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 # 33328
Name: Packard, Lynn
Address 1: 8113 NW RIVER RD
Address 2:
City: MEDICINE LODGE State: KS Zip: 67104 + 8144
Contact Person: Lynn Packard
Phone: (620) 886-0135
CONTRACTOR: License # 99975
Name: COMPANY SERVICING TOOLS
Wellsite Geologist: Roger Martin
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 #:

6/27/2018	07/03/2018	07/03/2018
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No.: 15-007-24331-00-00
Spot Description:
S2 - NW - SE - SW Sec. 15 Twp. 31 S. R. 13 ☐ East ☑ West
800 Feet from ☐ North / ☑ South Line of Section
1650 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)*, Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Barber
Lease Name: PACKARD Well #: 1-15
Field Name:
Producing Formation: Well was plugged
Elevation: Ground: 1660 Kelly Bushing: 1673
Total Vertical Depth: 4717 Plug Back Total Depth: 1077
Amount of Surface Pipe Set and Cemented at: 224 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: 3000 ppm Fluid volume: 240 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: Woolsey Operating CoLLC
Lease Name: Clarke SWD 1 License #: 33168
Quarter SE Sec. 8 Twp. 32 S. R. 12 ☐ East ☑ West
County: Barber Permit #: D28492.0

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:** Karen Ritter **Date:** 01/02/2019

Page Two

Operator Name: Packard, Lynn Lease Name: PACKARD Well #: 1-15

Sec. 15 Twp. 31 S. R. 13 ☐ East ☑ West County: Barber

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Geologist Report / Mud Logs ☑ Yes ☐ No

List All E. Logs Run:
Attached

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Hebner	3634	-1961
Mississippi	4289	-2616
Simpson	4589	-2916
Arbuckle	4660	-298

CASING RECORD ☑ New ☐ 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
Surface	9.5	8.63	24	224	60-40 poz	175	celloflake

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
____ Perforate ____ Protect Casing ____ Plug Back TD ____ 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: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL: Top	Bottom
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*		

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
TUBING RECORD:	Size:	Set At:	Packer At:		

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Packard, Lynn
Well Name	PACKARD 1-15
Doc ID	1430631

All Electric Logs Run

Dual Induction
Compensated Density
Sonic Bond log
Micro Log

Form	ACO1 - Well Completion
Operator	Packard, Lynn
Well Name	PACKARD 1-15
Doc ID	1430631

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	9.5	8.63	24	224	60-40 poz	175	celloflake

Company: Lynn Packard
Lease: Packard #1-15

SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
Field Name: Mingona
Pool: WILDCAT
Job Number: 187

DATE
July
03
2018

DST #1 **Formation: Simpson** **Test Interval: 4563 - 4598'** **Total Depth: 4717 LTD'**

Time On: 00:27 07/03 Time Off: 09:39 07/03
Time On Bottom: 02:37 07/03 Time Off Bottom: 06:07 07/03

Mud Properties

Mud Type: Chemical **Weight:** 9.5 **Viscosity:** 60 **Filtrate:** 9.6 **Chlorides:** 3,000 ppm

1-15 OG 7/20/18

BASIC ENERGY SERVICES

PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1011163	1718	07/09/2018

INVOICE NUMBER
92750351

SCANNED

Pratt (620) 672-1201

BILL TO
LYNN PACKARD
8113 NW RIVER ROAD
MEDICINE LODGE
KS US 67104
ATTN:

COPY

JOB SITE

LEASE NAME	Packard 1-15
LOCATION	
COUNTY	Barber
STATE	KS
JOB DESCRIPTION	Cement-New Well Casing/Pi
JOB CONTACT	

Pat needs treatment Report for a KS form. Lynn will pick up -Sm 10/8/18

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41118299	19843		Net - 30 days	08/08/2018

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 07/03/2018 to 07/03/2018				
0041118299				
171817030A Cement-New Well Casing/Pi 07/03/2018				
Cement/PTA				
60/40 POZ	220.00	EA	7.08	1,557.60 T
"Unit Mileage Chg (PU, cars one way)"	35.00	MI	2.65	92.92
Heavy Equipment Mileage	70.00	MI	4.43	309.75
333----Propp & Bulk Del Chgs per ton mil	1.00	EA	490.44	490.44
Depth Charge; 4001'-5000'	1.00	EA	1,486.80	1,486.80
Blending & Mixing Service Charge	220.00	BAG	0.83	181.72
"Service Supervisor, first 8 hrs on loc.	1.00	EA	103.25	103.25

#2702

PLEASE REMIT TO:
BASIC ENERGY SERVICES,LP
PO BOX 841903
DALLAS,TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES,LP
801 CHERRY ST, STE 2100
FORT WORTH, TX 76102

SUB TOTAL	4,222.48
TAX	116.82
INVOICE TOTAL	4,339.30

OG 7/20/18

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

TMH-47

FIELD SERVICE TICKET

1718 17030 A

DATE TICKET NO.

DATE OF JOB 7-3-18 DISTRICT Pratt Kansas	NEW WELL ☑ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER LYNN Packard	LEASE Packard WELL NO. 1-15
ADDRESS	COUNTY Barber STATE Kansas
CITY STATE	SERVICE CREW Ferris, Kevin, Eddy, Derrick
AUTHORIZED BY	JOB TYPE: PTA Z-42

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
19843	4.5				
19416	4.5				

	DATE		TIME
TRUCK CALLED	7-3-18	AM PM	1000
ARRIVED AT JOB		AM PM	1200
START OPERATION		AM PM	1533
FINISH OPERATION		AM PM	20:00
RELEASED		AM PM	20:30
MILES FROM STATION TO WELL	35		

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: X [signature]
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP103	60/40 POZ	SK	220		2640 00
E100	Pick up mileage	mi	35		157 50
E101	Heavy equipment mileage	mi	70		525 00
E113	Bulk delivery charge	TMi	333		831 25
CE205	Depth charge 4001'-5000'	4hr	1		2520 00
CE240	Blending & mixing charge	SK	220		304 00
S003	Service supervisor first 8 hrs on loc	EA	1		175 00
				SUB TOTAL	7156 75

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
	TOTAL	7222 45

SERVICE REPRESENTATIVE Z-2

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: X [signature]
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

OG 7/20/18

BASiC energy services, L.P.

TREATMENT REPORT

Customer: LYNN Packard	Lease No.:			Date: 7-3-18	
Lease: Packard	Well #: 1-15				
Field Order #: 17030	Station:	Casing:	Depth:	County: Barber	State: KS
Type Job: PTA - 2-42		Formation:		Legal Description: 15-31S-13W	

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

Customer Representative	Station Manager: Justin Westerman	Treater: Fennis Gardner

Service Units	74468	86531	86986	19843	19959	19918					
Driver Names	Fennis	Kellen	EDDY	EDDY	Derrick	Derrick					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
12:00					arrive on location / safety meeting
12:15					Rig up equipment
15:33		600	20	3.4	Pump H2O Ahead
15:37		600	12.7	3.4	mix & pump 50 sx at 13.4 ppg @ 4710'
15:42		600	7	3.4	Pump H2O Behind
15:48		700	56.6	9	Switch to Rig for mud displacement
15:52					S/D Pull Drill Pipe
16:03		0	10	3	Pump H2O Ahead
16:06					mix 50 sx at 13.4 ppg plug set at 630'
16:10		0	5.6	3	Pump H2O Displacement S/D Pull Pipe
16:36		0	10	3	Pump H2O Ahead
16:38		0	12.7	3	mix 50 sx at 13.4 ppg plug set at 270'
16:40		0	.7	1	Pump H2O Displacement S/D Pull Pipe
16:48		0	5	3	mix 20 sx cement @ 13.4 ppg plug @ 60'
16:48		0	7.5	2	mix 30 sx cement @ 13.4 ppg plug Rat hole
16:42		0	5	2	mix 20 sx cement @ 13.4 ppg plug mouse hole
20:30					Rig down, leave location
					Thank you!! Fennis Gardner

#1-15 OG 7/10/18

BASIC ENERGY SERVICES

SCANNED

PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1011163	1718	06/29/2018

INVOICE NUMBER
92745362

Pratt (620) 672-1201

BILL TO
LYNN PACKARD
8113 NW RIVER ROAD
MEDICINE LODGE
KS US 67104
ATTN:

JOB SITE
LEASE NAME: Packard 1-15
LOCATION:
COUNTY: Barber
STATE: KS
JOB DESCRIPTION: Cement-New Well Casing/Pi
JOB CONTACT:

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41116862	86779		Net - 30 days	07/29/2018

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 06/28/2018 to 06/28/2018				
0041116862				
171816799A Cement-New Well Casing/Pi 06/28/2018				
Cement Surface				
60/40 POZ	175.00	EA	7.08	1,239.00 T
Calcium Chloride	453.00	EA	0.62	280.63 T
Celloflake	44.00	EA	2.18	96.05 T
"Unit Mileage Chg (PU, cars one way)"	35.00	MI	2.65	92.92
Heavy Equipment Mileage	70.00	MI	4.43	309.75
264--Propp & Bulk Del. Chgs. per ton mil	1.00	EA	389.78	389.78
Blending & Mixing Service Charge	175.00	BAG	0.83	144.55
Depth Charge; 0-500'	1.00	EA	590.00	590.00
"Service Supervisor, first 8 hrs on loc.	1.00	EA	103.25	103.25

2688
7/10/18

PLEASE REMIT TO:
BASIC ENERGY SERVICES,LP
PO BOX 841903
DALLAS,TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES,LP
801 CHERRY ST, STE 2100
FORT WORTH, TX 76102

SUB TOTAL	3,245.93
TAX	121.18
INVOICE TOTAL	3,367.11

OG 7/10/18

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET

1718 16799 A

DATE TICKET NO.

