



KANSAS CORPORATION COMMISSION 1066034
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009

Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 3273
Name: HERMAN L. LOEB, LLC
Address 1: PO BOX 838
Address 2: _____
City: LAWRENCEVILLE State: IL Zip: 62439 + _____
Contact Person: Jesse R. Middagh
Phone: (618) 943-2227
CONTRACTOR: License # 5142
Name: Sterling Drilling Company
Wellsite Geologist: Jon Christensen
Purchaser: Oneok

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
 Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____

<u>7/18/2011</u>	<u>7/27/2011</u>	<u>8/16/2011</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-097-21700-00-00

Spot Description: _____

____ - SE NE Sec. 23 Twp. 28 S. R. 18 East West
1980 Feet from North / South Line of Section
660 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Kiowa

Lease Name: Hardy Well #: 3

Field Name: Hardy

Producing Formation: Mississippian Chert

Elevation: Ground: 2220 Kelly Bushing: 2231

Total Depth: 4882 Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: 523 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: 6700 ppm Fluid volume: 815 bbls

Dewatering method used: Evaporated

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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: Deanna Gansior Date: 05/01/2012



1066034

Operator Name: HERMAN L. LOEB, LLC Lease Name: Hardy Well #: 3
 Sec. 23 Twp. 28 S. R. 18 East West County: Kiowa

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name Attached	Top Attached Datum Attached
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Electric Log Run	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Electric Log Submitted Electronically <i>(If no, Submit Copy)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

List All E. Logs Run:
 Dual Induction Log
 Neutron Density Log
 Micro Log

CASING RECORD <input checked="" 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
Surface	12.25	8.625	23	523	175 sks A-ServLite; plus tailed	350	See Ticket
Production	7.875	5.50	15.5	4875	200 sks 50/50 Poz. 2% Gel, 5	200	See Ticket

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing	-			
___ Plug Back TD				
___ Plug Off Zone	-			

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
2	2 shots/ft Perforate 4824-38'.	843 bbls of 2500 Pro-gel, 34,000# of 16/30 brownsand, and 6000# of 16/30 RCS	4824 - 4838
2	2 shots/ft Perforate 4806-16'. Model R packer @ 4782'	acidize w/ 500 gal 15% MCA-Fe, flush to perfw/ 28 bbl of 2% KCl water. Formation breaks @ 1000#, treat 2	4806 - 4816

TUBING RECORD:		Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. 10/07/2011		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
		50	25		

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input checked="" 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 checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: 4806 - 4816 4824 - 4838
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Form	ACO1 - Well Completion
Operator	HERMAN L. LOEB, LLC
Well Name	Hardy 3
Doc ID	1066034

Tops

Stotler	3442	-1211
Howard	3638	-1407
Heebner Shale	4054	-1823
Toronto	4072	-1841
Brown Limestone	4220	-1989
Lansing A	4234	-2003
Lansing KC 'H'	4397	-2166
Swope	4538	-2307
Base Kansas City	4626	-2395
Marmaton	4677	-2446
Pawnee	4720	-2489
Cherokee Shale	4754	-2523
Mississippi Chert	4804	-2573
Kinderhook Shale	4867	-2636
Kinderhook Sand	4872	-2641

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: #3 Hardy
Location: C SE NE Section 23-T28S-R18W, Kiowa Co., KS.
Licence Number: 15-097-21700-0000
Spud Date: 7/18/2011
Surface Coordinates: 1980' FNL & 660' FEL, Section 23-T28S-R18W
Region: Hardy Field
Drilling Completed: 7/27/2011

Bottom Hole Coordinates: Same as Above
Ground Elevation (ft): 2220' K.B. Elevation (ft): 2231'
Logged Interval (ft): 3400' To: 4882' Total Depth (ft): 4882'
Formation: Kinderhook at Total Depth
Type of Drilling Fluid: Freshwater/Gel to 3307'; Chemical Gel 3307' to 4882'
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: 9002 W. Silver Hollow St.
Wichita, KS. 67205-8856

Cores

None Taken

DSTs

DST #1(Lansing 'A') 4244' - 4262' Test Times 15"-60"-45"-90" IFP Strong Blow BOB/15 Sec., FFP Strong Blow BOB/1 Min., No Gas to Surface, no Blowback on SI's; REC: 2500' Gas in Pipe, 185' Total Fluid: 125' SO&GCWM(4%G, 1%O, 43%W, 52%M), 60' MSW(90%W, 10%M) CI 125,000, Mud 5800; IFP 30-52#, ISIP 1251#, FFP 57-89#, FSIP 1173#, IHP 2174#, FHP 2123#, BHT 118 Deg. F.

DST #2(Miss. Chert) 4786' - 4844' Test Times 15"-60"-45"-90" IFP Strong Blow BOB/30 Sec. Gas to Surface in 12", FFP Strong Blow Gas to Surface throughout, Stabilized at 52.9 MCFGPD/45" of FFP, 4" Blowback on ISI, 2" Blowback on FSI; REC: 125' SGCM(2%G, 98%M), no water; IFP 130-84#, ISIP 693#, FFP 78-105#, FSIP 636#, IHP 2428#, FHP 2385#, BHT 121 Deg. F.

Comments

7/18/11 MIRU Sterling Drilling Co. Rig #2, Spud at 4:30 PM.; 7/19/11 TD. 528' - Cement Surface Csg.; 7/20/11 Drilling at 1255'; 7/21/11 Drilling at 2507'; 7/22/11 Drilling at 3226'; 7/23/11 Drilling at 3760'; 7/24/11 TD. 4262' - Short trip prior to DST #1; 7/25/11 Drilling at 4378'; 7/26/11 Drilling at 4786'; 7/27/11 RTD. 4882' - CCH for LOGS, LTD 4878'; 7/28/11 RTD. 4882' - LTD. 4878' - Running 5 1/2" Production Casing.

Set new 8 5/8" (23#) Surface Casing set at 523' w/350 sx.(Basic Energy Services). PD. 8:00 AM. 7/19/11. Cement Did Circulate.

Set new 5 1/2" (15.5#) Production Casing at 4875' with 200 sx. cement(Basic Energy Services). PD. 9:15 AM. 7/28/11.

Surveys: 0.5 Deg. at 528'(Surface Casing); 0.75 Deg. at 4262'(DST #1); Deg. at 4844'(DST #1).

Pipe Strap at 4262'(DST #1): Strap 2.06' Short to the Board, no correction made to the Board.

After review of the Halliburton Logs, DST results and structural position, the operator elected to set new 5 1/2" (15.5#) Production Casing for completion in the Mississippian Chert.







































































LOG TOPS: Stotler 3442(-1211), Howard 3638(-1407), Heebner Shale 4054(-1823), Toronto 4072(-1841), Brown Lmst. 4220(-1989), Lansing A 4234(-2003), L/KC. 'H' 4397(-2166), Swope 4538(-2307), Base Kansas City 4626(-2395), Marmaton 4677(-2446), Pawnee 4720(-2489), Cherokee Shale 4754(-2523), Mississippi Chert 4804(-2573), Kinderhook Shale 4867(-2636), Kinderhook Sand 4872(-2641).

NOTE: This log was shifted upward by 4' to 5' for correlation purposes to correspond to the Halliburton LOG TOPS.

