



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1261349  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- 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 ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

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
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1261349

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  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				

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

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	HERMAN L. LOEB, LLC
Well Name	PETRA 1-8
Doc ID	1261349

#### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
3	11 ft interval	SHOT; 33	4992 - 5003
3	4 ft interval	SHOT; 12	5010 - 5014
		ACID; 1500g 15% MCA/Fe	4992 - 5014
		FRAC; N2 Foam, 333BBL 37k#sand	4992 - 5014
	Bridge Plug	CIBP	5030
4	4 ft interval	SHOT; 16	5038 - 5042
		ACID; 1500g 15% MCA/Fe	5038 - 5042

# LITHOLOGY STRIP LOG

## WellSight Systems

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

Well Name: Petra #1-8  
Location: 1497' FSL & 802' FWL, Sec. 8-T30S-R18W, Kiowa Co., KS.  
Licence Number: 15-097-21820-00-00 Region: Alford  
Spud Date: 4/2/2015 Drilling Completed: 4/12/15  
Surface Coordinates: 1497' FSL & 802' FWL, Sec. 8-T30S-R18W

Bottom Hole Same as Above  
Coordinates:  
Ground Elevation (ft): 2230' K.B. Elevation (ft): 2243'  
Logged Interval (ft): 4000' To: 5375' Total Depth (ft): 5375'  
Formation: Viola at Total Depth  
Type of Drilling Fluid: Freshwater/Gel to 3635'; Chemical Gel 3635' to 5375'

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://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: 9002 W. Silver Hollow St.  
Wichita, KS. 67205-8856

### Cores

None Taken

### DSTs

**DST #1(Lansing 'A' Zone) 4389' - 4405' Test Times 15"-45"- 45"-90" IFP Strong Blow BOB/7 Min., FFP Fair to Strong Blow BOB/33 Min, no Gas to Surface, no Blowback on SI's; REC: 830' Gas in Pipe, 55' OCM(5%O, 95%M), 123' SOCMW(1%O, 89%W, 10%M) CI 55,000, Mud 8000; IFP 55-71#, ISIP 1408#, FFP 73-105#, FSIP 1376#, IHP 2239#, FHP 2104#, BHT 111 Deg. F.**

**DST #2(Kansas City Hertha) 4750' - 4776' Test Times 15"-45"-30"-60" IFP Weak Blow built to 7.5", FFP Weak Blow built to 5.5", No Blowback on SI's; REC: 82' Gas in Pipe, 40' OCMW(4%O, 66%W, 30%M), 122' SW, CI 59,000, Mud 11,000; IFP 30-55#, ISIP 1666#, FFP 61-99#, FSIP 1659#, IHP 2485#, FHP 2376#, BHT 116 Deg. F.**

**DST #3(Miss. Warsaw Dolomite) 4992' - 5007' Test Times 15"-45"-60"-120" IFP Strong Blow BOB/9 Min., FFP Strong Blow BOB/30 Sec., Gas to Surface in 26 Min. Gauged 45.1 MCFG/60" of FFP(14# on a 0.25" Choke - Gas Burns OK), no Blowback on SIs; REC: 20' GCM(5%G, 95%M), no oil or water; IFP 16-22#, ISIP 787#, FFP 12-30#, FSIP 783#, IHP 2711#, FHP 2603#, BHT 115 Deg. F.**

**DST #4(Miss. Dolomite/Chert) 5010' - 5062' Test Times 15"-45"-45"-90" IFP Strong Blow BOB/9 Min., FFP Strong Blow BOB/10 Sec., Gas to Surface in 36 Min. Gauged 6.9 MCFG/45 Min. of FFP(4# on a 0.125" Choke - Gas burns OK), no Blowback on SI's; REC: 65' GCM(5%G, 95%M), no oil or water; IFP 38-46#, ISIP 1034#, FFP 39-52#, FSIP 1026#, IHP 2686#, FHP 2625#, BHT 115 Deg. F.**

### Comments

4/2/15 MIRU Sterling Drilling Co. Rig #5, Spud at 7:15 PM.; 4/3/15 TD. 639' - Wiper Trip; 4/4/15 TD. 639' - Rig Repairs; 4/5/15 Drilling at 1600'; 4/6/15 Drilling at 3600'; 4/7/15 TD. 4405' - DST #1; 4/8/15 Drilling at 4720'; 4/9/15 Drilling at 4865'; 4/10/15 TD. 5007' - TOH with DST #3; 4/11/15 Drilling at 5123'; 4/12/15 RTD. 5375' at 12:50 AM., LTD. 5375' - Logging well(Halliburton) - set new 5 1/2" Production Casing.

Set new 8 5/8"(24#) Surface Casing at 634' KB. with 400 sacks cement(Basic Energy Services). Cement did Circulate. PD. at 10:45 AM. on 4/3/15.

Set new 5 1/2"(15.5#) Production Casing at 5163' with 200 sacks of "Loeb Blend" cement(Basic Energy Services). PD. at 11:00 PM. on 4/12/15.

Surveys: 0.50 Deg. at 639'(Surface Casing); 1.0 Deg. at 4405'(DST #1); 0.75 Deg. at 4776'(DST #2); 0.50 Deg. at 5007'(DST #3); 1.0 Deg. at 5375' RTD.


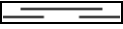

Pipe Strap at 4405'(DST #1): Strap 1.01' Long to the Board, no correction made to the Board.

After review of the Halliburton Logs, DST data and Sample shows, the operator elected to set new 5 1/2" Production Casing for completion in the Mississippi Dolomite zones.

LOG TOPS: Chase 2554(-311), Stotler Lmst. 3516(-1273), Heebner Shale 4186(-1943), Toronto 4203(-1960), Brown Lmst. 4365(-2122), Lansing 'A' 4383(-2140), Lansing/KC 'H' 4556(-2313), Stark Shale 4700(-2457), Base Kansas City 4798(-2555), Marmaton 4844(-2601), Cherokee Shale 4926(-2683), Miss. Dolomite 4985(-2742), Kinderhook Shale 5286(-3043), Viola 5305(-3062).

NOTE: This log was on depth with the Halliburton openhole Logs, no shifting was necessary.

### 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
  - Breclfrag
  - 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

- Siltstrg
- Ssstrg

- TEXTURE**
- Boundst
  - Chalky
  - Cryxln
  - Earthy
  - Finexln
  - Grainst
  - Lithogr
  - Microxln
  - Mudst
  - Packst
  - Wackest

### OTHER SYMBOLS

- POROSITY**
- Earthy
  - Fenest
  - Fracture
  - Inter
  - Moldic
  - Organic
  - Pinpoint

- Vuggy
- SORTING**
- Well
  - Moderate
  - Poor

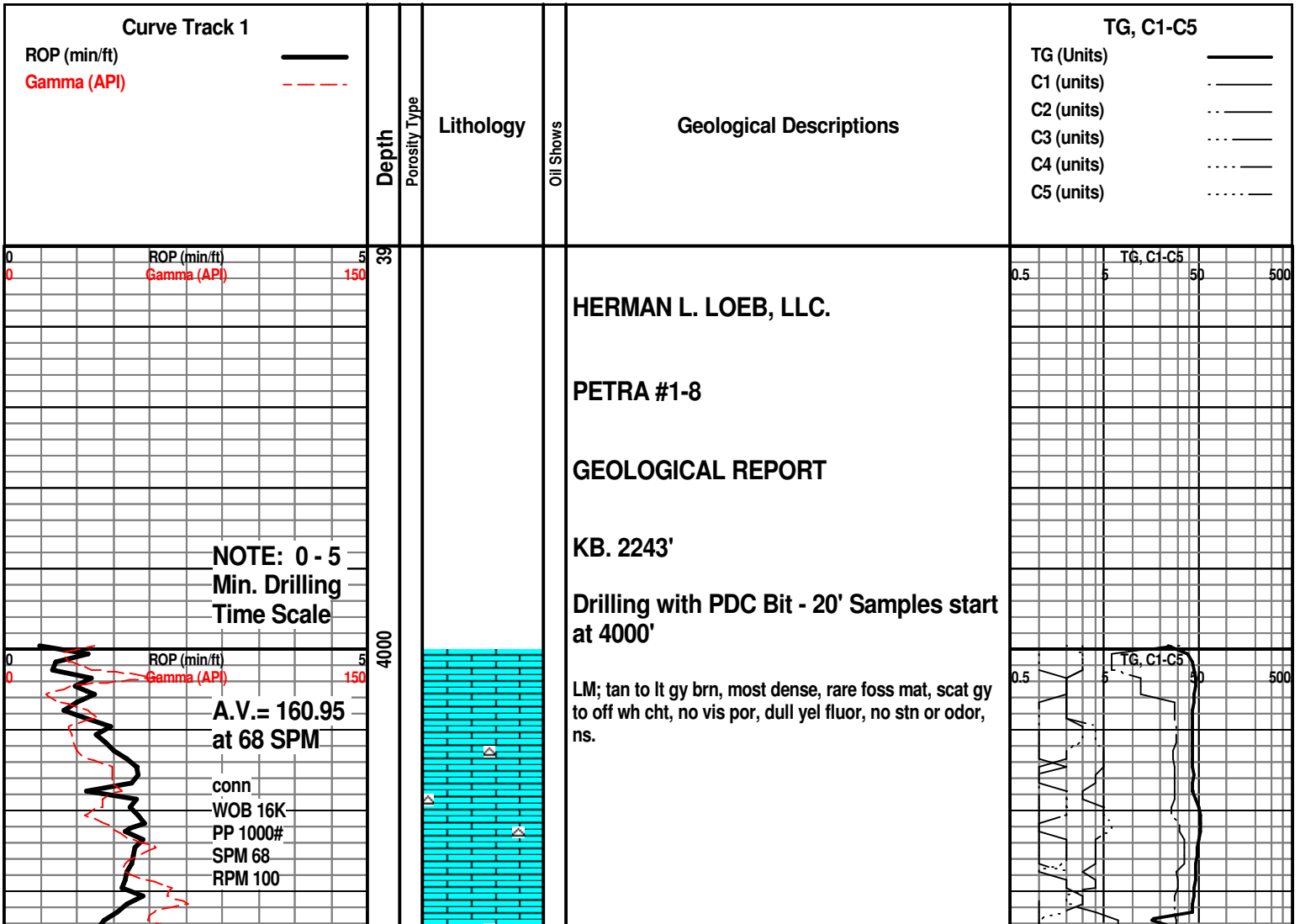
- ROUNDING**
- Rounded
  - Subrnd
  - Subang
  - Angular