DATE OF JOB 6-28-18 DISTRICT Pratt	NEW WELL ☑ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Lynn Packain	LEASE Packain WELL NO. 1-1
ADDRESS	COUNTY Barber STATE Ks
CITY STATE	SERVICE CREW Mattai Megan Gary
AUTHORIZED BY	JOB TYPE: 2-42 8 5/8 Surface

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
86779	.5				
21010	.5				

	DATE	AM PM	TIME
TRUCK CALLED	6-27		5:00
ARRIVED AT JOB		AM PM	7:00
START OPERATION	6-28	AM PM	1:32
FINISH OPERATION		AM PM	
RELEASED		AM PM	
MILES FROM STATION TO WELL			

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: X [signature]
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP103	60/40 Poz	SK	175		2,100 00
CC109	Calcium Chloride	lb	453		475 65
CC102	Cellflake	lb	44		162 80
E100	P.U. Miles	mi	35		157 50
E101	Heavy eq Miles	mi	70		525 00
E113	Prop + bulk del.	tm	264		660 63
CE200	depth chg 0-500'	4hr	1		1,000 00
CE240	blend + mix	SK	175		245 00
S003	supervisor	ea	1		175 00

SUB TOTAL 5,501 58

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
TOTAL DLS		3,245 93

SERVICE REPRESENTATIVE Mike Mattai

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: X [signature]
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

OG 7/10/18

BASiC energy services, L.P.

TREATMENT REPORT

Customer: Lynn Packain	Lease No.	Date: 6-28-18	
Lease: Packain	Well #: 1-15		
Field Order #: 16799	Station: Pratt	Casing: 8 5/8	Depth: 225
County: Barber	State: KS		
Type Job: 2-42 8 5/8 surface	Formation	Legal Description: 15-31S-13W	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 8 5/8	Tubing Size	Shots/Ft		Acid 175 sks	60/40 poz	RATE / PRESS	ISIP
Depth 225	Depth	From	To	Pre Pad 390 cc 2% gel .25 cf	Max		5 Min.
Volume 14.3	Volume	From	To	Pad	Min		10 Min.
Max Press 300	Max Press	From	To	Frac	Avg		15 Min.
Well Connection SV	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 208	Packer Depth	From	To	Flush 15	Gas Volume		Total Load

Customer Representative: Lynn Packain | Station Manager: Westermann | Treater: Mattai

Service Units	83353	78982	86779			19889	21010				
Driver Names	Mattai		McGraw			Gravel					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
7:00					On location / safety meeting
11:40					Run 8 5/8 csng
12:15					csng on bottom
12:22					Hook to csng / break circ w. rig
12:32	100		3	4	Pump 3 bbl water
12:34	100		40	4	mix 175 sks 60/40 poz
12:46	100		—	3	start displacement
12:52	120		13	-	plug down / shut in well
					cmt to surface
					Job complete
					Thank you!
					Mike Mattai
					Mike + Scott

10244 NE Hiway 61 • P.O. Box 8613 • Pratt, KS 67124-8613 • (620) 672-1201 • Fax (620) 672-5383

Taylor Printing, Inc. 620-672-3656

Company: Lynn Packard
Lease: Packard #1-15

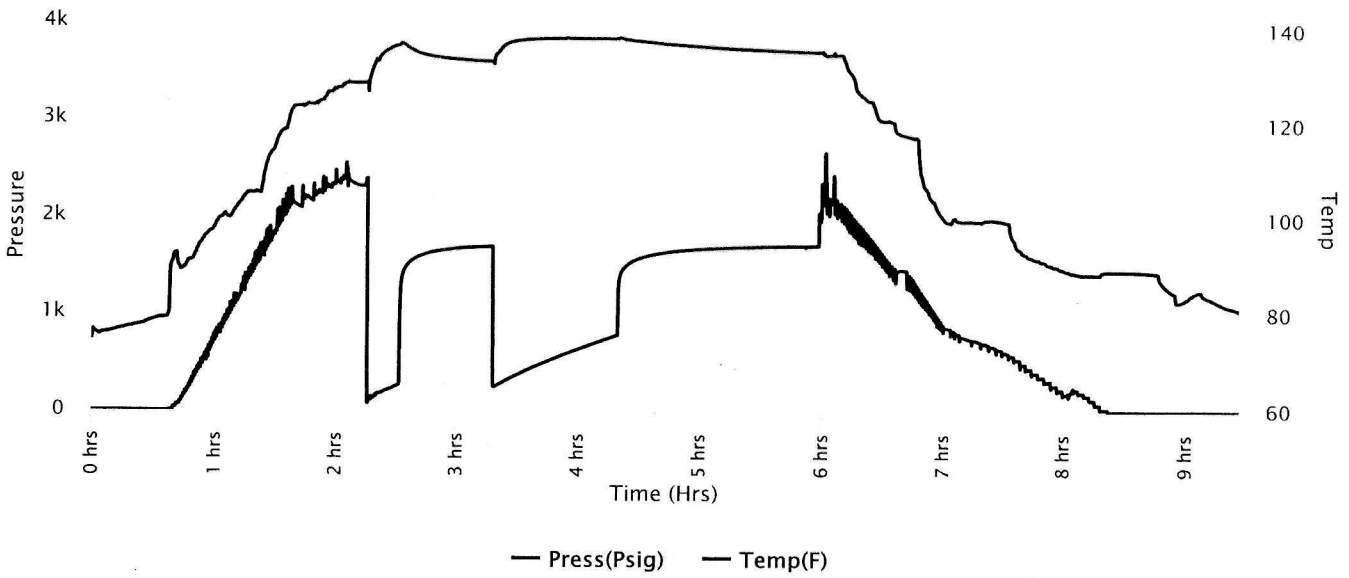
SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
Field Name: Mingona
Pool: WILDCAT
Job Number: 187

DATE
July
03
2018

DST #1 **Formation: Simpson** **Test Interval: 4563 - 4598'** **Total Depth: 4717 LTD'**

Time On: 00:27 07/03 Time Off: 09:39 07/03
Time On Bottom: 02:37 07/03 Time Off Bottom: 06:07 07/03

Electronic Volume Estimate:	1st Open	1st Close	2nd Open	2nd Close
	Minutes: 15	Minutes: 45	Minutes: 60	Minutes: 90
2027'	41" at 15 min	0" at 45 min	144.4" at 60 min	0" at 90 min



Company: Lynn Packard
Lease: Packard #1-15

SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
Field Name: Mingona
Pool: WILDCAT
Job Number: 187

DATE
July
03
2018

DST #1 **Formation: Simpson** **Test Interval: 4563 - 4598'** **Total Depth: 4717 LTD'**

Time On: 00:27 07/03 Time Off: 09:39 07/03
Time On Bottom: 02:37 07/03 Time Off Bottom: 06:07 07/03

Recovered

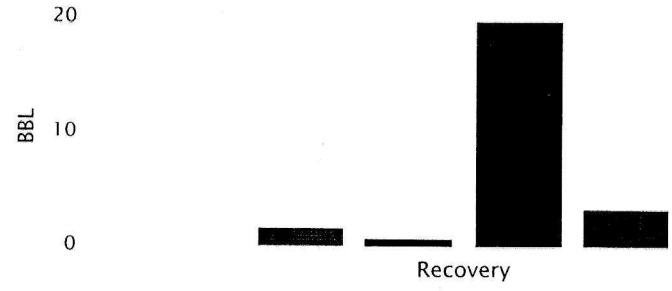
Foot	BBLS	Description of Fluid	Gas %	Oil %	Water %	Mud %
125	1.77875	G	100	0	0	0
250	3.5575	SLOCHMCW	0	4	50	46
255	3.62865	SLOCMCW	0	3	72	25
1187	16.89101	SLOCSLMCW	0	3	92	5

