KOLAR Document ID: 1642368

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 #	API No.:
Name:	Spot Description:
Address 1:	
Address 2:	Feet from North / South Line of Section
City: State: Zip: +	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
☐ Oil ☐ WSW ☐ SWD	Elevation: Ground: Kelly Bushing:
☐ Gas ☐ DH ☐ EOR	Total Vertical Depth: Plug Back Total Depth:
☐ OG ☐ GSW	Amount of Surface Pipe Set and Cemented at: Feet
CM (Coal Bed Methane)	
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	
☐ Deepening ☐ Re-perf. ☐ Conv. to EOR ☐ Conv. to SWD	Drilling Fluid Management Plan
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer	(Data must be collected from the Reserve Pit)
Described	Chloride content: ppm Fluid volume: bbls
☐ Commingled Permit #:	Dewatering method used:
SWD Permit #:	Location of fluid disposal if hauled offsite:
EOR Permit #:	Location of fluid disposal if flauled offsite.
GSW Permit #:	Operator Name:
	Lease Name: License #:
Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R
Recompletion Date Recompletion Date	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 Approved by: Date:

KOLAR Document ID: 1642368

Page Two

Operator Name: _				Lease Name:			Well #:	
Sec Twp.	S. R.	E	ast West	County:				
	flowing and shu	ut-in pressures, v	vhether shut-in pre	ssure reached st	atic level, hydrosta	tic pressures, bot		val tested, time tool erature, fluid recovery,
Final Radioactivity files must be subm						iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log
Drill Stem Tests Ta			Yes No			on (Top), Depth ar		Sample
Samples Sent to 0	Geological Surv	/ey	Yes No	Na	me		Тор	Datum
Cores Taken Electric Log Run Geologist Report / List All E. Logs Ru	_		Yes No Yes No Yes No					
		B	CASING eport all strings set-c		New Used	ion, etc.		
Purpose of Strir		Hole illed	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
			ADDITIONAL	CEMENTING / SO	UEEZE RECORD			
Purpose:		epth T Bottom	ype of Cement	# Sacks Used		Type and F	Percent Additives	
Perforate Protect Casi Plug Back T								
Plug Off Zor								
Did you perform a Does the volume Was the hydraulic	of the total base f	fluid of the hydrauli		_	=	No (If No, sk	ip questions 2 an ip question 3) out Page Three	,
Date of first Product Injection:	tion/Injection or R	esumed Production	Producing Meth	nod:	Gas Lift 0	Other (Explain)		
Estimated Production Per 24 Hours	on	Oil Bbls.					Gas-Oil Ratio	Gravity
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:			DN INTERVAL: Bottom
	Sold Used	I on Lease	Open Hole			mmingled mit ACO-4)	Тор	BOROTT
,	,			B.11 B1				
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid,	Fracture, Shot, Cer (Amount and Kind	menting Squeeze I of Material Used)	Record
TUBING RECORD:	: Size:	Set	Δ+-	Packer At:				
TODING RECORD:	. 3126.	Set	n.	i donei Al.				

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	HEYEN 1-3
Doc ID	1642368

All Electric Logs Run

Comp Density Neutron
Dual Induction
Micro Log
Sonic Log

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	HEYEN 1-3
Doc ID	1642368

Tops

Name	Тор	Datum
Topeka	3025	-1120
Hebner/Shale	3343	-1438
Toronto	3360	-1455
Douglas Shale	3378	-1473
Brown Lime	3486	-1581
LKC	3506	-1601
Muncie Creek	3636	-1731
ВКС	3770	-1865
Mississippian	3804	-1899
Viola	3838	-1933
Simpson Shale	3972	-2067
Simpson Sand	3972	-2067
Arbuckle	4027	-2122

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	HEYEN 1-3
Doc ID	1642368

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	12.25	8.625	23	326	Class A	395	3%



Company: Hartman Oil Lease: Heyen #1-3

Operation:

Uploading recovery & pressures

Company, Inc.

SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Total Depth: 3550'

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE

April 18

2022

Formation: Lans C **DST #1** Test Interval: 3517 -

3550'

Time On: 15:39 04/18 Time Off: 00:21 04/19

Time On Bottom: 18:37 04/18 Time Off Bottom: 21:37 04/18

Electronic Volume Estimate:

5'

1st Open Minutes: 30 **Current Reading:**

.1" at 30 min

Max Reading: .2"

1st Close Minutes: 60

Current Reading: 0" at 60 min

Max Reading: 0"

2nd Open Minutes: 30

Current Reading:

0" at 30 min

Max Reading: 0"

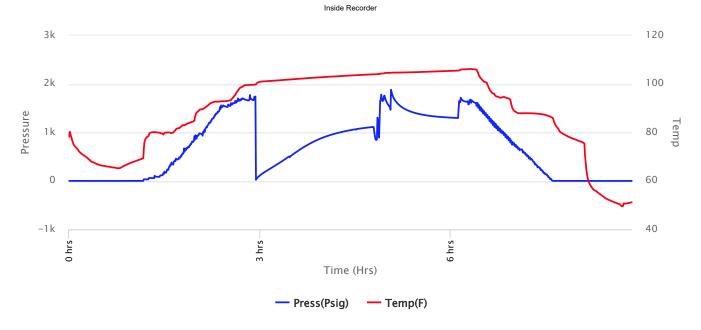
2nd Close Minutes: 60

Current Reading:

0" at 60 min

Max Reading: 0"







Operation:

Uploading recovery & pressures

Lease: Heyen #1-3

DST #1

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April 18

2022

Formation: Lans C

Test Interval: 3517 -

Total Depth: 3550'

Field Name: Gray North Ext

3550'

Time On: 15:39 04/18

Time Off: 00:21 04/19

GIP cubic foot volume: 0

Time On Bottom: 18:37 04/18 Time Off Bottom: 21:37 04/18

Recovered

Pressure Change Initial

Close / Final Close

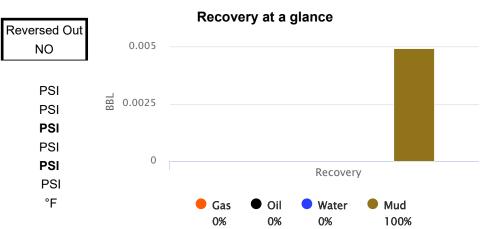
<u>Foot</u>	BBLS	Description of Fluid	<u>Gas %</u>	<u>Oil %</u>	Water %	Mud %
1	0.00492	M	0	0	0	100

%

Total Recovered: 1 ft

Total Barrels Recovered: 0.	00492	Reversed Ou NO
Initial Hydrostatic Pressure	1669	PSI
Initial Flow	0	PSI
Initial Closed in Pressure	0	PSI
Final Flow Pressure	0	PSI
Final Closed in Pressure	0	PSI
Final Hydrostatic Pressure	1688	PSI
Temperature	106	°F

0.0





Operation:

Uploading recovery & pressures

Drilling Co

County: STAFFORD State: Kansas Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

SEC: 2 TWN: 24S RNG: 13W

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE

April

18 2022

Formation: Lans C Test Interval: 3517 - Total Depth: 3550'

3550'

Time On: 15:39 04/18 Time Off: 00:21 04/19

Time On Bottom: 18:37 04/18 Time Off Bottom: 21:37 04/18

BUCKET MEASUREMENT:

1st Open: WSB. Built to 1/4 inch in 30 minutes

DST #1

1st Close: NOBB 2nd Open: No Blow 2nd Close: NOBB

REMARKS:

Tool Sample: 0% Gas 0% Oil 0% Water 100% Mud



SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

Operation: Uploading recovery & pressures

DATE

April

18

2022

DST #1

Formation: Lans C

Test Interval: 3517 -

Total Depth: 3550'

3550'

Time On: 15:39 04/18

Time Off: 00:21 04/19

Time On Bottom: 18:37 04/18 Time Off Bottom: 21:37 04/18

Down Hole Makeup

Heads Up: Packer 1: 24.74 FT 3512 FT

Drill Pipe: 3332.28 FT Packer 2: 3517 FT

ID-3 1/2

Top Recorder: 3501.42 FT

Surface Choke:

1"

Weight Pipe: FT **Bottom Recorder:** 3516 FT

ID-2 7/8 Well Bore Size: 7 7/8

Collars: 176.89 FT

Test Tool: Bottom Choke: 5/8" 33.57 FT

ID-3 1/2-FH

ID-2 1/4

Jars

Safety Joint

Total Anchor:

Anchor Makeup

1 FT

Packer Sub:

Perforations: (top): FT

4 1/2-FH

Change Over: FT

Drill Pipe: (in anchor): FT

ID-3 1/2

Change Over: FT

Perforations: (below): 32 FT

4 1/2-FH



Operation:

Uploading recovery & pressures

Lease: Heyen #1-3

DST #1

SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April

18

2022

Formation: Lans C

Test Interval: 3517 -

Total Depth: 3550'

3550'

Time On: 15:39 04/18 Time Off: 00:21 04/19

Time On Bottom: 18:37 04/18 Time Off Bottom: 21:37 04/18

Mud Properties

Mud Type: Chem Weight: 8.9 Viscosity: 60 Filtrate: 9.2 Chlorides: 11000 ppm



Operation:

Uploading recovery & pressures

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April

18

2022

DST #1 Formation: Lans C Total Depth: 3550' Test Interval: 3517 -3550'

Time On: 15:39 04/18 Time Off: 00:21 04/19

Time On Bottom: 18:37 04/18 Time Off Bottom: 21:37 04/18

Gas Volume Report

1st Open 2nd Open

Time Orifice PSI MCF/D Time Orifice PSI MCF/D



Company: Hartman Oil Lease: Heyen #1-3

Operation:

Uploading recovery & pressures

Company, Inc.

SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April

19 2022 **DST #2** Formation: Lans C Test Interval: 3520 -Total Depth: 3550'

3550'

Time On: 05:49 04/19 Time Off: 15:00 04/19

Time On Bottom: 08:35 04/19 Time Off Bottom: 12:20 04/19

Electronic Volume Estimate:

101'

1st Open Minutes: 30 **Current Reading:** 1.4" at 30 min

Max Reading: 1.4"

1st Close Minutes: 60 Current Reading:

.1" at 60 min Max Reading: .1"

2nd Open Minutes: 45 **Current Reading:**

2.3" at 45 min

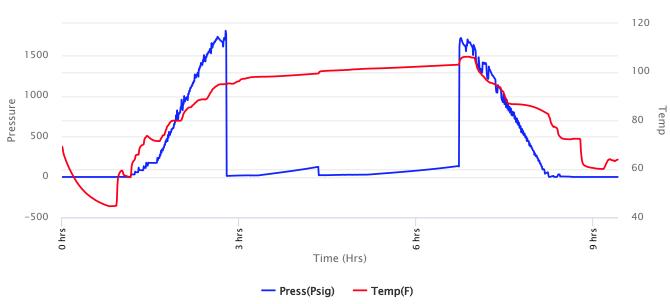
Max Reading: 2.3"

2nd Close Minutes: 90

Current Reading: .1" at 90 min

Max Reading: .1"

Inside Recorder





Operation:

Uploading recovery & pressures

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April

19 2022

Formation: Lans C DST #2 Test Interval: 3520 -Total Depth: 3550' 3550'

Time On: 05:49 04/19 Time Off: 15:00 04/19

Time On Bottom: 08:35 04/19 Time Off Bottom: 12:20 04/19

Recovered

<u>Foot</u>	BBLS	Description of Fluid	<u>Gas %</u>	<u>Oil %</u>	Water %	<u>Mud %</u>
65	0.3198	G	100	0	0	0
53	0.26076	OSM	0	0	0	100

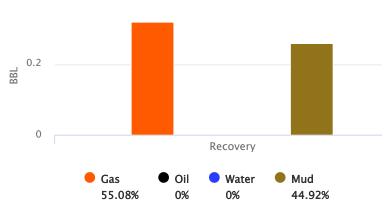
Total Recovered: 118 ft

Total Barrels Recovered: 0.58056

Reversed Out
NO

Initial Hydrostatic Pressure	1611	PSI
Initial Flow	13 to 19	PSI
Initial Closed in Pressure	125	PSI
Final Flow Pressure	21 to 28	PSI
Final Closed in Pressure	134	PSI
Final Hydrostatic Pressure	1611	PSI
Temperature	103	°F
Pressure Change Initial	0.0	%
Close / Final Close		

Recovery at a glance



GIP cubic foot volume: 1.79552



Operation:

Uploading recovery & pressures

SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext Pool: Infield

Job Number: 564 API #: 15-185-24107

DATE April

19 2022

Formation: Lans C

Test Interval: 3520 -

Total Depth: 3550'

3550'

Time On: 05:49 04/19

Time Off: 15:00 04/19

Time On Bottom: 08:35 04/19 Time Off Bottom: 12:20 04/19

BUCKET MEASUREMENT:

1st Open: WSB. Built to 1 1/2 inches in 30 minutes

DST #2

1st Close: Weak blow Back

2nd Open: 3/4" Blow. Built to 2 1/4 inch in 45 minutes

2nd Close: Weak Blow Back

REMARKS:

Tool Sample: 0% Gas 1% Oil 0% Water 99% Mud



SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

Operation: Uploading recovery &

pressures

DATE

April

19

2022

DST #2 Formation: Lans C Test Interval: 3520 -

Total Depth: 3550'

3550'

Time On: 05:49 04/19

Time Off: 15:00 04/19

Time On Bottom: 08:35 04/19 Time Off Bottom: 12:20 04/19

Down Hole Makeup

Heads Up: Packer 1: 21.56 FT 3515 FT

Drill Pipe: 3332.1 FT Packer 2: 3520 FT

ID-3 1/2

Top Recorder: 3504.42 FT

Weight Pipe: FT **Bottom Recorder:** -28 FT

ID-2 7/8

Well Bore Size: 7 7/8 Collars: 176.89 FT

1" **Surface Choke:** ID-2 1/4

Test Tool: Bottom Choke: 5/8" 33.57 FT

ID-3 1/2-FH

Jars

Safety Joint

Total Anchor: 30

Anchor Makeup

1 FT

Packer Sub: Perforations: (top): FT

4 1/2-FH

Change Over: FT

Drill Pipe: (in anchor): FT

ID-3 1/2

Change Over: FT

Perforations: (below): 29 FT

4 1/2-FH



Lease: Heyen #1-3

DST #2

Operation:
Uploading recovery &

pressures

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April

19 2022

Formation: Lans C

Test Interval: 3520 -

Total Depth: 3550'

3550'

Time On: 05:49 04/19 Time Off: 15:00 04/19

Time On Bottom: 08:35 04/19 Time Off Bottom: 12:20 04/19

Mud Properties

Mud Type: Chem Weight: 9.2 Viscosity: 78 Filtrate: 10 Chlorides: 14000 ppm



Operation:

Uploading recovery &

pressures

Company: Hartman Oil Company, Inc.

¬ Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE

April **19**

2022

DST #2 Formation: Lans C

Test Interval: 3520 -

Total Depth: 3550'

3550'

Time On: 05:49 04/19 Time Off: 15:00 04/19

Time On Bottom: 08:35 04/19 Time Off Bottom: 12:20 04/19

Gas Volume Report

1st Open 2nd Open

Time Orifice PSI MCF/D	Time	Orifice	PSI	MCF/D
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Company: Hartman Oil Lease: Heyen #1-3

Operation:

Uploading recovery & pressures

Company, Inc.

SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

Field Name: Gray North Ext

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April 20 2022

DST #3 Formation: LKC H Test Interval: 3636 -Total Depth: 3653'

3653'

Time On: 02:52 04/20 Time Off: 11:59 04/20

Time On Bottom: 05:05 04/20 Time Off Bottom: 09:20 04/20

Electronic Volume Estimate:

46'

1st Open Minutes: 15 **Current Reading:** 1.2" at 15 min

Max Reading: 1.2"

1st Close Minutes: 30 Current Reading:

.1" at 30 min

Max Reading: .1"

2nd Open Minutes: 90

Current Reading:

.4" at 90 min

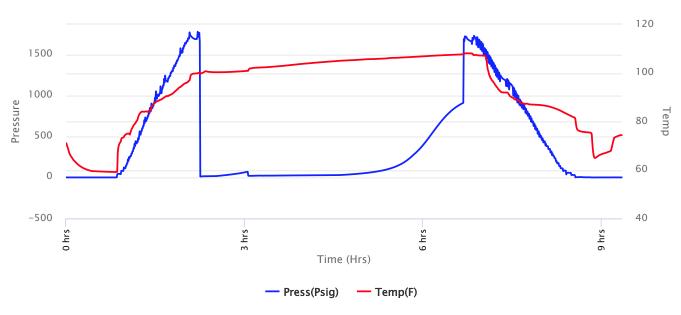
Max Reading: .4"

2nd Close Minutes: 120 **Current Reading:**

0" at 120 min

Max Reading: 0"







Operation:

Uploading recovery & pressures

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Recovery

Water

0%

Mud 99%

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April 20 2022

DST #3 Formation: LKC H Test Interval: 3636 -Total Depth: 3653'

3653'

Gas

0%

Oil

1%

Time On: 02:52 04/20 Time Off: 11:59 04/20

Time On Bottom: 05:05 04/20 Time Off Bottom: 09:20 04/20

Recovered

BBLS Description of Fluid Oil % Gas % Water % Mud % <u>Foot</u> 18 1 0.08856 **SLOCM** 0 0 99

BBL

Total Recovered: 18 ft

Recovery at a glance Total Barrels Recovered: 0.08856

Reversed Out	
NO	
PSI	

Initial Hydrostatic Pressure	1688	PSI
Initial Flow	10 to 17	PSI
Initial Closed in Pressure	70	PSI
Final Flow Pressure	19 to 28	PSI
Final Closed in Pressure	910	PSI
Final Hydrostatic Pressure	1683	PSI
Temperature	108	°F
Pressure Change Initial	0.0	%

GIP cubic foot volume: 0 Close / Final Close



Operation:

Uploading recovery & pressures

SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

Field Name: Gray North Ext

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Pool: Infield Job Number: 564 API #: 15-185-24107

<u>DATE</u>

April

20 2022

DST #3 Formation: LKC H Test Interval: 3636 - Total Depth: 3653'

Time On: 02:52 04/20 Time Off: 11:59 04/20

Time On Bottom: 05:05 04/20 Time Off Bottom: 09:20 04/20

BUCKET MEASUREMENT:

1st Open: WSB. Built to 1 1/4 in 15 minutes

1st Close: Very Weak Blow Back

2nd Open: WSB. Built to 1/2 inch 90 minutes

2nd Close: NOBB

REMARKS:

Tool Sample: 0% Gas 1% Oil 0% Water 99% Mud



SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

Operation:
Uploading recovery &

DATE

April

20

2022

pressures

DST #3

Formation: LKC H

Test Interval: 3636 -

Total Depth: 3653'

3653'

Time On: 02:52 04/20

Time Off: 11:59 04/20

Time On Bottom: 05:05 04/20 Time Off Bottom: 09:20 04/20

Down Hole Makeup

Heads Up: 25.8 FT Packer 1: 3631 FT

Drill Pipe: 3459.75 FT **Packer 2:** 3636 FT

ID-3 1/2

ID-2 7/8

Top Recorder: 3623 FT

Weight Pipe: FT Bottom Recorder: 3638 FT

Well Bore Size: 7 7/8

Collars: 176.89 FT

ID-2 1/4

Surface Choke: 1"

Test Tool: 26.16 FT Bottom Choke: 5/8"

ID-3 1/2-FH

Total Anchor: 17

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): FT

4 1/2-FH

Change Over: FT

Drill Pipe: (in anchor): FT

ID-3 1/2

Change Over: FT

Perforations: (below): 16 FT

4 1/2-FH



Operation:

Uploading recovery &

pressures

Company: Hartman Oil Company, Inc.