ROCK TYPES

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

ACCESSORIES

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

OTHER SYMBOLS

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

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

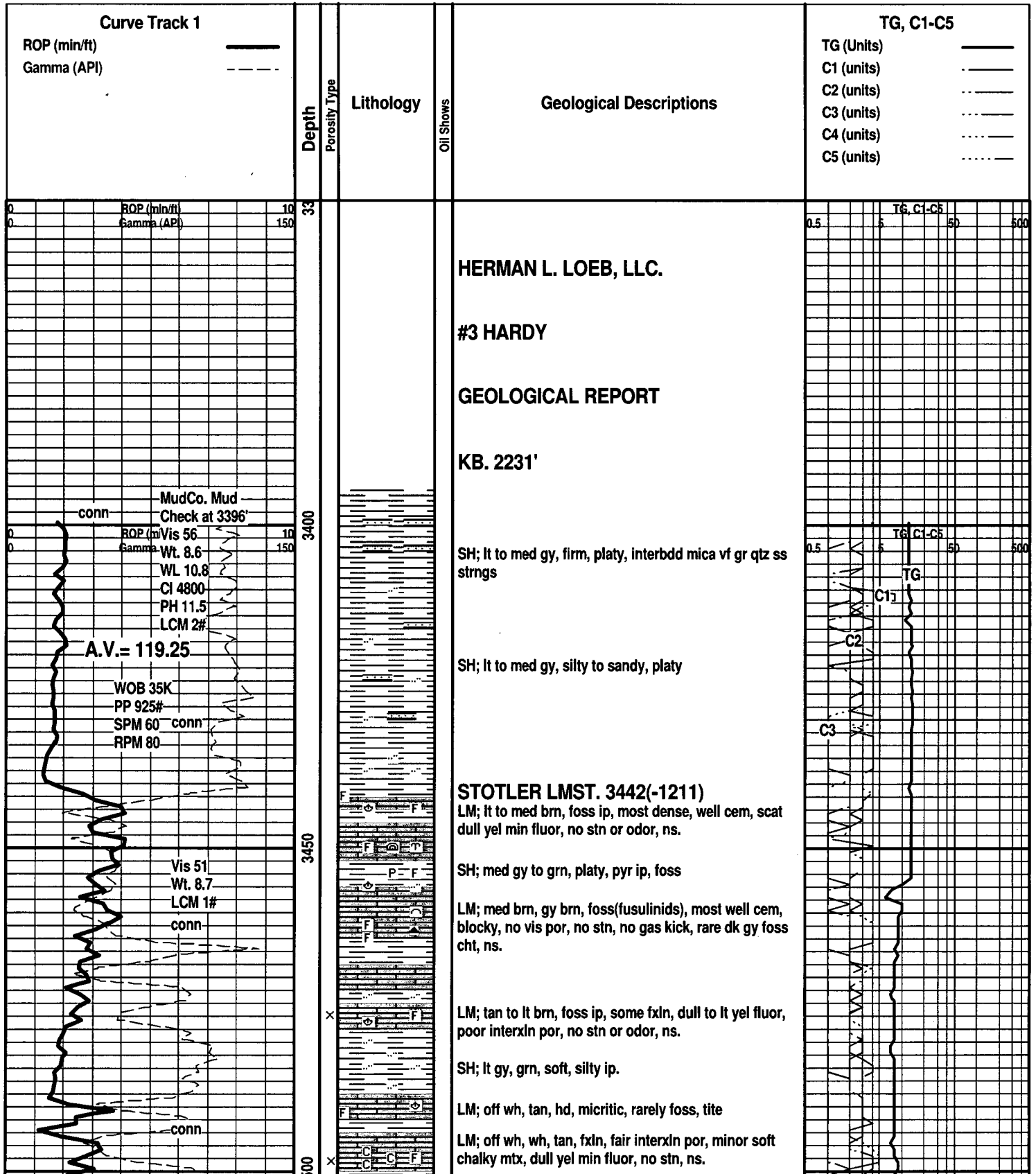
- ROUNDING**
 [R] Rounded
 [r] Subrnd
 [a] Subang
 [A] Angular

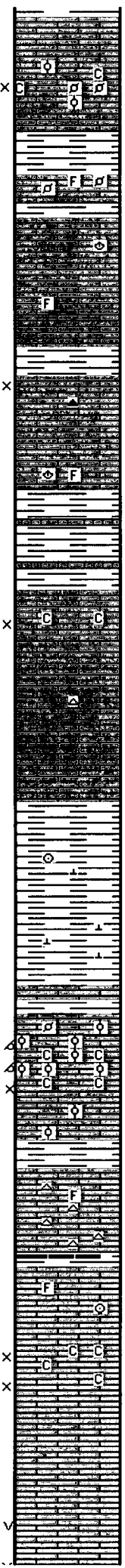
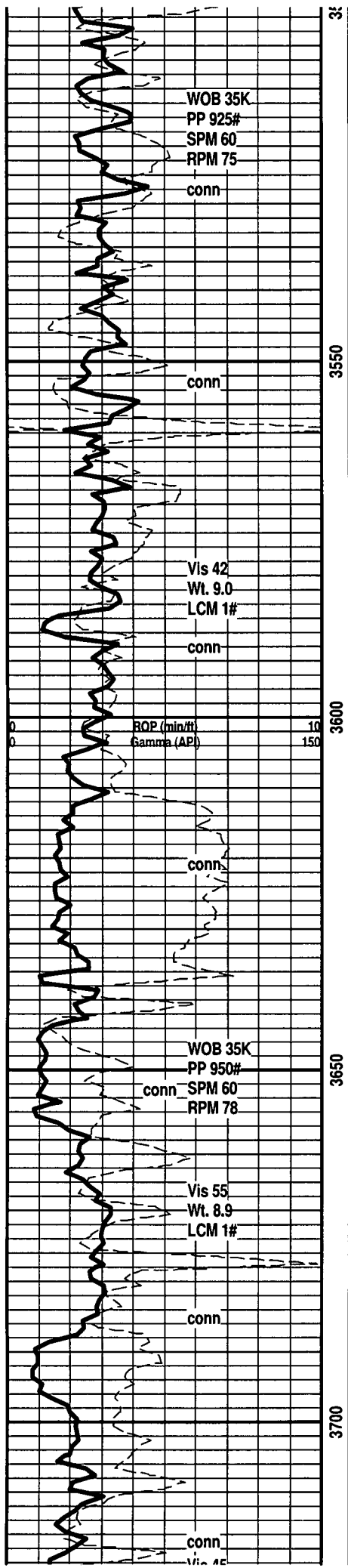
- [Q] Spotted
 [O] Ques
 [D] Dead

- EVENT**
 [▽] Rft
 [▾] Sidewall

- INTERVAL**
 [■] Core
 [□] Dst

- OIL SHOW**
 [●] Even





EMPORIA 3502(-1271)
LM; off wh, tan-lt brn, foss-pelletal to oolitic, poor interpart por, scat soft chalky mtx, no fluor, no gas kick, ns.

SH; grn, gy gm, fiss
LM; tan to buff, lt brn, scat foss mat, most well cem, rare gy foss pellets, no fluor, ns.

LM; tan to lt brn, fxln to dense, rarely foss, no vis por, no stn or odor, ns.

LM; tan to lt brn, rare off wh, fxln, poor interxln por, trc dk gy cht, no fluor, no stn or odor, ns.

LM; tan to lt brn, most dense, scat foss mat - well cem, no vis por, ns.

SH; med gy, fiss to flakey, firm, interbdd hd shaly lmst.

LM; wh to off wh, fxln, soft ip, some chalky mtx, lt yel fluor, no stn or odor, no gas kick, ns.

LM; tan to off wh, buff, interbdd dk brn, most dense, some hard-sharp, trc off wh cht, no fluor, n.s

SH; med to dk gy, firm, platy, occ foss

SH; dk gy, silty ip, firm, calc, interbdd thin tite lmst strngs.

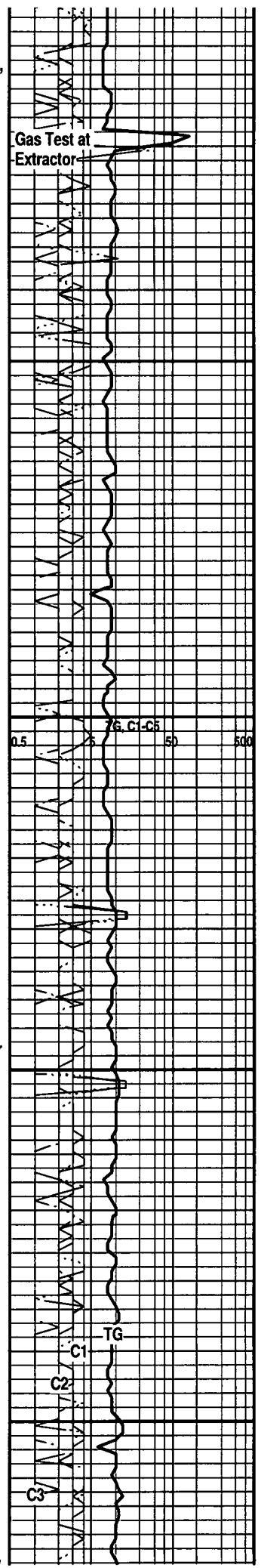
HOWARD 3638(-1407)
LM; off wh, cream, foss - finely oolitic ip, interbdd med xln/gran text, fair oomoldic w/occ gd interxln por, minor soft chalky mtx, dull to lt yel min fluor, no stn or odor, no gas kick, ns.

