EE Pipe in Well
0915							Drop Ball-Circulate
1025	4	12	20	✓			Pump 500 gal Mud Flush
1025	4	20		✓			Pump 200 gal RCL
1035	3 1/2	42		✓			Mix 225 sks of EA-2 @ 15.36ppg
1054							Wash Pump + Lines
1054							Release Latch down Plug
1058	6 1/2	0		✓			Start Displacement
1058	6 1/2	71		✓			Displace Mud
1058	6 1/2	73		✓			Lift PSI
1058	5 1/2	8100		✓			Max Lift Pressure
1115	5 1/2	101.3		✓			Land Latch down Plug
1115							-Release PSI #Hold
1025							Wash up Tsk #112
1025							Drop Bomb
1150							Open DV Tool - Circulate

CHART NO.
TIME
RATE (BPM)
VOLUME (BBL) (GAL)
PUMPS
PRESSURE (PSI)
TUBING
CASING
DESCRIPTION OF OPERATION AND MATERIALS

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS	PRESSURE (PSI)	TUBING	CASING	DESCRIPTION OF OPERATION AND MATERIALS
1155								Ramp 5661 Had Spacers
1200	1/2	12		✓				Plug RH [30']
1205	3/2	108		✓				Mix 195 sks of SMD @ 112 ppg
1235				✗				Wash Pump + Lines Release Top Plug
1246	4 1/2	0		✓				Start Displacement
	4 1/2	11		✓				Lift PSI
	4 1/2	30		✓				Max Lift PSI
1245	4 1/2	31		✓				Land to Top Plug Circulated 30sks to P+H
1280								Wash up Trk # 112
1330								Job Complete
								225 sks of SMD used on Top Stage 30-RH 195-down well 30 sks to P+H
								175 EA-2 used on Bottom Stage
								Thanks!
								Budson, Rudy, Rusty

Cont...



CEMENT TREATMENT REPORT

Customer:	D K Operating Inc	Well:	Mooney # 3-21	Ticket:	WP 1781
City, State:	Oakley KS	County:	Hodgeman KS	Date:	8/25/2021
Field Rep:	Josh Mosier	S-T-R:	21-22s-21w	Service:	Surface

Downhole Information		Calculated Slurry - Lead		Calculated Slurry - Tail	
Hole Size:	12.25 in	Blend:	H-325	Blend:	ppg
Hole Depth:	220 ft	Weight:	14.8 ppg	Weight:	ppg
Casing Size:	8 5/8 in	Water / Sx:	6.9 gal / sx	Water / Sx:	gal / sx
Casing Depth:	212.3 ft	Yield:	1.42 ft ³ / sx	Yield:	ft ³ / sx
Tubing / Liner:	in	Annular Bbls / Ft.:	0.0735 bbs / ft.	Annular Bbls / Ft.:	bbs / ft.
Depth:	ft	Depth:	212.3 ft	Depth:	ft
Tool / Packer:	ft	Annular Volume:	15.6 bbls	Annular Volume:	0 bbls
Tool Depth:	ft	Excess:		Excess:	
Displacement:	12.9 bbls	Total Slurry:	41.7 bbls	Total Slurry:	0.0 bbls
STAGE TOTAL		Total Sacks:	165 sx	Total Sacks:	0 sx

TIME	RATE	PSI	BBLs	BBLs	REMARKS
1000P	-	-	-	-	GOT TO LOCATION
1005P	-	-	-	-	SAFETY MEETING
1010P	-	-	-	-	RIGGED UP TRUCKS
1026P	-	-	-	-	LANDED CASING
1034P	-	-	-	-	CIRCULATED HOLE
1050P	3.0	150.0	5.0	5.0	PUMPED 5 BBL OF H2O AHEAD
1052P	4.5	150.0	12.9	46.7	PUMPED 165 SKS OF H-325 @ 212.3 FT
1103P	4.5	150.0	12.9	59.6	DISPLACED WITH H2O
1106P	59.6			59.6	PLUG DOWN WITH 5 BBL TO PIT
1108P	59.6			59.6	WASHED UP PUMP TRUCK
1120P	59.6			59.6	RIGGED DOWN TRUCKS
1145P					OFF LOCATION