Lease: Heyen #1-3

DST #3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE

April **20** 2022

Formation: LKC H

Test Interval: 3636 -

Total Depth: 3653'

3653'

Time On: 02:52 04/20 Time Off: 11:59 04/20

Time On Bottom: 05:05 04/20 Time Off Bottom: 09:20 04/20

Mud Properties

Mud Type: Chem Weight: 9.2 Viscosity: 78 Filtrate: 10 Chlorides: 14000 ppm



Operation:

Uploading recovery & pressures

Lease: Heyen #1-3

DST #3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE

April **20**

2022

Formation: LKC H

Test Interval: 3636 -

Total Depth: 3653'

3653'

Time On: 02:52 04/20 Time Off: 11:59 04/20

Time On Bottom: 05:05 04/20 Time Off Bottom: 09:20 04/20

Gas Volume Report

1st Open 2nd Open

Time Stilles 1 of Mo175	Time O	rifice PS	MCF/D		Time	Orifice	PSI	MCF/D
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Operation:

Uploading recovery & pressures

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

Field Name: Gray North Ext

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April

21 2022 **DST #4** Formation: Viola Test Interval: 3830 -Total Depth: 3850'

3850'

Time On: 10:30 04/21 Time Off: 20:11 04/21

Time On Bottom: 13:11 04/21 Time Off Bottom: 17:26 04/21

Electronic Volume Estimate:

127'

1st Open Minutes: 15 **Current Reading:**

.5" at 15 min

Max Reading: .5"

1st Close Minutes: 30 Current Reading:

0" at 30 min

Max Reading: 0"

2nd Open Minutes: 90

Current Reading:

4" at 90 min

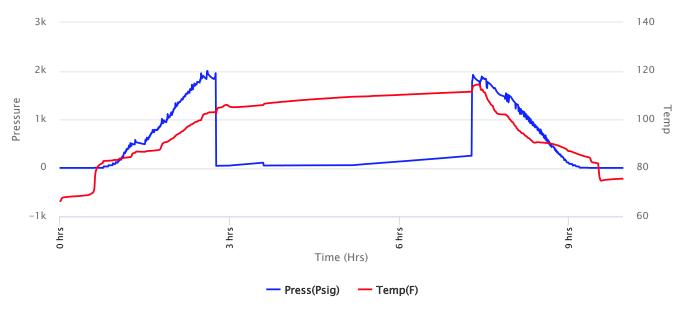
Max Reading: 4"

2nd Close Minutes: 120 **Current Reading:**

0" at 120 min

Max Reading: 0"

Inside Recorder





Operation:

Uploading recovery & pressures

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Recovery

Water

0%

Mud 99%

Company, Inc - Rig 20 Elevation: 1894 GL Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

Recovery at a glance

Oil

1%

DATE April 21 2022

DST #4 Formation: Viola Test Interval: 3830 -Total Depth: 3850'

3850'

Time On: 10:30 04/21 Time Off: 20:11 04/21

Time On Bottom: 13:11 04/21 Time Off Bottom: 17:26 04/21

0.25 BBL

Recovered

BBLS Description of Fluid Oil % <u>Foot</u> Gas % Water % Mud % 90 0.4428 SLOCM 1 0 0 99

Total Recovered: 90 ft

Reversed Out Total Barrels Recovered: 0.4428

NO

Initial Hydrostatic Pressure	1832	PSI
Initial Flow	41 to 48	PSI
Initial Closed in Pressure	109	PSI
Final Flow Pressure	49 to 57	PSI
Final Closed in Pressure	250	PSI
Final Hydrostatic Pressure	1830	PSI
Temperature	112	°F
Pressure Change Initial	0.0	%
Close / Final Close		

GIP cubic foot volume: 0

Gas

0%



Operation:

Uploading recovery & pressures

DST #4

SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

<u>DATE</u>

April

21 2022

Formation: Viola

Test Interval: 3830 -

Total Depth: 3850'

3850'

Time On Bottom: 13:11 04/21 Time Off Bottom: 17:26 04/21

BUCKET MEASUREMENT:

1st Open: WSB. Built to 1/2 inch in 15 minutes

1st Close: NOBB

2nd Open: WSB. Built to 4 inches in 90 minutes

2nd Close: NOBB

REMARKS:

Tool Sample: 0% Gas 10% Oil 0% Water 90% Mud



SEC: 2 TWN: 24S RNG: 13W County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

Operation: Uploading recovery & pressures

DATE

April

21

2022

DST #4

Formation: Viola

Test Interval: 3830 -

Total Depth: 3850'

3850'

Time On: 10:30 04/21

Time Off: 20:11 04/21

Time On Bottom: 13:11 04/21 Time Off Bottom: 17:26 04/21

Down Hole Makeup

Heads Up: Packer 1: 22.25 FT 3825 FT

Drill Pipe: 3650.2 FT Packer 2: 3830 FT

ID-3 1/2

Top Recorder: 3817 FT

Weight Pipe: FT

ID-2 7/8

Bottom Recorder: 3832 FT

Well Bore Size: 7 7/8

Collars: 176.89 FT ID-2 1/4

1" **Surface Choke:**

Test Tool: 26.16 FT **Bottom Choke:** 5/8"

ID-3 1/2-FH

Total Anchor: 20

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): FT

4 1/2-FH

Change Over: FT

Drill Pipe: (in anchor): FT

ID-3 1/2

Change Over: FT

Perforations: (below): 19 FT

4 1/2-FH



Operation:

Uploading recovery &

pressures

Company: Hartman Oil Company, Inc.

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE

April

21 2022

DST #4 Formation: Viola

Test Interval: 3830 -

Total Depth: 3850'

3850'

Time On Bottom: 13:11 04/21 Time Off Bottom: 17:26 04/21

Mud Properties

Mud Type: Chem Weight: 9.3 Viscosity: 60 Filtrate: 10.8 Chlorides: 10000 ppm



Operation:

Uploading recovery &

pressures

Company: Hartman Oil Company, Inc.

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATEApril **21**2022

DST #4 Formation: Viola Test Interval: 3830 - Total Depth: 3850'

3850'

Time On: 10:30 04/21 Time Off: 20:11 04/21

Time On Bottom: 13:11 04/21 Time Off Bottom: 17:26 04/21

Gas Volume Report

1st Open 2nd Open

Time Orifice PSI MCF/D	Time	Orifice	PSI	MCF/D
------------------------	------	---------	-----	-------



Scale 1:240 Imperial

Well Name: HEYEN #1-3

Surface Location: NW SW SE NE Sec. 2 - 24S - 13W

Bottom Location:

API: 15-185-24107

License Number: 30535

Spud Date: 4/13/2022 Time: 9:30 PM

Region: STAFFORD COUNTY

Drilling Completed: 4/22/2022 Time: 6:19 PM

Surface Coordinates: 2307' FNL & 1113' FEL

Bottom Hole Coordinates:

Ground Elevation: 1894.00ft K.B. Elevation: 1905.00ft

Logged Interval: 2900.00ft To: 4100.00ft

Total Depth: 4100.00ft
Formation: LANSING - KANSAS CITY; VIOLA
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

OPERATOR

Company: HARTMAN OIL COMPANY, INC. Address: 10500 E BERKELEY SQ PKWY

STE. 100

WICHITA, KS 67206
Contact Geologist: COREY STUCKY
Contact Phone Nbr: (316) 636-2090

Well Name: HEYEN #1-3

Location: NW SW SE NE Sec. 2 - 24S - 13W

API: 15-185-24107

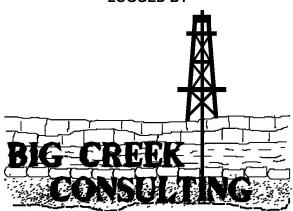
Pool: Field: GRAY NORTH

State: KANSAS Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -98.713774
Latitude: 37.992924
N/S Co-ord: 2307' FNL
E/W Co-ord: 1113' FEL

LOGGED BY



Company: BIG CREEK CONSULTING, INC.

Address: 3504 DUNCAN ST.

ST. JOE, MO 64507

Phone Nbr: (785) 259-3737

Logged By: GEOLOGIST Name: JEFF LAWLER

CONTRACTOR

Contractor: MURFIN DRILLING COMPANY, INC.

> Rig#: 20

Rig Type: **MUD ROTARY**

Spud Date: Time: 9:30 PM 4/13/2022 TD Date: 4/22/2022 Time: 6:19 PM

Rig Release: Time:

ELEVATIONS

K.B. Elevation: 1905.00ft Ground Elevation: 1894.00ft

K.B. to Ground: 11.00ft

NOTES

AFTER LOG ANALYSIS DECISION WAS MAD TO PLUG & ABANDON THE HEYEN #1-3 DUE TO LACK OF ECONOMICAL RECOVERY ON ALL DRILL STEM TESTS.

