

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

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

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

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

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

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

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Anchor Bay Petroleum LLC
Well Name	BARBARA 1
Doc ID	1390349

All Electric Logs Run

Dual Induction
Density-Neutron
Sonic
Micro

ANCHOR BAY PETROLEUM LLC 1952 Victoria Rd.; Hays, KS 67601 785-259-5807 lkn4oil@gmail.com

February 16, 2018

Kansas Corporation Commission
266 N. Main St., Suite 220
Wichita, KS 67202-1513

To whom it may concern:

Anchor Bay Petroleum LLC hereby requests that the information regarding the Barbara #1 be held confidential for a period of 24 months.

Respectfully,

Ed Glassman
Petroleum Geologist

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 564

Date	12-7-17	Sec.	2	Twp.	11	Range	17	County	Ellis	State	KS	On Location		Finish	6:45pm
Lease								Well No.		Owner					
Barbara								1		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Contractor										Charge To					
D. Simpson #2										Anchor Bay					
Type Job										Street					
Surface										City					
State										State					
Hole Size								T.D.		The above was done to satisfaction and supervision of owner agent or contractor.					
17 1/4								221							
Csg.								Depth		Cement Amount Ordered					
8 5/8								220		150 80/20 3/4 2-40					
Tbg. Size								Depth		Cement Left in Csg.					
										10					
Tool								Depth		Shoe Joint					
Meas Line								Displace		Cement Amount Ordered					
								13 BC		150 80/20 3/4 2-40					
EQUIPMENT															
Pumptrk		No.		Cement		Helper		Common		120					
5				Craig		Brett		Poz. Mix		30					
Bulktrk		No.		Driver		Driver		Gel.		3					
Bulktrk		14		Tom		Tom		Calcium		6					
JOB SERVICES & REMARKS															
Remarks:												Hulls			
Rat Hole												Salt			
Mouse Hole												Flowseal			
Centralizers												Kol-Seal			
Baskets												Mud CLR 48			
D/V or Port Collar												CFL-117 or CD110 CAF 38			
8 5/8 on bottom Est Circulation												Sand			
Mix 150 80/20 + Displace												Handling			
Cement Circulation												159			
												Mileage			
FLOAT EQUIPMENT															
												Guide Shoe			
												Centralizer			
												Baskets			
												AFU Inserts			
												Float Shoe			
												Latch Down			
												Pumptrk Charge			
												Surface			
												Mileage			
												25			
												Tax			
												Discount			
												Total Charge			
Signature															
James Wink															

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 572

Date	12-15-17	Sec.	2	Twp.	11	Range	17	County	Ellis	State	KS	On Location		Finish	1:30 Am.
Lease								Well No.		Owner					
Barbara								1		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Contractor										Charge To					
Discovery #2										Anchor Bay					
Type Job										Street					
Production String										City					
Hole Size								T.D.		State					
7 7/8								3510							
Csg.								Depth		The above was done to satisfaction and supervision of owner agent or contractor.					
5 1/2								3506		Cement Amount Ordered					
Tbg. Size								Depth		180 can 10% salt 5% calcium					
Port Collar								1005		500 gal mod clear					
Cement Left in Csg.								Shoe Joint		Common 180					
Meas Line								Displace		Poz. Mix					
								81 1/2 BBL		Gel.					
EQUIPMENT								No.		Calcium					
								5		Hulls					
Pumptrk								No.		Salt 15					
5								Cementer		Flowseal					
								Helper		Kol-Seal 750#					
Bulktrk								No.		Mud CLR 48 500 gal					
								Driver		CFL-117 or CD110 CAF 38					
Bulktrk								No.		Sand					
14								Driver		Handling 202					
								Driver		Mileage					
								Jordan		FLOAT EQUIPMENT					
JOB SERVICES & REMARKS										Guide Shoe					
										Part Collar					
										Centralizer					
										7					
										Baskets					
										2					
										AFU Inserts					
										Float Shoe					
										1					
										Latch Down					
		1													
Remarks:										Pumptrk Charge					
Rat Hole										25 prod string					
30 SK										Mileage					
Mouse Hole										25					
15 SK										Tax					
Centralizers										Discount					
Baskets										Total Charge					
D/V or Port Collar															
5 1/2 size @ 3506 Balled 3421.															
Est. Circulation - Pump 500 gal mod clear.															
Plug Retrolca mouse hole.															
Cement 5 1/2 with 135 SK.															
Clear lines & Displace Plug.															
Phrag loaded @ 1500#															
Lift Pressure 1200#															
Signature															

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 631

Date	1-10-18	Sec.	2	Twp.	11	Range	17	County	Ellis	State	Ks	On Location		Finish	4:30 PM	
Location								Codell + River Rd Jct. - 1 N, 3/4 E, N Arko								
Lease	Barbara			Well No.	1			Owner								
Contractor	Super oil well service			To Quality Oilwell Cementing, Inc.												
Type Job	Port Collar			You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.												
Hole Size				T.D.	Charge To Anchor Bay											
Csg.	5 1/2"			Depth	Street											
Tbg. Size	2 7/8"			Depth	1021'			City State								
Tool	Port Collar			Depth	1021'			The above was done to satisfaction and supervision of owner agent or contractor.								
Cement Left in Csg.				Shoe Joint	Cement Amount Ordered 250 80/20 QMDC 1/4# Flowseal											
Meas Line	Displace 5 BIS			6 gal used 165												
EQUIPMENT								Common 165 QMDC								
Pumptrk	16	No.	Cementor	Poz. Mix												
			Helper													
Bulktrk	15	No.	Driver	Gel. 6												
			Driver													
Bulktrk	p.u.	No.	Driver	Calcium												
			Driver													
JOB SERVICES & REMARKS								Hulls								
Remarks:	load hole test tool to								Salt							
Rat Hole	800# Hold. Leave backside								Flowseal 50#							
Mouse Hole	open + mix 6 gal to tool,								Kol-Seal							
Centralizers	open tool + mix 165sx								Mud CLR 48							
Baskets	Cement. + Displaced w/ 5 BIS								CFL-117 or CD110 CAF 38							
D/V or Port Collar	1/20. Closed tool + test								Sand							
	to 800# + held. Run 5 Jts.								Handling 250							
	+ wash clean.								Mileage							
wash up + Rigged down								FLOAT EQUIPMENT								
								Guide Shoe								
								Centralizer								
								Baskets								
								AFU Inserts								
								Float Shoe								
								Latch Down								
Cement did Circulate																
								Pumptrk Charge port collar								
								Mileage 25								
								Tax								
								Discount								
Signature <i>E. Glassman</i>								Total Charge								

APL 15-051-26899-00-00
 GEOLOGIST'S REPORT
 DRILLING TIME AND SAMPLE LOG

OPERATOR: ANCHOR BAR PETROLEUM LLC
 LEASE: BARBARA
 WELL NO: 1
 FIELD: WILLCAT
 LOCATION: 894' FSL & 542' FEL
 SEC: 2 TWP: 11S RGE: 17W
 COUNTY: ELLIS STATE: KANSAS

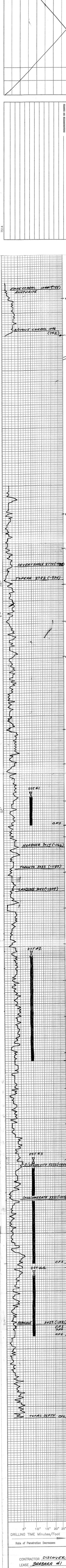
CONTRACTOR: DISCOVERY DRILLING INC RIG #2
 COMPANY: 12-15-2017 COMP: 12-15-2017
 RIG: 3540 TO: 3540 TO: T.D.
 DRILLING TIME KEPT FROM: 2700 TO T.D.
 SAMPLES EXAMINED FROM: 2600 TO T.D.
 GEOLOGICAL SUPERVISION FROM: T.D. UP
 TYPE MUD: CHEMICAL-KREBR
 MUD UP: 2700

FORMATION: TOP LOG BOTTOM SURFACE STRUC. STRENGTH
 SANDSTONE 1065 783 1066 (783)
 SANDSTONE 1098 783 1099 (783)
 TORONTO 2787-939 2782 (939)
 HEBNER 3014-1168 3014 (1168)
 TORONTO 3280-1416 3280 (1416)
 ARKADIA 3429-1586 3429 (1586)

REFERENCE WELL FOR STRUC. CORRELATION: STAKE #2, ANCHOR BAR PETROLEUM LLC
 3167 FSL & 4693 FEL, SEC 1 - 11S-17W ELLIS CO, KS

DATE	DEPTH	NO. OF SAMPLES	TEST	DEPTH	TEST
12-1-2017	574.0	1	HTC	221	174
12-8-17	449	2	HTC	3510	3289
12-10-17	1806				
12-11-17	2585				
12-12-17	2995				
12-13-17	3200				
12-14-17	3376				
12-17-17	3510				

NO.	DEPTH	GR/FT	GR/IN	GR/FT	GR/IN	GR/FT	GR/IN	REMARKS
1	2971-3014	21/1049	1/49	23/999	1/399	1399	3' mud	
2	3109-3200	15/60	1/40	15/60	1/40	1485	160' 0.1% CT mud	
3	3289-3376	20/671	2/47	24/981	2/585	10' mud		
4	3388-3439	40/1173	1/49	45/181	1/434	280' 6.9% water mud		



DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
1065-1098	STONE CORRAL	ANHPDRITE		
1098-1168	STONE CORRAL			
1168-1200				
1200-2600				
2600-2700		sh: gry, med, blk.		
2700-2800		LS: tan-f-med xln, inter xln, NS.		
2800-2900		SH: gry, drk gry, f-med, sme rough, bound 10' bluish		
2900-3000		LS: tan, f-med, blk, blk.		
3000-3100		LS: tan-f-med xln, some blk, inter xln, NS.		
3100-3200		LS: tan-f-med xln, some blk, inter xln, NS.		
3200-3300		SH: blk, carb.		
3300-3400		SH: gry, med, blk.		
3400-3500		SH: blk, carb.		
3500-3600		LS: tan, f-med xln, some blk, inter xln, NS.		
3600-3700		LS: tan, f-med xln, some blk, inter xln, NS.		
3700-3800		SH: gry, med, blk.		
3800-3900		SH: blk, carb.		
3900-4000		LS: tan, f-med xln, some blk, inter xln, NS.		
4000-4100		SH: blk, carb.		
4100-4200		SH: gry, med, blk.		
4200-4300		SH: blk, carb.		
4300-4400		LS: tan, f-med xln, some blk, inter xln, NS.		
4400-4500		SH: blk, carb.		
4500-4600		SH: gry, med, blk.		
4600-4700		SH: blk, carb.		
4700-4800		LS: tan, f-med xln, some blk, inter xln, NS.		
4800-4900		SH: blk, carb.		
4900-5000		SH: gry, med, blk.		
5000-5100		SH: blk, carb.		
5100-5200		LS: tan, f-med xln, some blk, inter xln, NS.		
5200-5300		SH: blk, carb.		
5300-5400		SH: gry, med, blk.		
5400-5500		SH: blk, carb.		
5500-5600		LS: tan, f-med xln, some blk, inter xln, NS.		
5600-5700		SH: blk, carb.		
5700-5800		SH: gry, med, blk.		
5800-5900		SH: blk, carb.		
5900-6000		LS: tan, f-med xln, some blk, inter xln, NS.		
6000-6100		SH: blk, carb.		
6100-6200		SH: gry, med, blk.		
6200-6300		SH: blk, carb.		
6300-6400		LS: tan, f-med xln, some blk, inter xln, NS.		
6400-6500		SH: blk, carb.		
6500-6600		SH: gry, med, blk.		
6600-6700		SH: blk, carb.		
6700-6800		LS: tan, f-med xln, some blk, inter xln, NS.		
6800-6900		SH: blk, carb.		
6900-7000		SH: gry, med, blk.		
7000-7100		SH: blk, carb.		
7100-7200		LS: tan, f-med xln, some blk, inter xln, NS.		
7200-7300		SH: blk, carb.		
7300-7400		SH: gry, med, blk.		
7400-7500		SH: blk, carb.		
7500-7600		LS: tan, f-med xln, some blk, inter xln, NS.		
7600-7700		SH: blk, carb.		
7700-7800		SH: gry, med, blk.		
7800-7900		SH: blk, carb.		
7900-8000		LS: tan, f-med xln, some blk, inter xln, NS.		
8000-8100		SH: blk, carb.		
8100-8200		SH: gry, med, blk.		
8200-8300		SH: blk, carb.		
8300-8400		LS: tan, f-med xln, some blk, inter xln, NS.		
8400-8500		SH: blk, carb.		
8500-8600		SH: gry, med, blk.		
8600-8700		SH: blk, carb.		
8700-8800		LS: tan, f-med xln, some blk, inter xln, NS.		
8800-8900		SH: blk, carb.		
8900-9000		SH: gry, med, blk.		
9000-9100		SH: blk, carb.		
9100-9200		LS: tan, f-med xln, some blk, inter xln, NS.		
9200-9300		SH: blk, carb.		
9300-9400		SH: gry, med, blk.		
9400-9500		SH: blk, carb.		
9500-9600		LS: tan, f-med xln, some blk, inter xln, NS.		
9600-9700		SH: blk, carb.		
9700-9800		SH: gry, med, blk.		
9800-9900		SH: blk, carb.		
9900-10000		LS: tan, f-med xln, some blk, inter xln, NS.		

DIST #	DEPTH	REMARKS
DST #1	2971-2995	
DST #2	3109-3200	
DST #3	3289-3376	
DST #4	3388-3439	

CONTRACTOR: DISCOVERY DRILLING RIG 2 LOCATION: 894' FSL & 542' FEL
 LEASE: BARBARA #1 IP COUNTY: ELLIS STATE: KANSAS
 ELEVATION: 1840, KB 1848 RTD: 3540



DRILL STEM TEST REPORT

Prepared For: **Anchor Bay Petroleum**

1952 Victoria Rd
Hays KS 67601

ATTN: Ed Glassman

Barbara #1

2-11S-17W Ellis,KS

Start Date: 2017.12.11 @ 05:58:00

End Date: 2017.12.11 @ 13:02:00

Job Ticket #: 63199 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.12.15 @ 09:12:43



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Anchor Bay Petroleum
 1952 Victoria Rd
 Hays KS 67601
 ATTN: Ed Glassman

2-11S-17W Ellis,KS

Barbara #1

Job Ticket: 63199

DST#: 1

Test Start: 2017.12.11 @ 05:58:00

GENERAL INFORMATION:

Formation: **Plattsmouth**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:02:30

Time Test Ended: 13:02:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J. Staab

Unit No: 84

Interval: **2971.00 ft (KB) To 2995.00 ft (KB) (TVD)**

Reference Elevations: 1848.00 ft (KB)

Total Depth: 2995.00 ft (KB) (TVD)

1840.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8934 Outside

Press@RunDepth: 23.21 psig @ 2972.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.12.11 End Date: 2017.12.11

Last Calib.: 2017.12.11

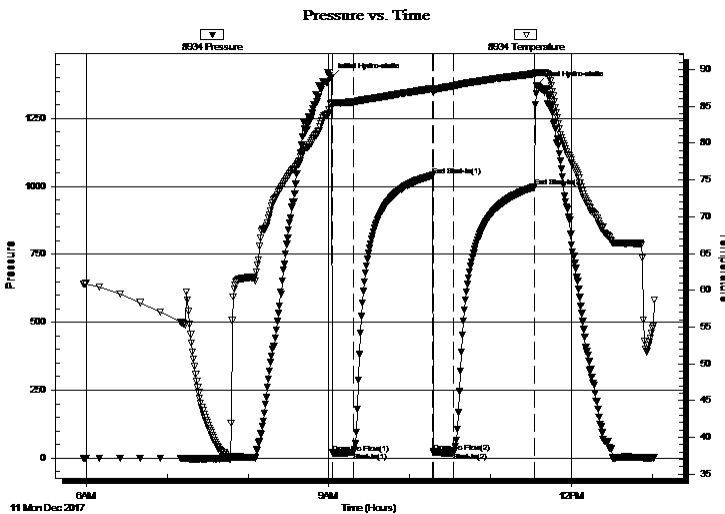
Start Time: 05:58:15 End Time: 13:02:00

Time On Btm: 2017.12.11 @ 09:02:00

Time Off Btm: 2017.12.11 @ 11:34:15

TEST COMMENT: 15-IF-Weak Blow ; Built to 1 1/4"
 60-ISI-No Return
 15-FF-Very Weak Blow ; Built to 1/4"
 60-FSI-No Return

PRESSURE SUMMARY



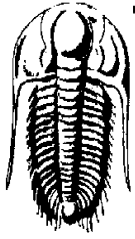
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1399.16	85.53	Initial Hydro-static
1	19.27	85.18	Open To Flow (1)
16	21.38	85.61	Shut-In(1)
75	1040.92	87.43	End Shut-In(1)
76	22.41	87.18	Open To Flow (2)
91	23.21	87.79	Shut-In(2)
151	999.23	89.45	End Shut-In(2)
153	1371.47	89.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100%M	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Anchor Bay Petroleum
1952 Victoria Rd
Hays KS 67601
ATTN: Ed Glassman

2-11S-17W Ellis,KS
Barbara #1
Job Ticket: 63199 **DST#: 1**
Test Start: 2017.12.11 @ 05:58:00

GENERAL INFORMATION:

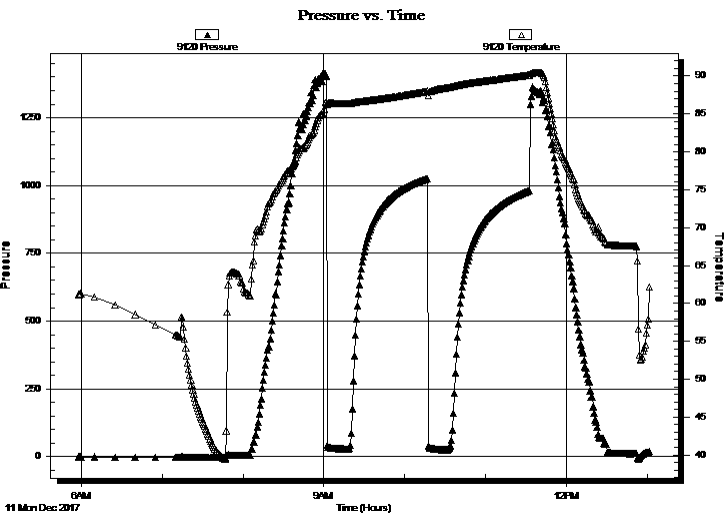
Formation: **Plattsmouth**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:02:30
 Time Test Ended: 13:02:00
 Interval: **2971.00 ft (KB) To 2995.00 ft (KB) (TVD)**
 Total Depth: 2995.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1848.00 ft (KB)
 1840.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 9120

Inside

Press@RunDepth: psig @ 2972.00 ft (KB)
 Start Date: 2017.12.11 End Date: 2017.12.11
 Start Time: 05:58:15 End Time: 13:02:00
 Capacity: 8000.00 psig
 Last Calib.: 2017.12.11
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15-IF-Weak Blow ; Built to 1 1/4"
 60-ISI-No Return
 15-FF-Very Weak Blow ; Built to 1/4"
 60-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100%M	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63199