CREW		UNIT		SUMMARY	
Cementor:	Josh	73		Average Rate	3.8 bpm
Pump Operator:	John	208		Average Pressure	167 psi
Bulk #1:	Kale	194/250		Total Fluid	60 bbls
Bulk #2:					



DRILLING MUD REPORT
 Engineer: Brandon Mendez
 E-Mail: _____
 Phone: 785-625-3531 Office, 785-656-3259 Cell
 REPORT NO. 7
 DATE: 9/2/2021
 DEPTH: 4340

OPERATOR	DK Operating Inc.
ADDRESS	Company
REPORT FOR	Marc Downing
WELL NAME AND NO.	Mooney #3-21
CONTRACTOR	Pickrell
RIG NO.	10
SPUD DATE	8-25-21
SEC. TWN, RNG	21-22-21
STATE	Kansas

DRILLING ASSEMBLY		CASING		MUD VOLUME (BBL)	
Bit Size	7 7/8	Surface	2	Hole	323.4 Pits
Drill Pipe Size	4 1/2	Weight on Bit	30,000	Total Circulating Volume	723.4
Type	XH	Intermediate		Mud Up Depth	3490
Drill Collar Size	6 1/4	Production		Mud Type	Chemical-Pac
Bit RPM	60	Activity		Pits Used	3
Sample from flowline	X				

MUD PROPERTIES		CIRCULATION DATA	
Time Sample Taken	1130am	Pump Size	6X14
Depth (ft.)	4340	Annular Vel (Ft/Min)	197
Weight (lppg)	9.5	DP	90%
Mud Gradient (psi/ft.)	0.494	Circulation Pressure (PSI)	800
Funnel Viscosity (sec/qt.)	55	Bottoms Up (Min.)	38.8
Plastic Viscosity	16	Total Circ Time (Min.)	86.7

REMARKS		MUD PROPERTIES SPECIFICATIONS	
Methylene Blue Capacity	XXX	Weight	9.5
LCM, #/bbl	2#	Viscosity	52-56
Water Content (% by Vol.)	95.8	Filtrate	8-10CC
Oil Content (% by Vol.)	XXX		
Solids Content (% by Vol.)	4.2		
Sand Content (% by Vol.)	TR		
Calcium (ppm)	20		
Chlorides (ppm)	7,500		
Alkalinity, Filtrate (P/F/MF)	0.4		
Alkalinity, Mud (Pm)	0.8		
Cake Thickness 32nd in. API	1/32		
API HP-HT Filtrate (ml/30 min.)	XXX		
Filtrate API (ml/30 min.)	9.6		
pH (Strip)	10		
Gel Strength (lb./100 sq. ft.) 10 sec./10 min.	14/28		
Yield Point (lb./100 sq. ft.)	18		
Daily Cost	\$1,283.45		
Product	On Hand		
Cost	Used		
Total	\$16,143.35		

Reserve Pit Chlorides=	9700ppm.	Calcium=	950 ppm.	Volume=	600bbls.
<p>" Thank You "</p> <p>" Keep Hole Full "</p> <p>" Drill all sands slowly "</p> <p>Keep weight at 9.5 due to water issues uphole/run water to hydrate mud after weight is 9.2 or better</p> <p>Maintain 3-4 # LCM- Mix hulls at flowline as needed</p> <p>~Call with mud check when back to bottom after DST for treatment recommendation 785-656-3259</p> <p>~If needed for vis fill premix with 1/2 pitmud 1/2 freshwater</p> <p>3 soda ash</p> <p>1/2 pac</p> <p>2 caustic</p> <p>1 lig</p> <p>15-18 gel</p> <p>12 hulls</p> <p>~Let tank roll for 20 mins/add over 1.5hr through pump/jet small hole in #1 before adding</p>					

The recommendations made hereon shall not be construed as authorizing the infringement of any valid patent, and are made without assumption of any liability by Andy's Mud & Chemical Co., LLC or its agents, and are statements of opinion only.