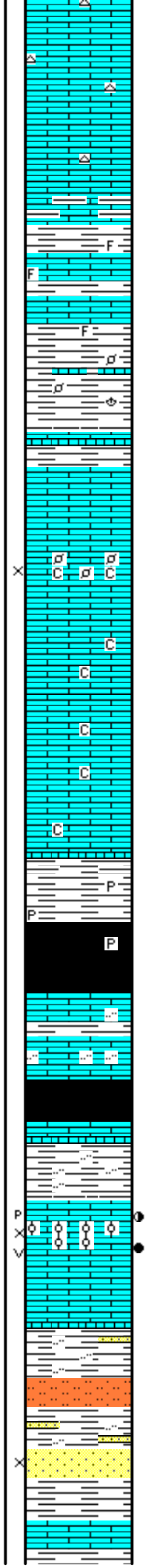
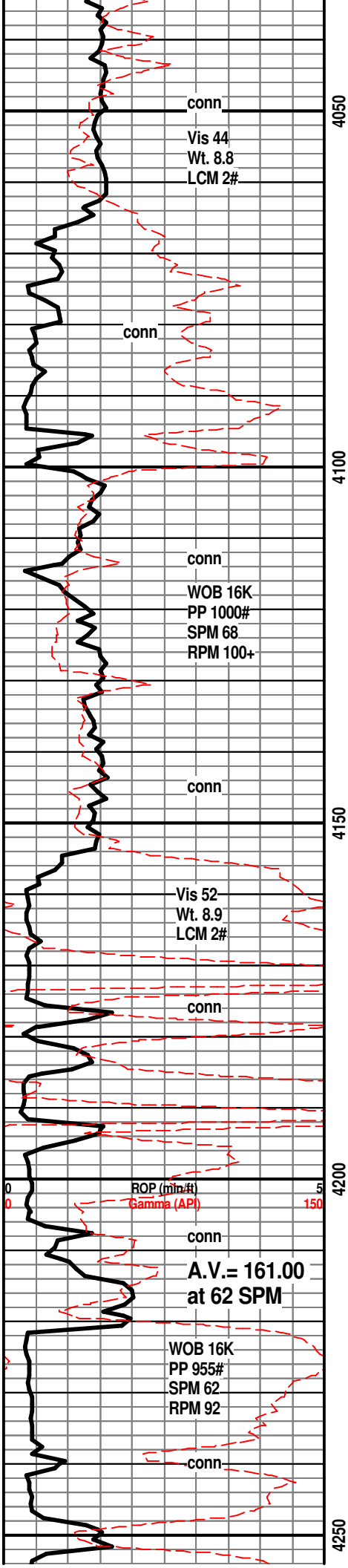
- Spotted
- Ques
- Dead

- EVENT**
- Rft
  - Sidewall

- INTERVAL**
- Core
  - Dst

- OIL SHOW**
- Even





LM; tan to lt brn, fxl n to micritic, blocky, scat gy cht, no vis por, scat dull yel fluor, ns.

SH; med gy, gy brn, lmy w/interbdd lmy sh, foss ip

SH; med to dk gy, foss ip, platy, rarely interbdd lmst strngs.

LM; med to dk brn, dense, micritic

LM; off wh, tan, foss ip - scat pelletal lmst, chalky mtx, fair interpart por, no stn or odor, ns.

LM; tan to cream, off wh, foss ip, scat chalky mtx, lt yel min fluor, no vis por, ns.

SH; med to dk gy, platy, occ pyr

SH; blk, carb ip, trc gas

LM; med gy brn, gritty - silty text ip, some cse xln, no vis por, tite

**HEEBNER SHALE 4186(-1943)**

SH; blk, carb ip, platy, faint gas odor

SH; grn, gy grn, silty ip.

**TORONTO 4203(-1960)**

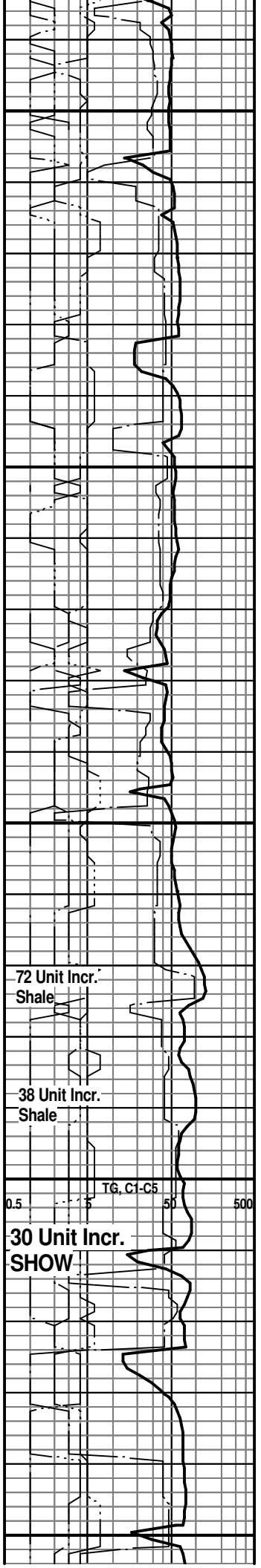
LM; off wh, wh, foss - finely oolitic, fair p-p and w/occ lrg vug por, much rextalized, lt brn oil stn, SSFO, most w/brite yel fluor, fair odor, spotted/occ even stn, gas bubbles, gd cut

**DOUGLAS SHALE 4221(-1978)**

SH; lt gy, platy, interbdd lt gy sltst and vf gr qz ss, platy

SS; lt gy, vf to f gr, clusters, mica ip, poor intergran por, no fluor, ns.

LM; med brn, cse xln ip, dense, blocky, no vis por, ns.



Vis 51  
Wt. 9.0  
LCM 2#  
conn

conn  
WOB 16K  
PP 1000#  
SPM 62  
RPM 90+

Vis 50  
Wt. 9.1  
LCM 2#  
conn

DST #1  
Lansing 'A'  
4389' - 4405'

CFS. at 4405'  
Scale Chan  
ROP (min/ft) 10  
Gamma (API) 150

MudCo. Mud  
Check at 4405'  
Vis 52 Wt. 9.4  
WL 10.0 PH 10.0  
CI 11,000 LCM 2#  
conn

A.V.= 150.50  
at 55 SPM

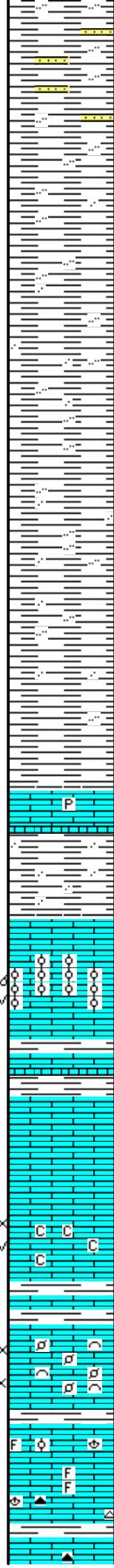
conn  
WOB 40-41K  
PP 925#  
SPM 60  
RPM 68

4300

4350

4400

4450



SH; lt gy, silty to sandy, some interbdd vf to f gr qtz

SH; lt to med gy, platy, silty to occ sandy

SH; lt to med gy, silty to sandy, platy

**BROWN LMST. 4365(-2122)**

LM; med brn, blocky, hd, rare pyr

SH; lt gy, silty ip, fiss, soft

**LANSING 'A' 4383(-2140)**

LM; tan to lt brn, oolitic, most med size molds, v. gd oomoldic w/some vug por, much even lt brn oil stn, SSFO, gd odor, most w/uniform brite yel fluor, sev. gas bubbles

**DST #1: Lansing 'A' 4389' - 4405'**

**LANSING 'B' 4408(-2165)**

LM; tan to lt gy, most dense, blocky, no vis por, no fluor, ns

LM; lt gy, off wh, buff, fxl n w/poor vis interxln w/fair disconnected vug por, occ chalky mtx, occ spar calc xtals, med yel min fluor, no stn or odor, ns.

LM; tan to lt brn, foss w/small pellets, hash, fair interpart por, soft ip, v. dull yel min fluor, no stn or odor, ns.

LM; tan to lt brn, foss ip, scat cse spar calc xtals w/lt min fluor, poor to no vis interpart por, no stn or odor, interbdd gy to dk brn cht, ns.

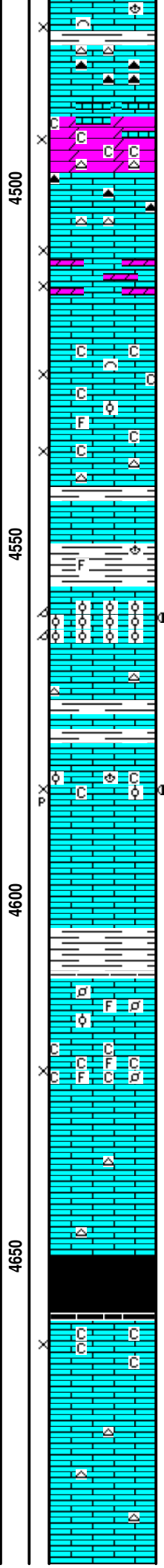
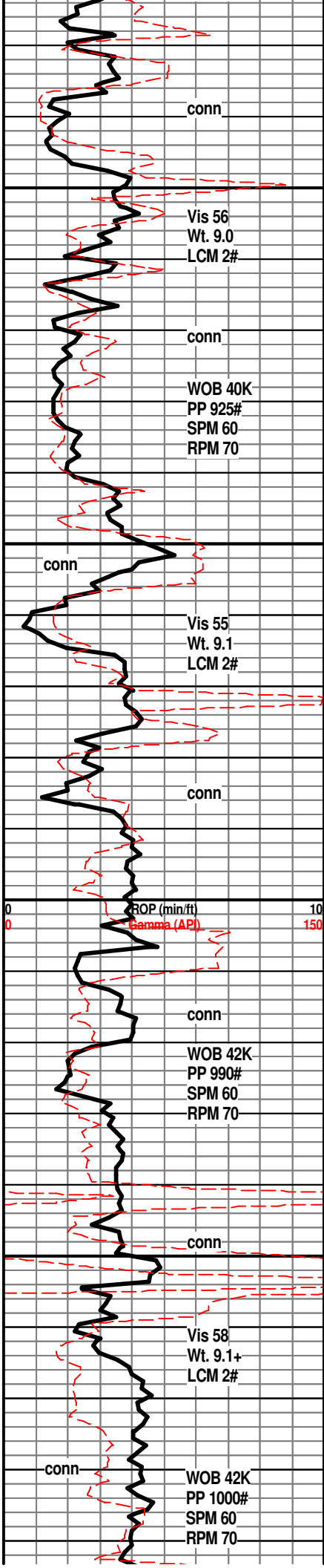
LM; lt to med brn, fxl n, scat foss mat, poor to fair

225 Unit Incr.  
SHOW

0.5 1G, C1-C5 50 500

11 Unit Incr.





interpart/ interxln por, interbdd dk gy/brn cht, dull yel min fluor, no stn, ns.