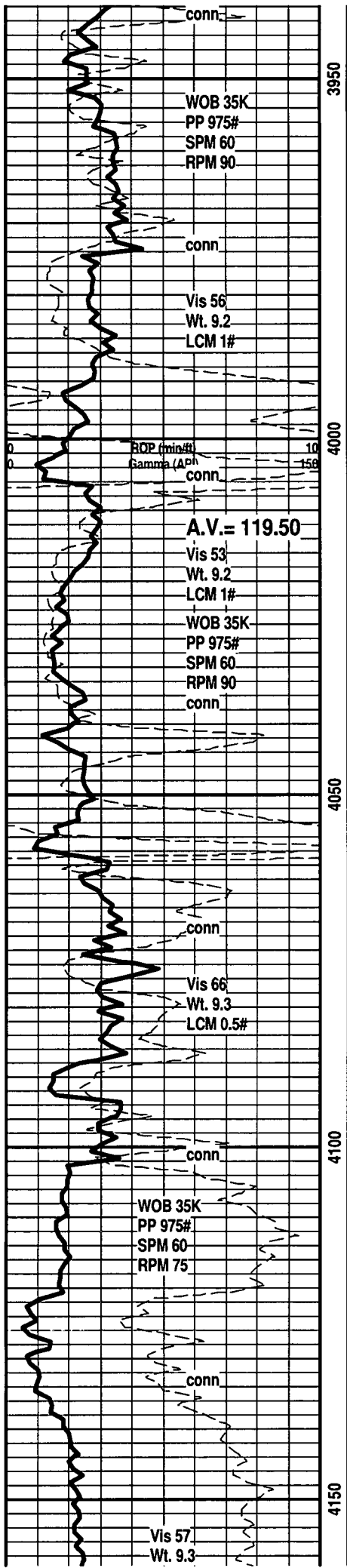
LM; lt to med brn, blocky, occ well cem foss, most dense - micritic, scat tan to off wh cht, no por, ns.

LM; tan to off wh, lt gy, fxln to micritic, foss ip, most dense, no fluor, ns.

LM; off wh, wh, f to med xln, gran text ip, gd interxln por, soft chalky mtx, dull yel min fluor only, no stn or odor, no gas kick, ns.

LM; tan to buff, lt brn, foss ip, most dense, blocky, interbdd foss lmst w/fair vug por, dull to occ lt yel fluor,





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

LM; lt brn, med xln - scat cse spar calc xtals, spotted lt brn oil stn, brite yel fluor, no apparent gas kick, scat vug por/fracs, fair milky cut, no odor, most looks tite

LM; tan to off wh, lt brn, fxln to micritic, most blocky, rare gy/wh cht, no fluor, no stn, ns.

LM; tan to lt brn, cream, fxln, cherty, most dense, micritic, no vis por, no fluor, ns.

SH; dk gy to blk, platy, soft to brittle, trc gas, rarely pyr

LM; tan to lt gy brn, most dense, occ pyr, some interbdd shaly lmst, rarely foss, no vis por, no fluor, ns.

LM; tan to off wh, wh, buff, fxln, chalky-soft, poor to fair interxln por, dull yel to no fluor, no stn or odor, ns.

SH; med to dk gy, firm

LM; tan to cream, buff, fxln, scat foss mat, most tite, rare gy/off wh cht, no fluor, no vis por, ns.

HEEBNER SHALE 4054(-1823)

SH; blk, carb ip, soft to brittle, gassy

SH; grn, gy grn, silty ip, firm, occ pyr

TORONTO 4072(-1841)

LM; off wh, lt brn, foss ip, most well cem, blocky, no vis por, no stn, scat dull yel min fluor, ns.

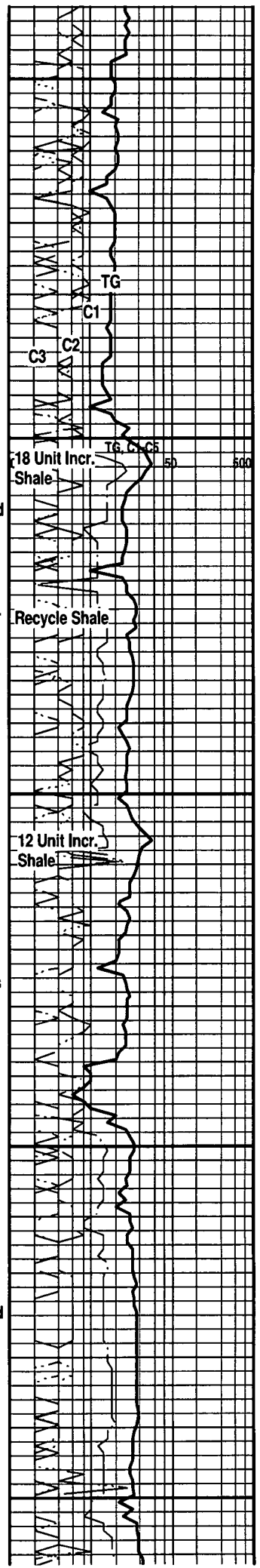
SH; lt gy, soft, silty w/interbdd sltst.

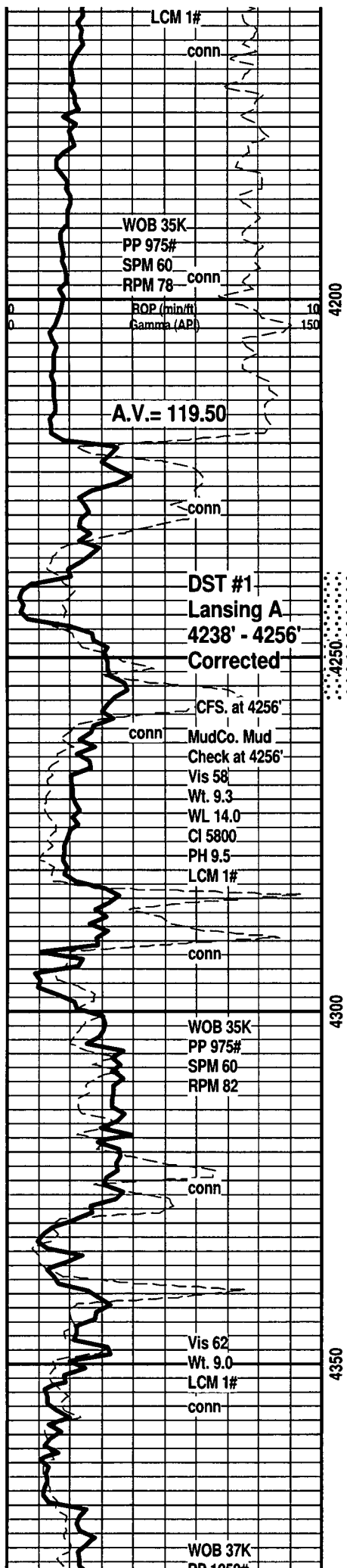
LM; tan to lt brn, v. foss ip - pelletal, poor to no interpart por, dull yel min fluor, ns.

SH; lt to med gy, silty, platy, occ pyr strngs.

SS; lt gy, rare wh, vf to f gr qtz, all clusters, fri, fair to gd intergran por, subrnd to subang gr, mica, no fluor, no stn, no gas kick, barren, , interbdd argil ss, rare glau, ns.

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





SH; lt to med gy, silty, occ mica, firm

SH; lt to med gy, fiss to flakey, soft

SH; med gy, smooth, sticky ip.

BROWN LMST. 4220(-1989)

LM; med to occ dk brn, hd, foss ip.

SH; med gy, firm, occ silty

LANSING 'A' 4234(-2003)

LM; tan to med brn, oolitic, med to lrg molds, gd oomoldic por, scat vug por, med to brite golden yel fluor, fair/gd odor, spotted to even lt brn stn, SFO, gas bubbles vis, most w/gd cut

LM; lt to med brn, foss ip, dense, scat tan cht

DST #1: Lansing 'A' 4238' - 4256'

Corrected Depths to LOG

LM; off wh, med xln to gran text, chalky soft mtx ip, scat med yel fluor, quest. stn, faint odor

LM; lt gy gy tan, med xln, fair interxln w/vug por, spotted oil stn, strong sulfur odor, med to occ brite yel fluor, fair cut, quest. gas bubbles, interbdd cse opaque spar calc xtals, fair to poor show

LM; med to dk brn, mottled text, cherty, tite

LM; tan to lt brn, gran to cse xln, fair interxln por, dull yel fluor, no stn or odor, ns.

LM; lt brn, tan to cream, most dense, micritic, rarely foss, scat tan cht, no vis por, no stn, ns.