DST#: 1

ATTN: Ed Glassman

Test Start: 2017.12.11 @ 05:58:00

Tool Information

Drill Pipe:	Length: 2747.00 ft	Diameter: 3.80 inches	Volume: 38.53 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 218.00 ft	Diameter: 2.75 inches	Volume: 1.60 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 49000.00 lb
			<u>Total Volume: 40.13 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	2971.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2952.00	
Shut In Tool	5.00			2957.00	
Hydraulic tool	5.00			2962.00	
Packer	5.00			2967.00	20.00 Bottom Of Top Packer
Packer	4.00			2971.00	
Stubb	1.00			2972.00	
Recorder	0.00	9120	Inside	2972.00	
Recorder	0.00	8934	Outside	2972.00	
Perforations	19.00			2991.00	
Bullnose	4.00			2995.00	24.00 Bottom Packers & Anchor
Total Tool Length:	44.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63199

DST#: 1

ATTN: Ed Glassman

Test Start: 2017.12.11 @ 05:58:00

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: 80.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud 100%M	0.022

Total Length: 3.00 ft Total Volume: 0.022 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

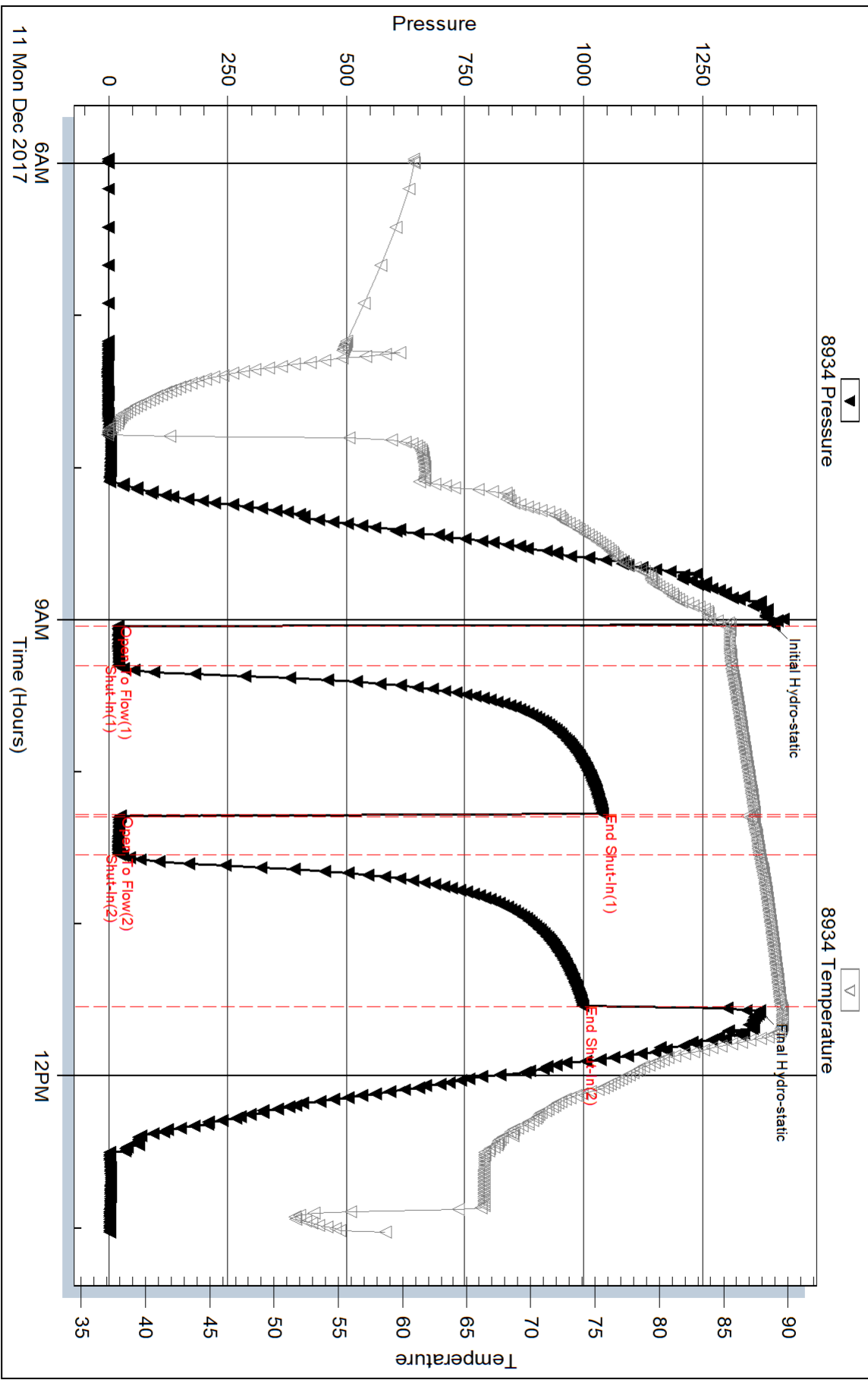
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 3#LCM

Pressure vs. Time



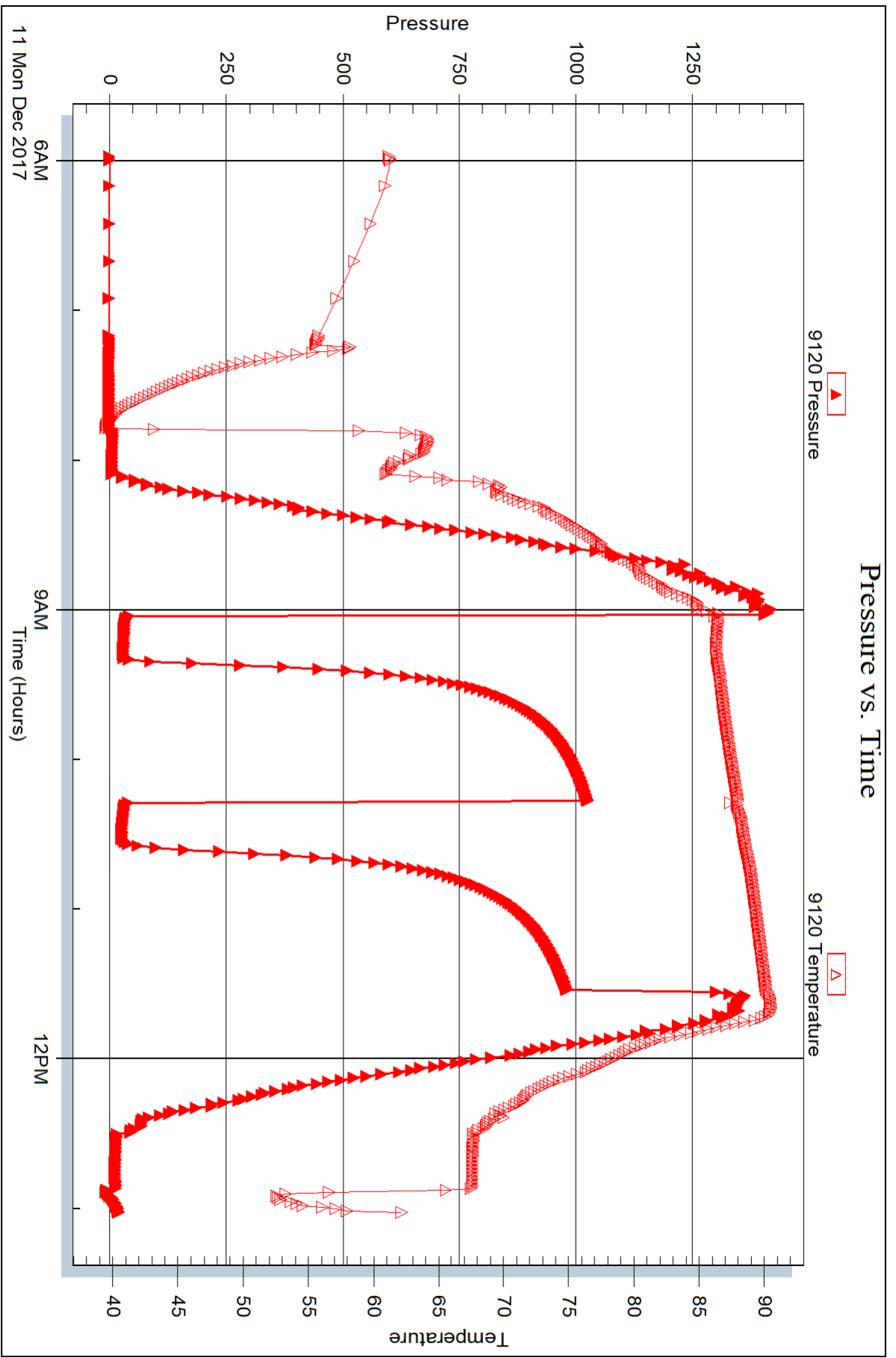
Serial #: 9120

Inside

Anchor Bay Petroleum

Barbara #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 63199

Printed: 2017.12.15 @ 09:12:44



DRILL STEM TEST REPORT

Prepared For: **Anchor Bay Petroleum**

1952 Victoria Rd
Hays KS 67601

ATTN: Ed Glassman

Barbara #1

2-11S-17W Ellis,KS

Start Date: 2017.12.12 @ 04:56:00

End Date: 2017.12.12 @ 11:34:30

Job Ticket #: 63200 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.12.15 @ 09:12:17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63200

DST#: 2

ATTN: Ed Glassman

Test Start: 2017.12.12 @ 04:56:00

GENERAL INFORMATION:

Formation: **LKC 'D-H'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:52:30

Time Test Ended: 11:34:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 3109.00 ft (KB) To 3200.00 ft (KB) (TVD)

Reference Elevations: 1848.00 ft (KB)

Total Depth: 3200.00 ft (KB) (TVD)

1840.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8934 Outside

Press@RunDepth: 78.31 psig @ 3114.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.12.12 End Date: 2017.12.12

Last Calib.: 2017.12.12

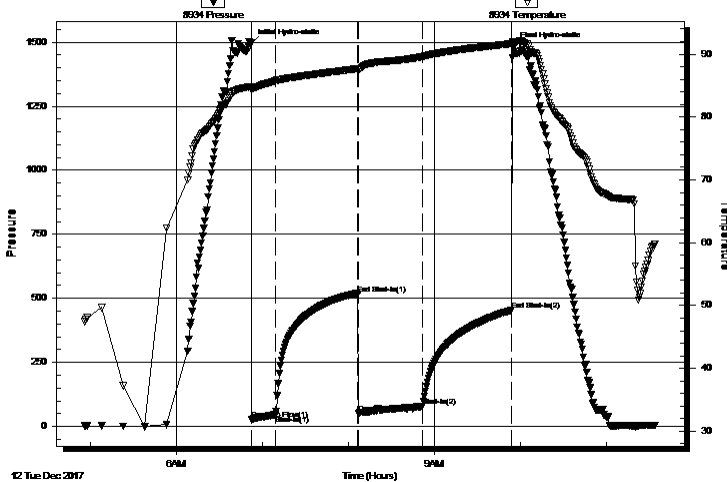
Start Time: 04:56:15 End Time: 11:34:30

Time On Btm: 2017.12.12 @ 06:52:15

Time Off Btm: 2017.12.12 @ 09:55:00

TEST COMMENT: 15-IF-Fair Blow ; Built to 5"
60-ISI-Weak Blow ; Built to 1/4"
45-FF-Fair Blow ; Built to 4"
60-FSI-Weak Surface Blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1495.99	84.83	Initial Hydro-static
1	28.43	84.33	Open To Flow (1)
17	44.94	85.77	Shut-In(1)
75	516.75	87.69	End Shut-In(1)
75	51.52	87.58	Open To Flow (2)
120	78.31	89.61	Shut-In(2)
182	453.88	91.68	End Shut-In(2)
183	1481.85	92.03	Final Hydro-static

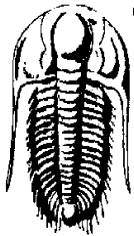
Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM w/oil specks 1%W 99%M	0.44
60.00	Mud w / oil scum 1%O 99%M	0.44
40.00	Oil Spotted Mud 100%M	0.29

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63200

DST#: 2

ATTN: Ed Glassman

Test Start: 2017.12.12 @ 04:56:00

GENERAL INFORMATION:

Formation: **LKC 'D-H'**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 06:52:30
 Tester: Spencer J. Staab
 Time Test Ended: 11:34:30
 Unit No: 84
Interval: 3109.00 ft (KB) To 3200.00 ft (KB) (TVD)
 Reference Elevations: 1848.00 ft (KB)
 Total Depth: 3200.00 ft (KB) (TVD)
 1840.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 8.00 ft

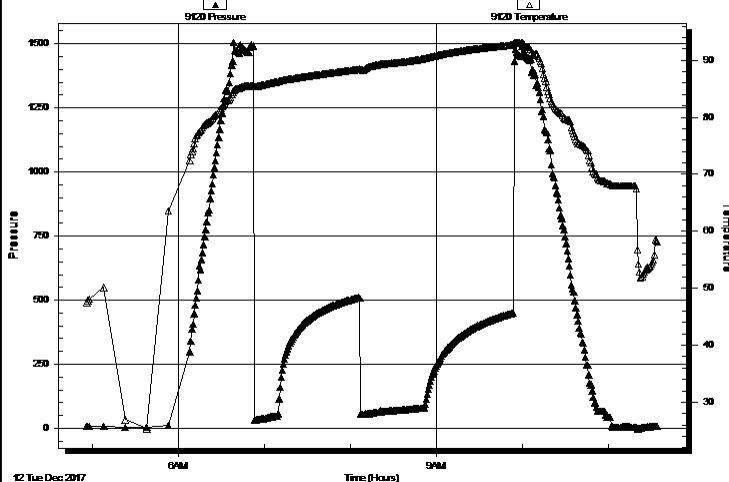
Serial #: 9120

Inside

Press@RunDepth: psig @ 3114.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.12 End Date: 2017.12.12 Last Calib.: 2017.12.12
 Start Time: 04:56:15 End Time: 11:34:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15-IF-Fair Blow ; Built to 5"
 60-ISI-Weak Blow ; Built to 1/4"
 45-FF-Fair Blow ; Built to 4"
 60-FSI-Weak Surface Blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM w/oil specks 1%W 99%M	0.44
60.00	Mud w / oil scum 1%O 99%M	0.44
40.00	Oil Spotted Mud 100%M	0.29

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63200

DST#: 2

ATTN: Ed Glassman

Test Start: 2017.12.12 @ 04:56:00

Tool Information

Drill Pipe:	Length: 2904.00 ft	Diameter: 3.80 inches	Volume: 40.74 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 218.00 ft	Diameter: 2.75 inches	Volume: 1.60 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	53000.00 lb
			<u>Total Volume: 42.34 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3109.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	91.00 ft				
Tool Length:	111.00 ft				
Number of Packers:	1	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3090.00	
Shut In Tool	5.00			3095.00	
Hydraulic tool	5.00			3100.00	
Packer	5.00			3105.00	20.00 Bottom Of Top Packer
Packer	4.00			3109.00	
Stubb	1.00			3110.00	
Perforations	3.00			3113.00	
Change Over Sub	1.00			3114.00	
Recorder	0.00	9120	Inside	3114.00	
Recorder	0.00	8934	Outside	3114.00	
Drill Pipe	62.00			3176.00	
Change Over Sub	1.00			3177.00	
Perforations	19.00			3196.00	
Bullnose	4.00			3200.00	91.00 Bottom Packers & Anchor

Total Tool Length: 111.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63200

DST#: 2

ATTN: Ed Glassman

Test Start: 2017.12.12 @ 04:56:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	WCM w/oil specks 1%W 99%M	0.441
60.00	Mud w / oil scum 1%O 99%M	0.441
40.00	Oil Spotted Mud 100%M	0.294

Total Length: 160.00 ft Total Volume: 1.176 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

