

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

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

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

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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LITHOLOGY STRIP LOG

WellSight Systems

Scale 1:240 (5"=100') Imperial

Well Name: HBT #2-9
Location: 2674' FNL & 357' FEL, Sec. 9-T28S-R20W, Kiowa Co., KS.
Licence Number: 15-097-21861-00-00
Spud Date: 5/19/2022
Surface Coordinates: 2674' FNL & 357' FEL, Sec. 9-T28S-R20W
Region: Fralick West Ext.
Drilling Completed: 5/27/2022

Bottom Hole Same as Above
Coordinates:
Ground Elevation (ft): 2309' K.B. Elevation (ft): 2322'
Logged Interval (ft): 3450' To: 5000' Total Depth (ft): 5000'
Formation: Mississippian at Total Depth
Type of Drilling Fluid: Freshwater/Gel to 3454'; Chemical Gel 3454' to 5000'

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Herman L. Loeb, LLC.
Address: P.O. Box 838
Lawrenceville, IL. 62439-0838

GEOLOGIST

Name: Jon D. Christensen
Company: Consulting Petroleum Geologist
Address: 277 S. Maple Dunes Ct.
Wichita, KS. 67235-7500

Cores

None Taken

DSTs

DST #1(Lansing 'B' zone) 4330' - 4347' Test Times 15"-45"-45"-90" IFP Strong Blow BOB/30 Sec., no Blowback on ISI; FFP Strong BOB Blow Immed, Gas to Surface in 13 Min, Gauged 11.07 MCFG/45"; Gas burns blue/orange flame, caught 2 gas samples for analysis, 0.75" Blowback on FSI; REC: 60' VSG&OCM(1%G, 1%O, 98%M), no Water; IFP 37-44#, ISIP 1400#, FFP 23-37#, FSIP 1351#, IHP 2276#, FHP 2219#, BHT 105 Deg. F.

DST #2(Miss. Spergen Dolomite) 4898' - 4927' Test Times 30"-45"-30"-60" IFP Weak 0.6" Blow, FFP Weak 0.3" Blow, no Blowback on SI's; REC: 45' GIP, 15' GOCM(1%G, 6%O, 93%M), no Water; IFP 28-31#, ISIP 73#, FFP 36-37#, FSIP 59#, IHP 2534#, FHP 2455#, BHT 110 Deg. F.

DST #3(Miss. Dolomite) 4898' - 4940' Test Times 30"-45"-30"-60" IFP Weak Blow built to 2.5"; FFP Weak Blow built to 4.18", no Blowback on SI's; REC: 378' GIP, 30' GOCM(10%G, 6%O, 84%M), 60' GOCM(15%G, 10%O, 75%M), No Water; IFP 31-64#, ISIP 1089#, FFP 61-78#, FSIP 1072#, IHP 2448#, FHP 2444#, BHT 109 Deg. F.

Comments

5/19/22 MIRU Sterling Drilling Co. Rig #5, Spud at 5:15 PM.; 5/20/22 TD. 591' - Short trip for Surface Casing; 5/21/22 Drilling at 2658'; 5/22/22 Drilling at 3575'; 5/23/22 TD. 4347' - TOH for DST #1(Lansing 'B' zone); 5/24/22 Drilling at 4672'; 5/25/22 TD. 4927' - TOH for DST #2; 5/26/22 TD. 4940' - TOH with DST #3; Reached TD. 5000' at 3:30 PM., Ran ELI Logs - LTD. 4999'; 5/27/22 RTD. 5000', LTD. 4999' - D & A.

Set new 8 5/8"(23#) Surface Casing at 588' KB. with 400 sacks cement(Hurricane Cementing Services). Cement did Circulate. PD. at 10:45 AM. 5/20/22.

Surveys: 1.7 Deg. at 591'(Surface Casing); Surveys taken by Teledrift System; 0.5 Deg. at 966'; 0.3 Deg. at 1540'; 0.3 Deg. at 2019'; 1.0 Deg. at 2529'; 0.4 Deg. at 3071'(Trip out to replace TeleDrift tool); 0.1 Deg. at 3485'; 0.1 Deg. at 3868'; 0.4 Deg. at 4155'; 0.4 Deg. at 4347'; 0.4 Deg. at 4570'; 0.4 Deg. at 4761'; 0.3 Deg. at 4857'; 0.3 Deg. at 5000' TD.


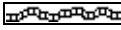
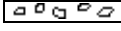

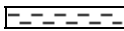







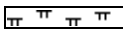

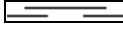
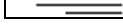
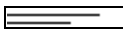


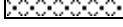
Pipe Strap at 4347'(DST #1): Strap 2.18' Short to the Board, no correction made to the Board.

After review of the ELI Wiring logd, DST data and the lack of commercial amounts of hydrocarbons, the operator elected to Plug and Abandon the HBT #2-9 at RTD. 5000' on 5/27/22.








































































LOG TOPS: Blaine Gypsum 749(+1573), Stone Corral Anhydrite 1308(+1014), Chase 2547(-225), Stotler Lmst. 3479(-1157), Howard 3684(-1362), Heebner Shale 4134(-1812), Toronto 4152(-1830), Brown Lmst. 4285(-1963), Lansing 'A' 4294(-1972), Lansing 'B' 4319(-1997), Lansing/K.C. 'H' 4471(-2149), Stark Shale 4621(-2299), Base Kansas City 4697(-2375), Marmaton 4706(-2384), Pawnee 4790(-2468), Cherokee Shale 4838(-2516), Base Cherokee Lmst. 4898(-2576), Miss. Spergen Dolomite 4916(-2594).

NOTE: Portions of this log were shifted by 2' - 3' for correlation purposes with the ELI Wireline Logs.

ROCK TYPES

 Anhy  Bent  Brec  Cht	 Clyst  Coal  Congl  Dol	 Gyp  Igne  Lmst  Meta	 Mrlst  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
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ACCESSORIES

MINERAL  Anhy  Arggrn  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Feldspar  Ferrpel  Ferr  Glau	 Gyp  Hvymin  Kaol  Marl  Minxl  Nodule  Phos  Pyr  Salt  Sandy  Silt  Sil  Sulphur  Tuff	FOSSIL  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Gastro  Oolite	 Ostra  Pelec  Pellet  Pisolite  Plant  Strom STRINGER  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst	 Sltstrg  Ssstrg TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackst
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OTHER SYMBOLS

- POROSITY**
 [E] Earthy
 [F] Fenest
 [X] Fracture
 [M] Inter
 [O] Moldic
 [P] Organic
 [P] Pinpoint

- Vuggy
SORTING
 [W] Well
 [M] Moderate
 [P] Poor

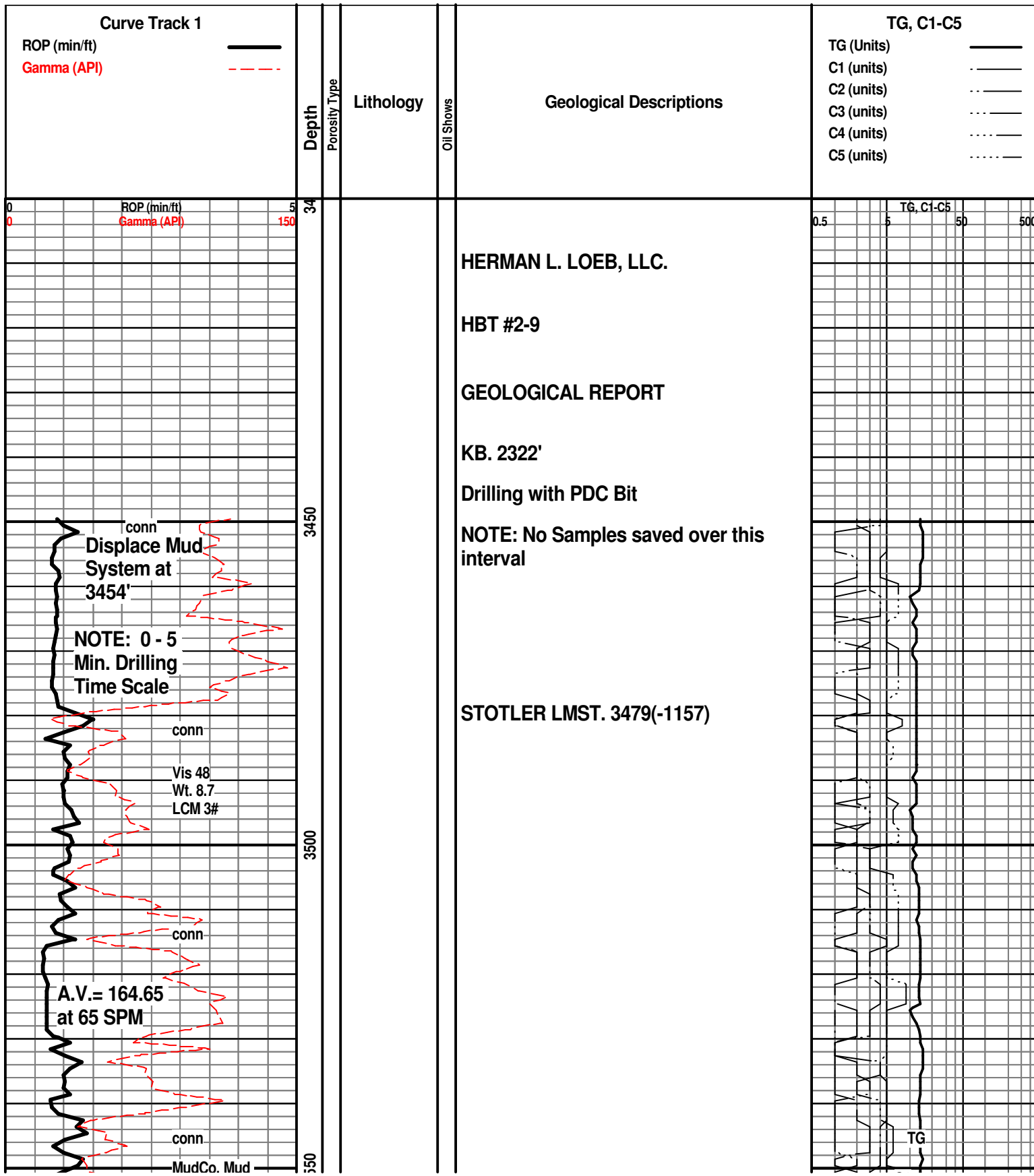
- ROUNDING**
 [R] Rounded
 [r] Subrnd
 [a] Subang
 [A] Angular