LM; dk brn, occ foss, blocky, pyr ip, tite

SH; med gy grn, firm, foss

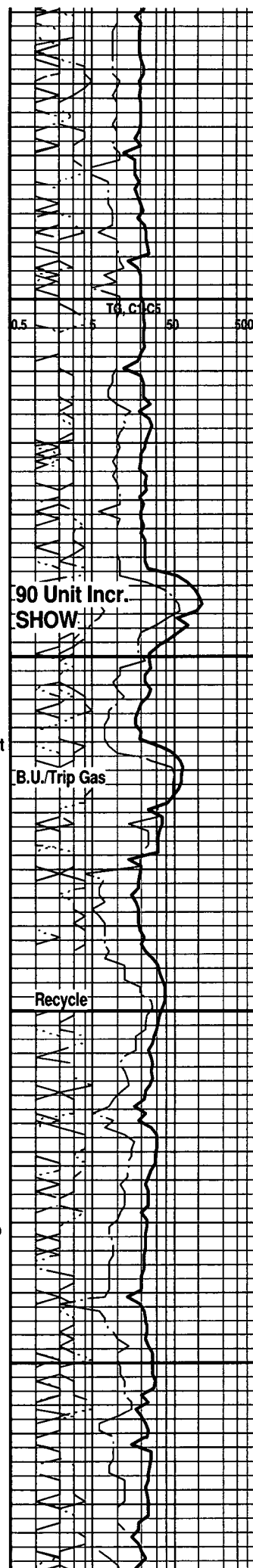
DOL; off wh, wh, tan, sucrosic, partly chalky mtx, fair to gd interxln por, scat vug por, dull yel min fluor, no stn odor, ns.

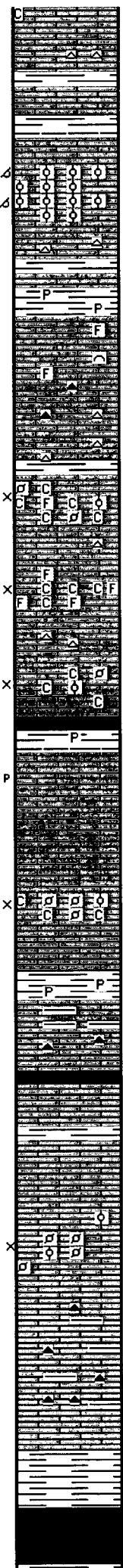
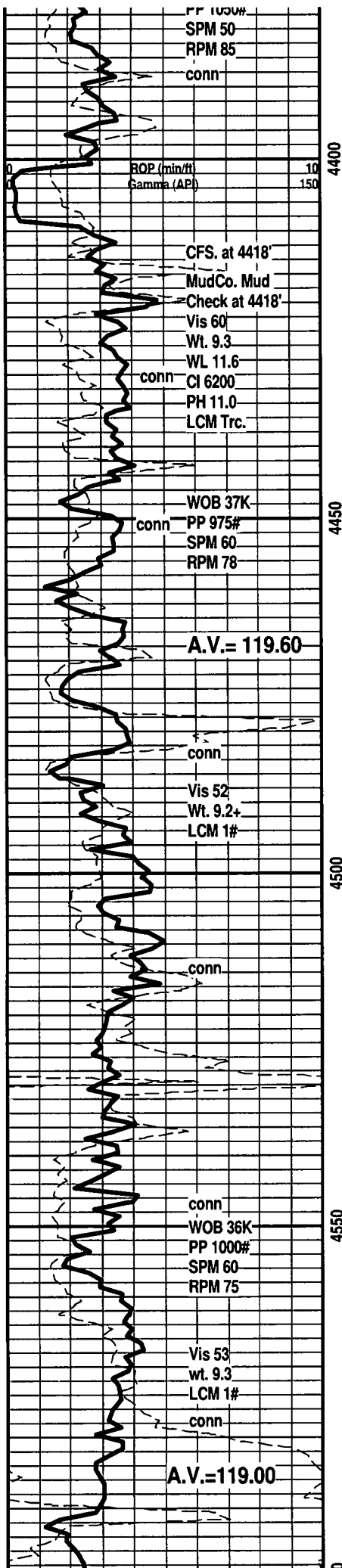
LM; tan to off wh, hd, cherty ip, tite

LANSING 'G' POROSITY 4350(-2119)

LM; off wh, foss - oolitic ip, much sucrosic text dolomitic lmst, scat soft chalky mtx, fair interpart/interxln por, dull to lt yel fluor, no vis stn, no gas kick, barren, ns.

LM; tan to off wh, cream, buff, fxln, scat foss mat, chalky mtx ip, dull yel min fluor, interbdd gy to tan cht,





no vis por, ns.

SH; med gy, fiss, interbdd gy hd lmst.

LANS/KC. 'H' 4402(-2171)

LM; tan to lt brn, buff, oolitic, small to med size moldic por, brittle, dull yel fluor, faint sulfur odor, no stn, no gas kick, barren, ns.

LM; tan to lt brn, buff, foss ip, hd, cherty ip.

SH; grn, gy grn, fiss, occ pyr

LM; tan to off wh, foss ip, interbdd med xln, no vis por, cherty ip, no fluor, no stn, ns.

LM; med brn, micritic, occ cherty, tite

KC 'I' ZONE 4444(-2213)

LM; off wh, tan, finely pelletal/rarely oolitic, poor interpart por, scat to patchy uneven lt brn to blk residual to dead stn, med yel fluor in chalky sections, faint odor, no gas kick, poor/no show

LM; tan to cream, off wh, med xln, scat foss mat, much soft chalky mtx, fair interxln por, dull yel min fluor, no vis stn, no odor, ns.

LM; off wh, tan, foss - med xln ip, scat fair interxln por, chalky mtx, faint sulfur odor, no vis stn, no gas kick, ns.

SH; blk, carb ip, pyr

LM; tan to cream, lt brn, foss - oolitic/pelletal ip, scat blk tar/gils., poor p-p por, dull yel fluor, no odor, no live shows, no gas kick, looks tite

LM; tan to cream, buff, foss to finely pelletal, fair interpart por, soft chalky mtx ip, no fluor, no stn or odor, ns.

SH; med to dk gy, fiss - flakey, occ pyr

LM; med to dk brn, gy brn, micritic, argil ip, hd - blocky, rare smoky cht, tite

STARK SHALE 4538(-2307)

SH; blk, carb ip, platy

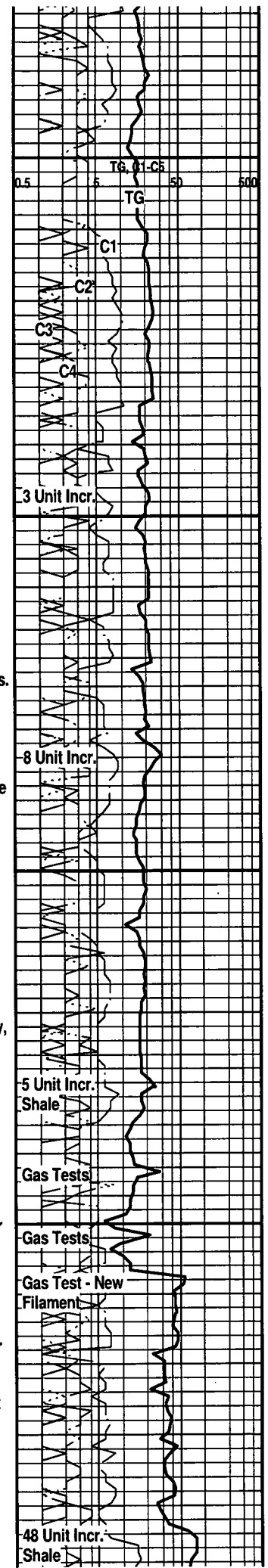
SWOPE 4538(-2307)

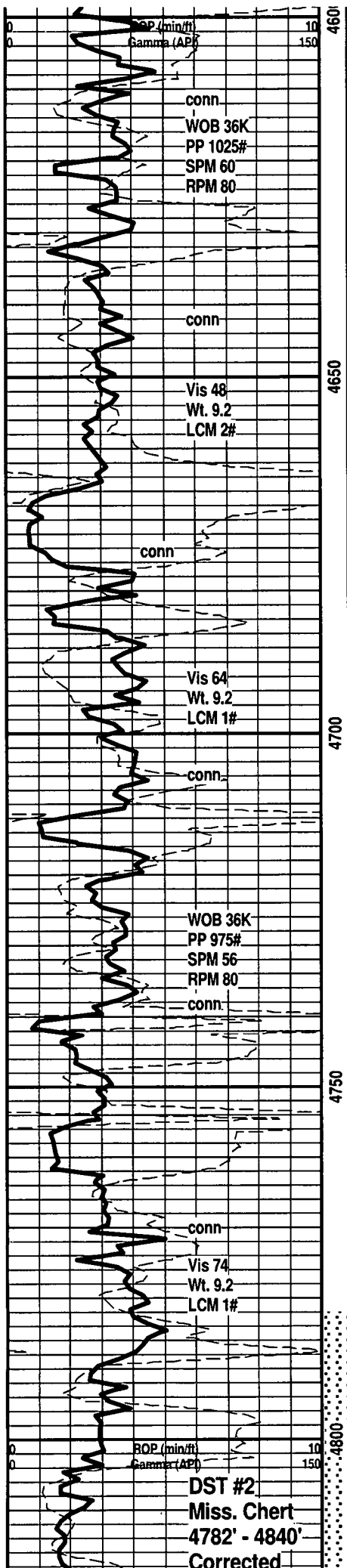
LM; tan to cream, lt brn, foss - finely pelletal to oolitic, poor to fair interpart por, scat lt yel min fluor, no stn or odor, ns.