Total Recovered: 1817 ft
Total Barrels Recovered: 25.85591

Reversed Out
NO

Initial Hydrostatic Pressure	2327	PSI
Initial Flow	79 to 274	PSI
Initial Closed in Pressure	**1696**	**PSI**
Final Flow Pressure	256 to 786	PSI
Final Closed in Pressure	**1706**	**PSI**
Final Hydrostatic Pressure	2303	PSI
Temperature	140	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance



Gas 6.88% Oil 2.93% Water 77.09% Mud 13.1%

Company: Lynn Packard
Lease: Packard #1-15

SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
Field Name: Mingona
Pool: WILDCAT
Job Number: 187

DATE
July
03
2018

DST #1 **Formation: Simpson** **Test Interval: 4563 - 4598'** **Total Depth: 4717 LTD'**

Time On: 00:27 07/03 Time Off: 09:39 07/03
Time On Bottom: 02:37 07/03 Time Off Bottom: 06:07 07/03

REMARKS:

Initial Flow: 2 in. blow increasing. BOB in 3 mins. 35 secs.
Initial Shut-in: No blow back.
Final Flow: 1 3/4 in. blow increasing. BOB in 4 mins. 15 secs.
Final Shut-in: No blow back.

Tool Sample: 2% oil, 98% water

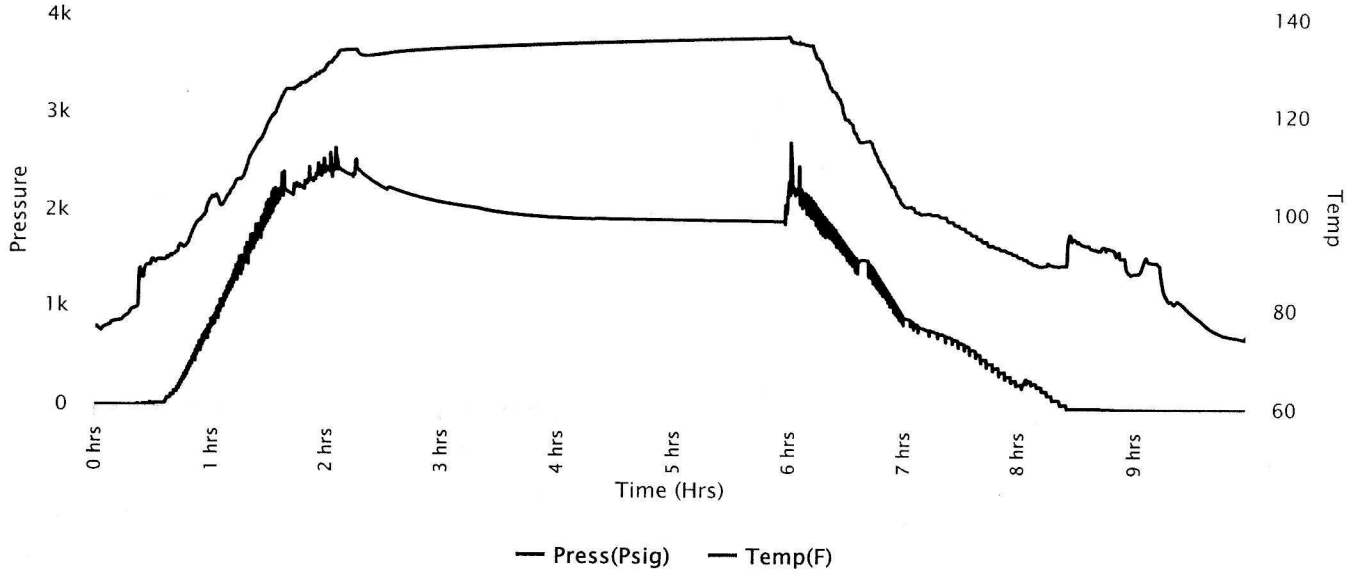
Below Straddle Max PSI: 1929

Ph: 7

RW: .11 @ 80 degrees F

Chlorides: 82,000 ppm

Below Straddle Recorder



Company: Lynn Packard
Lease: Packard #1-15

SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
Field Name: Mingona
Pool: WILDCAT
Job Number: 187

DATE
July
03
2018

DST #1 **Formation: Simpson** **Test Interval: 4563 - 4598'** **Total Depth: 4717 LTD'**

Time On: 00:27 07/03 Time Off: 09:39 07/03
Time On Bottom: 02:37 07/03 Time Off Bottom: 06:07 07/03

Down Hole Makeup

Heads Up:	35.7 FT	**Packer 1:**	4558 FT
Drill Pipe: *ID-3 1/2*	4566.13 FT	**Packer 2:**	4563 FT
		Packer 3:	4598 FT
Weight Pipe: *ID-2 7/8*	FT	**Top Recorder:**	4547.42 FT
Collars: *ID-2 1/4*	FT	**Bottom Recorder:**	4599 FT
		Below Straddle Recorder:	4696 FT
Test Tool: *ID-3 1/2-FH* *Jars* *Safety Joint*	33.57 FT	**Well Bore Size:**	7 7/8
		Surface Choke:	1"
		Bottom Choke:	5/8"
Total Anchor:	35		

Anchor Makeup

Packer Sub:	1 FT
Perforations: (top): *4 1/2-FH*	34 FT
Change Over:	FT
Drill Pipe: (in anchor): *ID-3 1/2*	FT
Change Over:	FT
Perforations: (below): *4 1/2-FH*	FT

STRADDLE

Straddle Packer(s):	1 FT
Change Over:	.5 FT
Drill Pipe: *ID-3 1/2"*	63 FT
Change Over:	.5 FT
Perforations (in tail pipe): *4 1/2-FH*	22 FT

Company: Lynn Packard
Lease: Packard #1-15

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Mud Properties

Mud Type: Chemical **Weight:** 9.5 **Viscosity:** 60 **Filtrate:** 9.6 **Chlorides:** 3,000 ppm

ROGER L. MARTIN

INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: LYNN PACKARD	ELEVATIONS
LEASE: PACKARD #1-15	KB 1673' GL 1661'
FIELD: MINGONA	Measurements Are All From KB: 1673'
LOCATION: 800' FSL & 1650' FWL (S/2-NW-SE-SW/4)	API 15-007-24331-00-00
SECTION 15 TOWNSHIP 31S RANGE 15W	
COUNTY BARBER STATE KANSAS	
CONTRACTOR: FOSSIL DRLG. RIG 3	CASING
SPUD 06/27/2018 COMP 07/03/2018	SURFACE 8&5/8" @ 224'
RTD 4716' LTD 4717'	PRODUCTION NONE
ELECTRICAL SURVEYS: MBC Well Logging: Analog Hot Wire Gas Detector; ELI:DIL&CDL/CNL;&MEL&SONIC; 1 DST by DIAMOND TESTING	P&A

FORMATION TOPS	LOG	SAMPLES
INDIAN CAVE SS	2707' (-1034)	2700' (-1027)
STOTLER LS	2889' (-1216)	2885' (-1212)
TOPEKA	3121' (-1448)	3125' (-1452)
HEEBNER SH	3634' (-1961)	3634' (-1961)
DOUGLAS GROUP/SH	3668' (-1995)	3667' (-1994)
LANSING	3803' (-2130)	3803' (-2130)
STARK SH	4124' (-2451)	4123' (-2450)
HUSHPUCKNEY SH	4162' (-2489)	4161' (-2488)
MISSISSIPPIAN CHERT	4289' (-2616)	4293' (-2620)
MISSISSIPPIAN LS	4247' (-2574)	4247' (-2574)
KINDERHOOK SH	4423' (-2750)	4421' (-2748)
VIOLA	4509' (-2836)	4511' (-2838)
SIMPSON GROUP/SH	4566' (-2893)	4564' (-2891)
SIMPSON SS	4589' (-2916)	4588' (-2915)
ARBUCKLE	4660' (-2987)	4659' (-2986)
TOTAL DEPTH (LTD/RTD)	4717' (-3044)	4716' (-3043)

CHRONOLOGY

06/27/18; SPUD 12&1/4" hole; drld to 226'; ran 8&5/8" surf.csg; set @ 224'.

06/28/18; WOC @ 226'; 8&5/8"surf.csg @ 224'.