- Spotted
 Ques
 Dead

- EVENT**
 Rft
 Sidewall

- OIL SHOW**
 Even

- INTERVAL**
 Core
 Dst



Check at 3549'
Vis 49 Wt. 8.7
WL 6.0 Cl 1600
PH 11.0 LCM 2#

conn

WOB 14-16K
PP 900#
SPM 65
RPM 97

ROP (min/ft)
Gamma (API)

conn

conn

conn

conn

Vis 56
Wt. 8.8
LCM 2#

conn

conn

3750

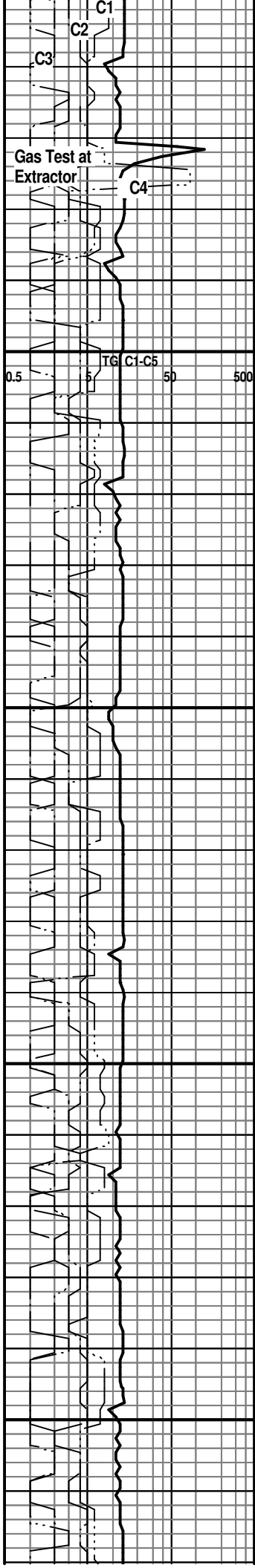
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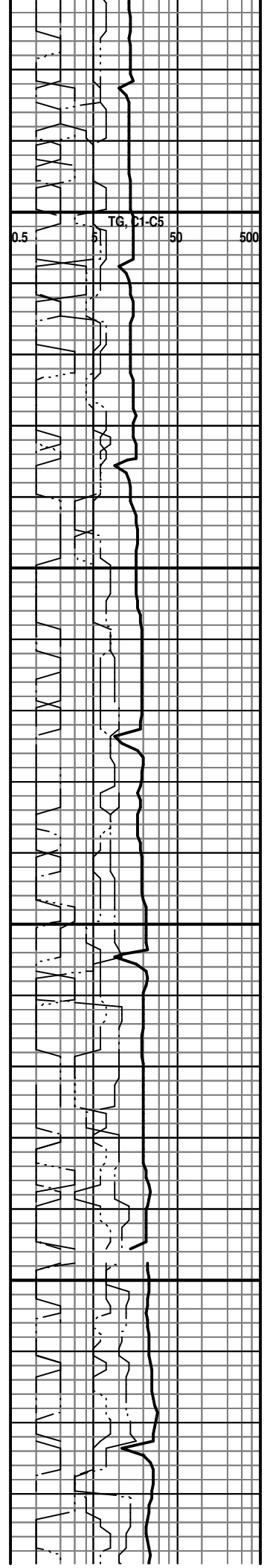
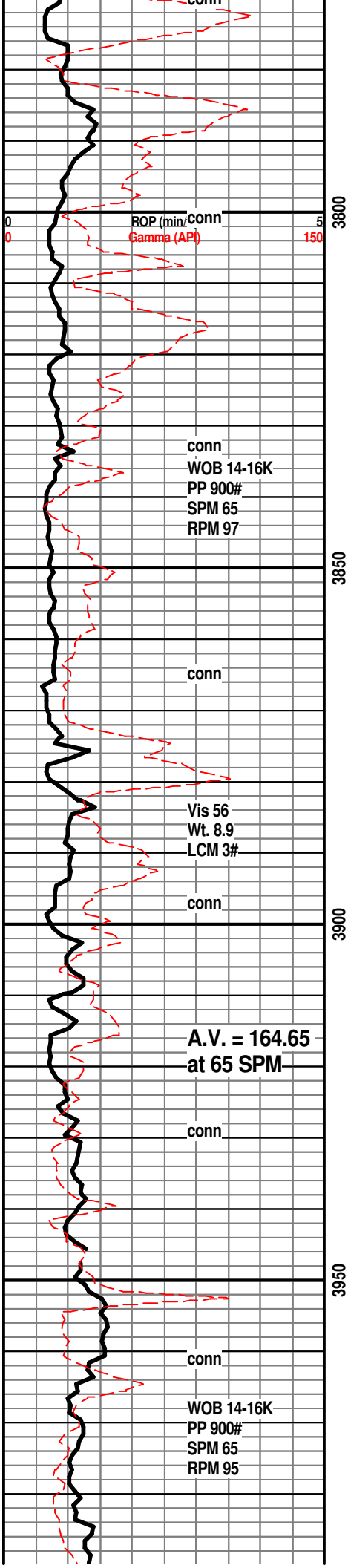
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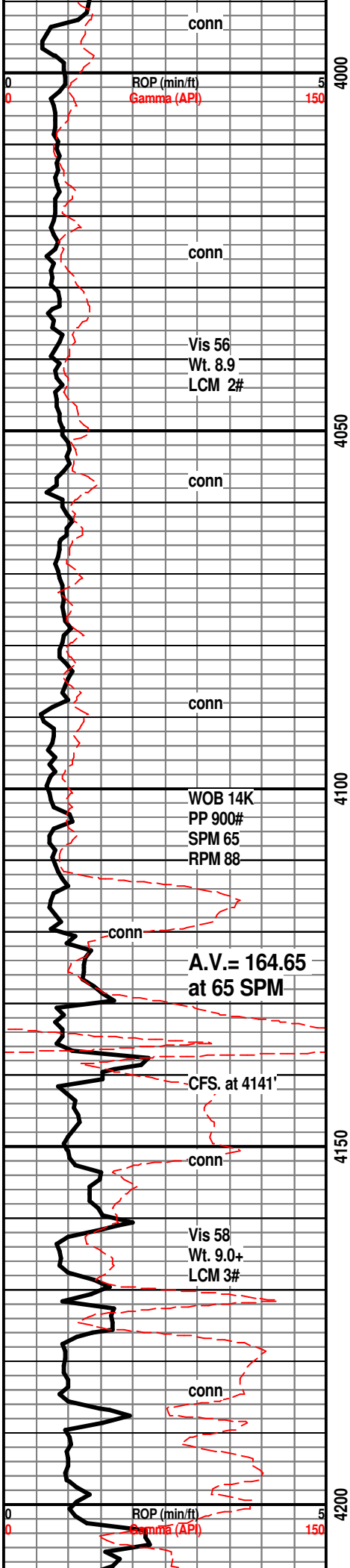
3700

3750

HOWARD 3684(-1362)







conn

ROP (min/ft)
Gamma (API)

conn

Vis 56
Wt. 8.9
LCM 2#

conn

conn

WOB 14K
PP 900#
SPM 65
RPM 88

conn

A.V. = 164.65
at 65 SPM

CFS at 4141'

conn

Vis 58
Wt. 9.0+
LCM 3#

conn

ROP (min/ft)
Gamma (API)



LM; off wh, tan, med xln to gran, fair interxln por, very chalky, dull yel min fluor, ns.

LM; tan to cream, f to med xln, cse spar calc xtals, dull yel fluor, chalky, ns.

START 20' Wet and Dry Samples at 4100'

DOL; lt brn, sucrosic, some med rhombic, fair interxln por, lt yel min flour, ns.

SH, med to dk gy, platy, trc pyr

LM; tan to med brn, , some blocky - dense, rare foss mat, no vis por, occ wh fresh cht, dull yel min fluor, no stn or odor, ns.

HEEBNER SHALE 4134(-1812)

SH; blk, carb ip, trc gas, rare pyr

LM; med to dk brn, micritic, pyr ip.

SH; grn, gy grn, occ silty

TORONTO 4152(-1830)

LM; tan to lt brn, foss, most well cem, no vis por, dull yel fluor, rare wh cht, no stn, ns.

LM; wh, off wh, buff, f to med xln, fair interxln w/scat vug por, chalky mtx, scat foss mat, dull yel min fluor, no stn odor, ns.

LM; med brn, hd, foss, tite

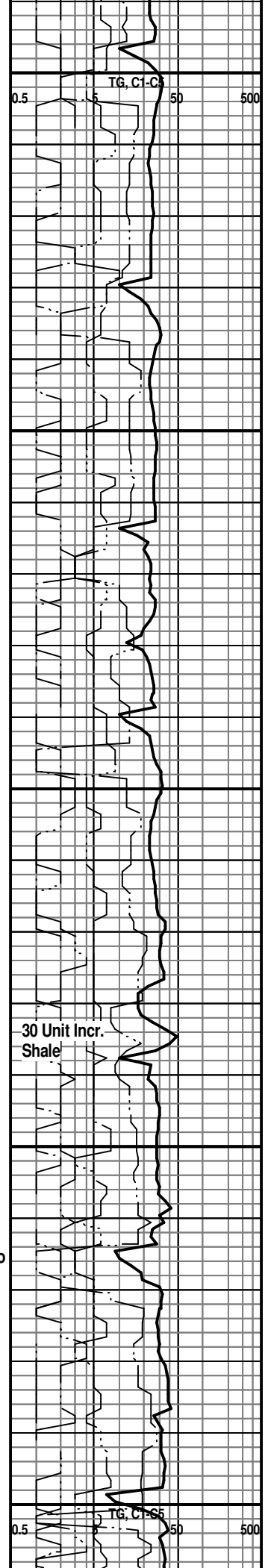
DOUGLAS SHALE 4176(-1854)

SH; lt gy, gy grn, silty w/interbdd sltst.