Engineer Brandon Mendez
E-Mail brandon.mendez@andy'smud.com
Phone 785-625-3531 Office
 785-656-3259 Cell

DRILLING MUD REPORT
REPORT NO. 8
DATE 9/3/2021
DEPTH 4340

OPERATOR	DK Operating Inc.	CONTRACTOR	Pickrell	RIG NO.	10
ADDRESS	Company	ADDRESS	Rig	SPUD DATE	8-25-21
REPORT FOR	Marc Downing	REPORT FOR	Doug Budig	SEC.TWN,RNG	21-22-21
WELL NAME AND NO.	Mooney #3-21	COUNTY AREA	Hodgeman	STATE	Kansas

DRILLING ASSEMBLY		CASING		MUD VOLUME (BBL)	
Bit Size	7/8	No. Bits	2	Surface	400
Drill Pipe Size	4 1/2	Weight on Bit	8 5/8 @ 220'	Total Circulating Volume	723.4
Type	XH	Flowing Temp.		Mud Up Depth	3490
Drill Collar Size	6 1/4			Mud Type	Chemical-Pac
Bit RPM	60	Production	@	Activity	Drilling
Sample from flowline	X	Pit	@	Pits Used	3

MUD PROPERTIES		CIRCULATION DATA	
Time Sample Taken	845am	Pump Size	6X14
Depth (ft.)	4340	Pump Model	Assumed Eff. 90%
Weight (ppg)	9.1	DP	197
Mud Gradient (psi/ft.)	0.4732	Annular Vel (ft./Min)	DC
Funnel Viscosity (sec/qt.)	45		
Elevation	2174' Ft.	Total Circ Time (Min.)	86.7
Bbl/Min	8.34 Gal/Min.	Bottoms Up (Min.)	38.8
Bbl/Stroke	0.139 Stroke/Min.	Circulation Pressure (PSI)	800

REMARKS		RECOMMENDED TOUR TREATMENT	
Methylene Blue Capacity	XXX	Weight	9.5
LCM, #/bbl	1.5#	Viscosity	52-56
Water Content (% by Vol.)	96.2	Filtrate	8-10CC
Oil Content (% by Vol.)	XXX		
Solids Content (% by Vol.)	3.8		
Sand Content (% by Vol.)	TR		
Calcium (ppm)	80		
Chlorides (ppm)	30,000		
Alkalinity, Filtrate (pH/MF)	0.2		
Alkalinity, Mud (pH)	0.3		
Cake Thickness 32nd in. API	1/32		
API HP-HT Filtrate (ml/30 min.)	XXX		
Filtrate API (ml/30 min.)	16		
pH (Strip)	8.5		
Gel Strength (lb./100 sq. ft.) 10 sec./10 min.	8/18		
Yield Point (lb./100 sq. ft.)	12		
Plastic Viscosity	8		
Daily Cost	\$457.75	On Hand	167
Product	Premium Gel	Add Del.	140
Total		Used	140
Cost	\$16,143.35		

"Keep Hole Full"
 ~Keep pump kicked in while DST in on bottom
 Keep 9.5 mud weight the rest of well!!!
 Keep pump kicked in pull pipe wet when tripping out of hole!
 Hole must be kept full at all times!!
 Keep LCM up at 3-4# due to us having higher weight and the issues uphole
 Reserve Pit Chlorides= 9700ppm. Calcium= 950 ppm. Volume= 600bbls.

The recommendations made hereon shall not be construed as authorizing the infringement of any valid patent, and are made without assumption of any liability by Andy's Mud & Chemical Co., LLC or its agents, and are statements of opinion only.



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

DK Operating Inc
 621 Benton St
 Jetmore KS 67854+9019
 ATTN: Marc Downing

21-22s-21w Hodgeman KS
Mooney #3-21
 Job Ticket: 67762 **DST#: 2**
 Test Start: 2021.09.03 @ 06:55:00

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 09:29:17 Tester: Spencer J Staab
 Time Test Ended: 15:16:02 Unit No: 84
 Interval: **4381.00 ft (KB) To 4394.00 ft (KB) (TVD)** Reference Elevations: 2181.00 ft (KB)
 Total Depth: 4380.00 ft (KB) (TVD) 2174.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