RESPECTFULLY SUBMITTED, JEFF LAWLER

WELL COMPARISON SHEET																													
•												P&A 7/8		Ħ					¤										
		HARTMAN OIL,	INC.				Q/	DREL ENERG	r coi	RP.		MU	GROVE PETR	OLE	им с	ORP.		ALKAY OIL COMPANY											
		HEYEN #1-2						HEYEN #1	ι				MANK	E #1					KENDA	LL #1									
		HEYEN	#1-3		S	W SW NE NE 2-2	24-13	3				SE NW NE 2-2	4-13				SW SW NE	2-24	l-13				NE SW SE	2-24-	13				
	КВ	1905	GL	1894	КВ		1908	_			КВ		18	99		КВ		19	902			КВ	1901						
	LOG T		SAMPL		LOC		_	OG	_	MPL.	LOG		_	OG	SMPL.		P. CARD	_	.og	_	MPL.	СОМР		_	og	_	MPL.		
FORMATION	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CC	DRR.	c	ORR.	DEPTH	DATUM	CC	RR.	CORR.	DEPTH	DATUM	C	ORR.	_	ORR.	DEPTH	DATUM	CC	RR.	_	ORR.		
ANHYDRITE TOP			752	1153	750	1158		+	-	_		1142	Н		+ 1:		1140		-	_	13	752	1149			+	4		
BASE			774	1131	769	1139	_	+	_			1129			+ 2	_	1120		-	+					_	⊢	Н.		
ТОРЕКА	3025	-1120	3024	-1119	3024	-1116	-	14	-	3		-1116	÷	4	- 3		-1128	+	8	+	9	3026	-1125	+	5	+	6		
HEEBNERSHALE	3343	-1438	3345	-1440	3343	-1435	-	3	-	5		-1437	-	1	- 3		-1447	+	9	+	7	3346	-1445	+	7	+	5		
TORONTO	3360	-1455	3362	-1457	3361	-1453	-	2	<u> </u>	4		-1457	+	2	+ 0		-1468	+	13	_						Н	\vdash		
DOUGLAS SHALE	3378	-1473	3380	-1475	3379	-1471	-	2		4		-1473	+	0	- 2		-1485	+	12	+	7					⊢	Н.		
BROWN LIME	3486	-1581	3487	-1582	3487	-1579	-	1 2	<u> </u>			-1580	÷	1	- 2		-1589	+	8	+	-	3486	-1585	+	4	+	3		
LKC	3506	-1601	3506	-1601	3506	-1598	-	3		3		-1602	+	1	+ 1	3513	-1611	+	10	+	10	3512	-1611	+	10	+	10		
MUNCIE CREEK	3636 3770	-1731 -1865	3640 3776	-1735 -1871	3633 3770	-1725 -1862	-	6	, -	9		-1859	_	6	- 13	3780	-1878		13		7					Н	\vdash		
BKC MISSISSIPPIAN	3804	-1865 -1899	3808	-18/1	3804	-1862	÷	3				-1859	÷	0	- 4		-18/8	+	13	+	+-					Н	\vdash		
VIOLA	3838	-1899	3829	-1903	3826	-1896	i -	1		-	0.00	-1939	+	6	+ 1		-1934		1	+-	10	3827	-1926		7	Η.	H		
SIMPSON SHALE	3838	-1933	3972	-1924	3967	-1918	Ė	8		8		-1939	÷	12	- 13		-1934	+	1	÷	10	3954	-1926	Ė	14	+	14		
SIMPSON SHALE	3992	-2087	3996	-2067	3989	-2059	Ė	6		10		-2055	Ė	8	- 1		-2088	+	1	+	3	3334	-2055	Ė	14	Ė	14		
ARBUCKLE	4027	-2122	4028	-2123	4024	-2081	Ė	-		7		-2107	Ė	15	- 10		-2121	+	1	H	2	4020	-2119		2				
TOTAL DEPTH	4101	-2122	4100	-2123	4024	-2116	Ė	1,	4	1:		-2151	Ė	45	- 4		-2121	Ė	40	H	39	4046	-2119	Ė	51	Ė	50		

DST #1 LKC C 3517' - 3550'



Operation:

Uploading recovery &

pressures

Company: Hartman Oil

Company, Inc.

DST #1

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL

Field Name: Gray North Ext Pool: Infield

Job Number: 564 API#: 15-185-24107

DATE April 18

2022

Formation: Lans C

Test Interval: 3517 -3550

Total Depth: 3550'

Time On: 15:39 04/18 Time Off: 00:21 04/19

Time On Bottom: 18:37 04/18 Time Off Bottom: 21:37 04/18

Recovered

Foot **BBLS** Description of Fluid Gas % Oil % Water % Mud % 0.00492 100 M 0 0 0

Total Recovered: 1 ft

Total Barrels Recovered: 0.00492

Reversed Out NO

Recovery at a glance

PSI Initial Hydrostatic Pressure 1669

Initial Flow 0 PSI ₩ 0.0025

0.005

Initial Closed in Pressure	0	PSI					
Final Flow Pressure	0	PSI					
Final Closed in Pressure	0	PSI	0		Recover	v	
Final Hydrostatic Pressure	1688	PSI			11000101	5.	
Temperature	106	°F	Gas	OII	Water	Mud	
			0%	0%	0%	100%	
Pressure Change Initial	0.0	%					
Close / Final Close			GIP cubic foot volume: 0				

DST #1 LKC C 3517' - 3550'



Uploading recovery &

pressures

Company: Hartman Oil Company, Inc.

Lease: Heyen #1-3 Operation:

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL Field Name: Gray North Ext

Pool: Infield

Job Number: 564 API#: 15-185-24107

DATE

April 18

2022

DST #1

Formation: Lans C

Test Interval: 3517 -

Total Depth: 3550'

3550"

Time On: 15:39 04/18

Time Off: 00:21 04/19

Time On Bottom: 18:37 04/18 Time Off Bottom: 21:37 04/18

Electronic Volume Estimate:

5'

1st Open Minutes: 30

Current Reading:

Max Reading: .2"

0" at 60 min .1" at 30 min

Minutes: 60 Current Reading:

1st Close

Max Reading: 0"

Current Reading:

2nd Open

Minutes: 30

0" at 30 min Max Reading: 0"

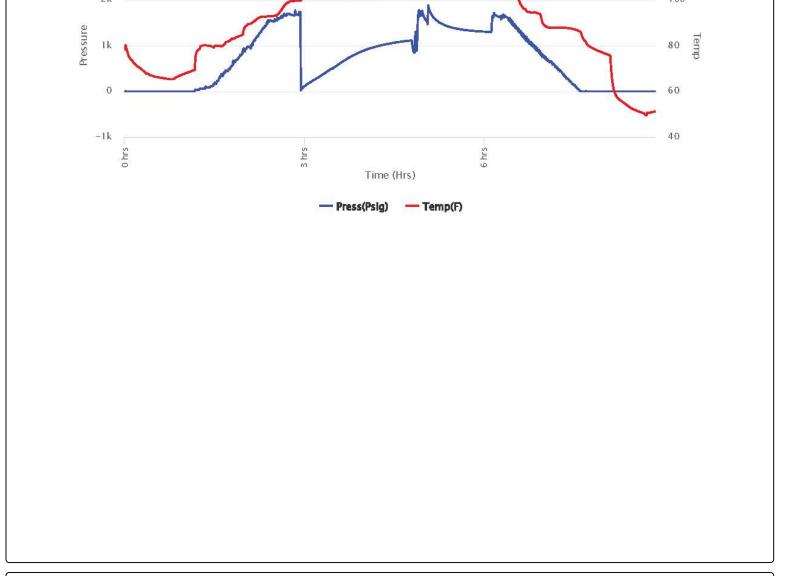
2nd Close Minutes: 60 Current Reading:

Max Reading: 0"

0" at 60 min

Inside Recorder

120







Operation:

Uploading recovery &

pressures

Company: Hartman Oil Company, Inc.

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD

State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL Field Name: Gray North Ext

Pool: Infield Job Number: 564 API #: 15-185-24107

DATE April 19

2022

DST #2 Formation: Lans C Test Interval: 3520 - Total Depth: 3550'

Time On: 05:49 04/19 Time Off: 15:00 04/19
Time On Bottom: 08:35 04/19 Time Off Bottom: 12:20 04/19

Recovered

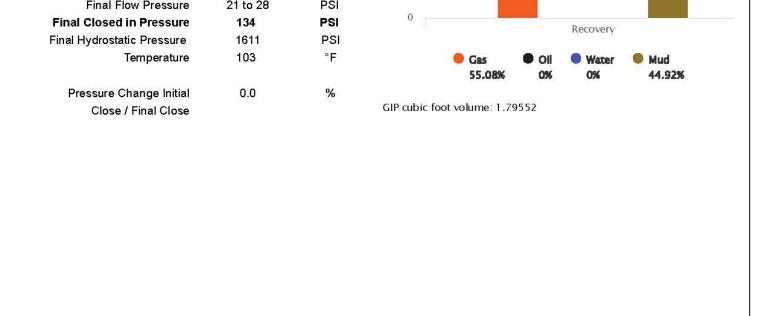
Foot **BBLS Description of Fluid** Gas % Oil % Water % Mud % 65 0.3198 G 100 0 0 0 53 0.26076 OSM 0 0 100 0

Total Recovered: 118 ft

Total Barrels Recovered: 0.58056

Reversed Out NO Recovery at a glance

Initial Hydrostatic Pressure 1611 PSI 0.2
Initial Flow 13 to 19 PSI
Initial Closed in Pressure 125 PSI