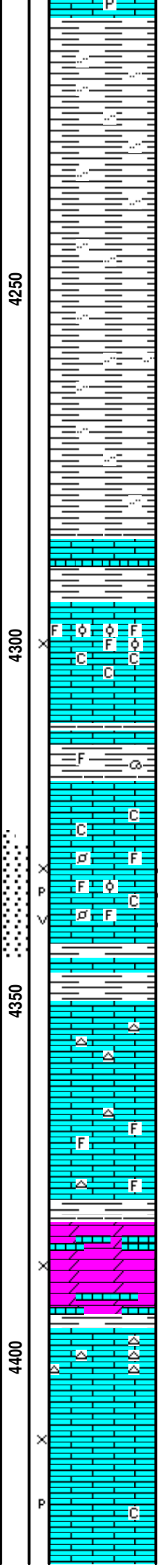
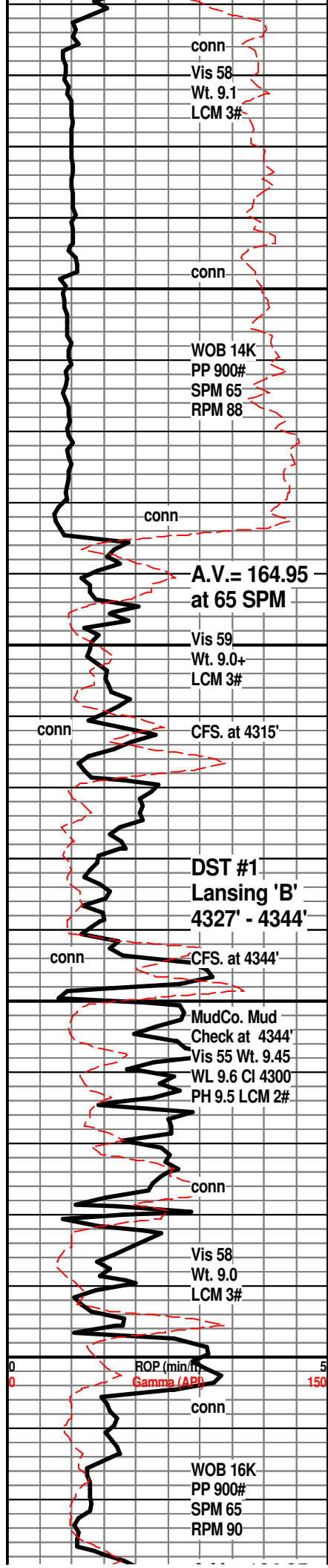
LM; lt gy to gy brn, foss ip, hd, micritic

SH; lt gy, gy grn, platy, silty ip, interbdd argil lmst.

LM; med gy brn, foss, well cem - scat small pellets and foss hash, pyr ip, no vis por, lt yel fluor, argil at base,



30 Unit Incr.
Shale



ns.

SH; lt gy, gy grn, silty ip, platy

SH; lt gy, rare med gy, platy, most smooth

SH; lt to med gy, platy, smooth

BROWN LMST. 4285(-1963)
LM; med to dk brn, hd, micritic

LANSING 'A' 4294(-1972)
LM; tan to lt brn, foss ip - sparsely oolitic, most well cem, trc poor interpart por, lt yel fluor, chalky mtx ip, no stn/odor, no gas kick, ns.

SH; lt gy, gy grn, foss ip.

LANSING 'B' 4319(-1997)
LM; off wh, buff, fxln to micritic, minor chalky mtx, lt yel fluor, v. faint odor, tite

LM; off wh, buff, foss, fair interpart w/some well dev. vug por, SFO, few gas bubbles, much brite yel fluor, fair to gd cut, spotted to even lt brn oil stn, rarely chalky mtx

DST #1: Lansing 'B' 4327' - 4344'
Corrected Depths to Log

LM; tan to lt brn, most dense - micritic, scat off wh to wh cht, no vis por, ns.

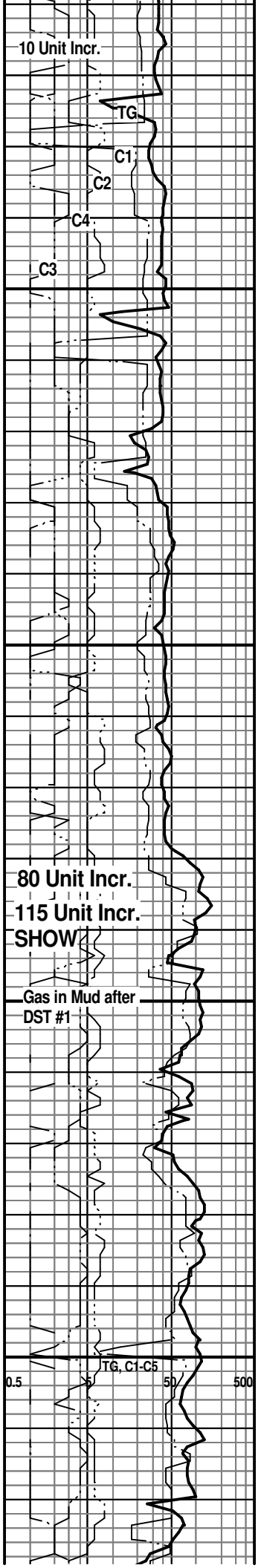
LM; lt to med brn, foss ip, well cem, cherty ip, no vis por, ns.

LANSING 'E' ZONE 4381(-2059)

DOL; lt brn, sucrosic, fair interxln por, lt yel min fluor, no stn or odor, lmy ip, ns.

LM; lt brn, tan, hd, much foss lt brn cht, no vis por, no fluor, ns.

LM; tan to buff, off wh, f to med xln, fair interxln w/scat p-p por, dull yel fluor, no stn or odor, no sample shows



A.V.= 164.95
at 65 SPM

conn

Vis 55
Wt. 9.0
LCM 2#

conn

WOB 16K
PP 900#
SPM 65
RPM 88-92

A.V.=164.75
at 65 SPM

conn

Vis 58
Wt. 9.1
LCM 2#

conn

ROP (min/ft)
Gamma (API)

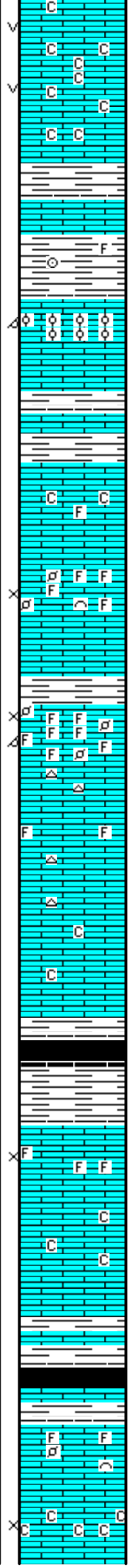
WOB 18K
PP 950#
SPM 65
RPM 88

4450

4500

4550

4600



LM; tan to cream, off wh, f to med xln, scat fair vug por, much soft chalk and chalky mtx, lt yel min fluor, ns.

LM; med brn, hd, blocky

SH; med to dk gy, platy, foss ip.

LANSING/K.C. 'H' 4471(-2149)

LM; tan to buff, foss-oolitic, poor to fair oomoldic por, brittle ip, dull yel fluor, no stn or odor, ns.

LM; med gy, gy brn, dense

LM; tan to buff, foss ip, chalky mtx, ns.

LM; lt brn, v. foss ip, much foss hash, poor interpart por, lt yel fluor, ns.

KANSAS CITY 'I' 4528(-2206)

LM; lt brn, highly foss - oolitic, well dev. interpart por, partly moldic, lt yel fluor, no vis stn, no odor, no sample shows

LM; tan to lt brn, fxln to micritic, cherty ip, interbdd foss lmst, no fluor, no stn or odor, ns

LM; tan to cream, buff, most dense-blocky, rare chalky mtx, ns.

SH; blk, carb, trc gas

KANSAS CITY 'J' 4587(-2265)

LM; off wh, tan, foss w/scat fxln lmst, poor vis interpart/interxln por, chalky mtx ip, dull yel min fluor, no stn or odor, ns.

LM; tan to cream, buff, fxln to micritic, most dense, some soft chalky mtx, poss. faint odor??

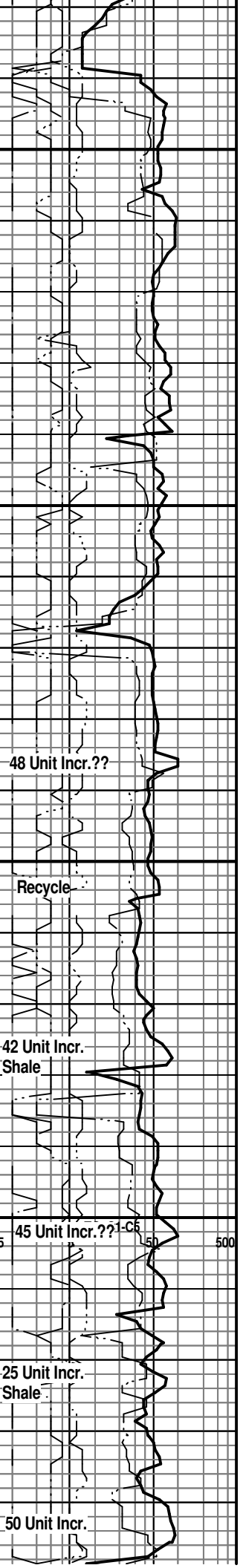
STARK SHALE 4621(-2299)

SH; blk, carb ip, platy

SWOPE 4629(-2307)

LM; tan to lt brn, foss, mostly tite, scat lt yel fluor, no stn or odor, ns.

LM; tan to cream, wh, fxln, v. chalky ip, poor to no vis interxln por, no fluor, no sample shows



48 Unit Incr.??

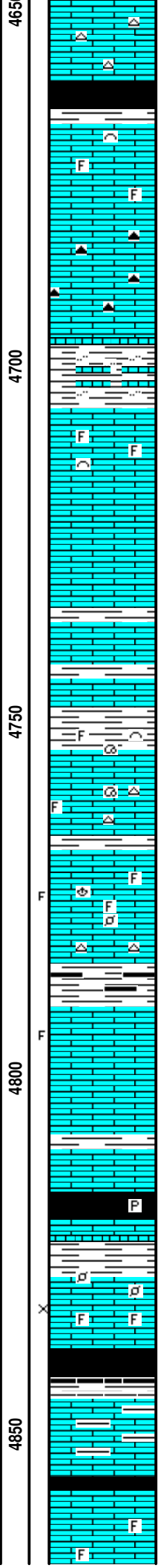
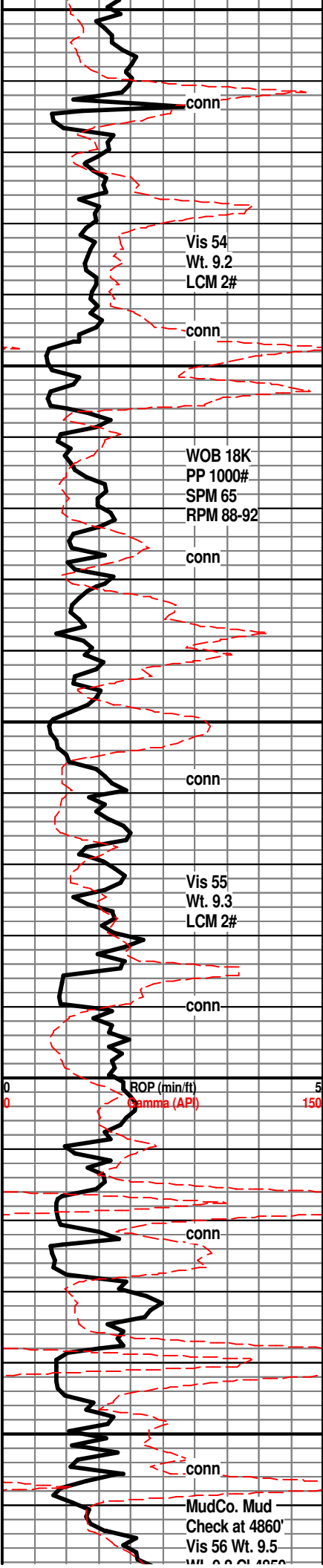
Recycle

42 Unit Incr.
Shale

45 Unit Incr.??^{1-C6}

25 Unit Incr.
Shale

50 Unit Incr.



LM; tan to cream, lt brn, hd, cherty ip

SH; dk gy, blk, platy

HERTHA 4666(-2344)

LM; tan to lt brn, foss ip, well cem, no vis por, no fluor, ns.