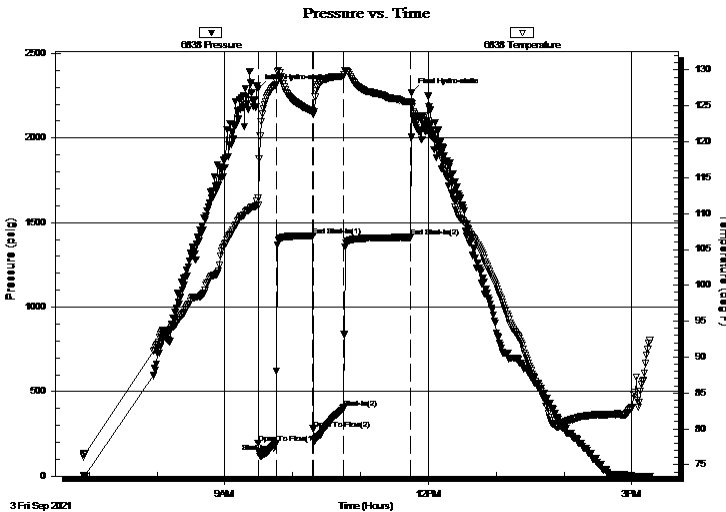
Serial #: 6838

Inside

Press@RunDepth: 403.98 psig @ 4382.00 ft (KB) Capacity: psig
 Start Date: 2021.09.03 End Date: 2021.09.03 Last Calib.: 2021.09.03
 Start Time: 06:55:01 End Time: 15:16:02 Time On Btm: 2021.09.03 @ 09:29:12
 Time Off Btm: 2021.09.03 @ 11:45:11

TEST COMMENT: 15-IF-BOB 10 secs GTS 12 mins
 30-ISI-8 mins to bleed off BOB 5 mins Built to 50"
 30-FF-BOB 1 min GTS 23 mins TSTM
 60-FSI-4 mins to bleed off BOB 2 mins Built to 211"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2291.98	112.16	Initial Hydro-static
1	196.32	111.15	Open To Flow (1)
17	194.91	127.95	Shut-In(1)
49	1422.50	124.22	End Shut-In(1)
49	279.67	123.79	Open To Flow (2)
76	403.98	129.10	Shut-In(2)
136	1413.25	125.56	End Shut-In(2)
136	2267.06	125.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	GMW 20%G 30%M 50%W	0.99
180.00	GOCM 20%G 20%O 60%M	2.55
1390.00	GO 80%G 20%O	19.70

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

DK Operating Inc
621 Benton St
Jetmore KS 67854+9019
ATTN: Marc Downing

21-22s-21w Hodgeman KS
Mooney #3-21
Job Ticket: 67762 **DST#: 2**
Test Start: 2021.09.03 @ 06:55:00