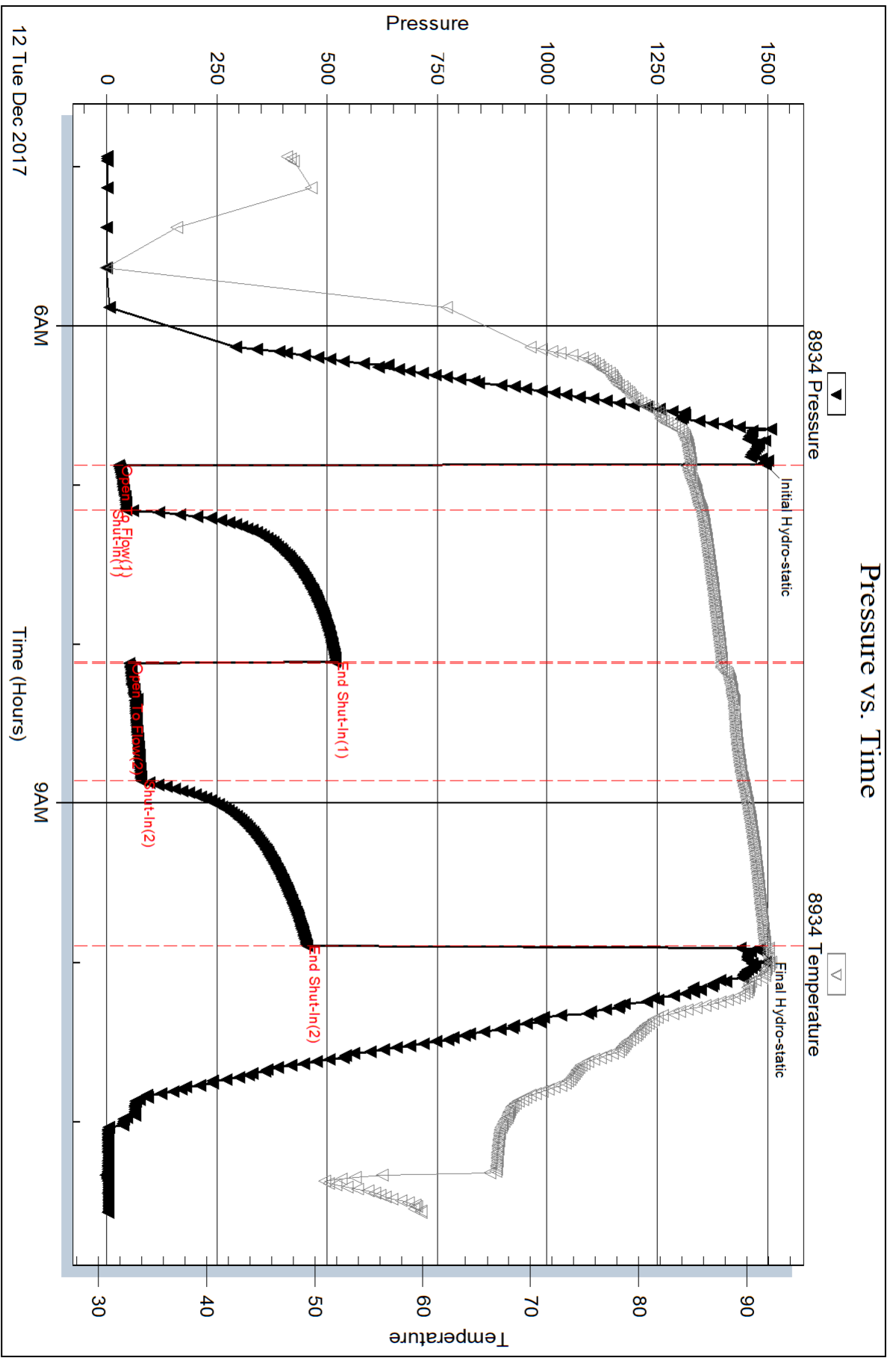
Recovery Comments: 2&1/2#LCM

Serial #: 8934

Outside Anchor Bay Petroleum

Barbara #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63200

Printed: 2017.12.15 @ 09:12:18

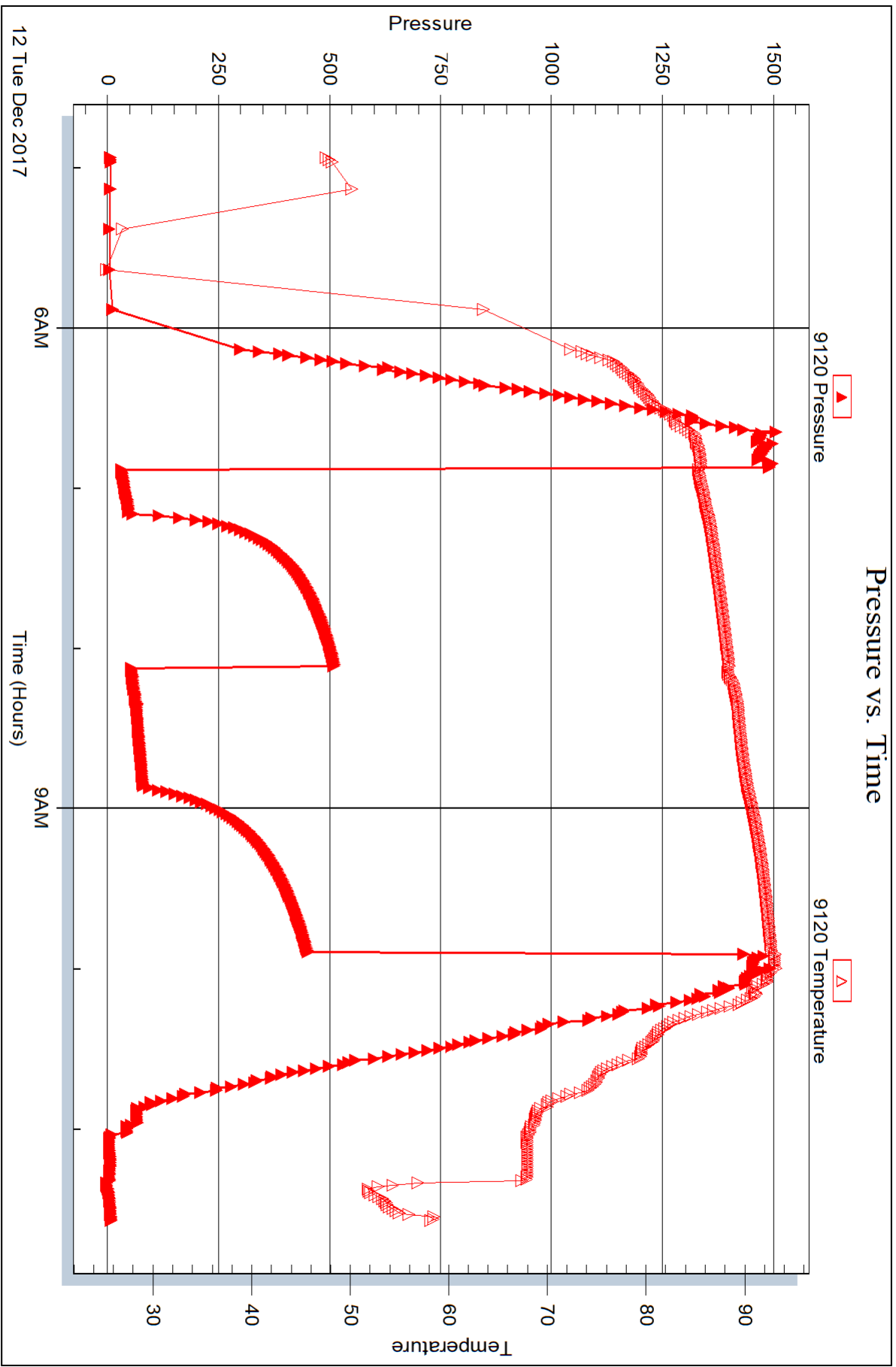
Serial #: 9120

Inside

Anchor Bay Petroleum

Barbara #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Anchor Bay Petroleum**

1952 Victoria Rd
Hays KS 67601

ATTN: Ed Glassman

Barbara #1

2-11S-17W Ellis,KS

Start Date: 2017.12.13 @ 00:44:00

End Date: 2017.12.13 @ 06:52:00

Job Ticket #: 63526 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.12.15 @ 09:10:36



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63526

DST#: 3

ATTN: Ed Glassman

Test Start: 2017.12.13 @ 00:44:00

GENERAL INFORMATION:

Formation: **Conglomerate**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 02:26:45
 Time Test Ended: 06:52:00
 Interval: **3289.00 ft (KB) To 3376.00 ft (KB) (TVD)**
 Total Depth: 3376.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1848.00 ft (KB)
 1840.00 ft (CF)
 KB to GR/CF: 8.00 ft

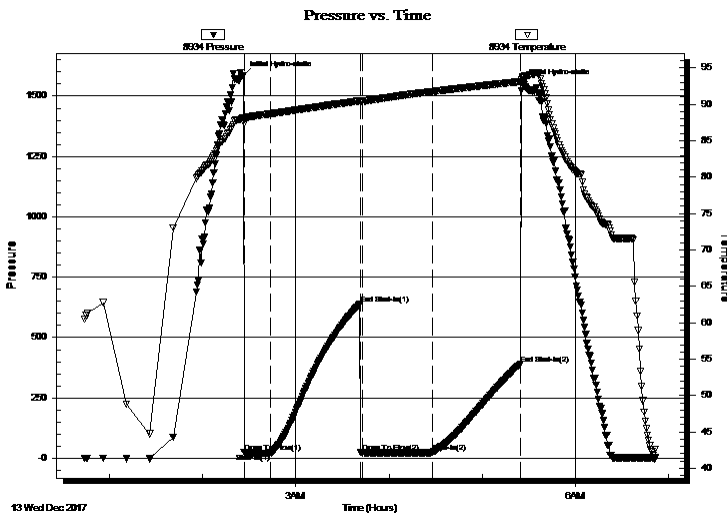
Serial #: 8934

Inside

Press@RunDepth: 24.40 psig @ 3294.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.13 End Date: 2017.12.13 Last Calib.: 2017.12.13
 Start Time: 00:44:15 End Time: 06:52:00 Time On Btm: 2017.12.13 @ 02:26:30
 Time Off Btm: 2017.12.13 @ 05:25:45

TEST COMMENT: 15-IF-Weak Blow ; Built to 1 1/2"
 60-ISI-No Return
 45-FF-Weak Surface Blow
 60-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1585.53	88.19	Initial Hydro-static
1	25.74	87.43	Open To Flow (1)
17	20.78	88.70	Shut-In(1)
75	637.56	90.48	End Shut-In(1)
77	23.29	90.39	Open To Flow (2)
122	24.40	91.75	Shut-In(2)
179	391.77	93.13	End Shut-In(2)
180	1553.41	93.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%M	0.07

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63526

DST#: 3

ATTN: Ed Glassman

Test Start: 2017.12.13 @ 00:44:00

GENERAL INFORMATION:

Formation: **Conglomerate**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:26:45

Time Test Ended: 06:52:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: **3289.00 ft (KB) To 3376.00 ft (KB) (TVD)**

Total Depth: 3376.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1848.00 ft (KB)

1840.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: **9120** Inside

Press@RunDepth: psig @ 3294.00 ft (KB)

Start Date: 2017.12.13 End Date: 2017.12.13

Start Time: 00:44:15 End Time: 06:52:00

Capacity: 8000.00 psig

Last Calib.: 2017.12.13

Time On Btm:

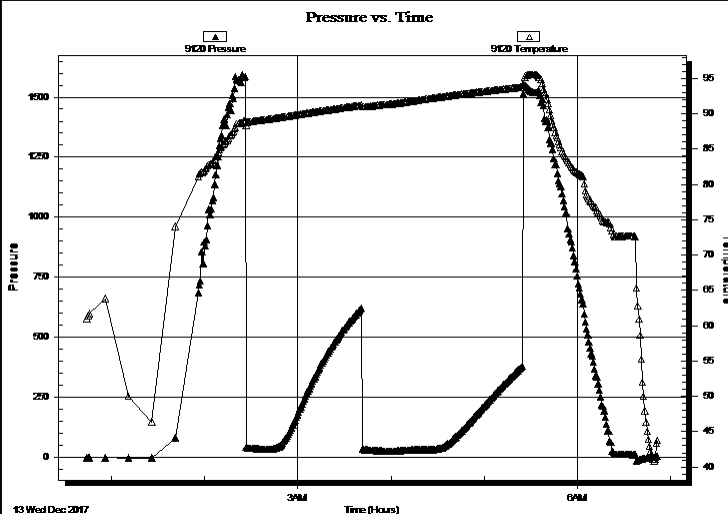
Time Off Btm:

TEST COMMENT: 15-IF-Weak Blow ; Built to 1 1/2"

60-ISI-No Return

45-FF-Weak Surface Blow

60-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%M	0.07

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63526

DST#: 3

ATTN: Ed Glassman

Test Start: 2017.12.13 @ 00:44:00

Tool Information

Drill Pipe:	Length: 3061.00 ft	Diameter: 3.80 inches	Volume: 42.94 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 218.00 ft	Diameter: 2.75 inches	Volume: 1.60 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 44.54 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3289.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	87.00 ft			
Tool Length:	107.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3270.00	
Shut In Tool	5.00			3275.00	
Hydraulic tool	5.00			3280.00	
Packer	5.00			3285.00	20.00 Bottom Of Top Packer
Packer	4.00			3289.00	
Stubb	1.00			3290.00	
Perforations	3.00			3293.00	
Change Over Sub	1.00			3294.00	
Recorder	0.00	9120	Inside	3294.00	
Recorder	0.00	8934	Inside	3294.00	
Drill Pipe	62.00			3356.00	
Change Over Sub	1.00			3357.00	
Perforations	15.00			3372.00	
Bullnose	4.00			3376.00	87.00 Bottom Packers & Anchor

Total Tool Length: 107.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63526

DST#: 3

ATTN: Ed Glassman

Test Start: 2017.12.13 @ 00:44:00

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: 51.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100%M	0.073

Total Length: 10.00 ft Total Volume: 0.073 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1&1/2#LCM

Serial #: 8934

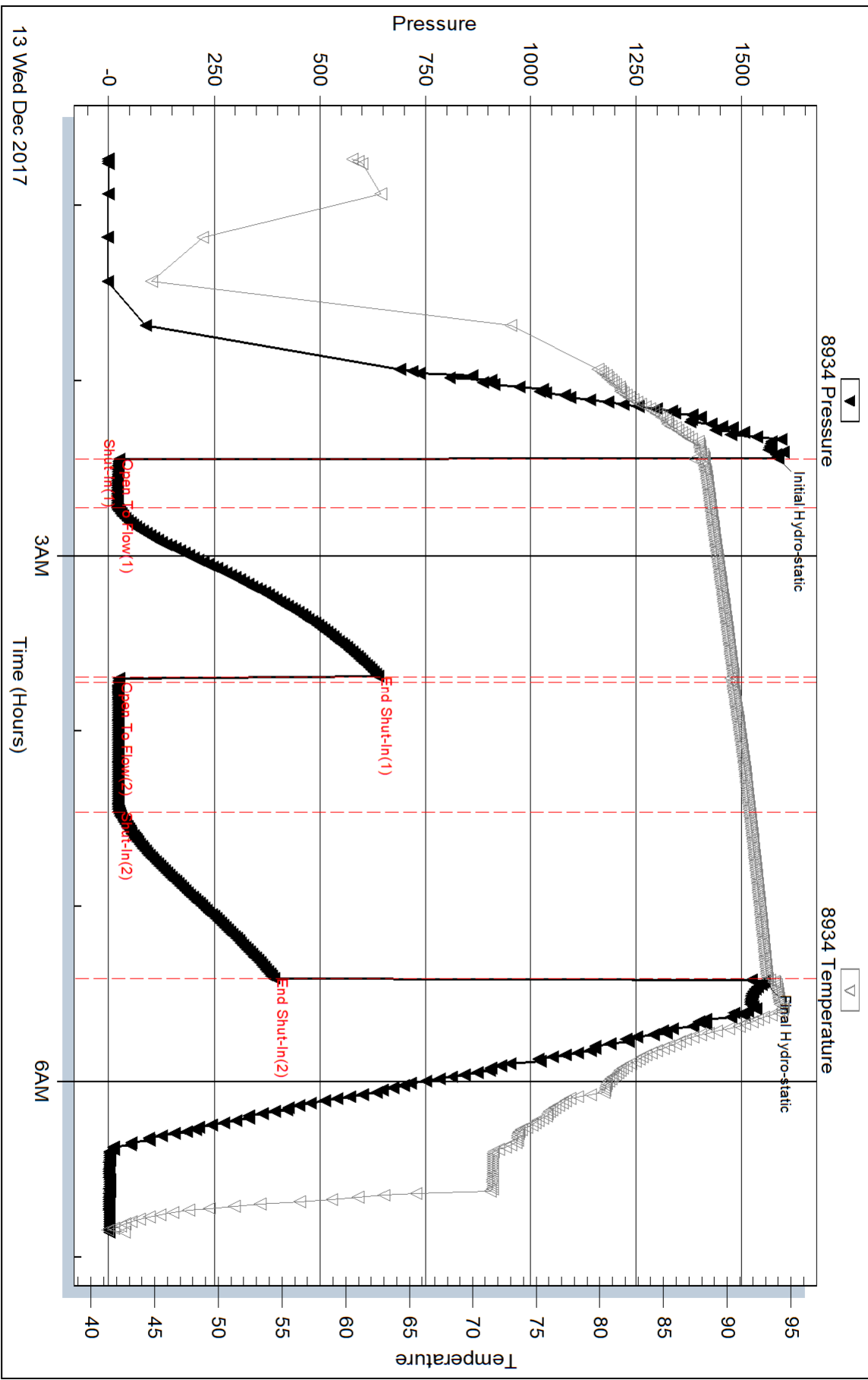
Inside

Anchor Bay Petroleum

Barbara #1

DST Test Number: 3

Pressure vs. Time



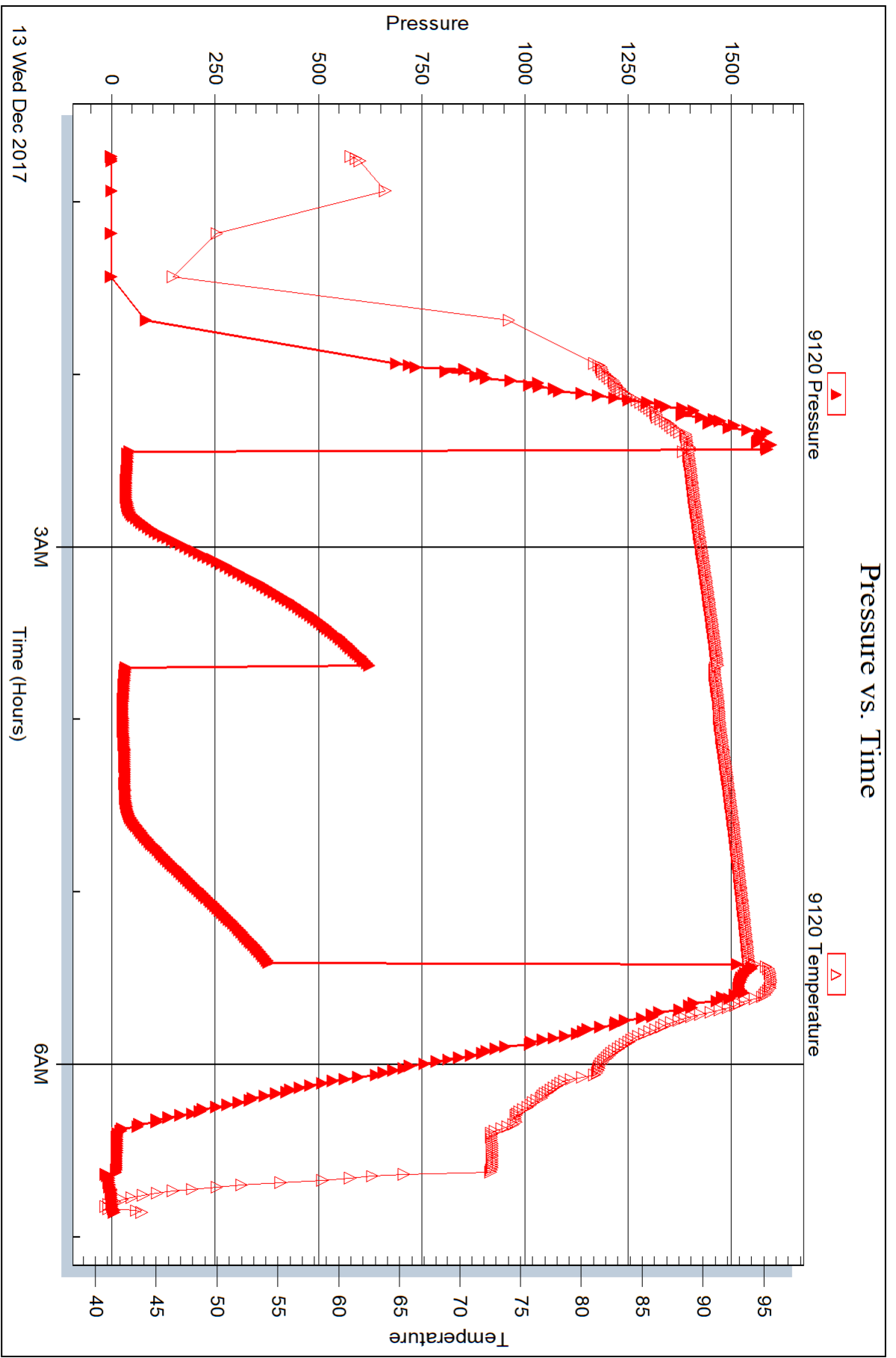
Serial #: 9120

Inside

Anchor Bay Petroleum

Barbara #1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63526

Printed: 2017.12.15 @ 09:10:37



DRILL STEM TEST REPORT

Prepared For: **Anchor Bay Petroleum**

1952 Victoria Rd
Hays KS 67601

ATTN: Ed Glassman

Barbara #1

2-11S-17W Ellis,KS

Start Date: 2017.12.13 @ 18:07:00

End Date: 2017.12.14 @ 01:42:30

Job Ticket #: 63527 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.12.15 @ 09:09:08