LM; med to dk brn, smoky to dk brn cht, dense, blocky

BASE KANSAS CITY 4697(-2375)

SH; grn, gy grn, platy, occ silty

MARMATON 4706(-2384)

LM; tan to lt brn, rare med brn, foss ip, most well cem, no vis por, dull yel fluor, no stn or odor, ns.

LM; tan to cream, buff, fxlN to micritic, blocky, no vis por, no stn or odor, no sample shows

LM; lt gy, lt brn, most dense, blocky, no vis por, no fluor, ns.

SH; lt to med gy, platy, foss ip.

ALTAMONT 4754(-2432)

LM; tan to lt brn, rarely foss, most micritic, hd, scat tan/off wh cht, no fluor, ns.

LM; lt to med brn, scat well cem foss mat, poss fracs, most dense, rare lt yel fluor, no stn or odor, trc brn to amber cht, ns.

SH; dk gy, occ blk, platy

PAWNEE 4790(-2468)

LM; tan to buff, fxlN to micritic, occ spar calc xtals on bdg planes - poss fracs, dull yel fluor, no stn or odor, no sample shows

LM; med to dk brn, blocky, tite

LABETTE SHALE 4816(-2494)

SH; blk, carb ip, trc pyr

LM; tan to med brn, foss, occ finely pelletal, trc poor interpart por, lt yel fluor, no vis stn, no odor, no gas kick, ns.

CHEROKEE SHALE 4838(-2516)

SH; blk, carb, trc gas

LM; lt to med gy brn, argil ip, tite

SH; dk gy - blk, fiss - platy

LM; med brn, foss ip, dense, blocky, no vis por, no fluor, ns.

50 Unit Incr. Shale

72 Unit Incr.

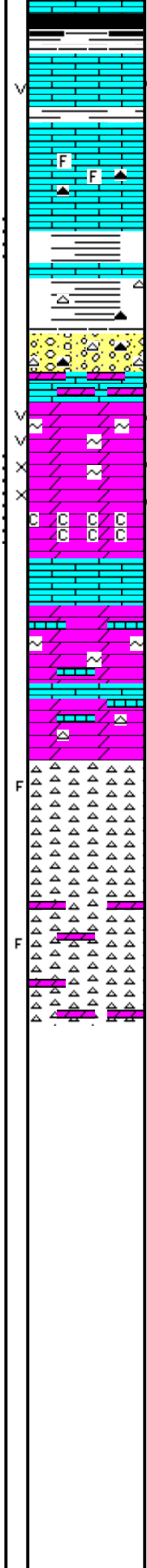
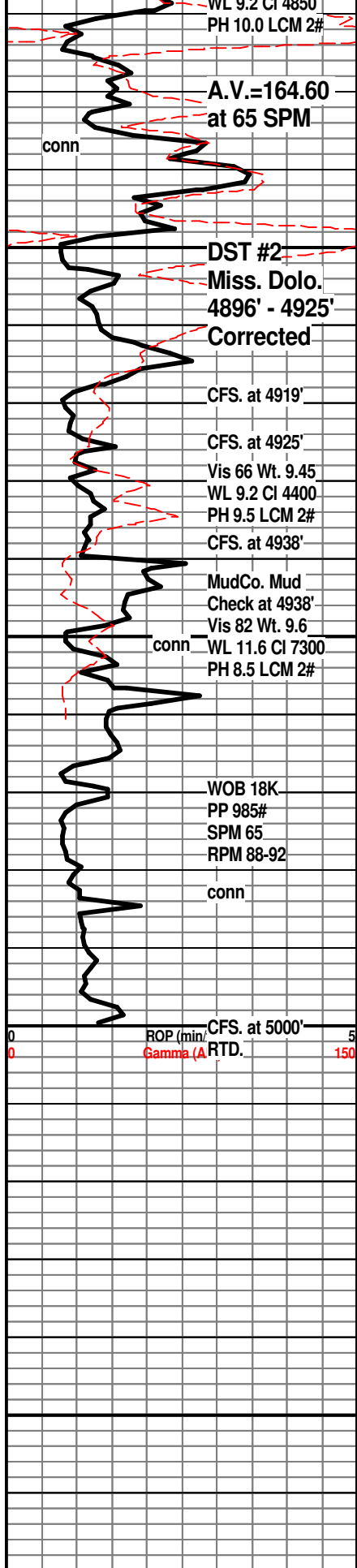
Recycle

35 Unit Incr.

TG. Cl-C5

70 Unit Incr. Shale

90 Unit Incr. Shale



SH; med to dk gy, rare blk, platy

LM; lt to med brn, fxln, scat small vug por w/dk brn spotted oil stn, lt yel fluor, no odor

LM; lt to med brn, rare foss mat, well cem, few pcs of dk brn/smoky cht, no vis por, ns.

BASE CHEROKEE LMST. 4898(-2576)

SH; varic, grn, maroon, yel, platy, occ varic cht and conglomerate

MISS. SPERGEN 4916(-2594)

LM; wh, pale grn, dolomitic, spotted oil stn ip.

DOL; lt/med brn, sucrosic, occ med rhombic, fair to gd vug por, SFO + Gas bubbles, gd odor, med to brite yel fluor, gd streaming cut, glau ip.

DOL; lt brn, sucrosic, soft ip, some gd interxln por, strong odor, brite yel fluor, SFO+ gas bubbles, most w/even lt brn oil stn, occ cse qtz xlals w/oil stn, rarely glau

DOL; off wh, pale grn, wh, tite, chalky - soft ip, v. dull yel flour, fair odor

DST #3: Miss. Dolomite 4896' - 4938'
Corrected Depths to LOG

LM; off wh, dolomitic, glau ip, tite

DOL; off wh, sucrosic, glau ip, no fluor, poor interxln por, some lmy dolo, ns.

CHT; wh, off wh, fresh, sharp, poss frags, no fluor, no stn or odor, ns.

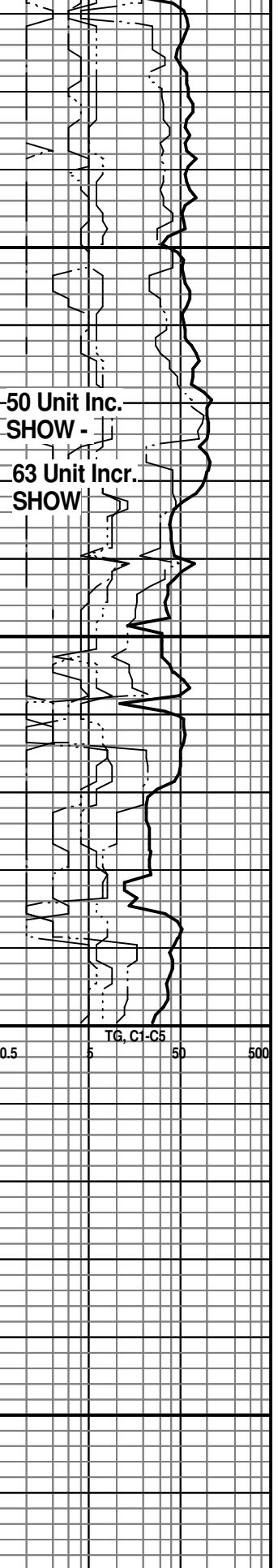
CHT; wh, off wh, partly dolomitic, most fresh, poss frags, no fluor, no stn or odor, ns.

RTD. 5000' at 3:30 PM. on 5/27/22

LTD. 4999'

ELI Wireline DIL, NEU/DEN w/PE, Microlog

NOTE: Portions of this log were shifted upward by 2' - 3' for correlation purposes with the ELI Wireline Logs.



6/9



HURRICANE SERVICES INC

✓
X

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:
HERMAN L LOEB LLC
PO BOX 838
LAWRENCEVILLE, IL 62439

Invoice Date: 5/20/2022
Invoice #: 0360922
Lease Name: HBT
Well #: 2-9
County: Kiowa, Ks
Job Number: WP2836
District: Pratt

11216 - 6720

Date/Description	HRS/QTY	Rate	Total
Surface Pipe	0.000	0.000	0.00
H-CON	200.000	23.500	4,700.00
Cement Pozmix 60/40	200.000	14.100	2,820.00
Calcium Chloride	516.000	0.705	363.78
Cello Flake	50.000	1.645	82.25
Guide Shoe Reg 8 5/8"	1.000	564.000	564.00
8 5/8" Alum Baffle plate SI	1.000	141.000	141.00
8 5/8" Top rubber plug	1.000	164.500	164.50
Light Eq Mileage	45.000	1.880	84.60
Heavy Eq Mileage	90.000	3.760	338.40
Ton Mileage	810.000	1.410	1,142.10
Cement Blending & Mixing	400.000	1.316	526.40
Depth Charge 501'-1000'	1.000	1,175.000	1,175.00
Cement Plug Container	1.000	235.000	235.00
Cement Data Acquisition	1.000	235.000	235.00
Service Supervisor	1.000	275.000	275.00

PAID
108464
JUN 14 2022

SCANNED

SCANNED
SHANE - APPROVED
JEREMY - APPROVED

Total 12,847.03

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

WE APPRECIATE YOUR BUSINESS!



Customer	HERMAN LOEB		Lease & Well #	HBT 2-9		Date	9/20/2022	
Service District	PRATT, KS.		County & State	KIOWA, KS.		Legals S/T/R	9-28S-20W	
Job Type	SURFACE PIPE		<input type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	New Well?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> No
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures						

926	LESLEY	<input type="checkbox"/> Hard hat	<input type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
179-521	CLIFTON	<input type="checkbox"/> H2S Monitor	<input type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
182-534	TRAVINO	<input type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
		<input type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	

Comments
 8 5/8" SURFACE PIPE

Product/Service Code	Description	Unit of Measure	Quantity	Net Amount
CP025	H-Con	sack	200.00	\$4,700.00
CP070	60/40/2 Pozmix	sack	200.00	\$2,820.00
CP100	Calcium Chloride	lb	518.00	\$363.78
CP120	Cello-flake	lb	50.00	\$82.25
FE260	8 5/8" Guide Shoe	ea	1.00	\$564.00
FE280	8 5/8" Baffle	ea	1.00	\$141.00
FE285	8 5/8" Rubber Plug	ea	1.00	\$164.50
MA015	Light Equipment Mileage	mi	45.00	\$84.60
MA010	Heavy Equipment Mileage	mi	50.00	\$338.40
MA020	Ton Mileage	tm	810.00	\$1,142.10
CB050	Cement Blending & Mixing Service	sack	460.00	\$526.40
CB011	Depth Charge: 501'-1000'	job	1.00	\$1,175.00
CB090	Cement Plug Container	job	1.00	\$235.00
CB035	Cement Data Acquisition	job	1.00	\$235.00
RS661	Service Supervisor	day	1.00	\$276.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?