DOL; tan, buff, sucrosic, fair interxln por, some lmy w/interbdd chalky soft lmst, dull yel min fluor, no stn or odor, bcm very cherty, ns.

LM; tan to buff, lt brn, fxln w/some dolomitic lmst interbdd, fair interxln por, scat foss mat, no fluor, no stn or odor, ns.

LM; off wh, buff, fxln w/scat foss mat, most w/chalky mtx, fairly soft, poor to fair interpart/interxln por, no fluor, no stn, ns.

SH; med gy, gy grn, foss ip.

**LANSING/K.C. 'H' 4556(-2313)**

LM; lt brn, oolitic, most w/med size molds, gd oomoldic por, no vis vug por, sev. pcs w/spotted med brn oil stn, some barren por, med yel fluor, fair odor, fair cut

LM; tan to buff, lt brn, foss - partly oolitic, poor interpart w/scat p-p por, minor chalky mtx, rare med yel fluor, trc med brn v. spotted stn, v. faint odor

LM; lt brn, hd, micritic, most blocky, tite

**KANSAS CITY 'I' 4611(-2368)**

LM; off wh, wh, buff, fxln w/occ foss mat, much soft chalky mtx, fair interpart por, no fluor, no stn or odor, ns.

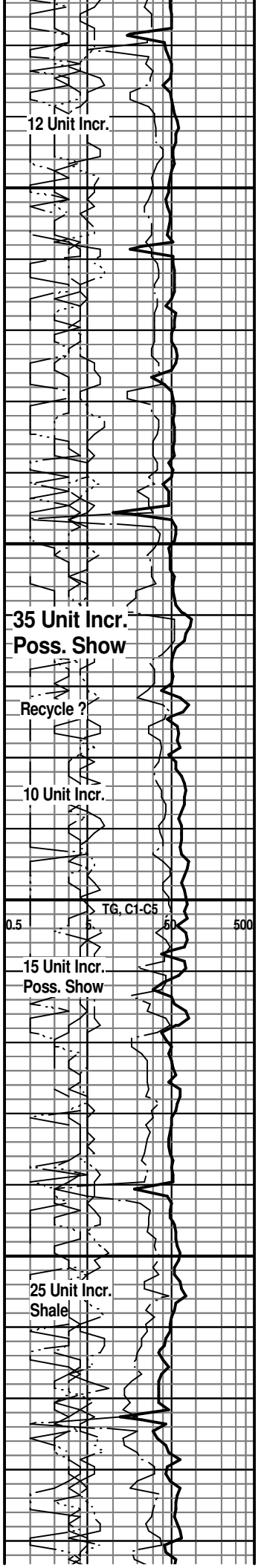
LM; off wh, tan, buff, most dense, rare off wh/tan cht, tite

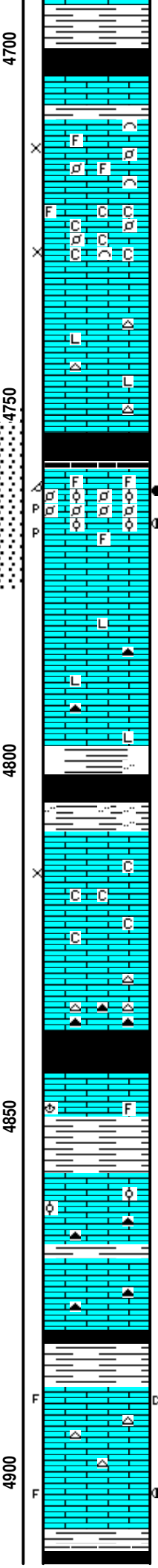
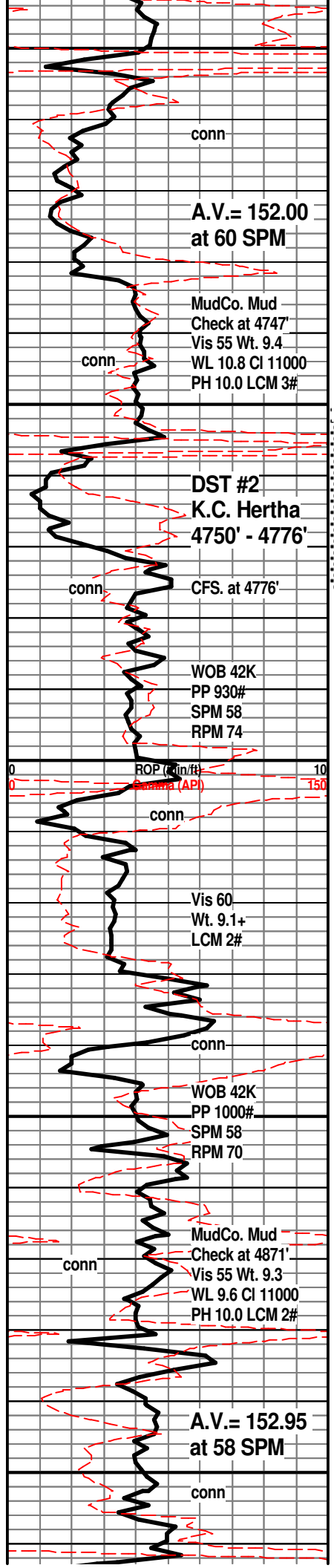
SH; dk gy - blk, platy, carb ip.

**KANSAS CITY 'J' 4659(-2416)**

LM; off wh, wh, fxln, soft, fair interxln por, chalky ip, soft, no fluor, no stn or odor, barren, ns.

LM; tan to lt brn, hd, blocky, most micritic, scat lt brn cht, tite





SH; med to dk gy, platy  
**STARK SHALE 4700(-2457)**  
SH; blk, carb, trc gas, platy

**SWOPE 4708(-2465)**  
LM; lt to med brn, cse xln w/scat pellets and foss mat, loosely cem - fair interpart/interxln por, no fluor, no stn or odor, barren, ns.

LM; off wh, wh, buff, med to cse xln, scat foss mat, very chalky mtx, fair interxln/interpart por, dull yel fluor, no stn or odor, ns.

LM; med brn, gy brn, hd, some litho, scat gy cht, tite

SH; blk, carb, trc gas  
**HERTHA 4757(-2514)**  
LM; tan to lt brn, foss - finely pelletal to oolitic, gd p-p and moldic por, med to occ brite yel fluor, gd to strong odor, SSFO, few gas bubbles, fair to gd cut, less show w/some barren porosity at bottom of zone

**DST #2: K.C. Hertha 4750' - 4776'**

LM; med to dk brn, hd, micritic to litho, rare dk gy to smoky cht, tite

**BASE KANSAS CITY 4798(-2555)**

SH; grn, some varic, rust red, gy, platy, silty ip.

**PLEASANTON 4810(-2567)**  
LM; off wh, wh, buff, fxln to micritic, poor to no vis interxln por, interbdd soft chalk and chalky lmst, lt yel min fluor, no stn or odor, ns.

LM; off wh, tan, med brn, fxln to dense, blocky, scat gy to smoky cht, no vis por, no fluor, ns.

SH; dk gy - blk, platy, soft  
**MARMATON 4844(-2601)**  
LM; lt brn, tan, rare foss mat, dense, no vis por, no fluor, ns.

SH; med gy, firm, platy  
**ALTAMONT LMST. 4858(-2615)**  
LM; tan to lt brn, foss ip, trc well cem ooids, most dense, no vis por, no fluor, scat brn foss cht, ns.

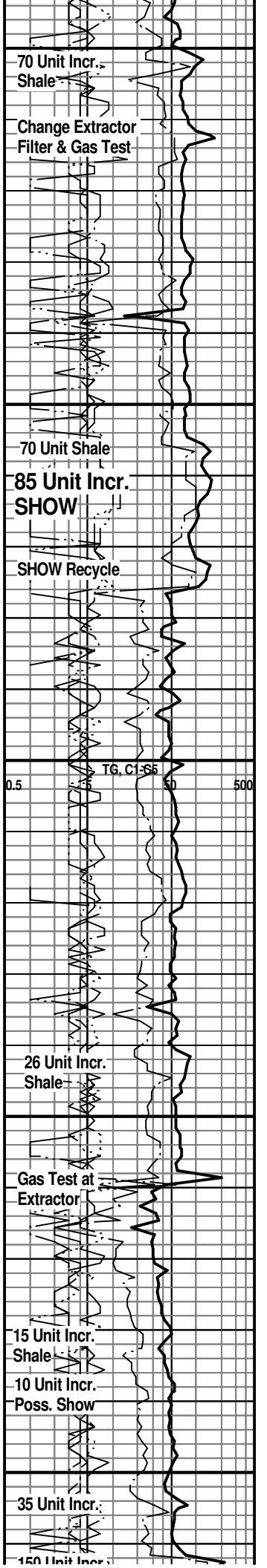
LM; lt to med brn, foss ip, well cem, blocky, no vis por, occ brn cht, no fluor, no stn, ns.