06/29/18; Drlg @ 1636' @~7:00am; Drlg 7&7/8" hole w/ PDC bit: Hughes DP506 w/3-16s; WOB:5K--10K SPM:60; PP:850PSI; MdWt:9.8; Vis:29; Dev.Surveys: 3/4deg @ 1003'; 1deg @ 1513'

06/30/18; Drlg @ 3165' @~7:00am. WOB:5K--10K SPM:58; PP:850; MdWt:9.2; Vis:33; pH:7.0; LCM:4 LOST CIRC @ 2461' Approx~150bbls Dev.Surveys: 1/4deg @ 2021'; 3/4deg.@ 2716'

07/01/18; Drlg @ 4175' @~7:00am; WOB:10K--12K SPM:58; PP:950; MdWt:9.1; Vis:50; pH:11.5; WL:8.8; Cl:2000; LCM:4#; Dev.Surveys: 1/2deg.@3123'; MR@3763'; 3/4deg.@3795'.

07/02/18; Drlg @ 4684' @~7:00am; WOB:10K--14K SPM:56; PP:1100; MdWt:9.3; Vis:66; pH:11.0; WL:10.4 Cl:4000ppm; LCM:4#; Dev.Survey: 1deg.@4366' RTD:4716'KD; CFS/CTCH; Short Trip; CTCH; TOH for E-LOGs:ELI:DIL&CNL/CDL&MEL&SONIC; TIHw/DST#1

07/03/18; TOH w/DST#1; (Simp.SS) RTD:4716'; LTD:4717'; DST#1:4563'--4598' E-Log measurements; 4562'--4597' Rotary meas. 35'anchor; 119' tail pipe. Plugged & Abndoned @ 8:00pm/07/03/18.

REMARKS:

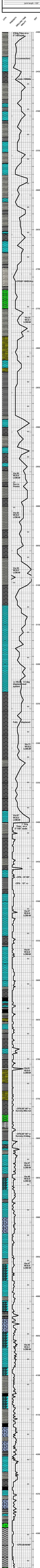
THROUGH ROTARY DRILLING SAMPLE ANALYSIS, OPEN HOLE E-LOG EVALUATION, AND OPEN HOLE DRILL STEM TESTING RESULTS, IT WAS DETERMINED THAT THERE WERE NO ZONES OF COMMERCIAL VALUE IN THIS TEST WELL. THEREFORE, ON 07/03/18, THE PACKARD #1-15 WAS PLUGGED & ABANDONED.

RESPECTFULLY SUBMITTED,
ROGER L MARTIN, GEOLOGIST (WELL-SITE)

1ST PLUG: 50sx @ 4710'; 2ND PLUG: 50sx @ 630'; 3RD PLUG: 50sx @ 270';
4TH PLUG; 20sx @ 60'; 20sx in Mouse Hole; 30sx in Rat Hole; 60/40 pozmix; 4% gel.
Job by BASIC; Ticket # 17030

(print length ~133"

LITH | POROSITY | DRILLING TIME MIN/FT | DST | SAMPLE DESCRIPTION | REMARKS



-2400

2432' Kelly Down Sample}KD.Spl}~50% LS: wh-gy-tn, pred dn- Mdst-Wkst, Rare(Rr) fos & oolc Wkst-Pkst w/ pr-Fr Porosity(Poro) w/ No Show {NS) & SH: (~50%SH} gy-bk, sm carb.

REMARKS: Drlg w/ PDC bit; Kelly Down(KD) ~31' Samples(Spls) Wet cups & bags & dried by RLM.

2466'KD.Spl} ~60% SH: As Above(AA) & gy, calc & Lmy; &~40% LS: AA; & gy-tn-wh, pred dn- Mdst-Wkst, Rr wh-chlky; Very rare(Vrr} Wkst-Pkst w/ Pr-Fr Visbl Poro w/ NS.

-2450

2498'KD.Spl} Sl incrs in SH:AA; & ~30% LS: bf-tn & gy-wh, pred dn to subchlky, w/ V.rare(Vrr) Poro w/ NS.

2530'KD.Spl} Abndt SH: Lt-dk-gy, & Vgated, & bk carb; & LS:AA, sm wh-chlky & subchlky, Rare(Rr) pr-Fr Poro: pin point(pp) & vuggy(vug) NS.

-2500

2561'KD.Spl} incrs in LS: tn-gy-wh, pred dn Mdst-Wkst, Rr Pkst w/ pr-Fr Poro: pp-vug w/ NS; Trc 2nd ReX w/ Fr-Gd aprnt Poro w/ NS; sm SH: Vgated AA.

-2550

2592'KD.Spl} LS: cm-bf-tn, ux-VfnXln, pr Poro; Vrr Fr-Gd Poro: pp-vug & IXP w/ NSO; Trc oomldc w/ VGd Poro w/NSO; sm FLR; Trc Show Gas Bubls on brk; No Cut (NC).

2622'KD.Spl} incrs SH: Vgt'd; & LS:AA; pred dn Mdst-Wkst; Very rare(Vrr) Pkst; Vrr Poro:AA.

-2600

2654'KD.Spl} LS: gy-tn, pred dn-ux, & Mdst- sm argil; pred Vpr-NVP w/ NS; & SH: gy-bk & Vgt'd.

-2650

2685'KD.Spl} incrs SH: dk-gy-bk, sm calc & Lmy, & sm carb (~50%SH); & LS: Lt-dk-gy, & tn-cm, pred dn-ux, & Mdst-Wkst, sm Pkst; Rare(Rr) Fr-Gd Poro; pred pr-NVP w/ NS.

-2700

2716'KD.Spl} AA; incrs SH: bk carb, abndt dk-gy-bk.

2716'+20min.circ.spl} pred SH:AA & sm LS:AA w/NS; Trc Sndy SILTS: Lt-gy, Vfnly Sndy, Vpr-pr visbl Poro w/ NS; NC; ~15UGK.

REMARKS: 2700' (-1027) INDIAN CAVE SS ~15 Unit Gas Kick

2748'KD.Spl} SH:AA; Rare(Rr} SILTS: Lt-gy, Vfnly Sndy Vpr-pr visbl Poro w/ NS; & sm LS: gy-tn-wh, dn & argil, & Pkst w/ pr visbl Poro to NVP w/ NS.

2779'KD.Spl} AA; incrs in SH: (~50%) gy, & sm bk carb; & sm SILTS:AA, V.rare(Vrr) Sndy SILTS:AA w/ NS; sm LS:AA, pred dn w/ Vpr-NVP w/ NS.

-2750

2811'KD.Spl} cm-tn, gy-wh, pred dn to subchlky w/ Vpr-NVP; NS.

2843'KD.Spl} SH: Sharp incrs (>80% SH & SILTS) gy-bk SH, sm carb; & SILTS:AA.

-2800

2874'KD.Spl} Pred SH:AA, & gn-gy, & SILTS: gn-gy, calc, & LS: gy, argil; & LS: tn-gy-wh, pred dn, Rr Pkst- ool, sm wh-chlky,Rr pr-Fr Poro w/ NS.

2906'KD.Spl} SH: AA, pred gy-bk; sm SILTS:AA; Trc LS:AA;NS.

-2850

2938'KD.Spl} SH:AA, sl incrs in bk carb;

2938'KD.Spl.Cont'd}Sharp incrs in LS: tn-gy, sm sl fos-Wkst-Pkst, & sm dn Mdst; pred pr-NVP w/ NS.

REMARKS: 2885' (-1212) STOTLER LS

-2900

2970'KD.Spl} Sl incrs in bk carb SH;

2970'KD.Spl.Cont'd} LS: gy-tn-cm, Rr Pkst & ux-fnXln LS w/ pr visbl Poro w/ NS; pred dn & argil w/ Vpr-NVP; NS.

-2950

3002'KD.Spl} LS: gy-tn-wh, Rr Pkst & ux-fnXln w/ pr visbl Poro; pred dn Mdst-Wkst; pr-NVP; NS; & SH:AA.

3033'KD.Spl} ~50%SH:AA; sm bk carb SH (~100UGK) & LS:AA; pred dn, sm argil; sm wh-chlky, pred pr-NVP w/ NS.

-3000

3065'KD.Spl} LS: tn-gy-wh, ux-fnXln, pred dn, Very rare (Vrr) Vpr-pr visbl Poro; pin point (pp) vug & InterXlnPoro (IXP) Trace Oil Stain (Trc OSTN) & FLR & Cut, No Free Oil (NFO); & SH:AA.

REMARKS: ~110 Unit Gas Kick

3097'KD.Spl} Pred LS: gy-tn-cm, pred dn, sm argil w/ pr-NVP; Trc Fr visbl Poro; NS; & SH: gy-bk, sm bk-carb, sm gn-gy.