Based on this job, how likely is it you would recommend HSI to a colleague?

1 2 3 4 5 6 7 8 9 10 Extremely Likely

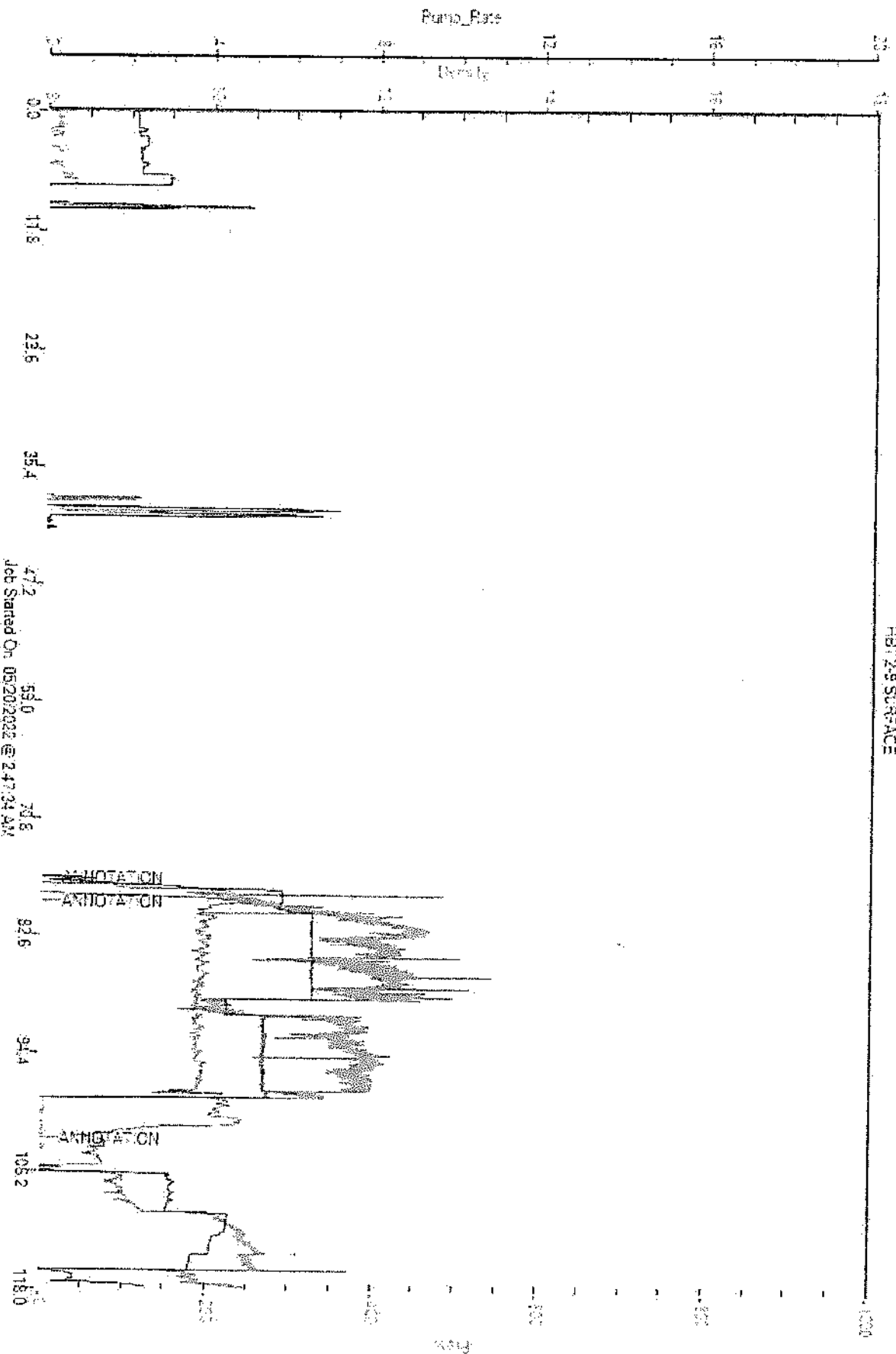
Total Taxable	\$ -	Tax Rate:		Net:	\$12,847.03
State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.				Sale Tax:	\$ -
				Total:	\$ 12,847.03

HSI Representative: *Kevin Lesley*

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/2% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X *[Signature]* CUSTOMER AUTHORIZATION SIGNATURE

HERIMAN LOEB
HBT 2-9 SURFACE



Job Started On: 05/20/2022 @ 2:47:34 AM



CEMENT TREATMENT REPORT

Customer: HERMAN LOEB	Well: HBT 2-9	Ticket: WP 2869
City, State:	County: KIOWA, KS.	Date: 5/28/2022
Field Rep:	S-T-R: 9-28S-20W	Service: PTA

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	ft
Casing Size:	4 1/2 in
Casing Depth:	ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	bbbls

D.P.

Calculated Slurry - Lead	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

Calculated Slurry - Tail	
Blend:	H-PLUG
Weight:	13.78 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.43 ft³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	170 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
5:00AM			-	-	ON LOCATION- SPOT EQUIPMENT
8:45AM				-	1st PLUG @ 1350'
	5.0		20.0	20.0	H2o AHEAD
	5.0		12.7	32.7	MIX 50 SKS H-PLUG @ 13.8 PPG
	5.0		15.8	48.5	DISPLACEMENT
				48.5	2nd PLUG @ 630'
	5.0		5.0	53.5	H2o AHEAD
	5.0		12.7	66.2	MIX 50 SKS H-PLUG @ 13.8 PPG
	5.0		5.6	71.8	DISPLACEMENT
				71.8	3rd PLUG @ 60'
	4.0		5.0	76.8	MIX 20 SKS H-PLUG @ 13.8 PPG
	3.0		7.0		PLUG RATHOLE WITH 30 SKS
11:00AM	3.0		5.0		PLUG MOUSEHOLE WITH 20 SKS
					WASH UP PUMP TRUCK
					JOB COMPLETE,
					THANKS- KEVEN AND CREW

CREW		UNIT	SUMMARY		
Cementer:	LESLEY	926	Average Rate	Average Pressure	Total Fluid
Pump Operator:	CLIFTON	179-521	4.4 bpm	- psi	89 bbls
Bulk #1:	FLORENCIO	182-534			
Bulk #2:					



Customer	HERMAN LOEB	Lease & Well #	HBT 2-9	Date	5/28/2022	
Service District	PRATT, KS.	County & State	KIOWA, KS.	Legals S/T/R	9-28S-20W	
Job Type	PTA	<input type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	New Well? <input type="checkbox"/> YES <input type="checkbox"/> No	
Equipment #	Driver	Ticket #				WP 2869

Job Safety Analysis - A Discussion of Hazards & Safety Procedures					
Equipment #	Driver	<input type="checkbox"/> Hard hat	<input type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
926	LESLEY	<input type="checkbox"/> H2S Monitor	<input type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
179-521	CLIFTON	<input type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
182-534	FLORENCIO	<input type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	

Comments	
PTA	

Product/ Service Code	Description	Unit of Measure	Quantity	Net Amount
CP055	H-Plug	sack	170.00	\$2,237.20
M015	Light Equipment Mileage	mi	45.00	\$84.60
M010	Heavy Equipment Mileage	mi	90.00	\$338.40
M020	Ton Mileage	tm	331.00	\$466.71
C060	Cement Blending & Mixing Service	sack	170.00	\$223.72
D011	Depth Charge: 501'-1000'	job	1.00	\$1,175.00
C035	Cement Data Acquisition	job	1.00	\$235.00
R061	Service Supervisor	day	1.00	\$275.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?			Net:	\$5,035.63
<p style="text-align: center;">Based on this job, how likely is it you would recommend HSI to a colleague?</p> <p style="text-align: center;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </p> <p style="text-align: center;"> Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely </p>			Total Taxable \$ -	Tax Rate:
			State tax laws deem certain products and services used on new wells to be sales tax exempt.	Sale Tax: \$ -
			Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.	Total: \$ 5,035.63
			HSI Representative: <i>Keven Lesley</i>	

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/4% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X _____ **CUSTOMER AUTHORIZATION SIGNATURE**



DRILL STEM TEST REPORT

Herman L Loeb LLC
P.O. Box 838
Law eranceville, IL. 62439
ATTN: Jon Christensen

9-28s-20w Kiowa Co Ks
HBT 2-9
Job Ticket: 68882 **DST#: 1**
Test Start: 2022.05.24 @ 08:04:43

GENERAL INFORMATION:

Formation: **Lansing B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:32:58
Time Test Ended: 16:19:43

Test Type: Conventional Bottom Hole (Initial)
Tester: Matt Smith
Unit No: 68

Interval: **4330.00 ft (KB) To 4347.00 ft (KB) (TVD)**
Total Depth: 4347.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2322.00 ft (KB)
2309.00 ft (CF)
KB to GR/CF: 13.00 ft

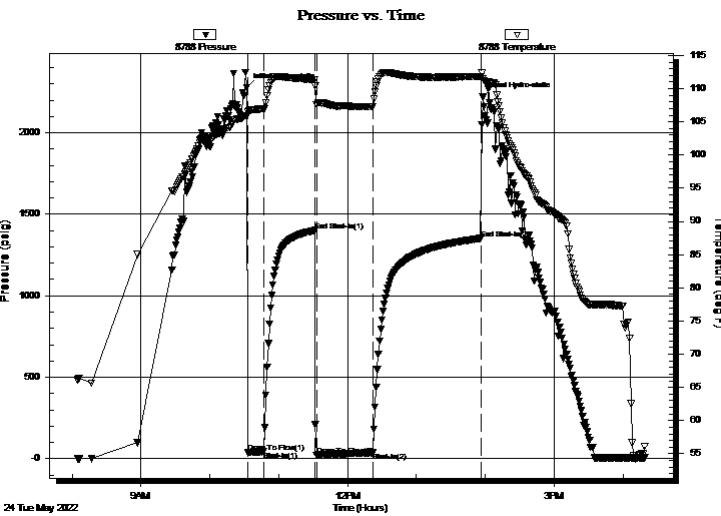
Serial #: 8788

Inside

Press@RunDepth: 36.69 psig @ 4331.00 ft (KB)
Start Date: 2022.05.24 End Date: 2022.05.24
Start Time: 08:04:48 End Time: 16:19:42

Capacity: 8000.00 psig
Last Calib.: 2022.05.24
Time On Btm: 2022.05.24 @ 10:31:58
Time Off Btm: 2022.05.24 @ 13:57:58