DST #2 LKC C 3520' - 3550'



Operation:

Uploading recovery &

pressures

Company: Hartman Oil Company, Inc. Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W

County: STAFFORD State: Kansas

Drilling Contractor: Murfin Drilling

Company, Inc - Rig 20 Elevation: 1894 GL Field Name: Gray North Ext

Pool: Infield Job Number: 564

DATE

April

19

2022

Formation: Lans C

API#: 15-185-24107

Test Interval: 3520 -Total Depth: 3550' 3550

Time On: 05:49 04/19 Time Off: 15:00 04/19

Time On Bottom: 08:35 04/19 Time Off Bottom: 12:20 04/19

Electronic Volume Estimate:

101'

1st Open Minutes: 30 Current Reading:

DST #2

1.4" at 30 min

Max Reading: 1.4"

1st Close Minutes: 60 Current Reading:

.1" at 60 min

Max Reading: .1"

2nd Open

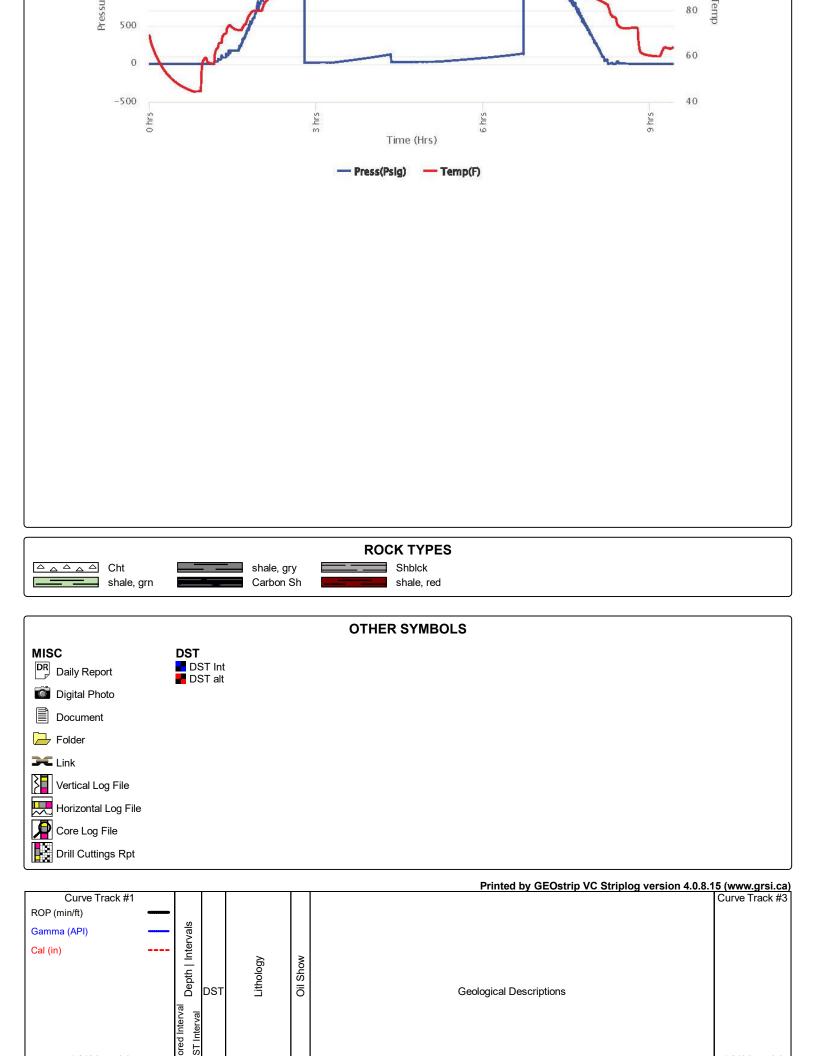
Minutes: 45 Current Reading:

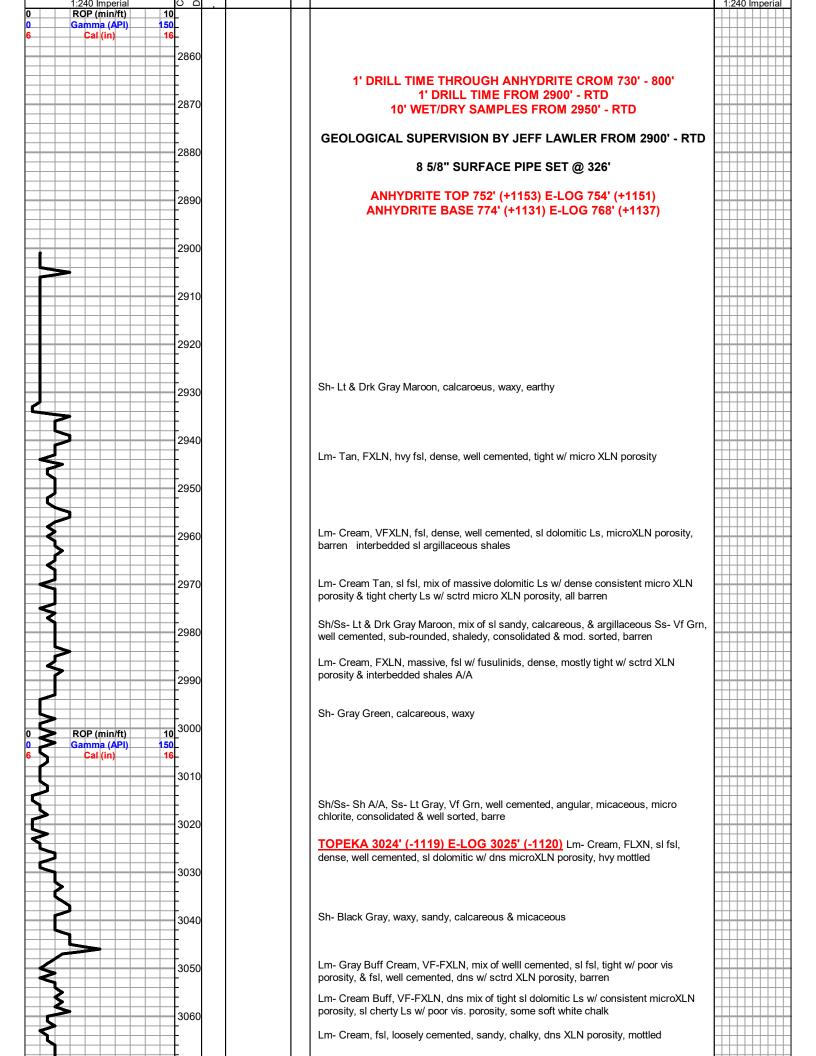
2nd Close Minutes: 90 Current Reading:

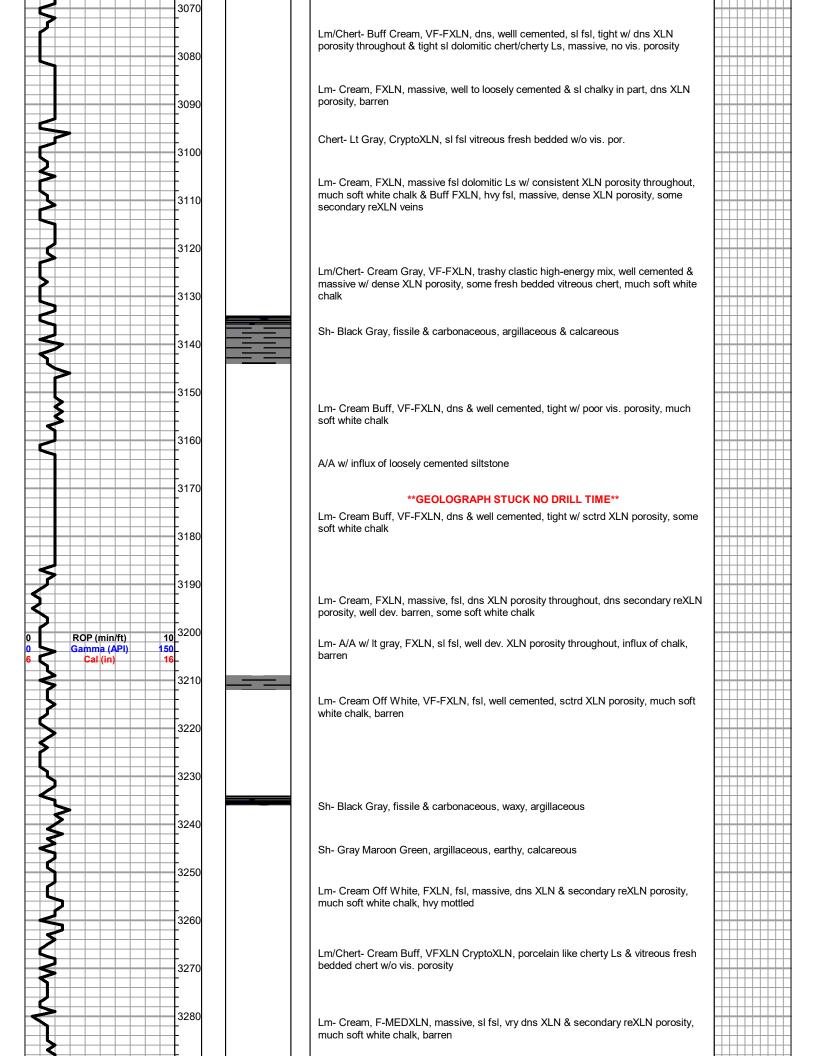
2.3" at 45 min .1" at 90 min Max Reading: 2.3" Max Reading: .1"