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63527

DST#: 4

ATTN: Ed Glassman

Test Start: 2017.12.13 @ 18:07:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:06:45

Time Test Ended: 01:42:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 3388.00 ft (KB) To 3439.00 ft (KB) (TVD)

Reference Elevations: 1848.00 ft (KB)

Total Depth: 3439.00 ft (KB) (TVD)

1840.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8934 Inside

Press@RunDepth: 149.39 psig @ 3395.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.12.13

End Date:

2017.12.14

Last Calib.: 2017.12.14

Start Time: 18:07:15

End Time:

01:42:30

Time On Btm: 2017.12.13 @ 21:06:30

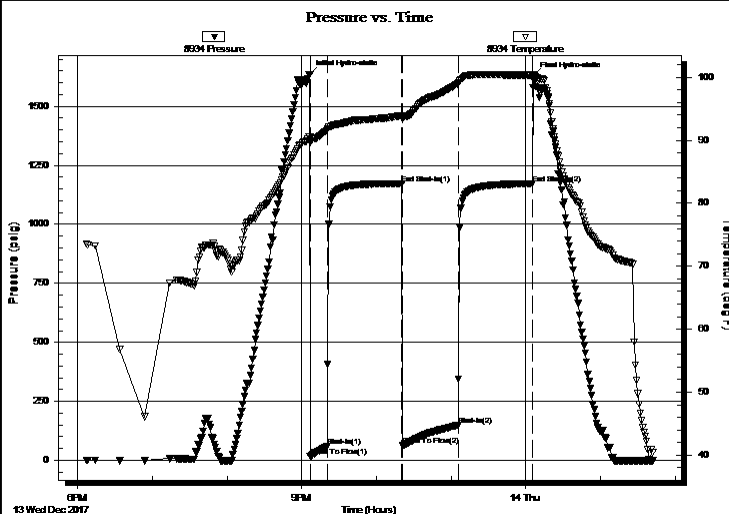
Time Off Btm: 2017.12.14 @ 00:06:15

TEST COMMENT: 15-IF-Fair Blow ; Built to 7"

60-ISI-No Return

45-FF-Fair Blow ; BOB in 31 mins

60-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1634.82	90.56	Initial Hydro-static
1	16.13	89.68	Open To Flow (1)
14	60.06	91.64	Shut-In(1)
74	1172.59	93.94	End Shut-In(1)
75	62.46	93.37	Open To Flow (2)
119	149.39	98.97	Shut-In(2)
179	1171.74	100.32	End Shut-In(2)
180	1627.91	100.02	Final Hydro-static

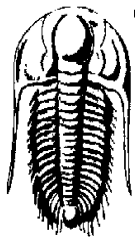
Recovery

Length (ft)	Description	Volume (bbl)
60.00	GWM 15%G 15%W 70%M	0.44
120.00	GCWM 5%G 15%W 80%M	0.88
60.00	GM w /oil specks 5%G 95%M	0.59
40.00	Mud w / scum of oil 1%O 99%M	0.56

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63527

DST#: 4

ATTN: Ed Glassman

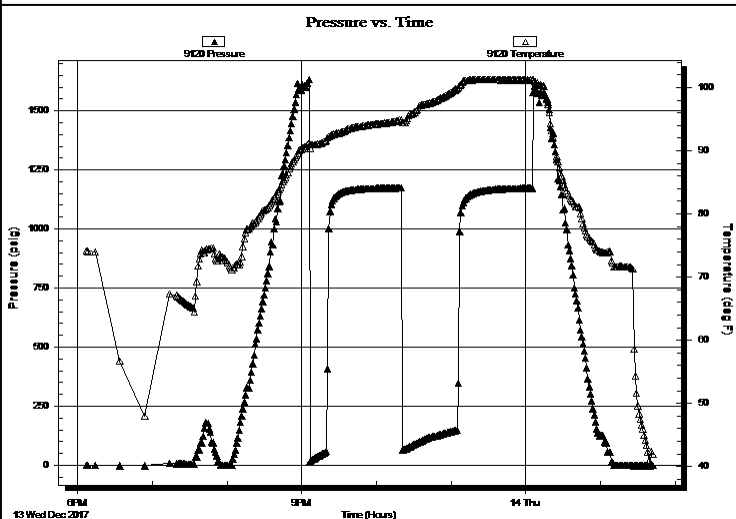
Test Start: 2017.12.13 @ 18:07:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 21:06:45 Tester: Spencer J. Staab
 Time Test Ended: 01:42:30 Unit No: 84
 Interval: **3388.00 ft (KB) To 3439.00 ft (KB) (TVD)**
 Reference Elevations: 1848.00 ft (KB)
 Total Depth: 3439.00 ft (KB) (TVD) 1840.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 9120 Inside
 Press@RunDepth: psig @ 3395.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.13 End Date: 2017.12.14 Last Calib.: 2017.12.14
 Start Time: 18:07:15 End Time: 01:42:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15-IF-Fair Blow ; Built to 7"
 60-ISI-No Return
 45-FF-Fair Blow ; BOB in 31 mins
 60-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GWM 15%G 15%W 70%M	0.44
120.00	GCWM 5%G 15%W 80%M	0.88
60.00	GM w /oil specks 5%G 95%M	0.59
40.00	Mud w / scum of oil 1%O 99%M	0.56

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63527

DST#: 4

ATTN: Ed Glassman

Test Start: 2017.12.13 @ 18:07:00

Tool Information

Drill Pipe:	Length: 3155.00 ft	Diameter: 3.80 inches	Volume: 44.26 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 218.00 ft	Diameter: 2.75 inches	Volume: 1.60 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	56000.00 lb
			<u>Total Volume: 45.86 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	3388.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	51.00 ft				
Tool Length:	71.00 ft				
Number of Packers:	1	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3369.00	
Shut In Tool	5.00			3374.00	
Hydraulic tool	5.00			3379.00	
Packer	5.00			3384.00	20.00 Bottom Of Top Packer
Packer	4.00			3388.00	
Stubb	1.00			3389.00	
Perforations	5.00			3394.00	
Change Over Sub	1.00			3395.00	
Recorder	0.00	9120	Inside	3395.00	
Recorder	0.00	8934	Inside	3395.00	
Drill Pipe	31.00			3426.00	
Change Over Sub	1.00			3427.00	
Perforations	8.00			3435.00	
Bullnose	4.00			3439.00	51.00 Bottom Packers & Anchor

Total Tool Length: 71.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Anchor Bay Petroleum

2-11S-17W Ellis,KS

1952 Victoria Rd
Hays KS 67601

Barbara #1

Job Ticket: 63527

DST#: 4

ATTN: Ed Glassman

Test Start: 2017.12.13 @ 18:07:00

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:

39000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	GWM 15%G 15%W 70%M	0.441
120.00	GCWM 5%G 15%W 80%M	0.882
60.00	GM w /oil specks 5%G 95%M	0.588
40.00	Mud w / scum of oil 1%O 99%M	0.561