LM; lt to med brn, most dense, blocky, interbdd argil lmst, no vis por, scat dk brn to smoky cht, no fluor, ns.

LM; med to dk brn, hd, micritic, tite, interbdd dk gy cht

SH; blk, fiss, gassy ip





HERTHA 4600(-2369)

LM ; tan to lt brn, foss ip, scat poor interpart por, dull yel min fluor only, no stn or odor, no gas kick, ns.

LM; tan to cream, buff, foss - finely pelletal, poor vis interpart por, scat lt to dk brn stn, some dead oil - tar/gilsonite, med yel patchy fluor, no odor, no FO., weak to fair cut

BASE KANSAS CITY 4626(-2395)

SH; varic, grn, gy, brn, rust red, platy to flakey

LM; med brn, gy brn, most dense, argil ip, scat foss mat, no vis por, no stn or odor, ns.

LM; med gy to gy brn, dense, argil ip, hd - blocky, no vis por, tite, ns.

SH; med gy, grn, rare dk gy, soft, flakey

MARMATON 4677(-2446)

LM; tan to lt brn, pale grn tint, hd, blocky, no vis por, med yel fluor, no stn or odor, ns.

LM; tan to buff, lt brn, hd - blocky, most micritic, no vis por, lt yel fluor, no vis stn, no odor, ns.

LM; tan to lt brn, some med brn, foss ip - rarely oolitic, poor - no vis por, scat blk tar/gils, no live shows, lt yel fluor, no odor

SH; dk gy to blk, fiss, occ pyr

PAWNEE 4720(-2489)

LM; tan to cream, buff, foss - finely oolitic, some foss hash, trc med brn spotted oil stn, no odor, lt yel fluor, no vis gas bubbles, weak/no cut, poss fracs - edge calc xtals

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

SH; blk, platy, carb ip, gassy, scat pyr

LM; tan to lt brn, hd, blocky, scat foss mat, dense, no vis por, ns.

CHEROKEE SHALE 4754(-2523)

SH; blk, fiss, carb ip, platy, w/varic platy sh.

LM; lt to med brn, tan, foss ip, fxln w/scat cse spar calc xtals, poss fracs, dull yel fluor, no stn or odor, ns.

SH; dk gy, some blk, fiss

LM; lt to med brn, tan, most dense, micritic, poss fracs w/dk brn/blk tar/dead oil residue, dull yel fluor, no odor

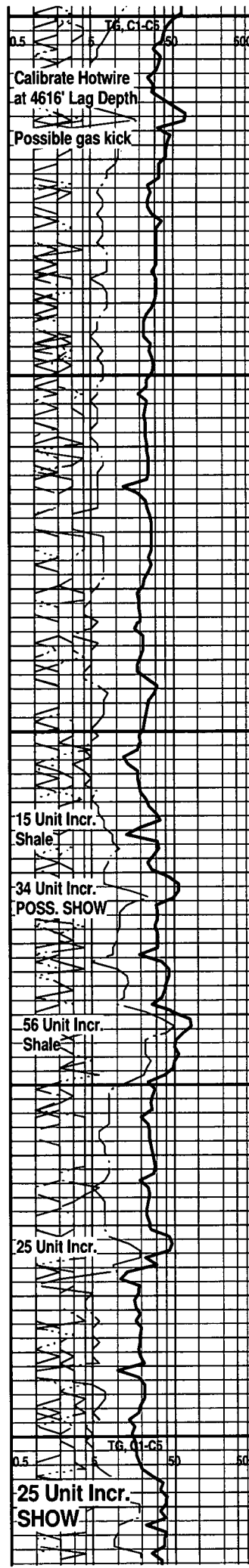
LM; lt brn, tan, hd - blocky ip, interbdd sandy lmst, trc f gr qtz ss, no vis stn, no odor

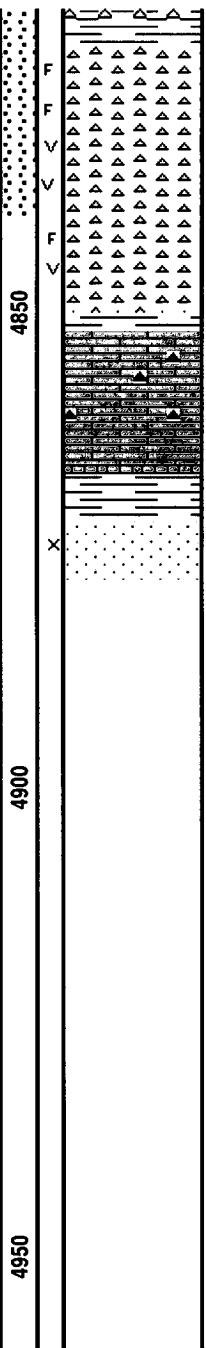
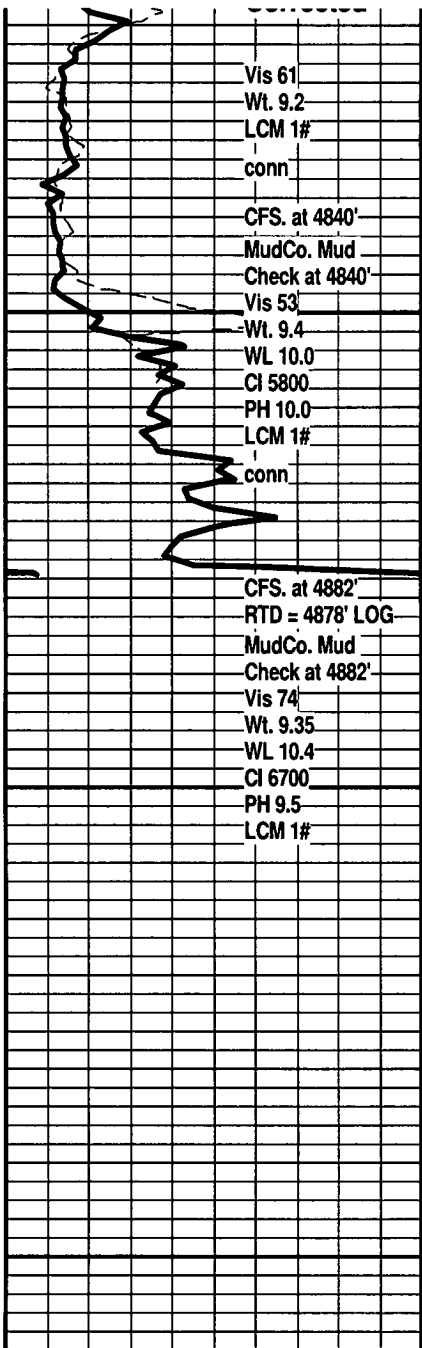
SH; varic, soft ip, trc weath multicolored cht

MISSISSIPPI CHERT 4804(-2573)

CHT; wh, porc, pred fresh, spotted lt brn oil stn, rare trip cht w/poor p-p por, few gas bubbles, no odor, lt yel fluor, poor/no cut