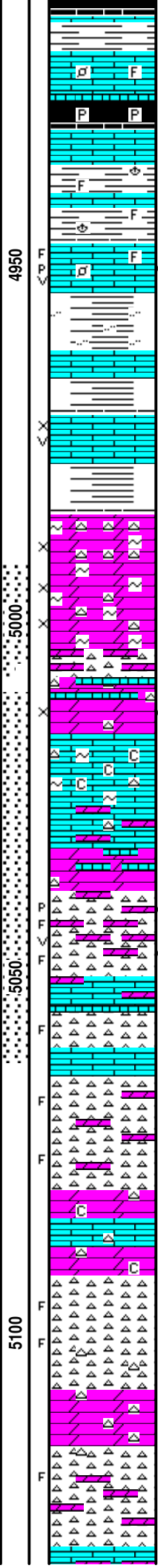
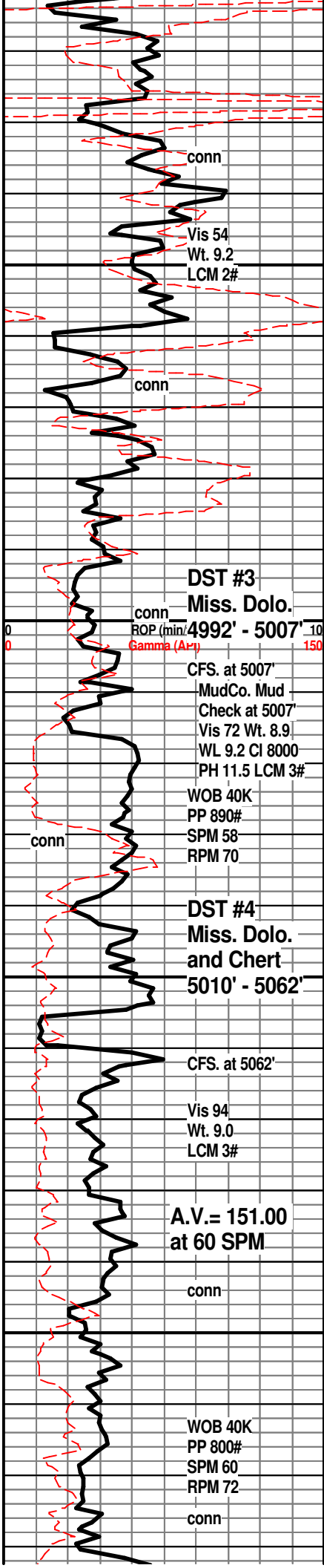
SH; blk, platy, carb ip.

**PAWNEE 4888(-2645)**  
LM; lt brn, rare med brn, fxln to micritic, scat gy to tan cht, few pcs w/blk tar/gils, no live shows, scat lt yel fluor, occ spar calc xtals w/trc fracs, no odor, looks tite

LM; tan to lt brn, fracs w/spotted med brn oil stn, lt yel fluor, scat spar calc, no odor, fair cut, most looks tite

SH; blk carb, gas





SH; blk, carb, gassy

LM; med brn, foss ip, well cem, blocky, no vis por, rare dull yel fluor, ns.

**CHEROKEE SHALE 4926(-2683)**

SH; blk, carb ip, pyr

LM; tan to buff, lt brn, fxl n w/scat calc xtals, med yel min fluor, no vis por, no odor, looks tite

SH; grn gy grn, foss ip, interbdd tite lmst.

LM; lt brn, foss ip, sev. fracs w/live edge stn, scat p-p and vug por, mostly spotted stn, SSFO, faint odor, med to occ brite yel fluor, fair/gd cut

SH; med gy, grn, some varic, silty, soft

LM; med brn, lt gy grn ip, dense

SH; varic, platy

LM; tan to lt brn, foss, scat fair interpart and occ vug por, dull yel fluor, poss. gas bubbles, lt yel fluor, no vis stn, no odor

**MISS. DOLOMITE 4985(-2742)**

DOL; lt gy, tan, sucrosic, some glau, fair to gd interxln por, sev. gas bubbles, med yel fluor, cherty dolo interbdd, faint gas odor, gas show

DOL; tan/lt brn, sucrosic, glau, gd por, med yel fluor, grading into cherty dolomite/dolo. chert, gas bubbles, no vis oil stn, faint gas odor

**DST #3: Miss. Dolomite 4992' - 5007'**

DOL; tan, sucrosic, fair interxln por, gas bubbles, spotted lt brn oil stn, SSFO., uniform med yel fluor, occ cse dolo rhombs, fair odor

LM; off wh, cse xln, chalky ip, scat grn clay(glau) incl, rare gy foss cht, no vis por, no fluor, ns.

LM; wh, off wh, cse xln, glau ip, tite, interbdd off wh/tan cherty tite dolomite, lt yel min fluor, no vis stn, no vis por

CHT; wh, off wh, dolomitic, spotty lt brn oil stn, faint to fair odor, poor to fair p-p and vug por, med to brite yel fluor, sev. fracs in fresh cht w/SFO and gas bubbles

LM; off wh, tan, med xln, partly dolomitic, tite

CHT; blue/gy, wh, fresh, fracs in some, lt yel fluor, no vis oil stn, poss gas bubbles

**DST #4: Miss. Dolo./Chert 5010' - 5062'**

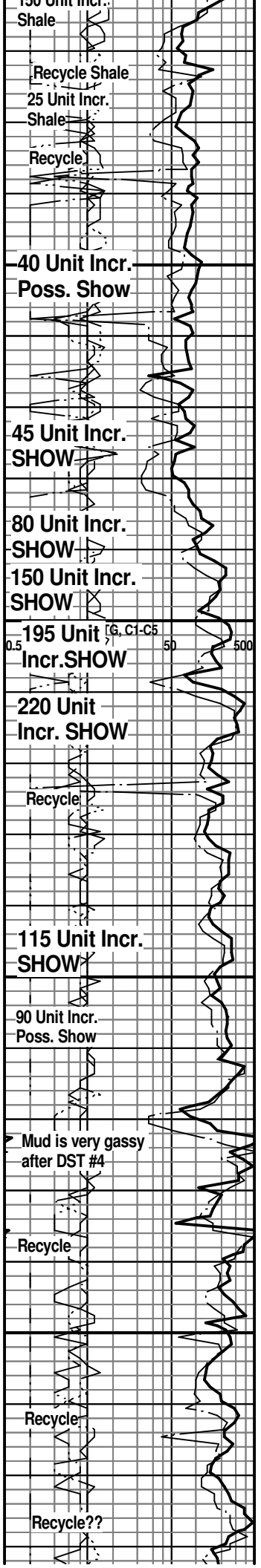
CHT; wh, off wh, trip and fresh, partly dolomitic - gritty text, scat fracs in fresh cht, spotty lt yel fluor, no vis oil stn, no odor, ns.

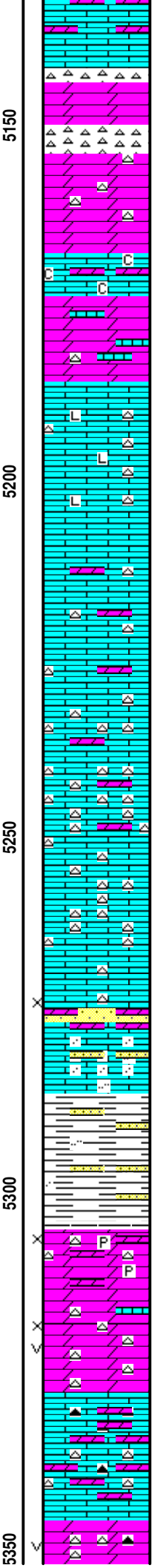
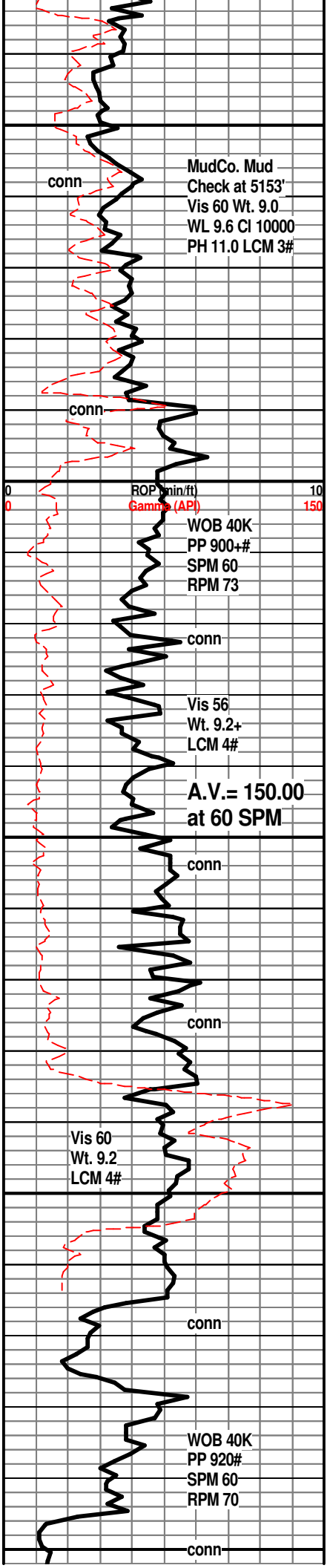
DOL; lt gy, off wh, sucrosic, hd, cherty ip, minor chalky mtz, hd, no vis por, dull yel min fluor, interbdd gy cse xln lmst, ns.

CHT; lt to med gy, occ blue gy, fresh, sharp, occ fracs, no stn or odor, ns

DOL; lt gy, off wh, buff, cherty, most tite, ns.

CHT; lt blue gy, gy, fresh, dolomitic w/interbdd cherty dolo, poss fracs, poor interxln por, rare lt yel fluor, no stn or odor, no sample shows





LM; tan, buff, cse xln, dolomitic ip, tite

**LARGE INFLUX OF UPHOLE SLOUGHING SHALES**

DOL; tan to off wh, sucrosic, cherty w/bands of wh to lt gy cht and dolomitic cht, poor to fair interxln por, no fluor, ns.

LM; off wh, med xln, chalky - soft mtx, no vis por, no fluor, interbdd dolomitic lmst, ns.

LM; lt to med gy, hd, gritty text, interbdd med gy cht, dense, litho ip.

LM; lt gy, gy brn, lt brn, gritty ip, partly dolomitic, scat gy to wh foss cht, no vis por, no fluor, ns.

LM; tan to off wh, dolomitic ip w/interbdd gy to gy grn sucrosic dolo, incr. in med gy cht, no vis por, no fluor, ns.

LM; tan to lt brn, hd, very cherty w/gy, dk gy to transl cht, no fluor, no stn or odor, ns.

SS; lt gy, f to med gr qtz, dolomitic, loosely cem w/poor intergran por, no vis stn, no fluor, ns.

**KINDERHOOK SHALE 5286(-3043)**

SH; med gy grn, silty to sandy, interbdd thin ss strngs.