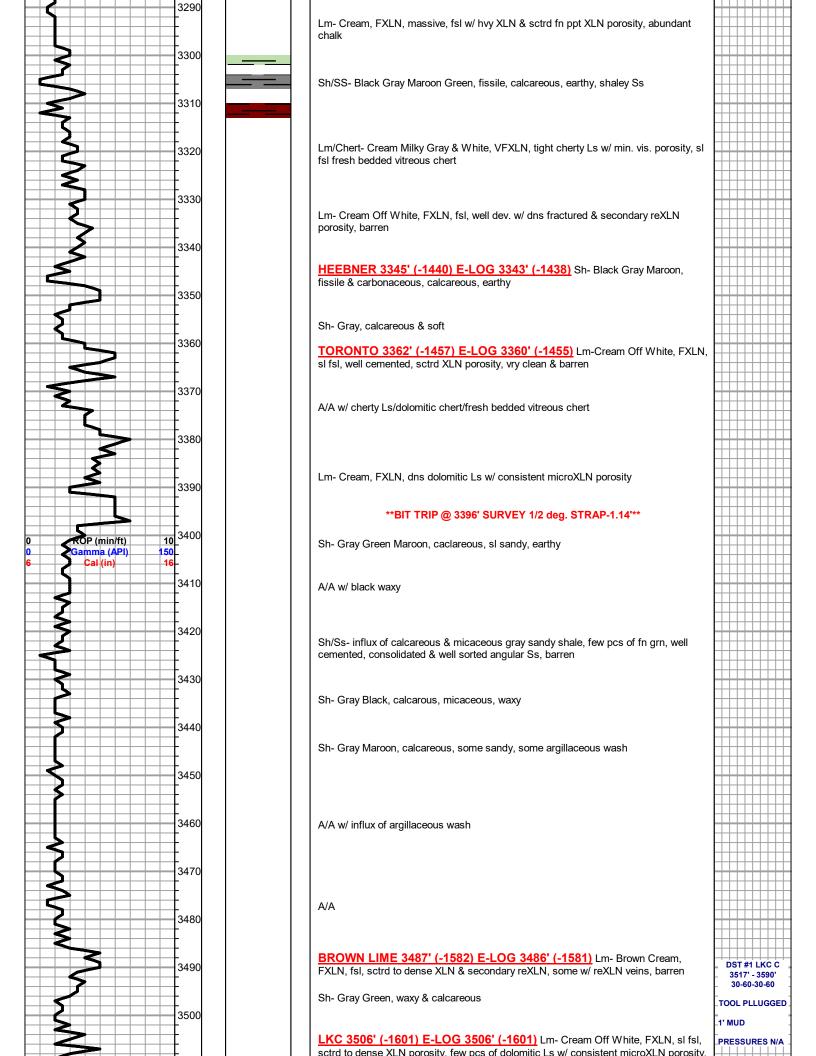
Inside Recorder





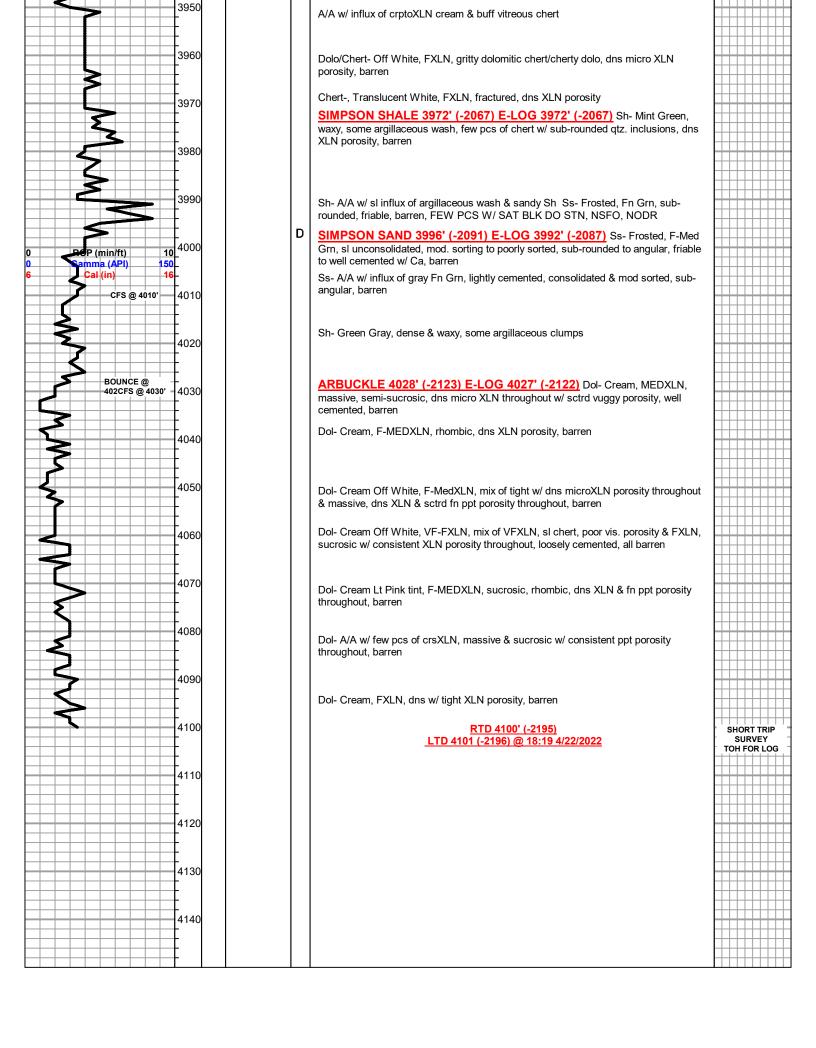






	A	3510			throughout, barren	DST #2 LKC C 3520' - 3550'
\$	B D		5			30-60-45-90
CFS @	S		!			50' OSPM (100%)
3526'	#1	3530				FFP: 21-28# SIP: 125-134# BHT: 103 deg.
	C	-		0	Lm- Cream Off White, F-MED XLN, fsl, mod. well dev. w/ dense XLN & sctrd fn ppt porosity, TR LT STN, NSFO, TR ODR UPON CRUSH, WK HALO FLOR.	
	D	3540 _				3540.jpg
-CFS @ 3550'-	T #2	_ 3550	!!			
}					Sh- Black Gray Maroon Green, waxy & dense, calcareous w/ pebble inclusions Lm- Cream, FXLN, fsl & oolitic mix of well cemented dense XLN & sctrd secondary	
\}	D	3560		0	reXLN, dns clear replacement cementation, 2 PCS W/LT GSY SFO, WK ODR & loosely cemented & chalky, poor vis. porosity, barren	3557.jpg
3					Lm- Tan, VFXLN, tight cherty Ls w/ min. vis. porosity	
}	E	3570 - -			Lm- Buff, FXLN, fsl, sctrd to dns XLN porosity, some sctrd reXLN porosity, some soft	
		3580			white chalk Lm- Off White, VF-FXLN, mix of dns chakly dolomitic Ls w/ dns micro XLN porosity,	
	F				tight & some chalky in part & several pcs of fsl & oolitic, massive, dns XLN & vry fn ppt porosity, all clean & barren, few pcs of bone white vitreous fresh bedded chert	
3	CFS @ 3592'	3590				
					Lm- Off White Buff, VF-FXLN, dolomitic/cherty Ls, sctrd XLN & rare vry fn ppt porosity, some soft white chalk, all vry clean & barren, few pcs of bone white vitreous	
	OP (min/ft) 10 amma (API) 150 Cal (in) 16	3600			cryptoXLN fresh bedded chert	
	Cai (iii)	3610		0	Lm- Buff Gray, VFXLN, tight cherty Ls w/ min. vis. porosity, 2 pcs w/ dns fracturing, TR DRK STN, NSFO, NODR	
					Lm- Cream, FXLN, well cemented sl dolomitic Ls w/ consistent XLN & vry fn ppt	
	G	3620			porosity throughout, some soft white chalk & milky white/gray sl fsl vitreous chert	DST #3 LKC H 3636' - 3653'
		3630				15-30-60-90 CHARTS BELOW
	D	_	_		Lm- Cream Buff, VFXLN, dns & tight w/ micro XLN porosity, some soft white chalk, barren, several pcs of sl fsl fresh bedded vitreous chert	18' SLOCM (1%O, 99%M)
3	S	3640				IFP: 10-17# FFP: 19-28# SIP: 70-910#
	H #3	_		•	Lm- Cream, FXLN, oomoldic, well cemented, vuggy porosity w/ poor connectivity, 2 PCS W/ DENSE SECONDARY REXLN, SCTRD DRK STN, TR FO, NO ODR	BHT: 108 deg.
>	CFS @ 3653'	3650 - -	3			DST 3.jpg DST 3_C
\\		- 3660			Lm- Off White, VF-FXLN, oolitic mix of dnsly packed, cherty Ls w/ poor vis. porosity &	
}				D	chalky clastic mix, loosely cemented, all barren Lm- White, FXLN, oolitic, most loosely cemented & sl chalky, SCTRD BLK DO STN,	3665.jpg
	CFS @ 3670'	3670			1 PC W/ GILSONITE STN, WK ODR, WK YLW HALO FLOR. Lm- Cream, VF-FXLN, oolitic mix, loosely cemented & chalky w/ poor vis, porosity &	
		3680		0	dns, well cemented w/ sctrd XLN & vry fn ppt porosity, 2-3 PCS SCTRD BLK STN, GILSONITE, NSFO, NODR	3676'.jpg
	J				Lm- Cream, FXLN, oomolidic, dense vuggy & mirco XLN porosity, FEW PCS W/ TR	
1		3690		0	FO UPON BREAK, NO ODR, NO EXTERIOR STN	
	050 0000				Chert- Tan Milky White, CryptoXLN vitreous fresh bedded chert	
4	CFS @ 3700'	3700			Sh- Gray, blocky & waxy	
		t Ι			, -, -	
		3710				
}		3710 - -			Lm- Cream Off White, VF-FXLN, dns & well cemented, tight w/ sctrd XLN porosity at best, some sl cherty Ls, vry clean & barren	
}		3710 - - - 3720				