TEST COMMENT: IF: Strong Blow . B.O.B. in 30 seds. Built to 221.42". (15)
IS: No Blow . (45)
FF: Strong Blow . B.O.B. immediate. G.T.S. in 13 mins. Built to 424.99". (45)
FS: Weak Blow . Built to 3/4" in the Bucket. (90)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2276.18	105.78	Initial Hydro-static
1	37.34	106.56	Open To Flow (1)
15	43.93	106.96	Shut-In(1)
60	1400.20	111.37	End Shut-In(1)
61	22.82	107.60	Open To Flow (2)
110	36.69	107.28	Shut-In(2)
205	1351.40	111.83	End Shut-In(2)
206	2219.11	111.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GVSOCM 1%g 1%o 98%m	0.46

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	9.52	8.95
Last Gas Rate	0.13	15.17	11.07
Max. Gas Rate	0.13	15.17	11.07



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Herman L Loeb LLC
P.O. Box 838
Lawranceville, IL. 62439
ATTN: Jon Christensen

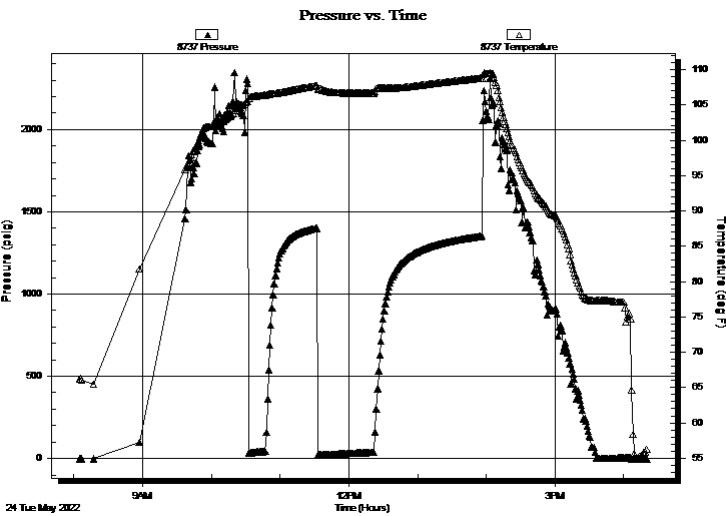
9-28s-20w Kiowa Co Ks
HBT 2-9
Job Ticket: 68882 **DST#: 1**
Test Start: 2022.05.24 @ 08:04:43

GENERAL INFORMATION:

Formation: **Lansing B**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 10:32:58 Tester: Matt Smith
Time Test Ended: 16:19:43 Unit No: 68
Interval: 4330.00 ft (KB) To 4347.00 ft (KB) (TVD) Reference Elevations: 2322.00 ft (KB)
Total Depth: 4347.00 ft (KB) (TVD) 2309.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 13.00 ft

Serial #: 8737 Outside
Press@RunDepth: psig @ 4331.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2022.05.24 End Date: 2022.05.24 Last Calib.: 2022.05.24
Start Time: 08:05:02 End Time: 16:19:56 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong Blow . B.O.B. in 30 seds. Built to 221.42". (15)
IS: No Blow . (45)
FF: Strong Blow . B.O.B. immediate. G.T.S. in 13 mins. Built to 424.99". (45)
FS: Weak Blow . Built to 3/4" in the Bucket. (90)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GVSOCM 1%g 1%o 98%m	0.46

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	9.52	8.95
Last Gas Rate	0.13	15.17	11.07
Max. Gas Rate	0.13	15.17	11.07



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Herman L Loeb LLC
P.O. Box 838
Law eranceville, IL. 62439
ATTN: Jon Christensen

9-28s-20w Kiowa Co Ks
HBT 2-9
Job Ticket: 68882 **DST#: 1**
Test Start: 2022.05.24 @ 08:04:43

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	4300 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.59 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4300.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GVSOCM 1%g 1%o 98%m	0.457

Total Length: 60.00 ft Total Volume: 0.457 bbl
Num Fluid Samples: 1 Num Gas Bombs: 0 Serial #: P10 &
Laboratory Name: Laboratory Location:
Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Herman L Loeb LLC
P.O. Box 838
Law eranceville, IL. 62439
ATTN: Jon Christensen

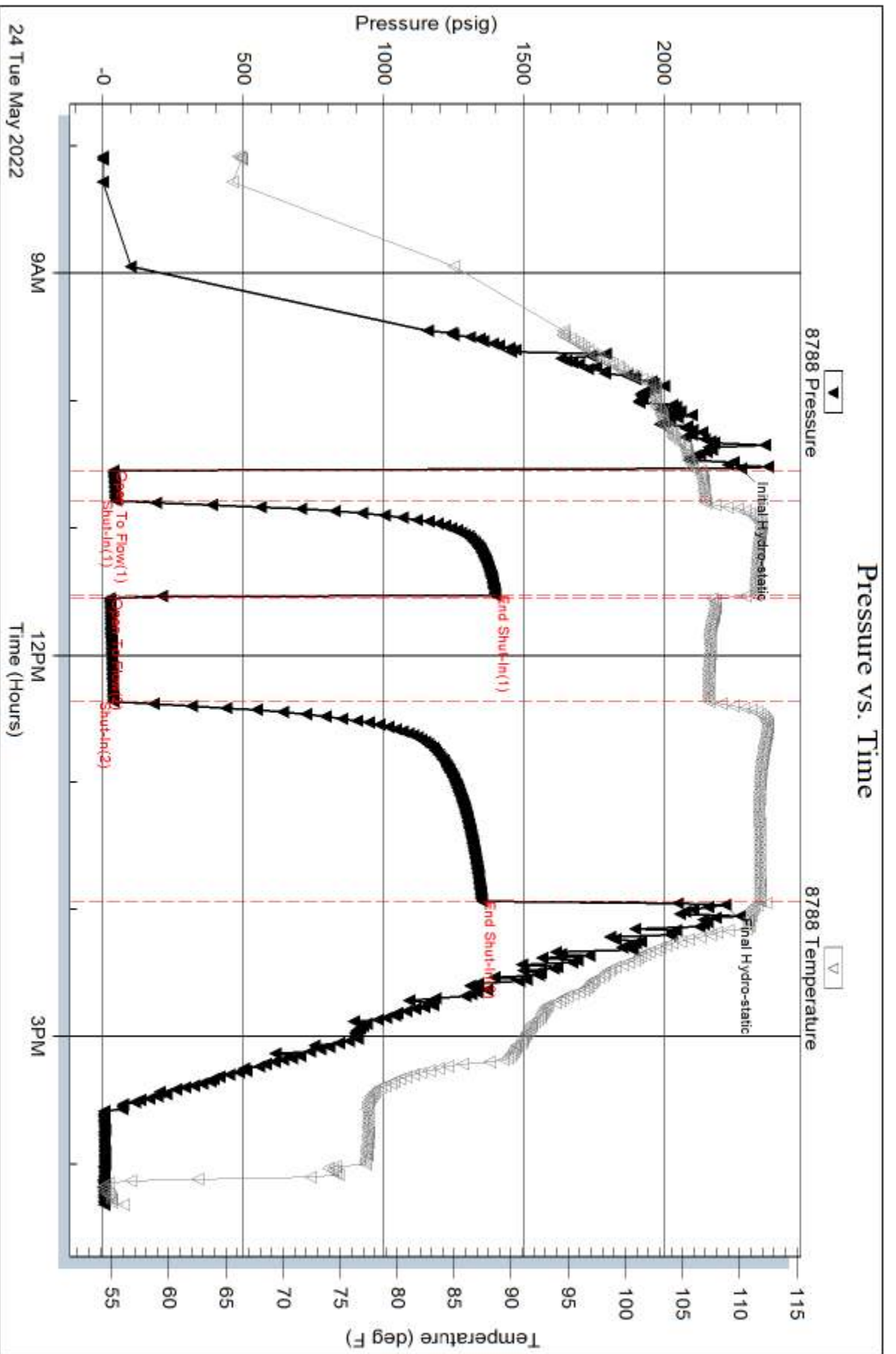
9-28s-20w Kiowa Co Ks
HBT 2-9
Job Ticket: 68882 **DST#: 1**
Test Start: 2022.05.24 @ 08:04:43

Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	13	0.13	9.52	8.95
2	20	0.13	11.15	9.56
2	30	0.13	13.18	10.32
2	40	0.13	14.48	10.81
2	45	0.13	15.17	11.07