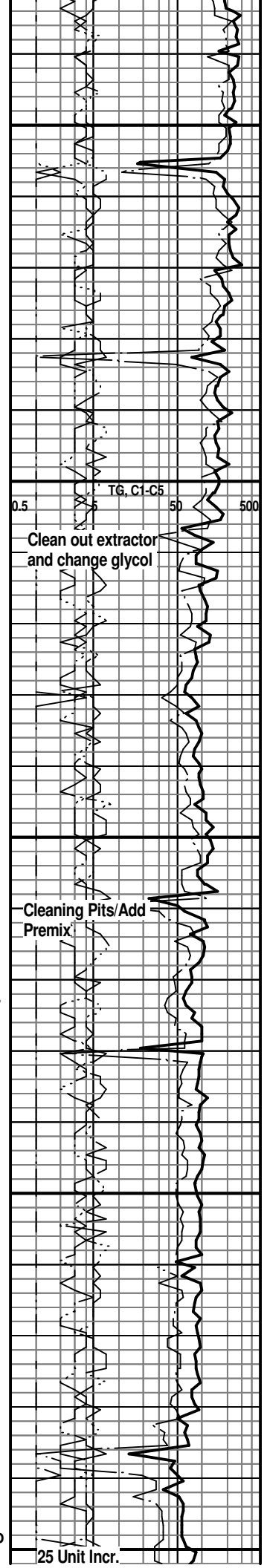
**VIOLA 5305(-3062)**

DOL; med gy, lmy, most dense, some sucrosic w/poor interxln por, pyr ip, v. dull yel to no fluor, occ dove gy cht, no stn or odor, ns.

DOL; tan to lt gy, sucrosic, scat vug por w/fair interxln por, lt yel min fluor no stn or odor, ns., no gas kick, cherty ip.

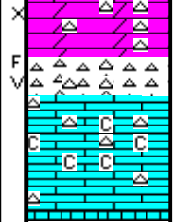
LM; med brn, hd brn fresh cht, interbdd dolomitic cherty lmst, lt yel min fluor, ns.

DOL; tan to cream, buff, very cherty w/much fresh wh to off wh cht, dull vel fluor, no stn or odor, no sample



Vis 61  
Wt. 9.3  
LCM 3#

CFS. at RTD.



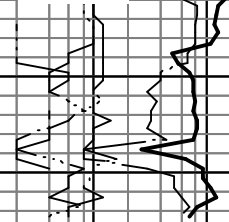
shows, cht has some vug por and fracs

LM; off wh, chalky ip, scat wh cht, tite

RTD. 5375' at 12:50 AM. on 4/12/15

LTD. 5375'

Halliburton ACRT, NEU/DEN, Microlog,  
Sonic



ROP (min/ft) 10  
Gamma (API) 150

5400

50

TG, C1-C5

0.5

5

50

500



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Herman L Loeb LLC  
 PO Box 838  
 Lawrenceville, IL 62439  
 ATTN: Jon Christensen

**8-30sS-18w Kiowa,KS**

**Petra #1-8**

Job Ticket: 59762

**DST#: 1**

Test Start: 2015.04.07 @ 03:05:51

## GENERAL INFORMATION:

Formation: **Lansing "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:54:51

Time Test Ended: 11:09:51

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

**Interval: 4389.00 ft (KB) To 4405.00 ft (KB) (TVD)**

Total Depth: 4405.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2243.00 ft (KB)

2230.00 ft (CF)

KB to GR/CF: 13.00 ft

**Serial #: 6798**

**Inside**

Press@RunDepth: 105.48 psig @ 4390.00 ft (KB)

Start Date: 2015.04.07

End Date:

2015.04.07

Start Time: 03:05:52

End Time:

11:09:51

Capacity: 8000.00 psig

Last Calib.: 2015.04.07

Time On Btm: 2015.04.07 @ 05:36:06

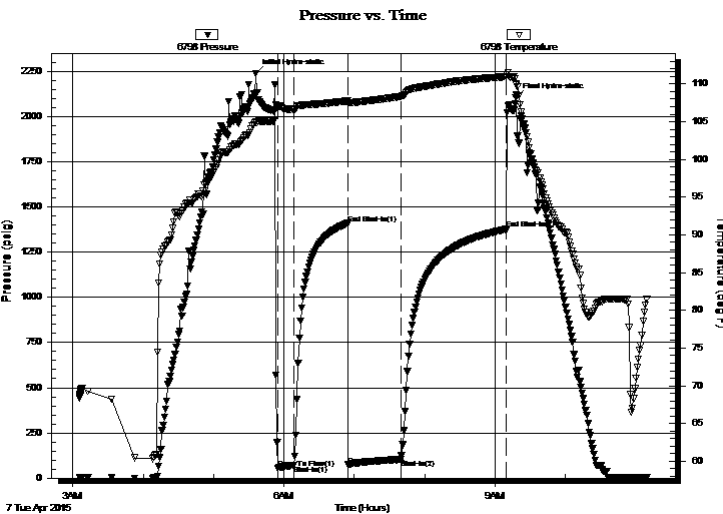
Time Off Btm: 2015.04.07 @ 09:17:36

TEST COMMENT: IF: Fair Blow , BOB in 7 minutes

IS: No Blow Back

FF: Weak Blow , BOB in 33 minutes

FS: No Blow Back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2238.74	104.95	Initial Hydro-static
19	55.49	106.88	Open To Flow (1)
33	71.36	106.61	Shut-In(1)
78	1408.49	107.75	End Shut-In(1)
79	73.31	107.49	Open To Flow (2)
124	105.48	108.34	Shut-In(2)
214	1376.22	110.98	End Shut-In(2)
222	2104.11	110.08	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	830 GIP	0.00
123.00	SOSMCW 1%O 10%M 89%W	1.18
55.00	SOCM 5%O 95%M	0.77

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Herman L Loeb LLC  
PO Box 838  
Lawrenceville, IL 62439  
ATTN: Jon Christensen

**8-30sS-18w Kiowa,KS**  
**Petra #1-8**  
Job Ticket: 59762      **DST#: 1**  
Test Start: 2015.04.07 @ 03:05:51

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	55000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: 0.02 inches			

### Recovery Information

Recovery Table

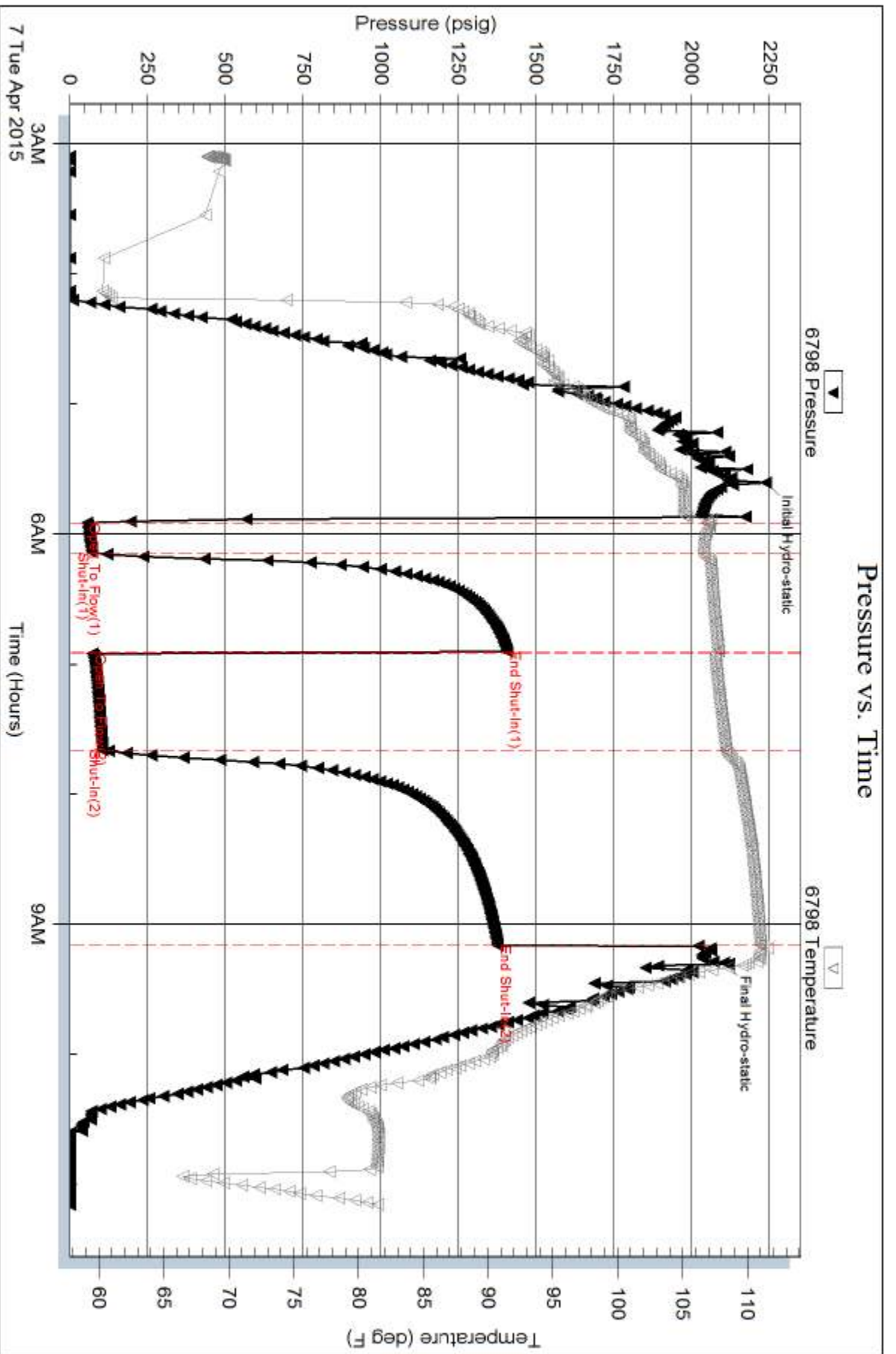
Length ft	Description	Volume bbl
0.00	830 GIP	0.000
123.00	SOSMCW 1%O 10%M 89%W	1.179
55.00	SOCM 5%O 95%M	0.772

Total Length: 178.00 ft      Total Volume: 1.951 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: RW was .15 @ 65 degrees







**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Herman L Loeb LLC  
 PO Box 838  
 Lawrenceville, IL 62439  
 ATTN: Jon Christensen

**8-30S-18W Kiowa**  
**Petra 1-8**  
 Job Ticket: 59763 **DST#: 2**  
 Test Start: 2015.04.08 @ 15:38:18

## GENERAL INFORMATION:

Formation: **KC Hertha**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 17:37:03  
 Tester: Leal Cason  
 Time Test Ended: 22:14:03  
 Unit No: 74  
**Interval: 4750.00 ft (KB) To 4776.00 ft (KB) (TVD)**  
 Reference Elevations: 2243.00 ft (KB)  
 Total Depth: 4776.00 ft (KB) (TVD)  
 2230.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Good  
 KB to GR/CF: 13.00 ft