		3730	0	Lm- Brown Tan, VF-FXLN, sI fsI, sctrd XLN porosity, some chalky & crumbley, TR WK LT STN, NSFO, TR ODR	3735.jpg
	CFS @ 3741'	3740		Sh- Black Gray, fissile, waxy	
	£ L	3750	•	Lm- Cream, VFXLN, dns & vry well cemented, fsl, sctrd-dns fn ppt porosity, sctrd reXLN, tight matrix, SUB-SAT DRK STN, TR GSY FRO, FR ODR, BRT YLW FLOR & SLW STRM CUT	3753.jpg
	\$	3760		Sh- Black Gray Maroon Green, carbonaceous, waxy, calcareous, argillaceous wash	
	>	3770		Lm- Tan, VFXLN, tight cherty Ls w/ min. vis porosity, barren	
	CFS @ 3780'	3780		BKC 3776' (-1871) E-LOG 3770' (-1865) Sh- Maroon Gray Green, earthy, waxy, calcareous	SHORT TRIP SURVEY 3/4 deg
		3790		Sh- A/A, striated, pebbley, sl fsl Lm/Chert- Cream Tan Purple Brown, conglomerate mix of fresh bedded & detrital Ls,	DST #4 VIOLA 3830' - 3850' 15-30-90-120
	\$	3800		dolomitic Ls, cherty Ls & fresh bedded chert	90' SLOCM (1%O, 99%M)
0 0 6	ROP (min/ft) 10 Cal (in) 16	3800	0	Cherty clomgerate- A/A w/ mix of dolomitic & detrital chert, 2 PCS W/ SCTRD-DNS XLN POROSITY, SCTRD LT STN, NSFO, NODR	IFP: 41-48# FFP: 49-57 SIP: 109-250# BHT: 112 deg.
		3810	•	MISSISSIPPIAN 3808' (-1903) E-LOG 3804' (-1899) Chert- Cream Buff Off White, gritty sI dolomitic Ls, tight, few pcs w/ SCTRD TO SUB-SAT STN, NSFO, NO ODR, NO FLOR.	3812.jpg
	-	3820		Sh- Purple Gray Green, waxy, argillaceous wadh	
	D	3830	•	VIOLA 3829' (-1924) E-LOG 3838' (-1933) Chert- White, VFXLN, tripolitic. dns microXLN porosity, few pcs of gritty dolomitic chert w/ dns XLN porosity, SCTRD LT STN, 1 PC W/ TR FO, LT YLW FLOR., NO ODR	3835.jpg
	T TORQUE #4	3840	•	Chert/Dolomite- Off White, FXLN, friable, dns XLN porosity throughout, SUB-SAT/SAT STN, TR FO, WK ODR, WK STRM WET CUT	3840.jpg DST 4.jpg
	CFS @ 3850'	3850		Sh- Green, waxy	DST 4 C
	\$	3860	•	Dolo/Chert/Ls- mix of FXLN, sub-sucrosic white dolomite, XLN porosity throughout, SAT LT BRWN STN, NSFO, TR ODR, dolomitic chert w/ XLN porosity, STN A/A, several pcs of Ls w/ sctrd XLN porosity, SCTRD LT STN, NSFO, TR ODR	3860.jpg
		3870	•	Chert- Bone White, vitreous fresh bedded, mostly cryptoXLN w/ some sctrd tr od dolomitic chert w/ dense XLN porosity, SCTRD SUB-SAT BLK & DRK BRWN STN, 1 PC W/ TR FRO, FR ODR	3870.jpg
-0	FS @ 3880'	3880		Chert- Bone White Milky Yellow, fractured, dns XLN porosity, crumbley, barren	
	5	3890		Chert- White, vitreous fresh bedded cryptoXLN	
	\$	3900		Dolo- Pink Cream, FXLN, most semi-friable, dns XLN porosity, barren	
	\$	3910		Dolo- Cream, F-MEDXLN, sub-sucrosic, dns XLN porosity, barren, still much white chert	
	_	3920		Dolo- Off White, VF-FXLN, loosely cemented, sl chalky, dns XLN porosity	
	3	3930		Dolo- Cream Off White, VF-FXLN, dns micro XLN & XLN porosity, sub-sucrosic	
		3940		Dolo- Cream Buff, VF-FXLN, tight mix of cherty dolo & sub-sucrosic w/ consistent micro XLN porosity	



3540.jpg A001 1280x1024 2022/04/18 12:37:54



3557'



3645'

DST 3.jpg



Operation: bloading recovery pressures Company: Hartman Oil Company, Inc.

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W
County: STAFFORD
State: Kansas
Drilling Contractor: Murfin Drilling
Company, Inc - Rig 20
Elevation: 1894 GL
Field Name: Gray North Ext
Pool: Infield
Job Number: 564
API #: 15-185-24107

<u>DATE</u>
April
20
2022

DST #3 Formation: LKC H Test Interval: 3636 - 3653'

Time On: 02:52 04/20 Time Off: 11:59 04/20

Time On Bottom: 05:05 04/20 Time Off Bottom: 09:20 04/20

Initial Hydrostatic Pressure PSI PSI Initial Flow Initial Closed in Pressure 10 to 17 70 Final Flow Pressure 19 to 28 PSI PSI PSI Final Closed in Pressure Final Hydrostatic Pressure 910 1683 Temperature Pressure Change Initial 0.0 % GIP cubic foot volume: 0 Close / Final Close

Recovery at a glance

O Recovery

Gas OII Water Mud
ON 1% ON 99%

DST 3_CHRTS.jpg



Operation:

Company: Hartman Oil Company, Inc.

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W
County: STAFFORD
State: Kansas
Drilling Contractor: Murfin Drilling
Company, Inc - Rig 20
Elevation: 1894 GL
Field Name: Gray North Ext
Pool: Infield
Job Number: 564
API #: 15-185-24107

DATE April 20 DST #3 Formation: LKC H Test Interval: 3636 - Total Depth: 3653'

Time On: 02:52 04/20 Time Off: 11:59 04/20
Time On Bottom: 05:05 04/20 Time Off Bottom: 09:20 04/20

1st Close Minutes: 30 Current Reading: 2nd Open Minutes: 90 Current Reading: 2nd Close Minutes: 120 Current Reading: 1st Open Minutes: 15 Current Reading: 46' .1" at 30 min 0" at 120 min .4" at 90 min 1.2" at 15 min Max Reading: 1.2" Max Reading: .1" Max Reading: .4" Max Reading: 0" 120 1500 80 Temp 60 Time (Hrs)

- Press(Psig) - Temp(F)



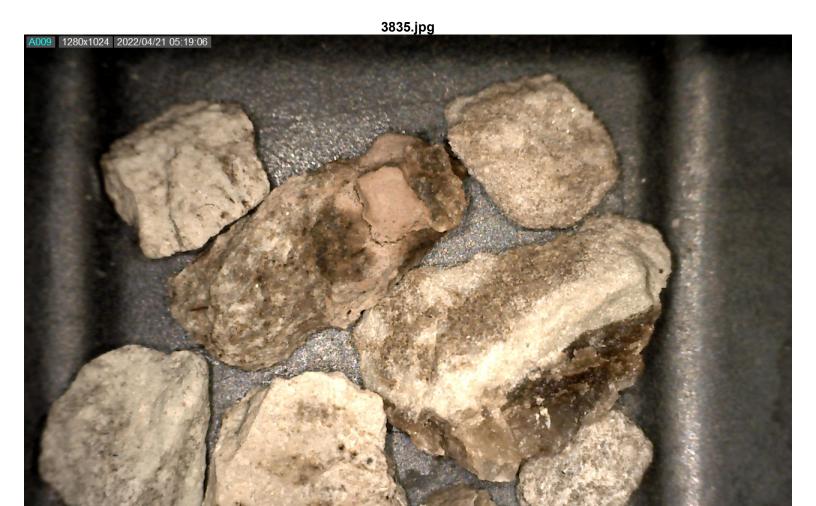
3676'.jpg



3735.jpg A006 1280x1024 2022/04/20 21:44:46







3835'

3840.jpg A010 1280x1024 2022/04/21 05:37:12

DST 4.jpg



Operation:

Company: Hartman Oil Company, Inc.

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W
County: STAFFORD
State: Kansas
Drilling Contractor: Murfin Drilling
Company, Inc - Rig 20
Elevation: 1894 GL
Field Name: Gray North Ext
Pool: Infield
Job Number: 564
API #: 15-185-24107

<u>DATE</u> April **21** 2022

Close / Final Close

DST #4 Formation: Viola Test Interval: 3830 - 3850'

Time On: 10:30 04/21 Time Off: 20:11 04/21

Time On Bottom: 13:11 04/21 Time Off Bottom: 17:26 04/21

Recovered <u>BBLS</u> Description of Fluid Foot Gas % Oil % Water % Mud % 90 0.4428 SLOCM Total Recovered: 90 ft Total Barrels Recovered: 0.4428 Recovery at a glance Reversed Out NO Initial Hydrostatic Pressure 료 0.25 PSI PSI Initial Flow Initial Closed in Pressure 41 to 48 109 Final Flow Pressure 49 to 57 PSI Final Closed in Pressure Final Hydrostatic Pressure PSI PSI 250 Recovery 1830 Temperature OII Water Mud
1% 0% 99% Pressure Change Initial 0.0 %

GIP cubic foot volume: 0

DST 4_CHRTS.jpg



Company: Hartman Oil Company, Inc.