Mud and Cushion Information

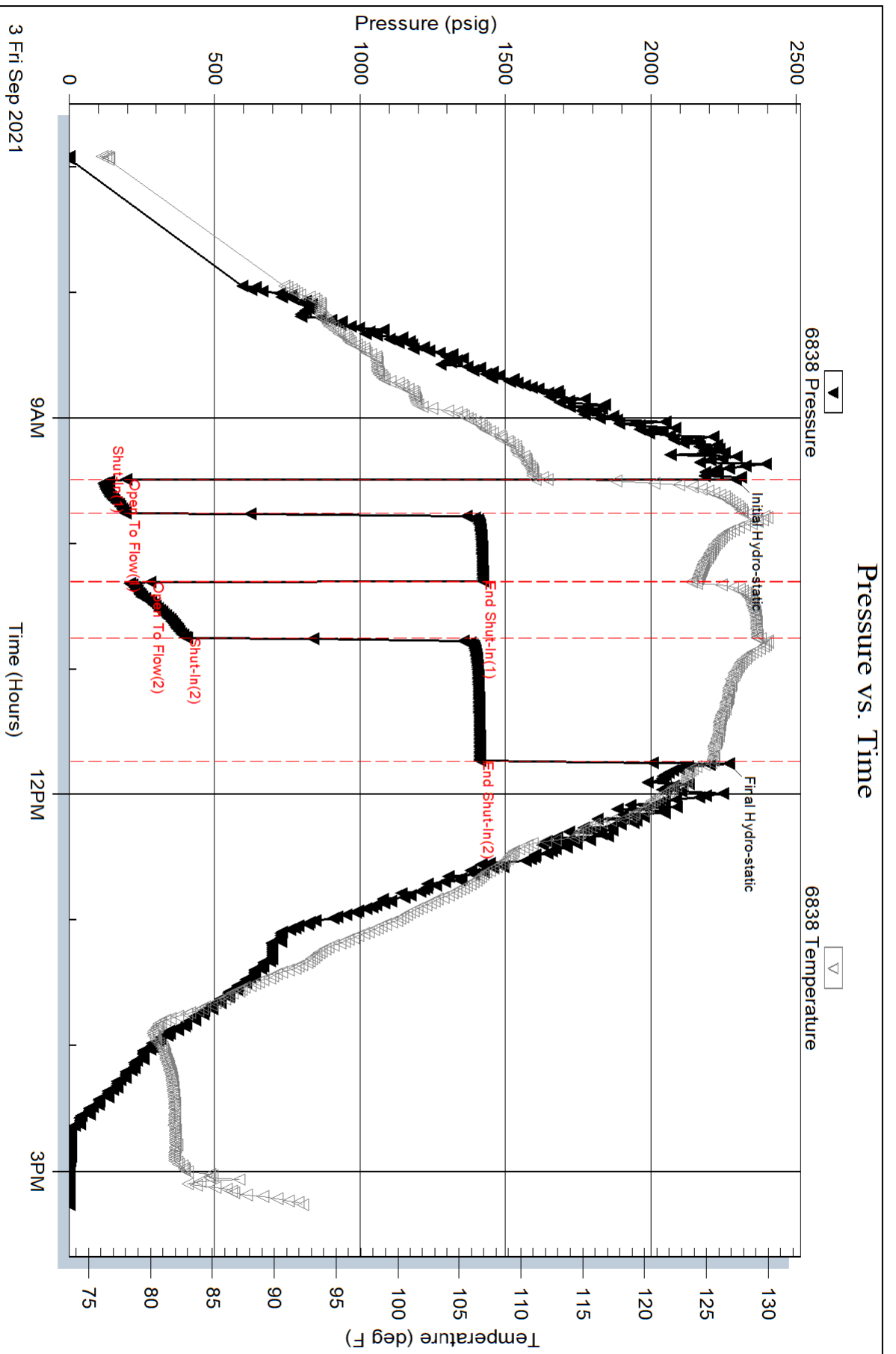
Mud Type: Gel Chem	Cushion Type:	Oil API: 42 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 23500 ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 10.38 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 30000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	GMW 20%G 30%M 50%W	0.992
180.00	GOCM 20%G 20%O 60%M	2.552
1390.00	GO 80%G 20%O	19.704

Total Length: 1640.00 ft Total Volume: 23.248 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 3#LCM
RW=.267@78F