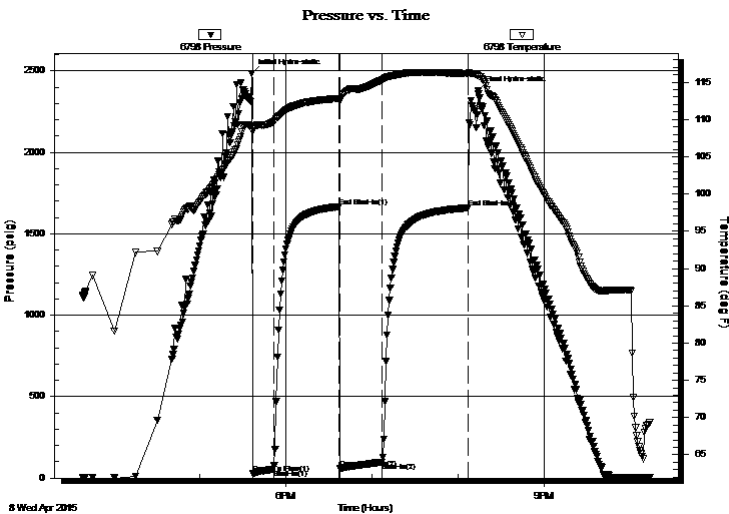
## Serial #: 6798

Inside

Press@RunDepth: 98.65 psig @ 4751.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.04.08 End Date: 2015.04.08 Last Calib.: 2015.04.08  
 Start Time: 15:38:19 End Time: 22:14:03 Time On Btm: 2015.04.08 @ 17:36:03  
 Time Off Btm: 2015.04.08 @ 20:14:03

TEST COMMENT: IF: Fair Blow , Built to 7 1/2 inches  
 IS: No Blow Back  
 FF: Weak Blow , Built to 5 1/2 inches  
 FS: No Blow Back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2484.78	109.10	Initial Hydro-static
1	29.77	108.75	Open To Flow (1)
16	55.24	109.67	Shut-In(1)
61	1665.91	112.82	End Shut-In(1)
62	60.87	112.47	Open To Flow (2)
91	98.65	115.30	Shut-In(2)
151	1659.11	116.18	End Shut-In(2)
158	2376.21	115.89	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	82 GIP	0.00
122.00	Water	1.16
40.00	SOMCW 4%O 30%M 66%W	0.56

\* 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  
 PO Box 838  
 Lawrenceville, IL 62439  
 ATTN: Jon Christensen

**8-30S-18W Kiowa**  
**Petra 1-8**  
 Job Ticket: 59763      **DST#: 2**  
 Test Start: 2015.04.08 @ 15:38:18

## Mud and Cushion Information

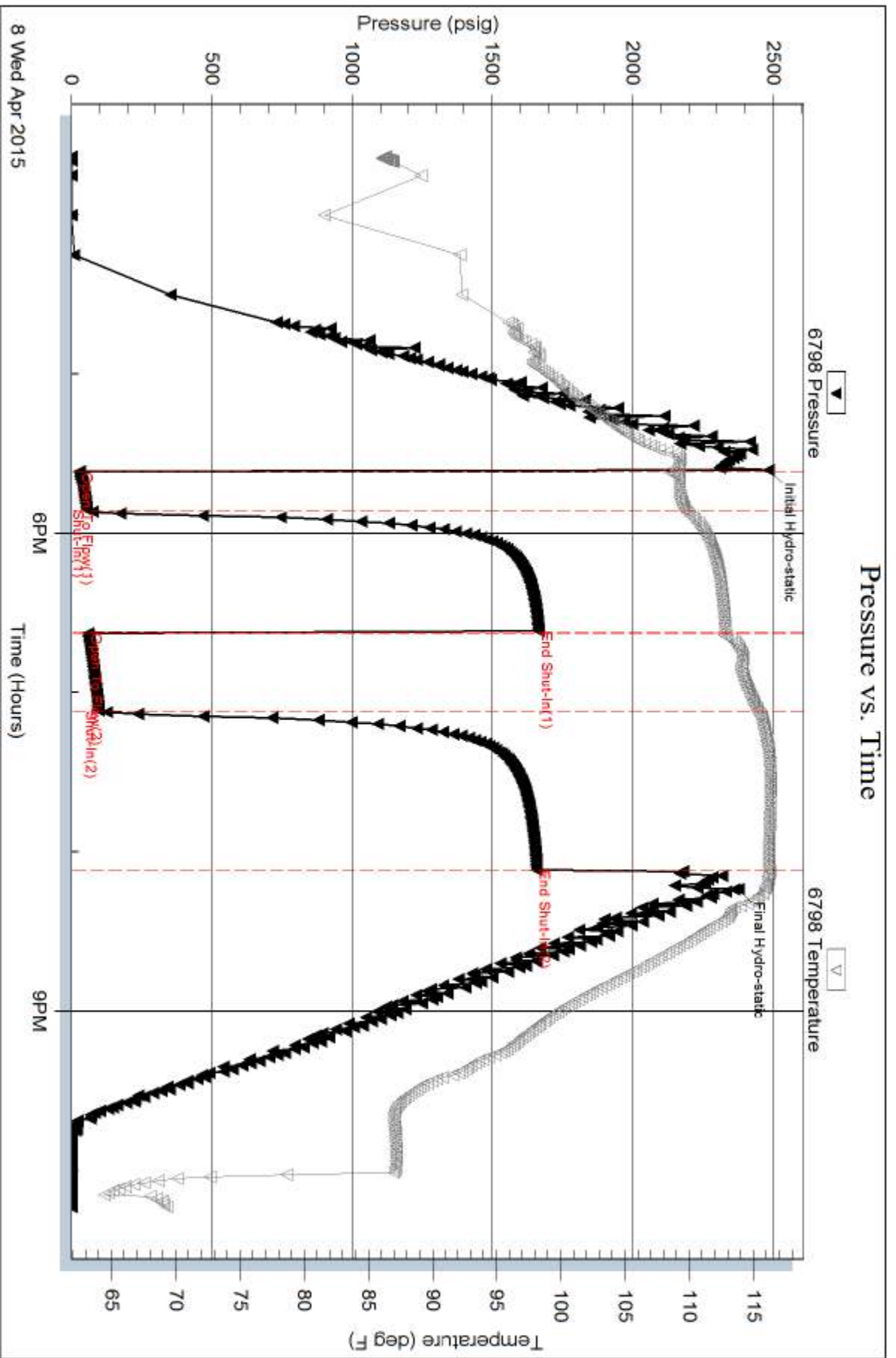
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 11000.00 ppm			
Filter Cake: 0.02 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	82 GIP	0.000
122.00	Water	1.165
40.00	SOMCW 4%O 30%M 66%W	0.561

Total Length: 162.00 ft      Total Volume: 1.726 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: RW was





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Herman L Loeb LLC  
 PO Box 838  
 Lawrenceville, IL 62439  
 ATTN: Jon Christensen

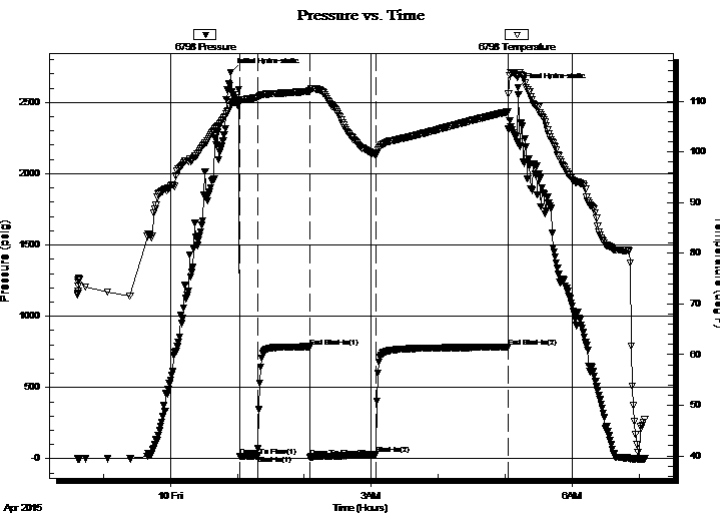
**8-30S-18W Kiowa**  
**Petra 1-8**  
 Job Ticket: 59764 **DST#: 3**  
 Test Start: 2015.04.09 @ 22:36:54

## GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 01:02:09  
 Time Test Ended: 07:05:09  
 Interval: **4992.00 ft (KB) To 5007.00 ft (KB) (TVD)**  
 Total Depth: 5007.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Leal Cason  
 Unit No: 74  
 Reference Elevations: 2243.00 ft (KB)  
 2230.00 ft (CF)  
 KB to GR/CF: 13.00 ft

**Serial #: 6798** **Inside**  
 Press@RunDepth: 30.00 psig @ 4993.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.04.09 End Date: 2015.04.10 Last Calib.: 2015.04.10  
 Start Time: 22:36:55 End Time: 07:05:09 Time On Btm: 2015.04.10 @ 00:54:09  
 Time Off Btm: 2015.04.10 @ 05:11:54

**TEST COMMENT:** IF: Fair Blow , BOB in 9 minutes  
 IS: No Blow Back  
 FF: Strong Blow , BOB in 30 seconds, GTS in 26 minutes, Gauged & Caught Sample  
 FS: No Blow Back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2710.75	109.64	Initial Hydro-static
8	15.77	109.98	Open To Flow (1)
24	21.89	110.76	Shut-In(1)
71	786.72	111.99	End Shut-In(1)
71	11.97	111.95	Open To Flow (2)
130	30.00	99.50	Shut-In(2)
249	782.94	107.95	End Shut-In(2)
258	2603.24	114.83	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	4977 GIP	0.00
20.00	GCM 5%G 95%M	0.10

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	8.00	35.54
Last Gas Rate	0.25	14.00	45.05
Max. Gas Rate	0.25	14.00	45.05



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Herman L Loeb LLC  
PO Box 838  
Lawrenceville, IL 62439  
ATTN: Jon Christensen

**8-30S-18W Kiowa**  
**Petra 1-8**  
Job Ticket: 59764      **DST#: 3**  
Test Start: 2015.04.09 @ 22:36:54

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 64.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 11000.00 ppm			
Filter Cake: 0.02 inches			