-3050

3128'KD.Spl} LS: tn-gy-wh, sm Wkst-Pkst, pred dn, sm argil-shly, pred pr-NVP; NS.

-3100

3160'KD.Spl} SH: (incrs) pred dk-gy-bk, sm bk-carb; (Frly abndt LS:AA, Vrr pr-Fr Poro w/NS).

3192'KD.Spl} LS: (incrs) tn-gy-wh, pred dn & ux-fnX; Rr Pkst, Rr pr-Fr pp-vug, Trc Gd visbl Poro, NS; & SH:AA, gy-bk, & bk-carb.

REMARKS: 3125' (-1452) TOPEKA

-3150

3223'KD.Spl} LS: tn-gy-wh, pred dn to pr visbl Poro w/ NS; Rr Fr-Gd Poro: pp-vug & moldc Poro w/NS; sm wh-chlky & subchlky LS w/ NS.

-3200

3254'KD.Spl} LS:AA, pred dn, Rr fnXln w/ pr IXP w/ NS; Trc oomldc & pp Poro w/ NS; sm SH:AA, dk-gy-bk, & bk-carb; ~45 Unit Gas Kick (UGK).

3286'KD.Spl} LS: sm dk-gy & tn, dn- ux-fnX, w/ Vpr-NVP w/ NS, & Mdst w/ pred Vpr-NVP w/ NS; & SH:AA.

REMARKS: ~45 Unit Gas Kick

-3250

3318'KD.Spl} sm LS: dk-gy-tn, dn & argil, & ux-fnX, Vpr-NVP; NS;
incrs SH: md-dk-gy, & gn-gy, & bk-carb; sm gy calc & Lmy SH.

3350'KD.Spl} Pred SH: (~90%) dk-gy-bk, sm calc & Lmy; Rr LS; tn-gy-cm, microXln(ux) & argil w/ Vpr-NVP; NS.

-3300

REMARKS: MUD-CO Report 06/30/18@10:00am Drlg @ 3300' Wt:8.5 Vis:71 PV:20 YP:25 pH:11.5 WL:8.8 CT: 1/32" Alka.Filtr: 1.8 Cl: 2000ppm Ca: 60 Solids: 1.3% LCM: 2#/bbl ECD: 9.03 #/gal.

3382'KD.Spl} Rr LS:AA, tn-gy-wh, ux-fnXln, & argil-shly w/ pr-NVP; NS;

3382'KD.Spl.Cont'd} V.Abndt SH:AA, sm calc & Lmy.

-3350

3414'KD.Spl} SH:AA; incrs bk-carb- V.carb (60UGK) Trc pyrtc Coal; Abndt dk-gy-bk subcarb SH.

REMARKS: ~60 Unit Gas Kick

3446'KD.Spl} incrs LS: tn & dk-Lt-gy & wh, pred dn & argil-shly, sm subchlky; Vpr-NVP; NS.

-3400

3470'Drlg.Spl} SH: gy-bk, sm bk-carb;

3470'Drlg.Spl.Cont'd} LS: gy-tn-cm, pred dn, sm ux-fnX, Rr pr-Fr Poro: pp-vug & IXP w/ NS.

-3450

3470'+15min.circ.spl} LS: wh-gy-tn, subchlky to chlky w/ pred Vpr-pr visbl Poro w/NS; & SH:AA.

3570'+30min.circ.spl} LS:AA; fn-CrsXln- 2nd ReX; Fr visbl Porosity(Poro) NS.

3478'KD.Spl} incrs bk-carb & subcarb SH; & LS:AA.

3478'+15min.circ.spl} incrs LS: tn-gy-wh, pred dn - subchlky; Trc fn-MdXln w/ Fr Poro w/NS.

3510'KD.Spl}~60%SH: dk-gy-bk subcarb, sm calc & Lmy w/ argil LS; sm bk-carb SH; & sm LS: As Below (AB).

3541'KD.Spls} ~40% LS: tn-wh & gy-bn, prt chlky, & ux-fnXln, Vrr prt MdXln-CrsX- sm 2nd ReX; sm Wkst-Pkst, sm pr-Fr Poro, Vrr Gd Poro; NS; sm dn- Mdst, sm argil.

-3500

3573'KD.Spl} LS: sm AA; sm dn- Mdst; sm ux-fnXln, Vrr MdXln-CrsX- 2nd ReX, sm prt chlky; Trc Gd Poro; sm pr-Fr Poro: pp-vug & IXP; NS; abndt dn, sm argil; & SH:gy-bk, sm carb.

-3550

3605'KD.Spl}~50% SH:AA; gy-bk;
~50% LS:tn-gy-wh, pred dn & subchlky to chlky, sm Wkst-Pkst, sm ux-fnX, sm pr-Fr Poro w/NS.

3636'KD.Spl}~40% LS:tn & gy-wh, sm dn & subchlky to chlky; sm Wkst & Mdst, & sm Pkst- pr-Fr Poro; NS; & Vrr MdXln-CrsX- 2nd ReX; Vrr Fr-Gd Poro; NS;

-3600

3636'KD.Spl.Cont'd}~60% SH: pred dk-gy to bk, sm bk carb, & gn-gy.

3668'KD.Spl}~60% SH:AA; Sl incrs bk-carb to V.carb; ~40% LS:AA, & gy-wh, dn-Mdst & ux, sm argil-shly; NS.

3700'KD.Spl} HEEBNER SH} >60% SH:AA, Sl incrs bk subcarb to V.carb, & dk-Lt-gy, sm silty SH;

REMARKS: 3634' (-1961) HEEBNER SH

-3650

3700'KD.Spl.Cont'd}& LS: gy-tn-wh, abndt dn- sm argil-Mdst-Wst; sm subchlky-chlky- Wkst-Pkst; sm ux-fnXln, Vrr MdXln-CrsX, pred pr-NVP; Trc Fr-Gd Poro w/ NS.

3700'KD.Spl.Cont'd} DOUGLAS} SH: md-dk-gy & bk.

REMARKS: 3667' (-1994) DOUGLAS GRP.

3720'spl} ~50% SH:AA; & md-dk-gy, & bk, sm silty & calc & Lmy. (20'spls)

3720'spl.cont'd} AMZ}~50% LS: gy-tn-wh, pred dn to chlky, sm argil Mdst-Wkst, Rr Pkst & ux-fnXln LS:AA; Rr Poro: AA, w/ NS.

3740'spl}~60% SH: bk carb & gy-bk subcarb; sm LS:gy-tn-cm, sm Mdst, sm ux-MdXln, pred pr visbl Poro to NVP; NS.

REMARKS: 20' Samples(Spls)

-3700

3760'spl} <20% LS:AA; sm SILTS: Lt-gy, micac; >70% SH:AA, pred bk-carb & subcarb; sm SILTS: Lt-gy, micac.

3763'KD.Spl & +20min.circ.spl} sm SH:AA; (sm LS:AA) & ~30% SILTS: Lt-dk-gy, sm micac, sm sl calc; Trc Sd Clust: Lt-gy, Vfn Gr'd, micac w/ pr visbl Poro w/ NS; NF; NC.

-3750

3763'+40min.spl} Pred SH:AA.

3780"spl} Pred SH:gy-bk, & bk-carb; & sm LS:dk-gy-bn, dn-ux & argil; Vpr-NVP; NS.

3795'KD.Spl} Pred SH:AA, & bk-carb; & SILTS:gy, micac, sm calc; Rr LS:gy-tn-wh, dn-ux,& chlky pr-NVP;NS.

3795'+20min.circ.spl} AA; sl incrs LS:AA; sm Wkst-Pkst; Vrr Sd Clust: Lt-gy, Vfn-fn Gr'd, Rnd'd-anglr; pr-Fr visbl Poro; NS;NF;NC.

3795'+40min.circ.spl}AA; V.rare(Vrr) Sd Clust:AA; NS;NF;NC; Pred SH:AA.

3800'drlg.spl} SH:AA; Vrr Sd Clust:AA; NS; NF; NC.

-3800

3820'spl} Pred SH:AA

3820'spl.cont'd} LANSING}~30% LS:tn-gy-cm, pred dn-ux, Vrr ool & fos Wkst-Pkst, Vrr fnXln, pred pr-NVP w/NS; & SH:gy-bk, sm carb.

REMARKS: 3803' (-2130) LANSING

3840'spl}~40% LS:tn-gy-cm, pred dn to pr visbl Poro; Vrr Pkst- fos & ool w/ pr-Fr Poro w/ NS; NC; NS; Pred SH:AA; AA, gy-bk, sm bk-carb; (Vrr Sd Clust:AA;NS;NF;NC).