Lease: Heyen #1-3

SEC: 2 TWN: 24S RNG: 13W County: STAFFORD State: Kansas Drilling Contractor: Murfin Drilling Company, Inc - Rig 20 Elevation: 1894 GL Field Name: Gray North Ext Pool: Infield Job Number: 564 API #: 15-185-24107

Operation: Uploading recovery & pressures

DST #4 Formation: Viola Test Interval: 3830 - Total Depth: 3850'

Time On: 10:30 04/21 Time Off: 20:11 04/21
Time On Bottom: 13:11 04/21 Time Off Bottom: 17:26 04/21

DATE
April
21
2022

Electronic Volume
Estimate:

127'

1st Open Minutes: 15 Current Reading: .5" at 15 min 1st Close Minutes: 30 Current Reading: 0" at 30 min

2nd Open Minutes: 90 Current Reading: 4" at 90 min 2nd Close Minutes: 120 Current Reading: 0" at 120 min

- Press(Psig) - Temp(F)





Elite Cementing & Acidizing of KS, LLC PO Box 92 Eureka, KS 67045



Date	Invoice #
4/21/2022	6335

Bill To

Hartman Oil Co., Inc. 10500 E. Berkeley So. Parky

10500 E. Berkeley Sq. Parkway Ste.100

Wichita, KS 67206

Customer ID#

1320

Job Date	4/14/2022		
Lease I	nforr	nation	
Hey	en#	1-3	
County	County		
Foreman	KM		

			Terms	Net 15
Item	Description	Qty	Rate	Amount
C101	Cement Pump-Surface	1	950.00	950.00
C107	Pump Truck Mileage (one way)	140	4.50	630.00
C200	Class A Cement-94# sack	395	18.55	7,327.25T
C205	Calcium Chloride	1,115	0.75	836.25T
C206	Gel Bentonite	740	0.30	222.00T
C209	Flo-Seal	70	2.80	196.00T
C108B	Ton Mileage-per mile (one way)	2,599.8	1.50	3,899.70
C413	8 5/8" Wooden Plug	1	98.00	98.00T
C724	8 5/8" Fiber Baffle Plate		157.00	157.00T
C606	8 5/8" Cement Basket	1	380.00	380.00Т
D101	Discount on Services		-273.99	-273.99
D102	Discount on Materials		-463.48	-463.48T

We appreciate your business!

Phone #	Fax#	E-mail
620-583-5561	620-583-5524	rene@elitecementing.com

Send payment to: Elite Cementing & Acidizing of KS, LLC PO Box 92 Eureka, KS 67045

Subtotal	\$13,958.73
Sales Tax (7.5%)	\$656.48
Total	\$14,615.21
Payments/Credits	\$0.00
Balance Due	\$14,615.21

810 E 7TH PO Box 92 EUREKA, KS 67045 (620) 583-5561



MURFIN DRIG RIG #20

Cement o	r Acid Field Report
Ticket No.	6335
Foreman	KEVIN McCoy
Camp Ec	

Date	Cust. ID#	1,000	a P Moll Number		0 "						
- 54.5	Oddt. ID#	Least	e & Well Number		Section	lo	wnship	Range	County		State
4-14-22	1320	Heyen	#/-3		2	2	45	1300	STAFFORG	1	Ks
Customer		/		Safety	Unit#		Driv	ler I	Unit#		Driver
HARTMI	AN OIL	Co. INC.		Meeting	104		ALAN I		OTIN IF		Dilvei
Mailing Address				KM	113		BROKE	RW.			
	. Berkel	er So. PARKO	UAY Ste 100	BW	112		BROKE				
City		State	Zip Code								
WICHITA		K5	67206					-			
Casing Depth Casing Size & WDisplacement AREMARKS: SARAMAKED 27.	b Type Surface sing Depth 321' K.B Hole Depth 330' K.B. Hole Size 12'4" Cement Left in Casing 38.94' Siplacement 18BbL Displacement PSI 200 Emarks: Safety Meeting: Rigup to 85'8" Cast Mixed 275 5K5 Class A Cement W/ 3% Cact Shut down Release Plug Displace Plug to S Thut Casing IN. No Cement to Surface. C			Asing.	Slurry Vol. 9. Slurry Wt. 15 Water Gal/SK Bump Plug to BREAK 6 GeL 1/4* u/ 18 BbC: For More	400 CIR FROS	culations	D 0 B 0× w//	ubing rill Pipe ther PM \$5 BbL FRes */9AL = 66 B mp Plug for bing.	h a 366 400	uater. Slurry. Psl.
RAN 1" HY CACL2, 2%	Idril Tul	Ing TAG FI	RM Cement 29 BBC 5/URA	© 60 4. 600	K.B. M.	IXeo	120. SURFI	sks Cla ace. Pu	55 A Ceme	,~t	w/3%
Rig down.			/								

Code	Qty or Units	Description of Product or Services	Unit Price	Total
2 /0/	1	Pump Charge	950.00	950.00
C /07	140	Mileage	4.50	630.00
700	395 sks	Class "A" Cement	18.55	7327.25
205	1115 #	CACLZ 3%	. 75*	836.25
206	740 #	Gel 2%	.30#	222.00
C 209	70 #	FloseAL 1/4# /SK (IN 2755KS)	2.80 4	196.00
C /08 B	18.57 TONS	Ton Mileage	1.50	3899.70
2 413	1	898 wooden Plug	98.00	98.00
: 724	/	85/8 fiber BAFFle Plate	/57.00	157.00
C 606	1	85/8 Cement BASKet	380.00	380.00
			Sub TotAL	14,693.40
		1 / THANK YOU 7.5%	Less 5% Sales Tax	769.22 691.24
Authoriz	zation /	Title	Total	14,615.21

Elite Cementing & Acidizing of KS, LLC PO Box 92 Eureka, KS 67045



Date	Invoice #
4/28/2022	6425

Bill To

Hartman Oil Co., Inc.
10500 E. Berkeley Sq. Parkway Ste.100
Wichita, KS 67206

Customer ID# 1320

Job Date	4/23/2022		
Lease Information			
Неу	1-3		
County		Stafford	
Foreman		RM	

			Terms	Net 15
Item	Description	Qty	Rate	Amount
C103 C107	Cement Pump-Plug (new well) Pump Truck Mileage (one way)	1 140	1,500.00 4.50	1,500.00 630.00
C203 C206 C108B	Pozmix Cement 60/40 Gel Bentonite Ton Mileage-per mile (one way)	220 750 1,324.4	15.75 0.30 1.50	3,465.00T 225.00T 1,986.60
D101 D102	Discount on Services Discount on Materials		-205.83 -184.50	-205.83 -184.50T

We appreciate your business!

Phone #	Fax#	E-mail
520-583-5561	620-583-5524	rene@elitecementing.com

Send payment to: Elite Cementing & Acidizing of KS, LLC PO Box 92 Eureka, KS 67045

Subtotal	\$7,416.27		
Sales Tax (7.5%)	\$262.91		
Total	\$7,679.18		
Payments/Credits	\$0.00		
Balance Due	\$7,679.18		

810 E 7TH
PO Box 92
EUREKA, KS 67045
(620) 583-5561



Cement or Acid Field Report				
Ticket No.	6425			
Foreman	in a second			
Camp				

Date	Cust. ID #	Leas	se & Well Number		Section	Township	Dance	T 0	
			TOIL TAILIDGE		Jection	Township	Range	Count	y State
4-02-2	23 1270	H=1=N	4 / 2		_	271			
Customer	13 1320	I HEYEN	1 3	Safety	Unit #		/3	STATICE	
				Meeting	Offic#		vei	Unit#	Driver
Mailing Addr	ress	(To toll		12 111	ا المرب	بيان ا	211		
			1 100	J #	1 (=	JA.			
City	E FERL	1=7	CHY SAE ISC	12, 10.72	116	11, 5			
•	1 0	State	Zip Code						
LUMENIT	1A	16.5	1.7212		ļ				
Job Type (TA NEW	Hole De	pth <u>4160</u>		Slurry Vol		T I		
	oth		ze <u>The</u>		-			oing	
					Siurry Wt			•	/3
_	e & Wt		_eft in Casing					ner	
Displaceme	ent	Displac	ement PSI		Bump Plug to		BP	M	
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Code	Qty or Units	Decemention	of Decelust on Con						
	Gty or Units		of Product or Ser	vices			Unit F	rice	Total
C-11-1	/	Pump Charg	<u> </u>				150	1.11	11.77.00
1111	111	Mileage					U.	1:27	1.180.00
C 1. 1	2211	6.14 / r/	He frank				7.5	0.5	3.465 MA
8 55.8 L	7.504		1					-	· /
			5.450		·	_			<u> </u>
C-101-A	1.41	Cross Ti	1-1-1-1-1	Y	41 10111-	C	1	200	1781.47
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							Pal-	S Toy	<u> </u>
	<u> </u>	<u> </u>					Sale	s Tax	246.75
Authoriz	ation ///	1 = = : 1 :	Tif	te 💯 🕖	1. tiret	nn	_	Total	11.19.17
	V.								111111111