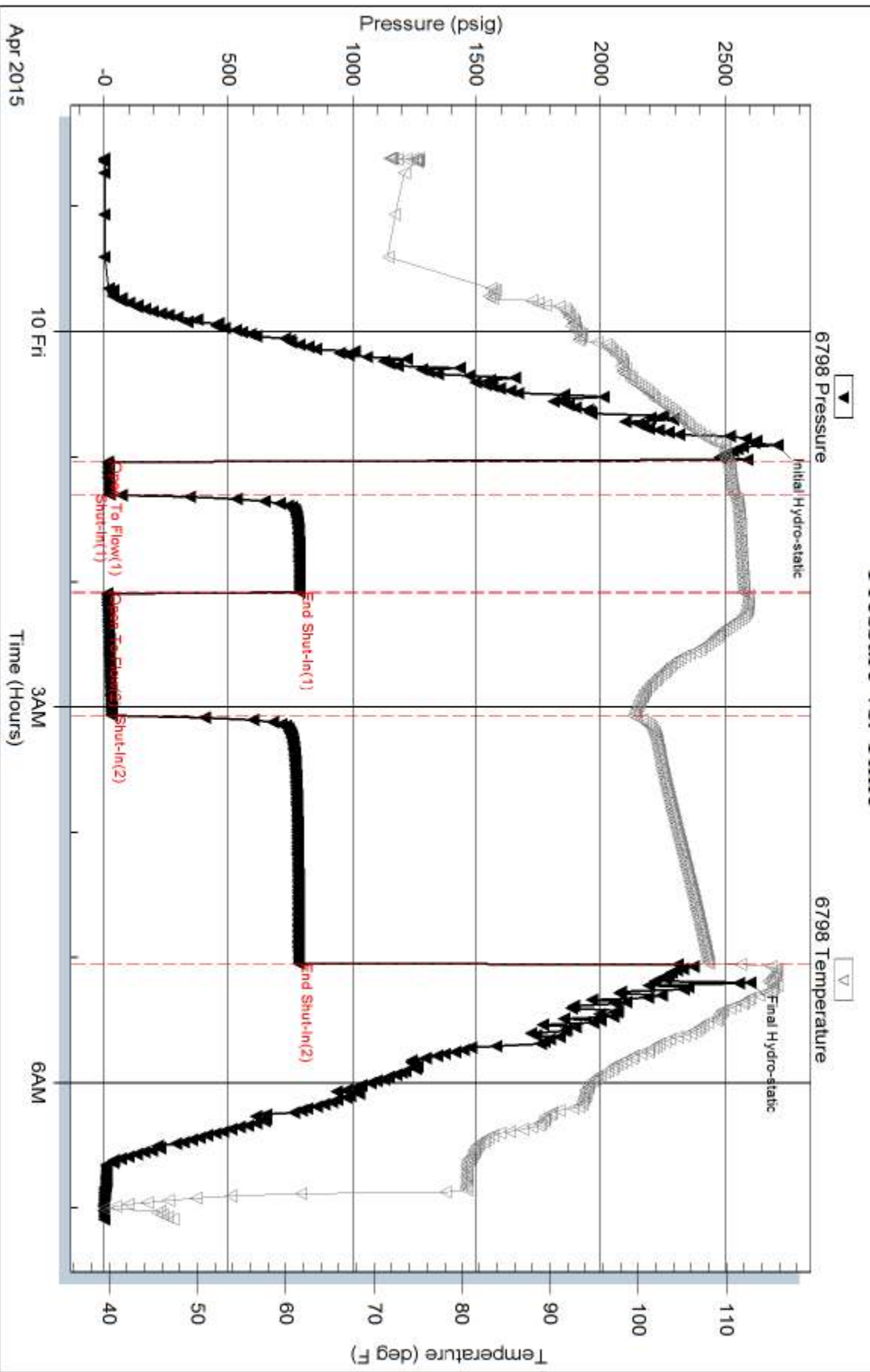
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4977 GIP	0.000
20.00	GCM 5%G 95%M	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

### Pressure vs. Time







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Herman L Loeb LLC  
PO Box 838  
Lawrenceville, IL 62439  
ATTN: Jon Christensen

**8-30S-18W Kiowa**  
**Petra 1-8**  
Job Ticket: 59765      **DST#: 4**  
Test Start: 2015.04.10 @ 16:52:46

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 72.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: 0.02 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4932 GIP	0.000
65.00	GCM 5%G 95%M	0.365

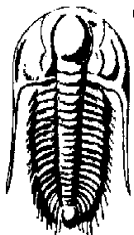
Total Length: 65.00 ft      Total Volume: 0.365 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Herman L Loeb LLC  
PO Box 838  
Lawrenceville, IL 62439  
ATTN: Jon Christensen

**8-30S-18W Kiowa**  
**Petra 1-8**  
Job Ticket: 59765      **DST#: 4**  
Test Start: 2015.04.10 @ 16:52:46

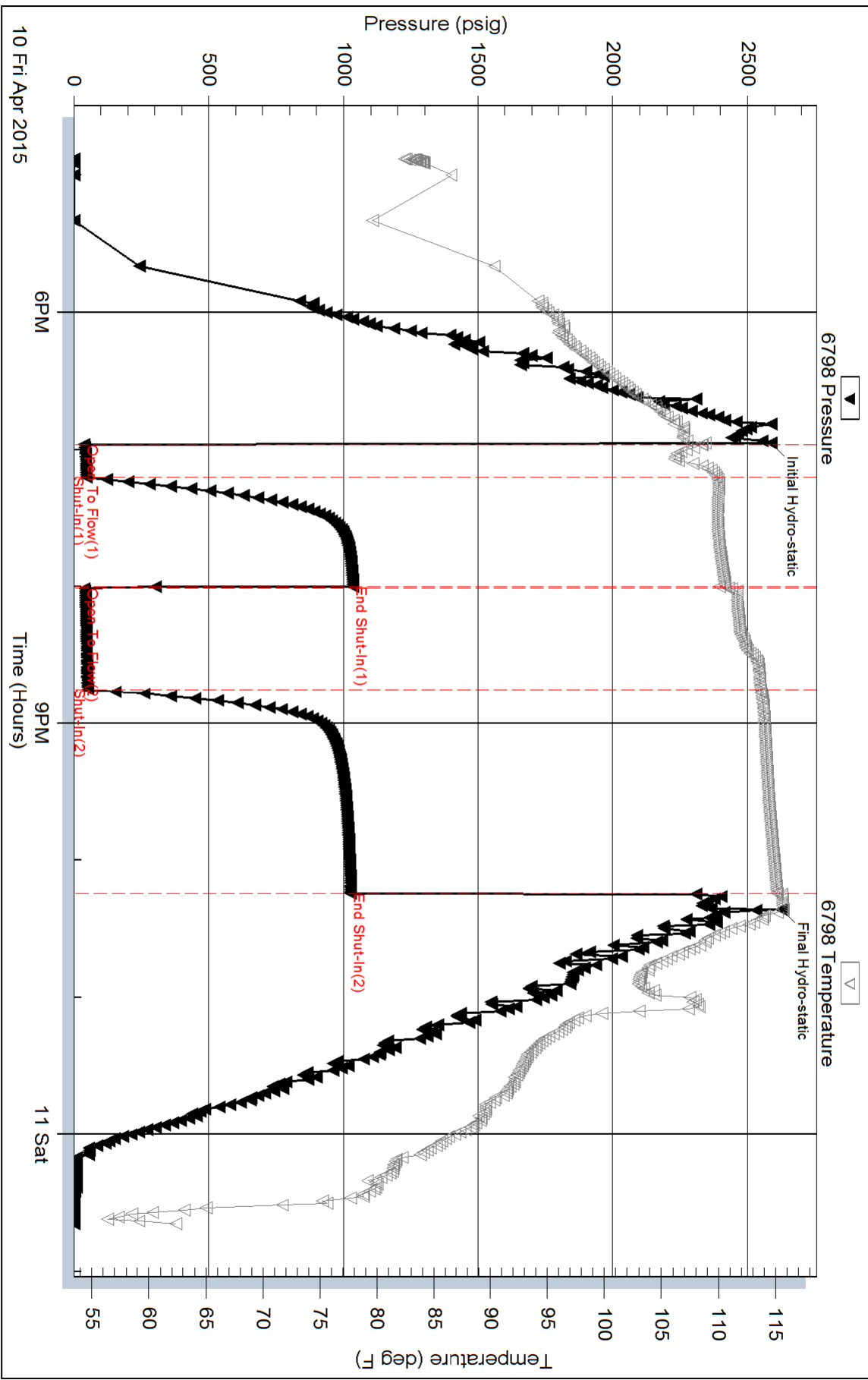
### Gas Rates Information

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	40	0.13	3.00	6.51
2	45	0.13	4.00	6.89

### Pressure vs. Time





PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1007589	1718	04/07/2015
<b>INVOICE NUMBER</b>			
<b>91775556</b>			

Pratt (620) 672-1201

B HERMAN L LOEB LLC  
 I PO Box: 838  
 L LAWRENCEVILLE  
 L IL US 62439  
 T  
 O ATTN: ACCOUNTS PAYABLE

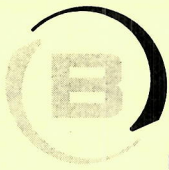
J LEASE NAME Petra 1-8  
 O LOCATION  
 B COUNTY Kiowa  
 S STATE KS  
 I JOB DESCRIPTION Cement-New Well Casing/Pi  
 T JOB CONTACT  
 E

*Petra*  
*6420*

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE	
40830370	27463		Net - 30 days	05/07/2015	
<b>For Service Dates: 04/03/2015 to 04/03/2015</b>					
0040830370					
171812171A Cement-New Well Casing/Pi 04/03/2015 Cement 8 5/8 Surface					
A-Con Blend Common		200.00	EA	10.80	2,160.00 T
Common Cement		200.00	EA	9.60	1,920.00 T
Celloflake		100.00	EA	2.22	222.00 T
Calcium Chloride		940.00	EA	0.63	592.20 T
"Top Rubber Cmt Plug, 8 5/8""		1.00	EA	135.00	135.00
"8 5/8"" Guide Shoe (Red)"		1.00	EA	330.00	330.00
"Baffle Plate Alum., 8 5/8"" (Blue)"		1.00	EA	102.00	102.00
"8 5/8"" Basket (Blue)"		1.00	EA	189.00	189.00
Sugar		50.00	EA	3.00	150.00 T
"Unit Mileage Chg (PU, cars one way)"		40.00	MI	2.70	108.00
Heavy Equipment Mileage		80.00	MI	4.50	360.00
"Proppant & Bulk Del. Chgs., per ton mil		752.00	EA	1.50	1,128.00
Depth Charge; 501'-1000'		1.00	EA	720.00	720.00
Blending & Mixing Service Charge		400.00	BAG	0.84	336.00
Plug Container Util. Chg.		1.00	EA	150.00	150.00
"Service Supervisor, first 8 hrs on loc.		1.00	EA	105.00	105.00

PAID  
 APR 15 2015  
 SCANNED  
 58121

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	8,707.20
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	360.66
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	9,067.86
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