3860'spl} incrs LS: (~70%LS) cm-gy-tn, pred dn- Mdst-Wkst, Rr Pkst, sm chlky, pred pr-NVP w/NS; Vrr Fr-Gd Poro: moldc & vug & IGr & IXP w/ NS; NC.

-3850

3880'spl} LS:cm-tn-gy, ux-fnXln, sm Pkst-Grst-ool & Vrr oomldc w/ Fr-Gd Poro: I.ool & moldc, & fos-mold & vug Poro, w/ pr-Fr IXP w/NS; (~80%LS &~20%SH).

3900'spl} LS:wh-tn-gy, prt chlky, sm fn ool- Pkst, Vrr Grst & Vfn-fnXln w/ Fr-Gd Poro: IGr & IXP & vug Poro w/NS; Trc bk Chert; sm SH:dk-gy-bk, sm bk-carb.

3920'spl} LS:cm-tn, ux-fnXln, & dn Mdst-Wkst, Rr Pkst & ux-fnXln- prt MdXln w/ Fr-Gd Poro w/NS; sm wh-chlky; NS; & ~10%SH:AA.

-3900

3940'spl} LS:tn-gy-wh, pred dn- ux, & Mdst-Wkst, sm chlky; Rr ux-fnXln & Pkst w/ pr-Fr visbl Poro w/NS; Sl Cherty:cm-gy, blu-gy, sharp; <10%SH:AA.

3960'spl} LS:cm-tn-gy, sm ux-fnXln, Vrr prt MdXln, & sm Pkst-Grst w/ Fr-Gd Poro: IGr & IXP & pp Poro w/NS; sm wh-chlky LS, & sm dn & argil LS w/NS; <10%SH:bk-carb & dk-gy & gn-gy.

-3950

3980'spl} Sl incrs SH:bk-carb & gy; Abndt LS:cm-tn-gy, sm ux-fnXln, Vrr MdX-VCrsX- 2nd ReX; sm Wkst-Pkst; pred pr-Fr visbl Poro: pp-vug, IGr & IXP w/ NS; sm argil-shly LS.

4000'spl} LS:cm-tn-gy, mot; ux-fnX, Trc MdX's-2nd ReX; sm ool, & Frly Abndt oomldc w/ Fr-Gd Poro: moldc & I.oolc Poro w/ sm FLR; NS;NC; pred pr visbl IXP; NS;NC; Sl Cherty.

-4000

4020'spl} Pred LS:wh-tn-gy, prt chlky & subchlky, sm fn ool & fos Wkst-Pkst; pr-Fr Poro w/NS; Rr Fr-Gd Poro:AA w/NS.

4040'spl} LS:gy-tn-wh, sm mot, Wkst-Pkst- fos; sm ux-fnXln, & Rr MdX-CrsX- sm 2nd ReX; sm Fr-Gd Poro: fos-mold & vug Poro w/NS; sm wh-chlky;NS.

4060'spl} incrs SH: (~10%SH) bk-carb & subcarb; Pred LS:wh-chlky & subchlky, to gy-tn, pred Mdst-Wkst, sm Pkst & ux-fnXln w/ pr-Fr Poro; Vrr Gd Poro: vug & moldc Poro; NS; NC; VSl Cherty.

-4050

4080'spl} LS:cm-gy-tn, Rr ux-fnXln, & Pkst-Wkst w/Fr-Gd Poro: pp & moldc & IGr.Poro; NS;NC; sm wh-chlky; Abndt dn Mdst-Wkst;NS.

4100'spl} LS:tn-gy-bn, & dk-gy, pred dn- ux, & argil- Mdst w/ Vpr-NVP w/NS; ~10% SH:AA, bk-carb, & subcarb & calc & Lmy.

-4100

4120'spl} LS:cm-tn-gy, mot; ux-fnXln, Vrr prt MdX-CrsX, & Pkst-Grst w/ Fr-VGd Poro: pp-vug, moldc & IGr & IXP w/NS; sm wh-chlky w/pr-Fr Poro w/NS; Abndt dn to argil Mdst-Wkst w/ pr-NVP; NS.

4140'spl} LS: Lt-dk-gy, pred dn-ux-fnXln; sm argil-Mdst; pred pr-NVP w/NS; (Vrr Fr-Gd Poro:AA w/NS).

4140'spl.cont'd} SH:bk-carb & subcarb (STARK SH).

REMARKS: 4123' (-2450) STARK SH

4160'spl} SWOPE} LS:gy-tn-cm, ux-fnXln, Trc MdX-VCrsX's; sm Fr-Gd Poro: pp-vug & moldc, & IGr & IXP; NSO; NC; Pred dn-ux & Mdst-sm argil w/ NS.

-4150

4180'spl} Pred LS:dk-Lt-gy, gy-bn, dn-ux & argil-Mdst w/ Vpr-NVP; NS; sm SH:bk carb & subcarb.

{~100UGK} HUSHPUCKNEY} 4200'spl} Sl incrs in bk-carb- sm V.carb SH;

REMARKS: 4161' (-2488) HUSHPUCKNEY SH {~100 Unit Gas Kick}

4200'spl.cont'd} Pred LS: gy-tn-wh, pred dn-ux & subchlky; Rr pr visbl Poro w/NS; sl Cherty:tn-gy-bn, sharp, vit; sm argil-shly.

4220'spl} LS:gy-tn-wh, pred dn-ux-VfnXln, sm prt chlky; sm argil-Mdst; pred Vpr-NVP; NS; Vsl Cherty; <10% SH:AA, bk subcarb to carb.

-4200

4240'spl} Sl incrs SH:AA; bk subcarb to carb.

& LS: gy-tn-wh, pred dn- ux-fnX, prt chlky, sm sl fos- Wkst & Rr Pkst & ux-fnXln w/ pr-Fr Poro w/NS.

4260'spl} LS: dk-Lt gy, pred dn-ux & Mdst- sm argil-shly, pred Vpr-NVP; NS.

4280'spl} Sl incrs SH:md-dk-gy, incrs bk carb to V.carb.

4300'spl} >10%<20%SH:AA; sm gn-gy SH; & LS:AA; tn-gy-wh, dn-ux, & subchlky, pred pr-NVP; NS.

-4250

REMARKS: MUD-CO Report 07/01/18@10:00am Drlg @ 4263' Wt:9.3+ Vis:50 PV:15 YP:28 pH:11.0 WL:10.4 CT: 1/32" Alka.Filtr.: 1.0 Cl: 4,000ppm Ca: 80ppm Solids: 6.9% LCM: 3#/bbl

4300'spl.cont'd} LS:tn-gy-wh, pred dn-ux- fnXln, Trc MdX's-CrsX's- 2nd ReX; Pkst & Xln LS w/ Poro w/ NS; Rr chlky LS; Sl Cherty.

4315'drlg.spl} Sm LS: tn-gy-wh, pred dn-ux-fnX; sm argil-shly; sm pr-Fr Poro: pp-vug Poro w/ Vrr spt'd dead O.Stn w/ NFO & pr Cut;
& ~40% SH: bk-carb & subcarb & gn-gy- Vgt'd.

{MISS}~110UGK} 4315'circ.spls}~25% CHERT: bone-wh & cm-bf-tn, Abndt Wthr'd- subTriplc to Triplc w/ Fr-Gd Poro: pp-IGr-Triplc Poro w/ spt'd to subsat-tn-bn O.STN & VSI-Sl SFO (Show Free Oil) w/ dull FLR to NF; & Sl-Fr Show Gas Bubbles (SGB) on break(brk) sm black-dead Oil Stain (bk-dd-O.Stn)w/NFO; pred Sl milky Cut, V.rare(Vrr) Fr Cut, Trc Fr SFO w/ Fr FLR & Gd milky Cut, Sl Odor; (abndt LS & SH: AA).

REMARKS: 4293' (-2620) MISSISSIPPIAN ~110Unit Gas Kick (VSI-SISFO & Sl-Fr SGB)

-4300

{4345'+20min.circ.spl}~30% CHERT:cm-bf-tn-gy, pred shrp-fresh-sl Wthr'd w/Rr spt'd bk & tn-bn- O.STN w/ VSI SFO & VSI-Sl SGB; Rr (<10%) Triplc/Wthr'd w/ Fr-Gd Poro w/ subsat to sat Lt-tn-bn-O.STN w/ VSI-Sl SFO & VSI-Sl SGB & VSI-Sl Cut, <5% w/ Fr SFO&SGB & Fr Cut; Trc Gd Cut, Sl Odor. {4345'+40min&1hr.circ.spls} incrs to ~40%CHERT:AA;Slight increase(Sl incrs)~<10%Triplc/ Wthr'd Chert w/ Fr-Gd Poro w/ spt'd to sat O.STN w/ VSI-Fr SFO & VSI-Fr SGB & VSI-Fr Cut, sm bk-dd-O.Stn; Sl Odor.