CHT; wh, off wh, fresh and trip, fri - breaks fairly easily,





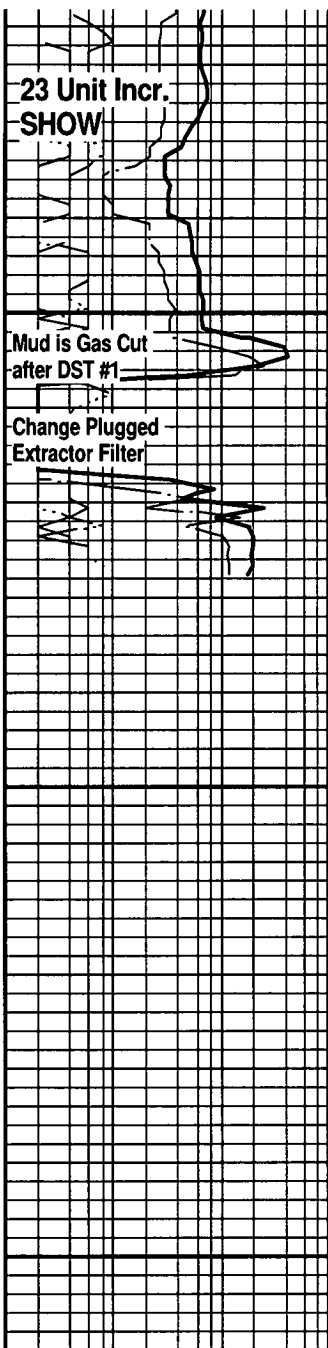
spotted lt/med brn oil stn, occ p-p & vug por, gas bubbles, dull/lt yel fluor, no odor
 CHT; wh to off wh, fresh and tripolite, frags and vug por visible, some fri, other porc - hd, scat brite yel fluor, faint odor, vis. gas bubbles, Trc. FO. only when crushed, fair cut
DST #2: Miss. Chert 4782' - 4840'
Corrected Depths to LOG
 CHT; wh to off wh, fresh and tripolite, sl. incr in live oil stn, incr. in brite yel fluor, frags and vug por, faint odor, spotted stn
 SH; rust red, soft, grn & gy shales also
 LM; med brn, some rose red/brn, blocky, dense, cherty w/amber to org fresh cht, no vis por, ns.

KINDERHOOK SHALE 4867(-2636)
KINDERHOOK SS 4872(-2641)
 SS; clr, lt gy, most fgr qtz, hd - qtzitic ip, poor to no por, no fluor, trc blk dead oil stn, no odor
BIT CRATERED AT 4882' ROTARY DEPTH

RTD. 4882' at 6:50 AM. 7/27/11

LTD. 4878'
 Halliburton DIL, NEU/DEN + PE,
 Microlog

NOTE; This log was shifted upward by 4' to 5' for correlation purposes with the Halliburton LOGS.





BASIC
ENERGY SERVICES

VC¹⁹
701/1267

PAGE 1 of 1	CONT NO 1001845	INVOICE DATE 07/30/2011
INVOICE NUMBER 1718 - 90660212		

Pratt (620) 672-1201
 B HERMAN L. LOEB
 I PO Box: 524
 L LAWRENCEVILLE
 L IL US 62439
 T
 O ATTN:

J LEASE NAME Hardy 3
 O LOCATION
 B COUNTY Kiowa
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 T
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40350026	19905		Net - 30 days	08/29/2011

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 07/28/2011 to 07/28/2011				
0040350026				
171804342A Cement-New Well Casing/Pi 07/28/2011 Longstring				
50/50 POZ	200.00	EA	8.69	1,737.90 T
60/40 POZ	50.00	EA	9.48	473.97 T
KCL Potassium Chloride	453.00	EA	1.18	536.77 T
Cello-flake	50.00	EA	2.92	146.14 T
Cal-Set	840.00	EA	0.59	497.67 T
FLA-322	84.00	EA	5.92	497.67 T
Gilsonite	1,200.00	EA	0.53	635.12 T
Mud Flush	1,000.00	EA	0.68	679.36 T
CS-1L KCL Substitute	5.00	EA	27.65	138.24 T
Latch Down Plug & Baffle 5 1/2" (Blue)	1.00	EA	315.98	315.98
Auto Fill Float Shoe 5 1/2" (Blue)	1.00	EA	284.38	284.38
Turbolizer 5 1/2" (Blue)	10.00	EA	86.90	868.95
5 1/2" Basket (Blue)	1.00	EA	229.09	229.09
Unit Mileage Charge-Pickups, Vans & Cars	30.00	HR	3.36	100.72
Heavy Equipment Mileage	60.00	MI	5.53	331.78
Proppant and Bulk Delivery Charges	317.00	MI	1.26	400.66
Depth Charge; 4001-5000'	1.00	HR	1,990.69	1,990.69
Blending & Mixing Service Charge	250.00	MI	1.11	276.48
Plug Container Utilization Charge	1.00	EA	197.49	197.49
Supervisor	1.00	HR	138.24	138.24

PAID
8-11-11

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	10,477.30
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	390.03
PO BOX 841903	PO BOX 10460	INVOICE TOTAL	10,867.33
DALLAS, TX 75284-1903	MIDLAND, TX 79702		



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET
1718 04342 A

DATE _____ TICKET NO. _____

DATE OF JOB: 7-28-11 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: HERMAN L. LOEB		LEASE: HARDY WELL NO. 3							
ADDRESS:		COUNTY: KEOWA STATE: KS.							
CITY: STATE:		SERVICE CREW: KORN - BRSON - MIKE L.							
AUTHORIZED BY:		JOB TYPE: CMW - LOWEST RENE							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	CAMP	TIME
19901		19931					7-28		1200
		19862	3/4			ARRIVED AT JOB			200
19903	3/4					START OPERATION			0830
19905	7/4					FINISH OPERATION			0915
						RELEASED			1000
						MILES FROM STATION TO WELL	30		

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:
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT	
CP104	50/50 P02	SK.	200		2200.00	
CP103	60/40 P02	SK.	50		600.00	
C700	KCL	lb.	453		679.50	
CC102	CELLFLAME	lb.	50		185.00	
CC113	CAL-SET	lb.	840		630.00	
CC129	FLA-322	lb.	84		630.00	
CC201	GIRSONITE	lb.	1200		804.00	
CF607	5/16 LATCH DOWN PLUG	EA.	1		400.00	
CF1251	5/16 AFM FLOAT SHOE	EA.	1		360.00	
CF1651	5/16 TURBO LIZER	EA.	10		1100.00	
CF1901	5/16 BRISLET	EA.	1		290.00	
CC151	WASH FLUSH	gal.	1000		860.00	
C704	C.S-12 KCL	gal.	5		175.00	
E100	PICKUP MILEAGE	mile	30		127.50	
E101	TRUCK MILEAGE	mile	60		420.00	
E113	BULK DELIVERY	TIM	317		506.40	
CE205	PLUM P CHARGE	EA.	1		2520.00	
CE240	BLENDING CHARGE	SK	250		350.00	
CE504	PLUG CONTRACTOR	EA.	1		250.00	
S003	SERVICE SUPERVISOR	EA.	1		175.00	
					SUB TOTAL	175.00

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		10,477.30

SERVICE REPRESENTATIVE: K. GORSLEY	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)	

FIELD SERVICE ORDER NO. _____

BASIC

energy services, L.P.

TREATMENT REPORT

Customer	HERMAN L. COEB	Lease No.		Date	7-28-11
Lease	HARDY	Well #	3		
Field Order #	4342	Station	PRATT, KS.	Casing	5 1/2
Type Job	CWW - LOW STRENGTH	Depth	4875	County	KEOWA
		Formation	TD-4882	State	Ks
		Legal Description	23-28-18		

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME	
Casing Size	5 1/2	Tubing Size		Acid		RATE	PRESS
Depth	4875	Shots/Ft		Pre Pad			ISIP
Volume	115.5	From	To	Max			5 Min.
Max Press		From	To	Min			10 Min.
Well Connection		From	To	Avg			15 Min.
Plug Depth	4853	From	To	HHP Used			Annulus Pressure
		From	To	Gas Volume			Total Load

Customer Representative	GEORGE	Station Manager	SCOTTY	Treater	CORDLEY
-------------------------	--------	-----------------	--------	---------	---------

Service Units	19907	19903-19905	19831-19862		
Driver Names	KG	BRIAN	MIKE L.		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
0630					ON LOCATION SHEET-22' RUN 4875 5 1/2 15.5" C/S 116-Jts APU FLOTT SHEET, LATCH BAFFLE 1 ST COLUMN CENT. - 1-2-3-5-8-11-14-19-25-29 BASKET - BOTTOM JT. #15
0730					THE BOTTOM - DROP BALL - CIRCULATE
0830	400		24	6	PUMP 24 bbl. MUD FLUSH
	300		5	6	PUMP 5 bbl. H ₂ O
	300		48	6	PUMP 200 SK 50/50 P02 2% GEL, 5% GYPSUM, 5% HCL, .5% FLA-322, 1/4" CELLFACKE 6" GELSONITE MIXED WITH COOL CITY H ₂ O.
	0		0	6 1/2	STOP - WASH LINE - DROP PLUG STARTS DESP. w/ 2% HCL H ₂ O
	400		82	6 1/2	LEFT CEMENT
	900		110	4 1/2	SLOW RATE
0915	2000		115.5	4	PLUG DOWN - HOLD PLUG RAT HOLE - 30 SK 60/40 P02 PLUG MOUSE HOLE - 20 SK 60/40 P02
1000					JOB COMPLETE - REVIEW