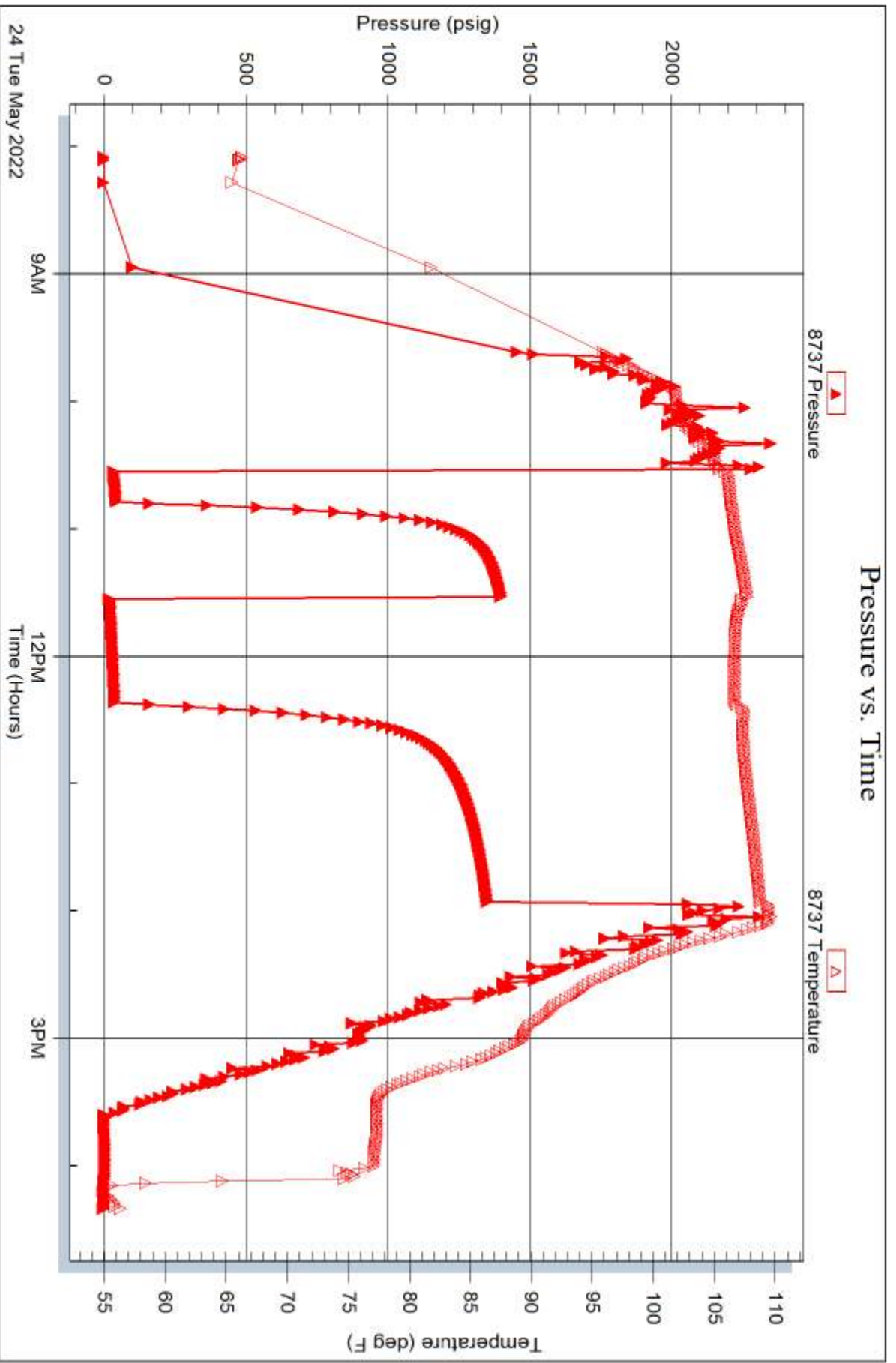


Serial #: 8737

Outside Herman L Loeb LLC

HBT 2-9

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 68882

Printed: 2022.05.24 @ 17:17:15



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Herman L Loeb LLC
 P.O. Box 838
 Lawrenceville, IL. 62439
 ATTN: Jon Christensen

9-28s-20w Kiowa Co Ks
HBT 2-9
 Job Ticket: 68883 **DST#: 2**
 Test Start: 2022.05.26 @ 08:24:42

GENERAL INFORMATION:

Formation: **Miss Spergen Dolomit**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:28:42
 Time Test Ended: 16:15:42
 Interval: **4898.00 ft (KB) To 4927.00 ft (KB) (TVD)**
 Total Depth: 4927.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Matt Smith
 Unit No: 68
 Reference Elevations: 2322.00 ft (KB)
 2309.00 ft (CF)
 KB to GR/CF: 13.00 ft

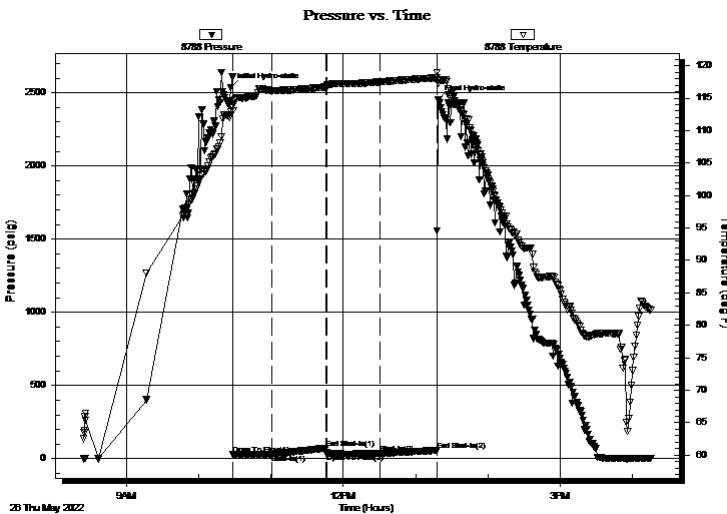
Serial #: 8788

Inside

Press@RunDepth: 36.94 psig @ 4899.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2022.05.26 End Date: 2022.05.26 Last Calib.: 2022.05.26
 Start Time: 08:24:47 End Time: 16:15:41 Time On Btm: 2022.05.26 @ 10:26:57
 Time Off Btm: 2022.05.26 @ 13:18:57

TEST COMMENT: IF: Weak Blow . Built to .62". Decreased to 1/4". (30)
 IS: No Blow . (45)
 FF: Weak Blow . Surface to .30". (30)
 FS: No Blow . (60)

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2534.07	112.95	Initial Hydro-static
2	27.66	113.08	Open To Flow (1)
34	30.74	116.12	Shut-In(1)
79	72.86	116.71	End Shut-In(1)
80	35.80	116.96	Open To Flow (2)
124	36.94	117.50	Shut-In(2)
171	58.90	118.11	End Shut-In(2)
172	2455.11	117.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	GOCM 1%g 6%o 93%m	0.11
0.00	45' GIP 100%g	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Herman L Loeb LLC
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 ATTN: Jon Christensen

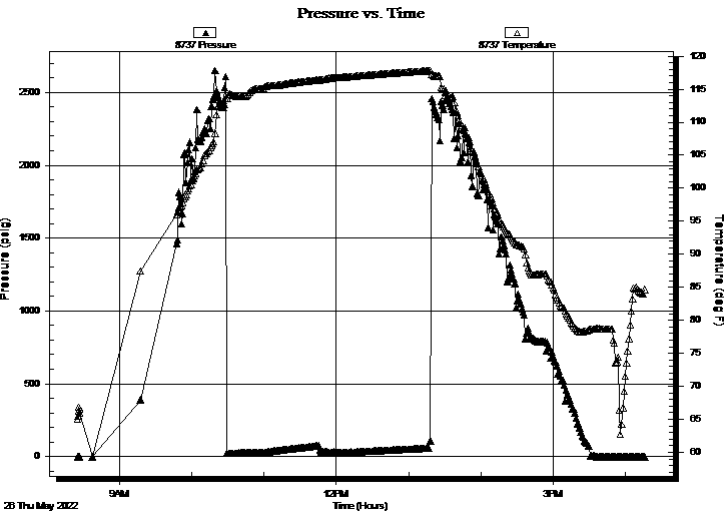
9-28s-20w Kiowa Co Ks
HBT 2-9
 Job Ticket: 68883 **DST#: 2**
 Test Start: 2022.05.26 @ 08:24:42

GENERAL INFORMATION:

Formation: **Miss Spergen Dolomit**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:28:42
 Time Test Ended: 16:15:42
Interval: 4898.00 ft (KB) To 4927.00 ft (KB) (TVD)
 Total Depth: 4927.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Matt Smith
 Unit No: 68
 Reference Elevations: 2322.00 ft (KB)
 2309.00 ft (CF)
 KB to GR/CF: 13.00 ft

Serial #: 8737 **Outside**
 Press@RunDepth: psig @ 4899.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2022.05.26 End Date: 2022.05.26 Last Calib.: 2022.05.26
 Start Time: 08:25:01 End Time: 16:16:10 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak Blow . Built to .62". Decreased to 1/4". (30)
 IS: No Blow . (45)
 FF: Weak Blow . Surface to .30". (30)
 FS: No Blow . (60)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
15.00	GOCM 1%g 6%o 93%m	0.11
0.00	45' GIP 100%g	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Herman L Loeb LLC
P.O. Box 838
Lawrenceville, IL. 62439
ATTN: Jon Christensen

9-28s-20w Kiowa Co Ks
HBT 2-9
Job Ticket: 68883 **DST#: 2**
Test Start: 2022.05.26 @ 08:24:42

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	4300 ppm
Viscosity: 66.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4400.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

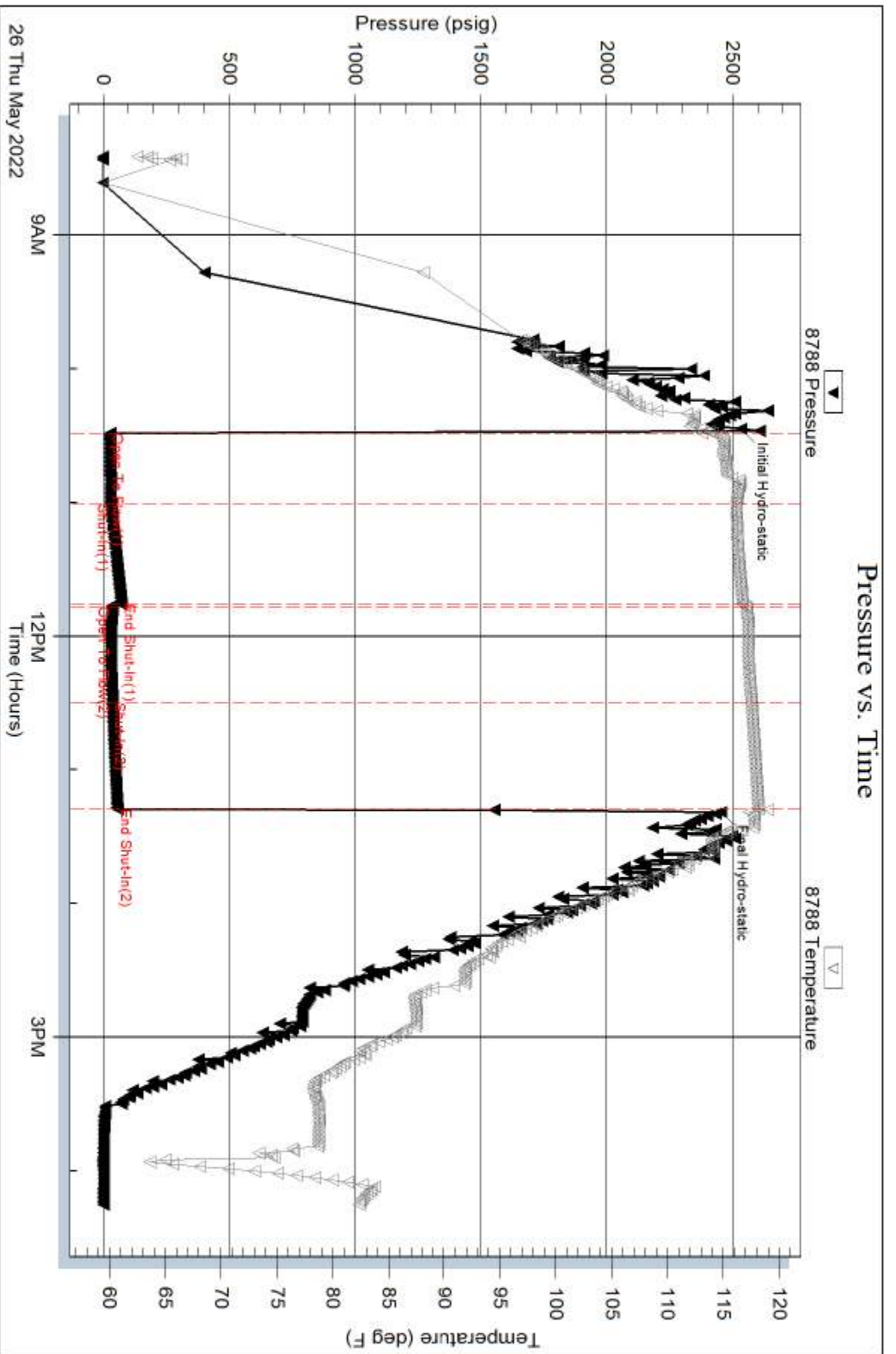
Length ft	Description	Volume bbl
15.00	GOCM 1%g 6%o 93%m	0.114
0.00	45' GIP 100%g	0.000

Total Length: 15.00 ft Total Volume: 0.114 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: None

Laboratory Name: Laboratory Location:

Recovery Comments: 45 Feet of Gas in Pipe.