REMARKS: (VSI SFO & VSI-Sl SGB ~80 Unit Gas Kick

-4350

{4366'KD&circ.spls} LS(incrs):maroon-red(mrn-rd) argil-Mdst w/ Vpr-NVP w/NS; Cherty: bf-gy-tn-bn, pred sharp-fresh, vit, pred Vpr-NVP w/ NS; (Rr Chert:AA w/ Poro w/ SFO-STN-SGB-Cut).

REMARKS: 4347' (-2674) MISS. LS

{4390'&4400'drlg.spls} LS: mrn-rd-bn, Mdst-Wkst, sm Pkst- sl fos, argil & Cherty; pred Vpr-NVP w/ NS; (Vrr Chert:AA w/Poro & SFO-STN-Cut:AA).

{4420'drlg.spl} (LS:AA) & SH:pred gy-bk & Chert:AA. (Sl incrs Chert).

{4429'KD+20min.circ.spl} Sharp incrs CHERT >60% CHERT: pred sharp-fresh to Sl Wthr'd Chert, Rr ~<10% w/ spt'd bk-O.STN- Vrr VSISFO&Cut, sm dd-O.Stn w/ NFO; Vrr ~<5%Triplc-SubTriplc w/ Fr-Gd Poro w/ spt'd-sat-tn-bn-O.STN & VSI-Sl SFO&SGB & VSI-Sl milky Cut; Trc Odor.

REMARKS: (VSI-SISFO&GB)

-4400

{4429'+40min.circ.spl} Chert:AA; pred fresh-sharp-Sl Wthr'd, decrs Triplc/Wthr'd, Vrr spt'd dd.O.Stn; <5% w/ SFO-STN-SGB-Cut; VSl Odor.

{4429'+40min.circ.spl.cont'd} LS: gy-tn, Mdst-Wkst, sm argil, & ux-dn LS w/ Vpr-NVP w/NS.

{KINDERHOOK SH} 4429'+40min.&+1hr.circ.spls} incrs SH in 40min.spl & >50% SH in 1hr.spl: SH: gy-bk, sm bk-carb & subcarb & gn- gy, Vgated SH.

REMARKS: 4421' (-2748) KINDERHOOK SH

{4440'spl} SH:AA (&Chert:AA & LS:AA)

{4460'spl} SH:AA & Silty SH:gy, sm calc & Lmy.

-4450

{4480'spl} SH-SILTS:dk-Lt-gy, sm V.calc & Lmy; w/ sm V.argil-shly-silty LS w/ Vpr-NVP w/NS.

{4500'spl} SH:AA; sm gy-bk fiss SH; Abndt Lmy & calc SH & SILTS:AA.

{4520'spl}~90% SH: dk-gy, sm bk subcarb, Rr carb SH; sm calc & Lmy SH-SILTS:AA. (Vrr Chert:AA).

-4500

{4525'KD+20min.circ.spl}~85% SH: sharp incrs bk-carb & subcarb, sm dolomc & Lmy & calc; Rr V.carb SH.
{4525'KD+20min.spl.cont'd} Rr VIOLA LS & Chert: AB.
{VIOLA} 4525'KD+40min.circ.spl} Abndt (>50%) VIOLA: LS: cm-bf-gy-wh, semi-chlky, sm Vfnly granlur- Pkst-Grst, & microXln(ux), & Mdst-Wkst; VCherty: cm-bf-gy, sharp-fresh; Trc u-Frac's & Edges & pr visbl Poro w/ FLR & Trc SFO & Cut.
{4525'+1hr.circ.spl}>50%Viola:AA w/sharp incrs Chert.
{4540'drlg.spl}~40%Viola Chert & LS:AA; Abndt SH:AA.

REMARKS: 4511' (-2838) VIOLA (Trc SFO)

{4560'spl} Pred CHERT:AA; pred fresh-sharp- Sl Wthr'd w/ Vrr Poro & u-Frac's & Edges w/ FLR & Trc SFO & Cut; & Vrr Triplc & SubTriplc w/ Poro w/ VSI-Sl SFO-STN-Cut.

REMARKS: (Trc SFO)

{4575'drlg&+20min.circ.spls} Pred CHERT:~50% sharp-fresh- Sl Wthr'd; &~50% Wthr'd- SubTriplc- Triplc w/ Fr-VGd Triplc- IGr.Poro; <10% w/ spt'd-subsat tn-bn-O.STN & Sl-Fr SFO w/ dull FLR to NF, & Sl-Fr Cut; Fr-Gd Resid.Cut; Trc VGd Poro-Triplc- Trc sat.O.STN & Fr SFO & Gd Cut, Sl Odor;

REMARKS: (Sl-Fr SFO)

-4550

4575'+20min.circ.spl.cont'd} Rr LS:AA; dn-Vpr-NVP.

{SIMPSON GRP/SH} 4575'+40min&1hr.circ.spls} Sharp incrs in SH:dk-gy-gn, sm waxy, & sm dolomc; & argil DOLO:gy,&gn-gy, ux-fnXln; sm Sndy:Vfn-MdGr'd;Vpr-NVP.
{4580'circ.spls}AA&SH:pred dk-gy,&gn-gy,waxy.

REMARKS: 4564' (-2891) SIMPSON GRP/SH

{4585'circ.spls}~90% SH:AA (in 40min.circ.spl).

{4590'circ.spls}Sndy SH & SILTS:gn-gy,sm dolomc; {SIMP.SS}Vrr SS:Vrr Sd Clust & F.Sd.Gr's:AB;Trc SFO 4595'circ.spls}Vrr Sd Clust;gy:Vfn-MdGr'd;Vrr CrsX&VCrs Gr's;pred silty&shly;Vsl pyrtc;w/pr Visbl IGrP;VSISFO-FLR-STN&Cut; Trc V.fribl 'cln' Sd Clust w/Gd IGr.P w/SI-FrSFO-FLR-STN&Cut; F.SdGr's:fn-VCrs;Well-Sub-Rnd'd.
{4640'drlg.spl} Rr SS: Sd Clust:AA, pred tn-MdGr'd; Vrr fribl w/ Fr-Gd Poro w/ spt'd O.STN & FLR, Trc Sat-Oil STN & FLR; Vrr Sl-Fr SFO & Cut; Fr Silty-Sd Clust:AA; Rr Free(F) Sd Gr's: fn-VCrs, Well-Rnd'd to Sub-Rnd'd F.Sd Gr's; Sl Odor; pred SH:AA & gn-gy, & sm waxy & sm pyrtc.

REMARKS: 4588' (-2915) SIMPSON SS ~125Unit Gas Kick (Sl-Fr SFO&SGB)

REMARKS: (Sl-Fr SFO&SGB)

REMARKS: DST#1;SIMP.SS STRADDLE DST AFTER E-LOGS E-LOG MEAS: 4563'--4598' LTD: 4717' ROTARY MEAS: 4562'--4597' RTD: 4716' Times: 15-45-60-90min. IF:2"Blow incrs to Bottom Of Bucket in ~4 minutes ISI:No Blow Back FF:BOB in~4min. FSI: NBB Rec: 125'GIP 250'SLOCHMCW (4%O;50%W;46%M) 255'SLOCMCW (3%O;72%W;25%M) 1187'SLOCSIMCW (3%O;92%W;5%M) 1817' Total Rec. (~26 bbls) Total Recovery: ~7% Gas, ~3%Oil, ~77% Water, ~13% Mud Rw of DST Wtr: 0.11ohms@80deg.F Corrected Rw =- 0.065 @ 140deg.F. Cl: 82,000 ppm IHP: 2327 IFP: 70--274 ISIP: 1696 FFP: 256--786 FSIP: 1706 FHP: 2303 Temp:140deg.F

-4600

{4660'spl} {Vrr Sd Clusters:AA-Trc fribl w/Fr-Gd Poro w/FLR-SFO-STN-Cut:AA, Rr F.Sd Gr's:AA; Vsl Odor}; Pred SH:AA, gn-gy, sm waxy, & gy-bk, sm bk subcarb to carb fiss; sm Sndy & dolomc SH & SILTS:AA.

{4680'drlg.spl} >80% SIMP SH:AA, & dk-gy, gn-gy, semi-waxy; (Vrr Sd Clust & F.Sd Gr's:AA);

-4650

{4680'drlg.spl.cont'd} Trc ARB.DOLO: As Below (AB).