70 Hardy 3
1569
6076

PAGE 1 of 1	CUST NO 1001845	INVOICE DATE 07/21/2011
INVOICE NUMBER 1718 - 90651547		

Pratt (620) 672-1201

B HERMAN L. LOEB
I PO Box: 524
L LAWRENCEVILLE
L IL US 62439
T
O ATTN:

J LEASE NAME Hardy 3
O LOCATION
B COUNTY Kiowa
S STATE KS
I JOB DESCRIPTION Cement-New Well Casing/Pi
T JOB CONTACT
E

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40346307	19842		Net - 30 days	08/20/2011

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 07/19/2011 to 07/19/2011</i>				
0040346307				
171804622A Cement-New Well Casing/Pi 07/19/2011				
8 5/8" Surface Pipe				
A Serv Lite	175.00	EA	10.01	1,751.75 T
Common	175.00	EA	12.32	2,166.00 T
Cello-flake	88.00	EA	2.85	250.71 T
Cement Gel	330.00	EA	0.19	63.53 T
Calcium Chloride	954.00	EA	0.81	771.31 T
Top Rubber Cement Plug	1.00	EA	173.25	173.25
Unit Mileage Charge-Pickups, Vans & Cars	30.00	HR	3.27	98.18
Heavy Equipment Mileage	60.00	MI	5.39	323.40
Depth Charge; 501-1000'	1.00	HR	924.00	924.00
Proppant and Bulk Delivery Charges	477.00	MI	1.23	587.66
Blending & Mixing Service Charge	350.00	MI	1.08	377.30
Plug Container Utilization Charge	1.00	EA	192.50	192.50
Supervisor	1.00	HR	134.75	134.75

PAID
22410
7-26-11

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	7,804.34
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	364.51
PO BOX 841903	PO BOX 10460	INVOICE TOTAL	8,168.85
DALLAS, TX 75284-1903	MIDLAND, TX 79702		

BASIC

energy services, L.P.

TREATMENT REPORT

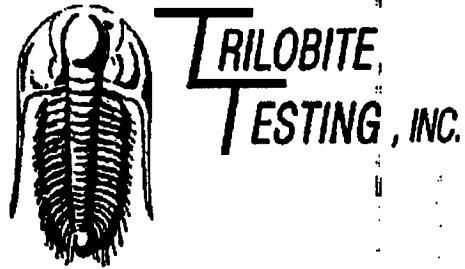
Customer HERMAN LOEB	Lease No.	Date 7-19-2011
Lease HARDY	Well # 3	
Field/Order # 4022	Station PRATT, Ks.	Casing 5 1/8" Depth 528'
Type Job CNW - 8 5/8" S.P.	Formation	County KIOWA State Ks.
		Legal Description 23-28-18

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 8 5/8"	Tubing Size	Shots/Ft	CMT-	Acid 175 SK ASERV LITE	RATE	PRESS	ISIP	
Depth 509.93'	Depth	From	To	Pre Pad @ 1.64 CU FT³	Max		5 Min.	
Volume 32.63 BBL	Volume	From	To	Pad 175 SKS COMMON	Min		10 Min.	
Max Press 500	Max Press	From	To	Frac @ 1.34 CU FT³	Avg		15 Min.	
Well Connection P.L.	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth 489.93'	Packer Depth	From	To	Flush 31 BBL H₂O	Gas Volume		Total Load	

Customer Representative GEORGE PAINE	Station Manager D. SCOTT	Treater K. LESLEY
---	---------------------------------	--------------------------

Service Units	27883	19889	19848	19832	21010				
Driver Names	LESLEY	MITCHELL	LAWRENCE						

Time	Casing Pressure	Tubing Pressure	Bbbls. Pumped	Rate	Service Log
4:00 AM					ON LOCATION - SAFETY MEETING
5:30 AM					RUN 8 5/8" x 23# CS9. = 12 JTS.
6:35 AM					CS9. ON BOTTOM
6:40 AM					HOOK UP TO CS9. / BREAK CIRC. W/RIG
6:50 AM	100		5	5	H ₂ O AHEAD
6:52 AM	100		51	5	MIX 175 SKS. ASERV LITE @ 136# / GAL
7:02 AM	50		42	5	MIX 175 SKS COMMON @ 15# / GAL
7:10 AM					SHUT DOWN - DROP PLUG
7:50 AM	0		0	4	START DISPLACEMENT
7:58 AM	100		21	3	SLOW RATE
8:00 AM	150		31	3	PLUG DOWN - CLOSE MANIFOLD
					CIRCULATION THRU JOB
					CIRCULATED ID BBL TO PIT
					JOB COMPLETE,
					THANKS -
					KEVIN LESLEY



DRILL STEM TEST REPORT

Prepared For: **Herman L Loeb, LLC**

PO Box 838
Lawrenceville, IL 62439

ATTN: Jon Christensen

23-28s-18w Kiowa,KS

Hardy # 3

Start Date: 2011.07.24 @ 10:46:26

End Date: 2011.07.24 @ 20:06:11

Job Ticket #: 43933 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Herman L Loeb, LLC

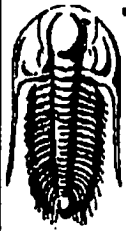
Hardy # 3

23-28s-18w Kiowa,KS

DST # 1

Lansing "A"

2011.07.24



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Herman L Loeb, LLC

Hardy # 3

PO Box 838
Lawrenceville, IL 62439

23-28s-18w Kiowa, KS

Job Ticket: 43933

DST#: 1

ATTN: Jon Christensen

Test Start: 2011.07.24 @ 10:46:26

Tool Information

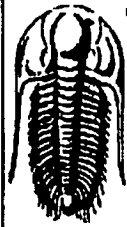
Drill Pipe:	Length: 4026.00 ft	Diameter: 3.80 inches	Volume: 56.47 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 213.00 ft	Diameter: 2.25 inches	Volume: 1.05 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 57.52 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4244.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4227.00	
Hydraulic tool	5.00			4232.00	
Safety Joint	2.00			4234.00	
Packer	5.00			4239.00	22.00 Bottom Of Top Packer
Packer	5.00			4244.00	
Stubb	1.00			4245.00	
Recorder	0.00	6798	Inside	4245.00	
Recorder	0.00	8367	Outside	4245.00	
Perforations	14.00			4259.00	
Bullnose	3.00			4262.00	18.00 Bottom Packers & Anchor
Total Tool Length:	40.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Herman L Loeb, LLC

Hardy # 3

PO Box 838
Lawrenceville, IL 62439

23-28s-18w Kiowa, KS

Job Ticket: 43933

DST#: 1

ATTN: Jon Christensen

Test Start: 2011.07.24 @ 10:46:26

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:

125000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 13.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2500 GIP	0.000
60.00	MCW 10%M 90%W	0.295
125.00	SOGWCM 1%O 4%G 43%W 52%M	0.615