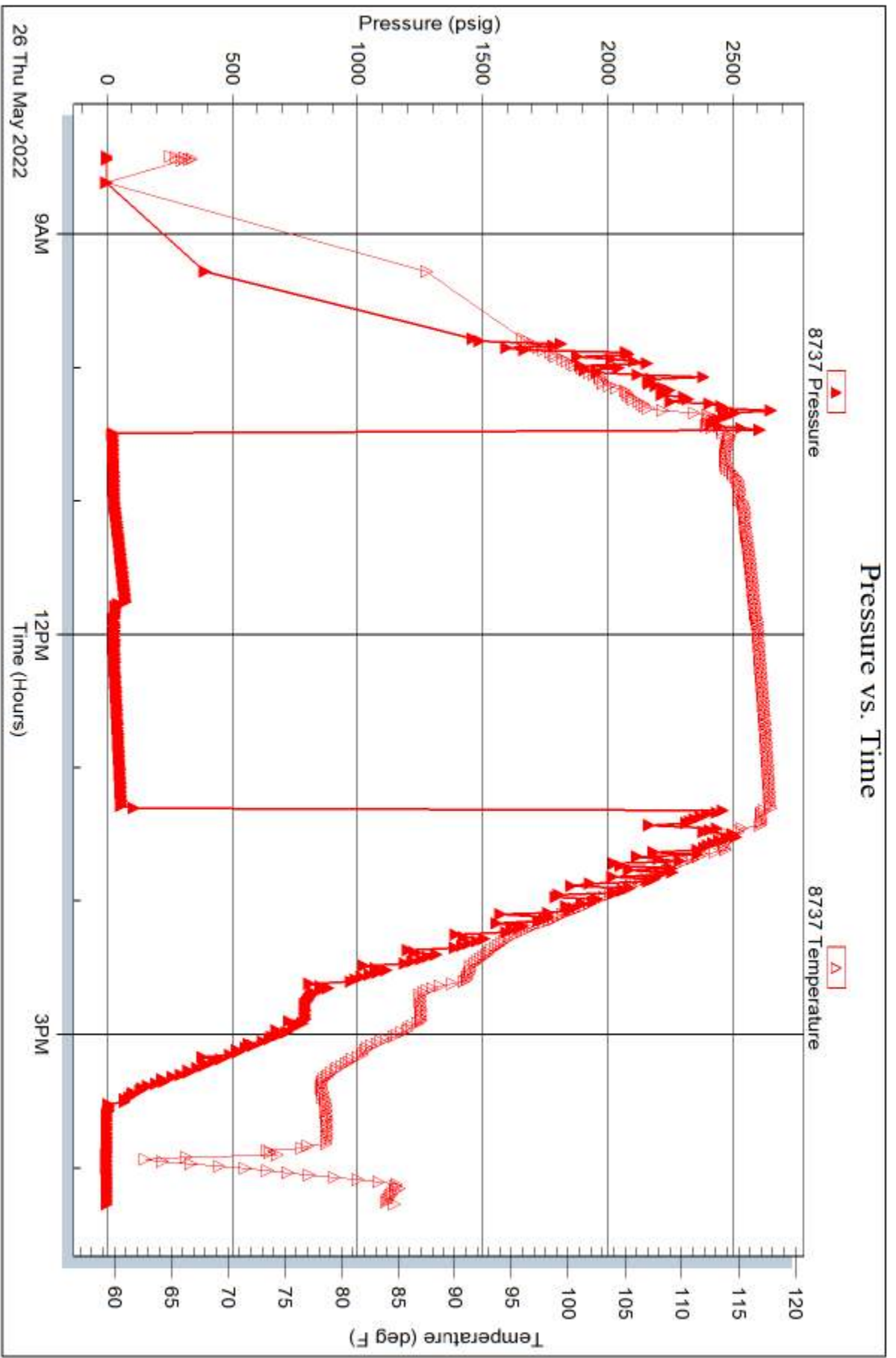


Serial #: 8737

Outside Herman L Loeb LLC

HB7 2-9

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 68883

Printed: 2022.05.26 @ 16:42:54



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Herman L Loeb LLC
 P.O. Box 838
 Lawrenceville, IL. 62439
 ATTN: Jon Christensen

9-28s-20w Kiowa Co Ks
HBT 2-9
 Job Ticket: 68884 **DST#: 3**
 Test Start: 2022.05.27 @ 01:04:30

GENERAL INFORMATION:

Formation: **Miss Dolomite**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:43:15
 Time Test Ended: 09:32:00
 Interval: **4898.00 ft (KB) To 4940.00 ft (KB) (TVD)**
 Total Depth: 4940.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Matt Smith
 Unit No: 68
 Reference Elevations: 2322.00 ft (KB)
 2309.00 ft (CF)
 KB to GR/CF: 13.00 ft

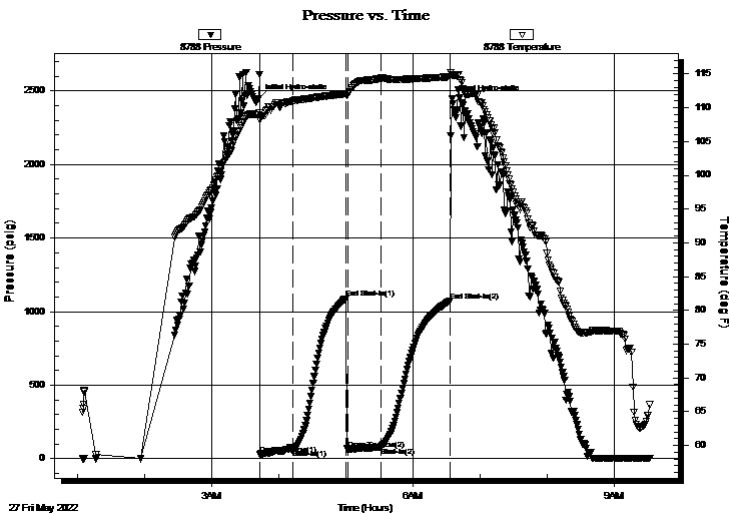
Serial #: 8788

Inside

Press@RunDepth: 77.85 psig @ 4899.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2022.05.27 End Date: 2022.05.27 Last Calib.: 2022.05.27
 Start Time: 01:04:35 End Time: 09:31:59 Time On Btm: 2022.05.27 @ 03:41:45
 Time Off Btm: 2022.05.27 @ 06:34:45

TEST COMMENT: IF: Weak Blow . Built to 2.71". (30)
 IS: No blow . (45)
 FF: Weak Blow . Built to 4.18". (30)
 FS: No Blow . (60)

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2448.29	108.99	Initial Hydro-static
2	31.48	108.19	Open To Flow (1)
31	63.70	111.01	Shut-In(1)
79	1089.19	112.06	End Shut-In(1)
80	61.27	112.03	Open To Flow (2)
110	77.85	114.35	Shut-In(2)
172	1072.10	114.58	End Shut-In(2)
173	2443.66	114.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 15%g 10%o 75%m	0.46
30.00	GOCM 10%g 6%o 84%m	0.23
0.00	378' GIP 100%g	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Herman L Loeb LLC
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ATTN: Jon Christensen

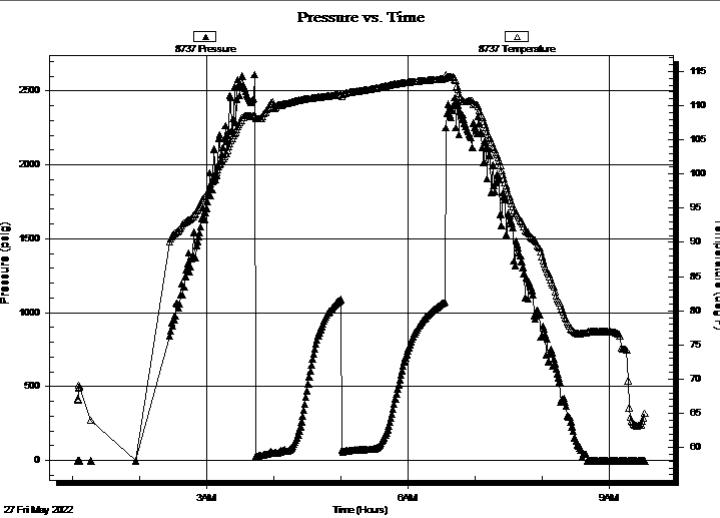
9-28s-20w Kiowa Co Ks
HBT 2-9
Job Ticket: 68884 **DST#: 3**
Test Start: 2022.05.27 @ 01:04:30

GENERAL INFORMATION:

Formation: **Miss Dolomite**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 03:43:15 Tester: Matt Smith
Time Test Ended: 09:32:00 Unit No: 68
Interval: 4898.00 ft (KB) To 4940.00 ft (KB) (TVD) Reference Elevations: 2322.00 ft (KB)
Total Depth: 4940.00 ft (KB) (TVD) 2309.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 13.00 ft

Serial #: 8737 Outside
Press@RunDepth: psig @ 4899.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2022.05.27 End Date: 2022.05.27 Last Calib.: 2022.05.27
Start Time: 01:04:14 End Time: 09:31:38 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak Blow . Built to 2.71". (30)
IS: No blow . (45)
FF: Weak Blow . Built to 4.18". (30)
FS: No Blow . (60)



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	GOCM 15%g 10%o 75%m	0.46
30.00	GOCM 10%g 6%o 84%m	0.23
0.00	378' GIP 100%g	0.00

* Recovery from multiple tests

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Herman L Loeb LLC
P.O. Box 838
Lawranceville, IL. 62439
ATTN: Jon Christensen

9-28s-20w Kiowa Co Ks
HBT 2-9
Job Ticket: 68884 **DST#: 3**
Test Start: 2022.05.27 @ 01:04:30

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	4400 ppm
Viscosity: 65.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4400.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 15%g 10%o 75%m	0.457
30.00	GOCM 10%g 6%o 84%m	0.228
0.00	378' GIP 100%g	0.000

Total Length: 90.00 ft Total Volume: 0.685 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: None

Laboratory Name: Laboratory Location:

Recovery Comments: 378 Feet of Gas in Pipe.

Pressure vs. Time