{ARBUCKLE} 4684'KD+20min.circ.spl} >60% ARB. DOLO: cm-bf-gy, microXln(ux)-fnXln, sm sl fos, Vrr Pkst & pred pr visbl Poro to NVP; Trc pr-Fr vug-Poro, & pr-Fr IXP; Trc spt'd to subsat O.STN & milky Cut, Trc Fr Resid. Cut, Trc SFO w/ dull FLR-NF; Pred Barren.

REMARKS: 4659' (-2986) ARBUCKLE (Trc SFO)

{4684'KD+40min.spl} V.Abndt ARB.DOLO:AA; cm-tn-gy, ux-fnXln, incrs in fnXln w/ pr-Fr Poro: IXP & vug Poro; Trc O.STN & Cut, Trc SFO; Pred Barren.

REMARKS: (Trc SFO)

{4702'drlg.spl} DOLO: AA, pred ux-fnXln, Vrr fnXln-sucro w/ Fr Visbl Poro, pred Vpr-NVP, & Rr argil-shly; Trc Gd Poro; Vrr Fr visbl Poro w/ O.STN & Sl Cut, Fr Resid.Cut, Trc SFO-AA; NS.

REMARKS: (Trc SFO)

-4700

{4716'KD&circ.spls} DOLO-DLS: cm-tn, ux-fnXln, sm subchky-matrix, sm Sndy-Vfn-Md Gr'd-Well-Rnd'd Gr's. Vrr shly Dolo w/ gn-gy waxy SH; Trc IXP & vug Poro w/ O.STN & Cut; (~90% Barren, NO.

REMARKS: (Trc SFO)

REMARKS: MUD-CO Report 07/02/18@9:45am Short Trip@4716' Wt:9.5 Vis:58 PV:18 YP:22 pH:11.5 WL:9.6 CT: 1/32" Cl: 3,000ppm Ca: 20ppm Solids: 8.3% LCM: 4#/bbl ECD: 9.86#/gal.

REMARKS: RTD:4716'(-3043) LTD:4717'(-3044)

REMARKS: LYNN PACKARD PACKARD #1-15 800' FSL & 1650' FWL (SW4) Sec:15-31S-13W MINGONA FIELD BARBER Cnty.,KS API#15-007-24331-00-00

-4750

Company: Lynn Packard
Lease: Packard #1-15

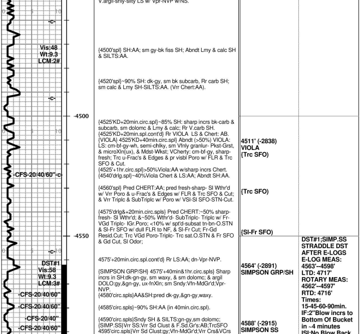
SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
Field Name: Mingona
Pool: WILDCAT
Job Number: 187

DATE July 03 2018 | DST #1 | Formation: SIMPSON | Test Interval: 4563 - 4598' | Total Depth: 4717 LTD'

Time On: 00:27 07/03 | Time Off: 09:39 07/03
Time On Bottom: 02:37 07/03 | Time Off Bottom: 06:07 07/03

Electronic Volume Estimate: 2027'

1st Open	1st Shut-In	2nd Open	2nd Close
Minutes: 15	Minutes: 45	Minutes: 60	Minutes: 90
41" at 15 min	0" at 45 min	144.4" at 60 min	0" at 90 min



Company: Lynn Packard
Lease: Packard #1-15

SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
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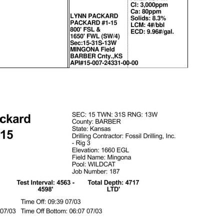
Recovered

Foot	BBLS	Description of Fluid	Gas %	Oil %	Water %	Mud %
125	1.77875	G	100	0	0	0
250	3.5575	SLOCHMCW	0	4	50	46
255	3.62865	SLOCMCW	0	3	72	25
1187	16.89101	SLOCSLMCW	0	3	92	5

Total Recovered: 1817 ft
Total Barrels Recovered: 25.85591
Reversed Out: NO

Initial Hydrostatic Pressure	2327	PSI
Initial Flow	79 to 274	PSI
Initial Closed in Pressure	**1696**	**PSI**
Final Flow Pressure	256 to 786	PSI
Final Closed in Pressure	**1706**	**PSI**
Final Hydrostatic Pressure	2303	PSI
Temperature	140	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance



Company: Lynn Packard
Lease: Packard #1-15

SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
Field Name: Mingona
Pool: WILDCAT
Job Number: 187

DATE July 03 2018 | DST #1 | Formation: SIMPSON | Test Interval: 4563 - 4598' | Total Depth: 4717 LTD'

Time On: 00:27 07/03 | Time Off: 09:39 07/03
Time On Bottom: 02:37 07/03 | Time Off Bottom: 06:07 07/03

REMARKS:
TOOL SAMPLE:2% OIL 98% WATER

IFP:2"BLOW-INCREASING TO BOB IN 3 MINUTES 35 SECONDS
ISIP:NO BLOW BACK
FFP:1 3/4"BLOW-INCREASING TO BOB IN 4 MINUTES 15 SECONDS
FSIP:NO BLOW BACK

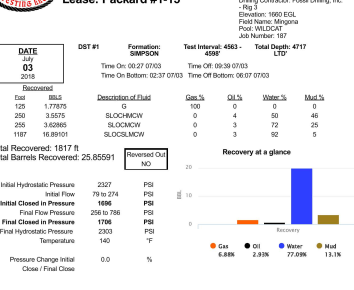
BELOW STRADDLE MAX PSI:1929

Ph: 7

RW: .11 @ 80 degrees F

Chlorides: 82000 ppm

Below Straddle Recorder



Company: Lynn Packard
Lease: Packard #1-15

SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
Field Name: Mingona
Pool: WILDCAT
Job Number: 187

DATE July 03 2018 | DST #1 | Formation: SIMPSON | Test Interval: 4563 - 4598' | Total Depth: 4717 LTD'

Time On: 00:27 07/03 | Time Off: 09:39 07/03
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Down Hole Makeup

Heads Up:	35.7 FT	Packer 1:	4558 FT
Drill Pipe: ID-3 1/2	4566.13 FT	Packer 2:	4563 FT
Weight Pipe: ID-2 7/8	FT	Packer 3:	4598 FT
Collars: ID-2 1/4	FT	Top Recorder:	4547.42 FT
Test Tool: ID-3 1/2-FH	33.57 FT	Bottom Recorder:	4599 FT
Jars		Below Straddle Recorder:	4696 FT
Safety Joint		Well Bore Size:	7 7/8
Total Anchor:	35	Surface Choke:	1"
		Bottom Choke:	5/8"

Anchor Makeup

Packer Sub:	1 FT
Perforations: (top): 4 1/2-FH	34 FT
Change Over:	FT
Drill Pipe: (in anchor): ID-3 1/2	FT
Change Over:	FT
Perforations: (below): 4 1/2-FH	FT

STRADDLE

Straddle Packer(s):	1 FT
Change Over:	.5 FT
Drill Pipe: ID-3 1/2"	63 FT
Change Over:	.5 FT
Perforations (in tail pipe): 4 1/2-FH	22 FT

Company: Lynn Packard
Lease: Packard #1-15

SEC: 15 TWN: 31S RNG: 13W
County: BARBER
State: Kansas
Drilling Contractor: Fossil Drilling, Inc. - Rig 3
Elevation: 1660 EGL
Field Name: Mingona
Pool: WILDCAT
Job Number: 187

DATE July 03 2018 | DST #1 | Formation: SIMPSON | Test Interval: 4563 - 4598' | Total Depth: 4717 LTD'

Time On: 00:27 07/03 | Time Off: 09:39 07/03
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Mud Properties

Mud Type: CHEMICAL | Weight: 9.5 | Viscosity: 60 | Filtrate: 9.6 | Chlorides: 3000 ppm

Company: Lynn Packard
Lease: Packard #1-15

SEC: 15 TWN: 31S RNG: 13W
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Elevation: 1660 EGL
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DATE July 03 2018 | DST #1 | Formation: SIMPSON | Test Interval: 4563 - 4598' | Total Depth: 4717 LTD'

Time On: 00:27 07/03 | Time Off: 09:39 07/03
Time On Bottom: 02:37 07/03 | Time Off Bottom: 06:07 07/03

Gas Volume Report

1st Open				2nd Open			
Time	Orifice	PSI	MCF/D	Time	Orifice	PSI	MCF/D