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

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

**FIELD SERVICE TICKET**

1718 12171 A

8-30-18w

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

DATE OF JOB: 4-3-2015		DISTRICT: Pratt, KS		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:					
CUSTOMER: Hermen L. Loeb LLC		LEASE: Petrus		WELL NO. 18					
ADDRESS:		COUNTY: Kiowa		STATE: KS					
CITY:		STATE:		SERVICE CREW: Derry, Finney, Gibson					
AUTHORIZED BY:		JOB TYPE: CNW 8 3/8 surface							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM/PM	TIME
27463	1/4						4-3	AM	4:30
73768	1/2						4-3	AM	6:30
							4-3	AM	10:00
							4-3	AM	10:45
							4-3	AM	11:30
						MILES FROM STATION TO WELL	48		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: Alan Leth  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT	
CP101	A Con Blend Common	SK	200		3600 00	
CP100C	Common Cement	SK	200		3200 00	
CC102	Celloflocke	Lb	100		370 00	
CC109	Calcium Chloride	Lb	940		987 00	
CF105	Top Rubber Cement Plug, 8 3/8	Fg	1		225 00	
CF203	8 3/8 Guide Shoe (Rod)	Fg	1		550 00	
CF753	BSS Pie Piece Aluminum, 8 3/8 (Blue)	Fg	1		170 00	
CF1903	8 3/8 BSS Pie (Blue)	Fg	1		315 00	
CC131	Sugar	Lb	50		250 00	
E100	Unit Mileage Charge - Pickups, 5000, 4500 + CSIS	M	40		180 00	
E101	Heavy Equipment Mileage	M	80		600 00	
E113	Prep - 500 Bulk Delivery Charges, 2000 mile	1/2 hr	752		1880 00	
CF201	Depin Charge; Sol - 1,000	4hr	1		1,700 00	
CF240	Blending + Mixing Service Charge	SK	400		560 00	
CF504	Plug Container w/ 1.25 ton Charge	Job	1		250 00	
S003	Service Supervisor, First 8 hrs on loc	Fg	1		175 00	
					SUB TOTAL	14,512 00

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
Discount		TOTAL
		8,707 20
		16

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

FIELD SERVICE ORDER NO.

Customer Herman L. Loeb LLC	Lease No.	Date 4-3-2015
Lease Perry	Well # 1-8	
Field Order # 12171	Station Pratt, KS	Casing 8 5/8
		Depth 634
Type Job CNU/ 8 5/8 surface	Formation TD-639	County Kiowa
		State KS
		Legal Description 8-30-18w

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
8 5/8				Pre Pad	Max		5 Min.
Depth 634	Depth	From	To	Pad	Min		10 Min.
Volume 40	Volume	From	To	Frac	Avg		15 Min.
Max Press	Max Press	From	To		HHP Used		Annulus Pressure
Well Connection	Annulus Vol.	From	To	Flush Fresh Water	Gas Volume		Total Load
Plug Depth 970	Packer Depth	From	To				

Customer Representative Allen	Station Manager Kevin Coraley	Treater Darin Franklin
----------------------------------	----------------------------------	---------------------------

Service Units	92911	27463	19959	73768					
Driver Names	Darin	Ernest	Gibson	Gibson					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
6:30am					on location / Safety markings
					200SK A-con Blend common, 3% CC
					• 25 lb/SK Cellulose, 12.0 pps, 2.97 vci <sup>14.95</sup> water
					200SK common cement, 2% cc, 25 lb/SK
					cellulose, 15.6 pps, 1.20 vci, 5.23 water
10:30am	300		3	6	PUMP 3 bbls water
	300		88	6	mix 200 SK less cement
	300		43	6	mix 200 SK + 9.1 cement
					shut down
					Release Plug
	200		0	3	Start displacement
	200		30	3	slow Rate
	200		37	3	Bump plug
10:45					shut in
					cement did circulate 10 bbls
					Job complete / Darin & crew
					Thank you!!!



PAGE 1 of 1	CUST # 1007589	YARD # 1718	INVOICE DATE 04/15/2015
<b>INVOICE NUMBER</b> <b>91782954</b>			

Pratt (620) 672-1201  
 B HERMAN L LOEB LLC  
 I PO Box: 838  
 L LAWRENCEVILLE  
 L IL US 62439  
 T  
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Petra 1-8  
 O LOCATION  
 B COUNTY Kiowa  
 S STATE KS  
 I JOB DESCRIPTION Cement-New Well Casing/Pi  
 T JOB CONTACT  
 E

*Petra*

*A 9438*

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE	
40832480	19905		Net - 30 days	05/15/2015	
<b>For Service Dates: 04/12/2015 to 04/12/2015</b>					
0040832480					
171811949A Cement-New Well Casing/Pi 04/12/2015 Cement 5 1/2" Longsting					
50/50 POZ		250.00	EA	6.60	1,649.88 T
Celloflake		63.00	EA	2.22	139.85 T
Gypsum		1,050.00	EA	0.45	472.47 T
FLA-322		105.00	EA	4.50	472.47 T
Gilsonite		1,500.00	EA	0.40	602.96 T
KCL, Potassium Chloride		566.00	EA	0.90	509.36 T
Claymax KCL Substitute		5.00	EA	21.00	104.99 T
Mud Flush		1,000.00	EA	0.90	899.94 T
"Latch Down Plug & Baffle, 5 1/2" (Blu		1.00	EA	239.98	239.98
"Auto Fill Float Shoe 5 1/2" (Blue)"		1.00	EA	215.98	215.98
"Turbolizer, 5 1/2" (Blue)"		12.00	EA	66.00	791.94
"5 1/2" Basket (Blue)"		3.00	EA	173.99	521.96
"Cement Scratchers Cable Type, 5 1/2" "		14.00	EA	45.00	629.96
"Unit Mileage Chg (PU, cars one way)"		45.00	MI	2.70	121.49
Heavy Equipment Mileage		90.00	MI	4.50	404.97
"Proppant & Bulk Del. Chgs., per ton mil		473.00	EA	1.50	709.45
Depth Charge; 5001-6000'		1.00	EA	1,727.89	1,727.89
Blending & Mixing Service Charge		250.00	BAG	0.84	209.99
Plug Container Util. Chg.		1.00	EA	149.99	149.99
"Service Supervisor, first 8 hrs on loc.		1.00	EA	104.99	104.99

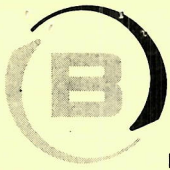
PAID

APR 23 2015

SCANNED

58252

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	10,680.51
BASIC ENERGY SERVICES,LP	BASIC ENERGY SERVICES,LP	TAX	346.91
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	11,027.42
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



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

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

FIELD SERVICE TICKET

1718 11949 A

8-30-18

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

DATE OF JOB: 4-12-18		DISTRICT: Pratt		NEW WELL <input type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:						
CUSTOMER: H. M. L. L. Co.		LEASE: P. 109		WELL NO. 1						
ADDRESS:		COUNTY: Kiowa		STATE: KS						
CITY:		STATE:		SERVICE CREW: MATIAS, McGRAN, G. OSO						
AUTHORIZED BY:		JOB TYPE: CAN SH LONG STRING								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
19905	1						4-12-18			5:30
										10:15
19860	0.5									11:15
										11:45
										45

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

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

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 104	50/60 P02	SK	200		2,200.00
CP 105	50/50 P02	SK	50		550.00
CC 102	CELLULOSIC	lb	63		233.10
CC 113	54/54-1	lb	1050		787.50
CC 129	P1A 923	lb	105		787.50
CC 201	31500	lb	1500		1,005.00
CC 700	POLYMER CHARGE	lb	560		849.00
CA 607	Handbook Ring + BAAAC	ea	1		400.00
CA 1251	Auto Full Relief SHD	ea	1		360.00
CI 1651	Thermalizer	ea	12		1,320.00
CI 1901	BAAC	ea	3		870.00
CA 2021	Sealing Cable T41	ea	14		1,050.00
CC 704	CLAYMAX	gal	5		175.00
CC 131	Blue Fluid	gal	1000		1,500.00

SUB TOTAL

CHEMICAL / ACID DATA:			

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

TOTAL

164

SERVICE REPRESENTATIVE: <u>[Signature]</u>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>[Signature]</u>
--	--

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.





Customer	HEIMAN L LUNA	Lease No.		Date	4-12-15						
Lease	PETRA	Well #	1-8								
Field Order #	11449	Station	Pratt	Casing	5 1/2	Depth	5163	County	Kiowa	State	KS
Type Job	C/W 5 1/2 Long String			Formation	RTD 5375		Legal Description	8-30-18			

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME			
Casing Size	5 1/2	Tubing Size		Shots/Ft		Acid	RATE	PRESS	ISIP
Depth	5163	From	To	Pre Pad		250 SKS 50/50 POZ	200 PS	1300	5 Min.
Volume	22.9	From	To	Pad					10 Min.
Max Press	1500	From	To	Frac					15 Min.
Well Connection		From	To						Annulus Pressure
Plug Depth	5140	From	To	Flush	122.3				Total Load

Customer Representative	Michael Polly	Station Manager	Kevin Gindley	Treater	Mike Mattai
-------------------------	---------------	-----------------	---------------	---------	-------------

Service Units	37586	77686	19905	19903	19860				
Driver Names	MATTAI	McGraw		COLESON					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
5:20					ON LOCATION / SAKNEY MATING
6:50					RUN 5 1/2 15.5# CASING BAKED ON 1, 8, 18
					CONT ON 1, 2, 3, 4, 6, 8, 10, 12, 16, 20, 24, 28
					SEALING ON JT 3, 4, 5 6 FT APART
7:30					CIRCULATE AT JT 40 + JT 80
9:15					CSNG ON BOTTOM
9:20					HOOK TO CSNG / BREAK CIRC W. RIG
10:17	300		3	5	PUMP 5 bbl water
10:18	300		24	5	PUMP 24 bbl mud flush
10:21	300		5	5	PUMP 5 bbl water
10:22	400		48	6	MIX 200 SKS 50/50 POZ @ 14 PPg.
10:30			4	3	WASH PUMP + LINE / release plug
10:34	200			6.5	START 290 KCL DISPLACEMENT
10:49	400		85	6	LIFT PRESSURE
10:54	600		113	3	SLOW RATE
10:57	1500		122.3		PLUG DOWN, RELEASED + hold
11:05			7.5		plug rat + mouse hole
					CIRC. THRU JOB
					JOB COMPLETE
					Thank You!
					MIKE MATTAI
					MIKE + MATTAI