Total Length: 185.00 ft Total Volume: 0.910 bbl

Num Fluid Samples: 0

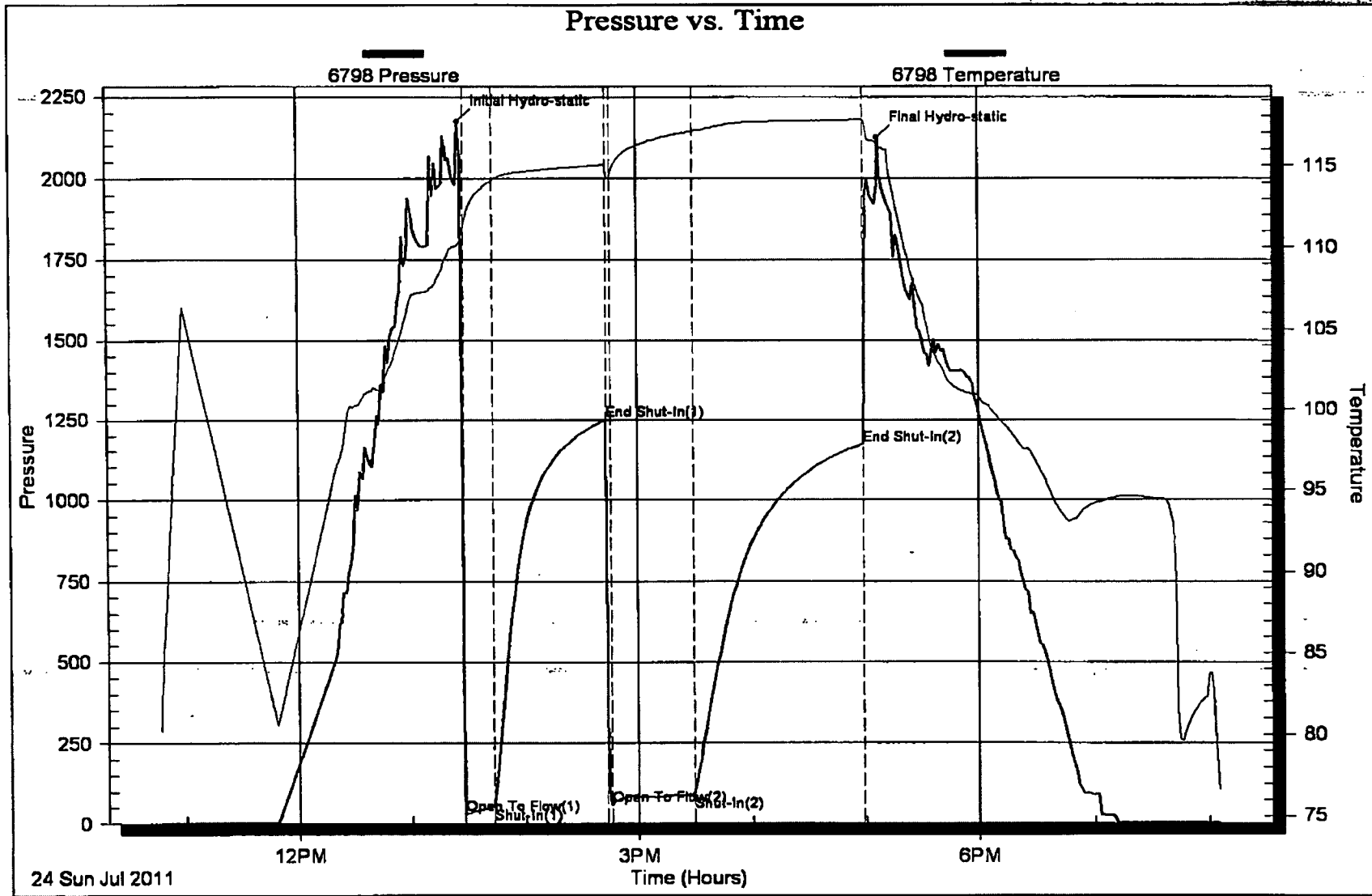
Num Gas Bombs: 0

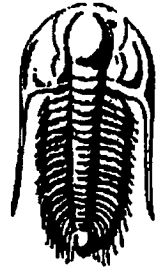
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .065 @ 85 degrees





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Herman L Loeb, LLC**

PO Box 838
Lawrenceville, IL 62439

ATTN: Jon Christensen

23-28s-18w Kiowa,KS

Hardy # 3

Start Date: 2011.07.26 @ 14:55:29

End Date: 2011.07.27 @ 00:25:29

Job Ticket #: 43934 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Herman L Loeb, LLC

Hardy # 3

23-28s-18w Kiowa,KS

DST # 2

Mississippi

2011.07.26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

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

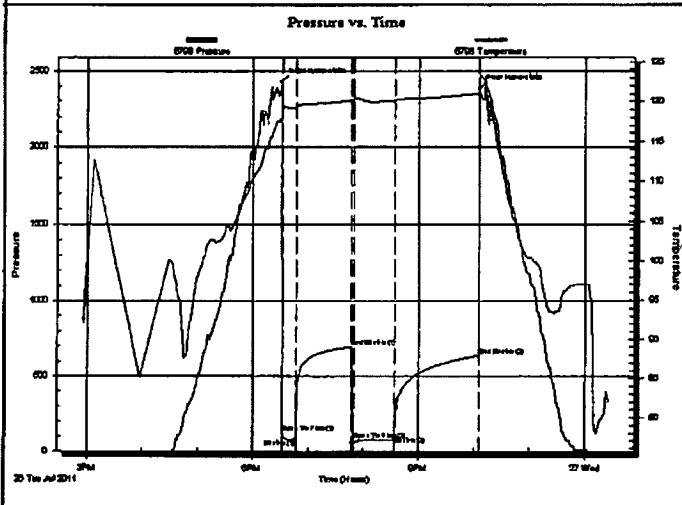
Hardy # 3
23-28s-18w Kiowa,KS
 Job Ticket: 43934 DST#: 2
 Test Start: 2011.07.26 @ 14:55:29

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: **No Whipstock** ft (KB)
 Test Type: **Conventional Bottom Hole**
 Time Tool Opened: **18:31:59**
 Tester: **Leal Cason**
 Time Test Ended: **00:25:29**
 Unit No: **45**
 Interval: **4786.00 ft (KB) To 4844.00 ft (KB) (TVD)**
 Reference Elevations: **2231.00 ft (KB)**
 Total Depth: **4844.00 ft (KB) (TVD)**
2220.00 ft (CF)
 Hole Diameter: **7.88 inches** Hole Condition: **Good**
 KB to GR/CF: **11.00 ft**

Serial #: 6798 **Inside**
 Press@RunDepth: **104.73 psig @ 4787.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2011.07.26** End Date: **2011.07.27** Last Calib.: **2011.07.27**
 Start Time: **14:55:30** End Time: **00:25:29** Time On Btm: **2011.07.26 @ 18:30:29**
 Time Off Btm: **2011.07.26 @ 22:05:14**

TEST COMMENT: IF: Strong Blow, BOB in 30 seconds, GTS in 12 minutes, Gauged Gas
 IS: Bled Off, 4 inch Blow back
 FF: Strong Blow, BOB & GTS Immediate, Gauged Gas & Caught Sample
 FS: Bled Off, 2 inch Blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2427.79	118.13	Initial Hydro-static
2	129.62	118.78	Open To Flow (1)
16	84.19	119.20	Shut-In(1)
77	693.53	120.15	End Shut-In(1)
79	77.77	120.51	Open To Flow (2)
123	104.73	120.09	Shut-In(2)
215	636.48	121.01	End Shut-In(2)
215	2384.97	121.68	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
0.00	4654 GIP	0.00
125.00	SGCM 2%G 98%M	0.61

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	28.00	67.26
Last Gas Rate	0.25	19.00	52.99
Max. Gas Rate	0.25	28.00	67.26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Herman L Loeb, LLC

Hardy # 3

PO Box 838
Lawrenceville, IL 62439

23-28s-18w Kiowa, KS

Job Ticket: 43934 DST#: 2

ATTN: Jon Christensen

Test Start: 2011.07.26 @ 14:55:29

Tool Information

Drill Pipe:	Length: 4566.00 ft	Diameter: 3.80 inches	Volume: 64.05 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 213.00 ft	Diameter: 2.25 inches	Volume: 1.05 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 65.10 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 79000.00 lb
Depth to Top Packer:	4786.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	80.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut in Tool	5.00			4769.00	
Hydraulic tool	5.00			4774.00	
Safety Joint	2.00			4776.00	
Packer	5.00			4781.00	22.00 Bottom Of Top Packer
Packer	5.00			4786.00	
Stubb	1.00			4787.00	
Recorder	0.00	6798	Inside	4787.00	
Recorder	0.00	8367	Outside	4787.00	
Perforations	6.00			4793.00	
Change Over Sub	1.00			4794.00	
Drill Pipe	32.00			4826.00	
Change Over Sub	1.00			4827.00	
Perforations	14.00			4841.00	
Buttnose	3.00			4844.00	58.00 Bottom Packers & Anchor

Total Tool Length: 80.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Herrman L Loeb, LLC

Hardy # 3

PO Box 838
Lawrenceville, IL 62439

23-28s-18w Kiowa,KS

Job Ticket: 43934 DST#: 2

ATTN: Jon Christensen

Test Start: 2011.07.26 @ 14:55:29

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: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5800.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4654 GIP	0.000
125.00	SGOM 2%G 98%M	0.615

Total Length: 125.00 ft Total Volume: 0.615 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

Hardy # 3

PO Box 838
Lawrenceville, IL 62439

23-28s-18w Kiowa, KS

Job Ticket: 43934

DST#: 2

ATTN: Jon Christensen

Test Start: 2011.07.26 @ 14:55:29

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	15	0.25	28.00	67.26
1	15	0.25	28.00	67.26
2	10	0.25	20.00	54.57
2	20	0.25	22.00	57.75
2	30	0.25	22.00	57.75
2	40	0.25	19.00	52.99