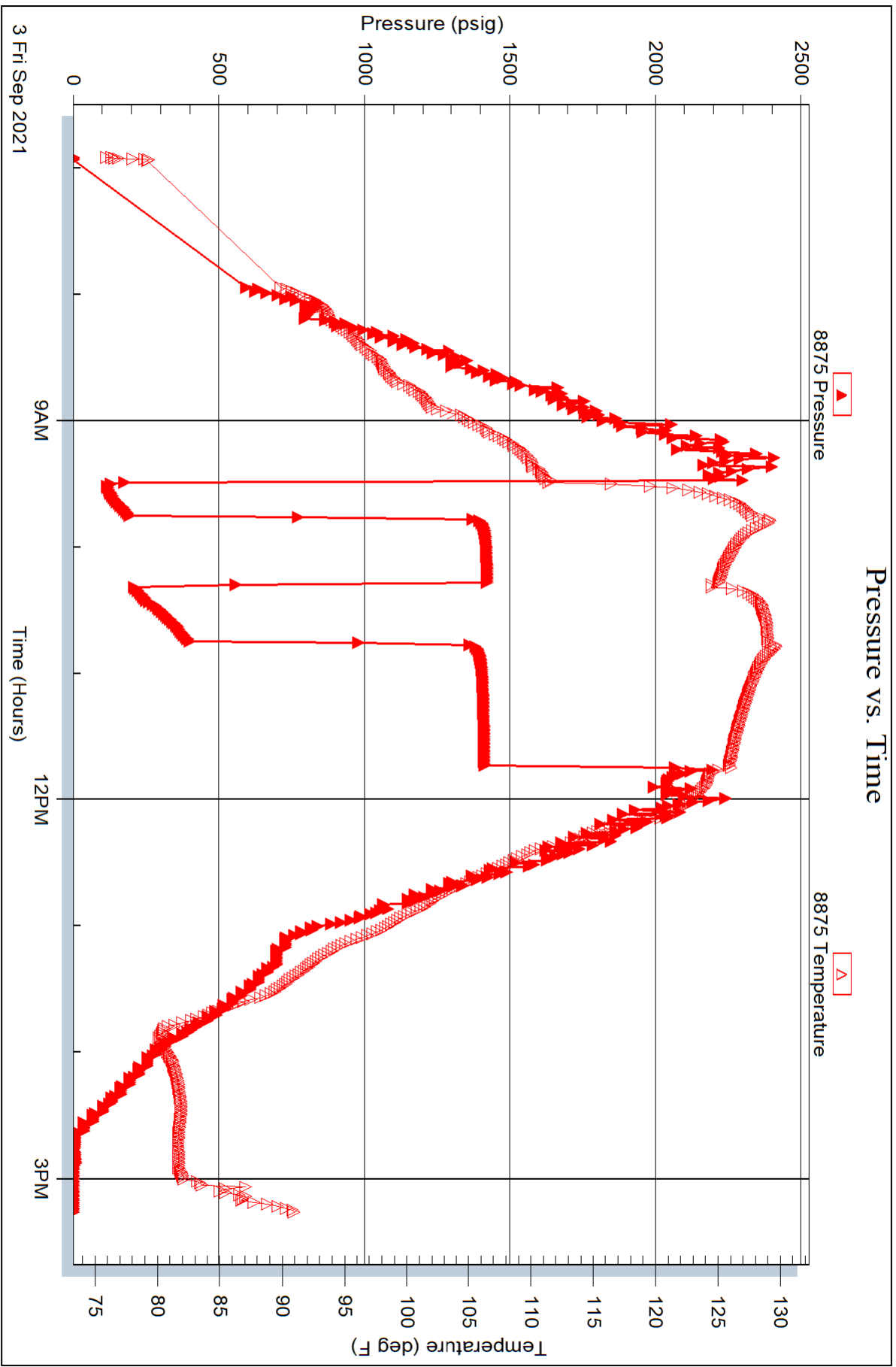


Serial #: 8875

Outside DK Operating Inc

Mooney #3-21

DST Test Number: 2



Marc A. Downing
Consulting Petroleum Geologist

Geologic Report
Drilling Time and Sample Log

Operator DK Operating, Inc.		Elevation	
Lease Mooney No. 3-21		KB	2181
API # 15-083-21993-0000		DF	2179
Field Mooney East		GL	2174
Location 1389- FNL & 771' FWL		Casing Record	
Sec. 21 Twp. 22s Rge. 21w		Surface 8 5/8" @ 220'	
County Hodgman State Kansas		Production 5 1/2" @ 4393'	
Formation		Electrical Surveys	
Top Anhydrite	Sample tops	None	
Base Anhydrite	Log Tops	Datum	Struct Comp
Heebner	3723	+878	-1
LKC	3786	-1542	+4
BKC	4127	-1946	+3
Pawnee	4234	-2053	+6
Fort Scott	4302	-2121	+10
Cherokee Sh	4325	-2144	+11
Mississippi	4370	-2189	+12
Total Depth	4394	-2213	

Drilling Contractor **Pickrell, Rig #10**
 Commenced **8-25-21** Completed **9-3-21**
 Samples Saved From **3700** To **RTD**
 Drilling Time Kept From **3550** To **RTD**
 Samples Examined From **3700** To **RTD**
 Geological Supervision From **3700** To **RTD**

Summary and Recommendations

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

Respectfully Submitted,
 Marc A. Downing

Formation	Sample tops	Log Tops	Datum	Struct Comp
Top Anhydrite	1303		+878	-1
Base Anhydrite	NA			
Heebner	3723		-1542	+4
LKC	3786		-1605	+5
BKC	4127		-1946	+3
Pawnee	4234		-2053	+6
Fort Scott	4302		-2121	+10
Cherokee Sh	4325		-2144	+11
Mississippi	4370		-2189	+12
Total Depth	4394		-2213	

ROCK TYPES
 shale, red
 shale, gry
 Carbon Sh
 Chert
 Limestone
 Limestone
 Limestone

ACCESSORIES
 DST Int
 DST alt
 Core
 Tail pipe

OTHER SYMBOLS
 Even Sin
 Spotted Sin 50 - 75 %
 Spotted Sin 25 - 50 %
 Spotted Sin 1 - 25 %
 Questionable Sin
 Dead Oil Sin
 Fluorescence

MINERAL
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