Total Length: 280.00 ft

Total Volume: 2.472 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM

RW=.327@40degrees

Serial #: 8934

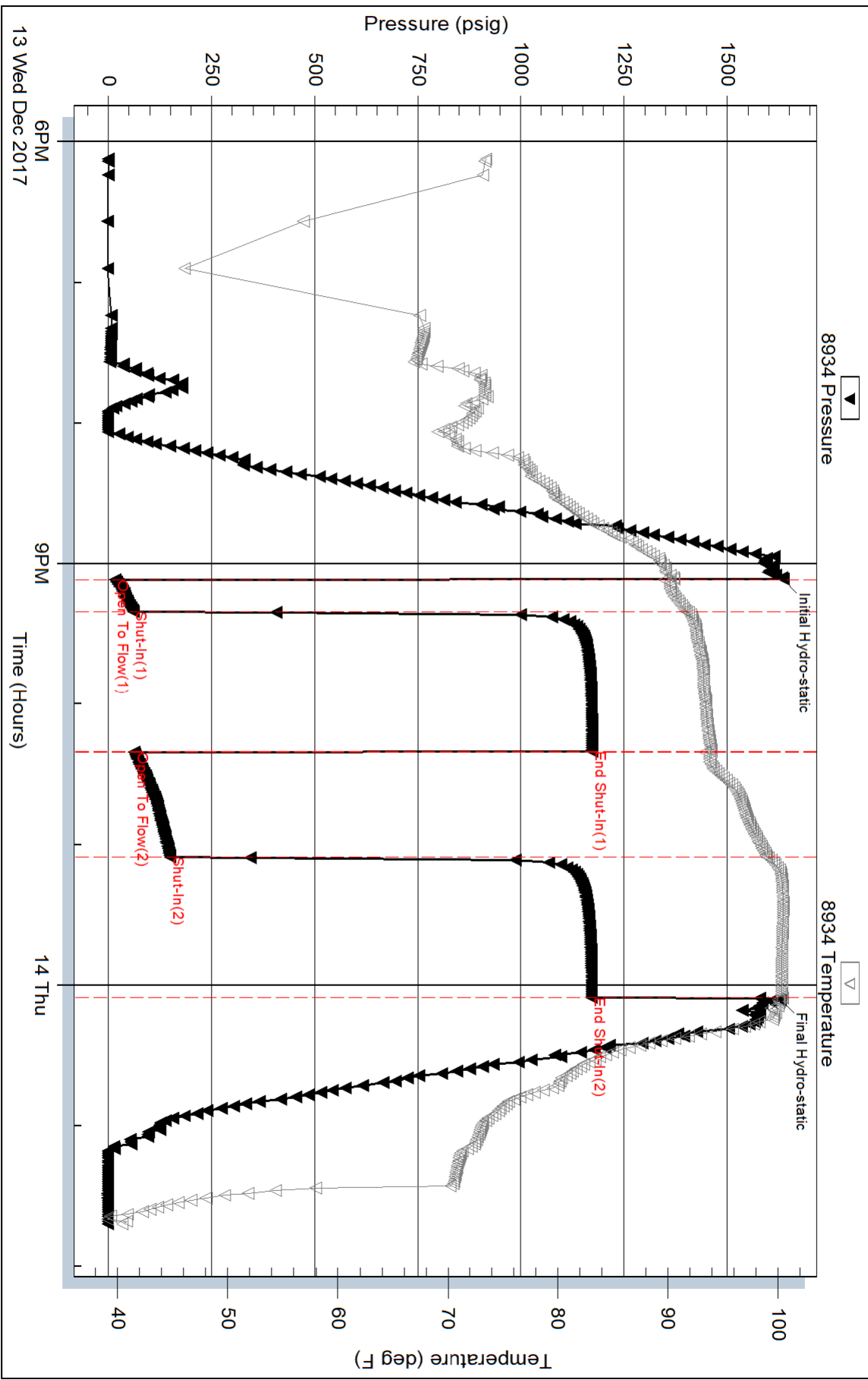
Inside

Anchor Bay Petroleum

Barbara #1

DST Test Number: 4

Pressure vs. Time



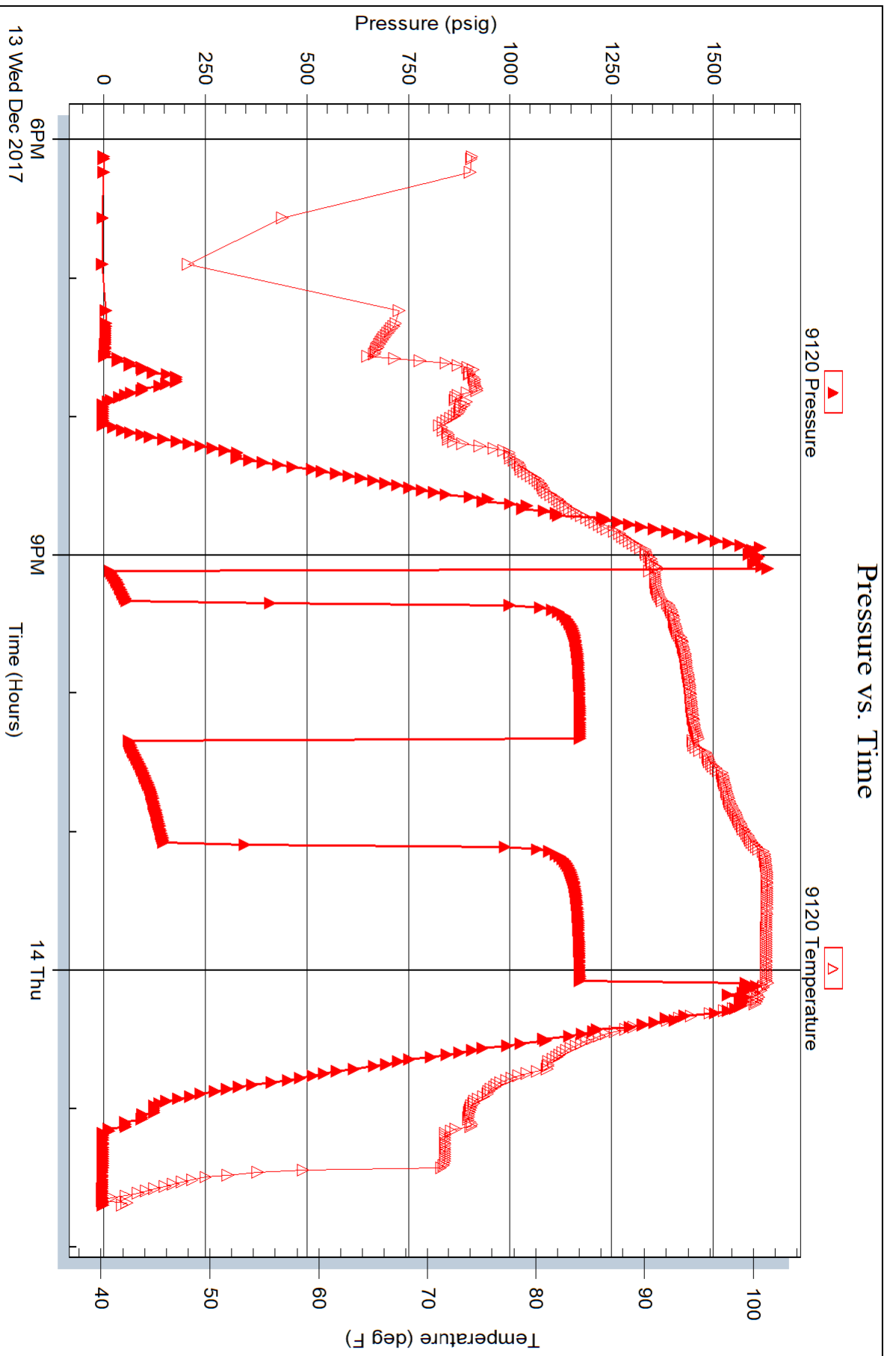
Serial #: 9120

Inside

Anchor Bay Petroleum

Barbara #1

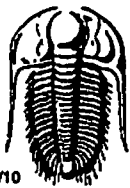
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 63527

Printed: 2017.12.15 @ 09:09:09



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63199

Well Name & No. Barbara #1 Test No. 1 Date 12/11/2017
 Company Anchor Bay Petroleum Elevation 1848 KB 1840 GL
 Address 1952 Victoria Rd Hays, KS 67601
 Co. Rep / Geo. Ed Glassman Rig Discovery #2
 Location: Sec. 2 Twp. 11s Rge. 17w Co. Ellis State KS

Interval Tested 2971' - 2995' Zone Tested Plattsmouth
 Anchor Length 24' Drill Pipe Run 2747' Mud Wt. 8.7
 Top Packer Depth 2966' Drill Collars Run — Vis 80
 Bottom Packer Depth 2971' Wt. Pipe Run 218' WL 7.2
 Total Depth 2995' Chlorides 1000 ppm System LCM 3#

Blow Description 17-Weak Blow; Built to 1/4"

ISA - No Return

77-Very Weak Blow; Built to 1/4"

75A - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>3'</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec Total <u>3'</u>	BHT <u>89°</u>	Gravity <u>—</u>	API RW <u>—</u>	@ <u>—</u> °F	Chlorides <u>—</u> ppm

- (A) Initial Hydrostatic 1399
- (B) First Initial Flow 19
- (C) First Final Flow 21
- (D) Initial Shut-In 1040
- (E) Second Initial Flow 22
- (F) Second Final Flow 23
- (G) Final Shut-In 999
- (H) Final Hydrostatic 1371

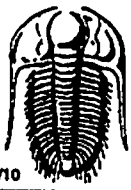
- Test 1050
- Jars
- Safety Joint
- Circ Sub
- Hourly Standby
- Mileage 4827 36
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1086

- T-On Location 04:55
- T-Started 05:58
- T-Open 09:00
- T-Pulled 11:30
- T-Out 13:01
- Comments
- Ruined Shale Packer
- Ruined Packer
- Extra Copies
- Sub Total 0
- Total 1086
- MP/DST Disc't

Initial Open 15
 Initial Shut-In 60
 Final Flow 15
 Final Shut-In 60

Approved By _____

Our Representative Spencer J. Joral Thanks!
 785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63200

Well Name & No. Barbara #1 Test No. 2 Date 12/12/2017
 Company Anchor Bay Petroleum Elevation 1848 KB 1840 GL
 Address 1952 Victoria Rd Hays KS 67601
 Co. Rep / Geo. Ed Glassman Rig Discovery #2
 Location: Sec. 2 Twp. 11s Rge. 17w Co. Ellis State KS

Interval Tested 3109' - 3200' Zone Tested L2C 'D-74'
 Anchor Length 91' Drill Pipe Run 2904' Mud Wt. 8.9
 Top Packer Depth 3104' Drill Collars Run - Vis 49
 Bottom Packer Depth 3109' Wt. Pipe Run 218' WL 8.0
 Total Depth 3200' Chlorides 4000 ppm System LCM 2 1/2 #

Blow Description 17 - Fair Blow; Built to 5"
1SD - Weak Blow; Built to 1/4"
77 - Fair Blow; Built to 4"
7SD - Weak Surface Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>60'</u>	<u>WCM w/oil specks</u>		<u>1</u>	<u>99</u>	
<u>60'</u>	<u>OCM</u>		<u>1</u>	<u>99</u>	
<u>40'</u>	<u>Oil spotted Mud</u>			<u>100</u>	

Rec Total 160' BHT 91° Gravity - API RW - @ - °F Chlorides - ppm

- (A) Initial Hydrostatic 1495
- (B) First Initial Flow 28
- (C) First Final Flow 44
- (D) Initial Shut-In 516
- (E) Second Initial Flow 51
- (F) Second Final Flow 79
- (G) Final Shut-In 453
- (H) Final Hydrostatic 1481

- Test 1050
- Jars
- Safety Joint
- Circ Sub
- Hourly Standby
- Mileage 48 RT 36
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1086

T-On Location 04:36
 T-Started 04:56
 T-Open 06:51
 T-Pulled 09:51
 T-Out 11:32
 Comments _____
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1086
 MP/DST Disc't _____

Initial Open 15
 Initial Shut-In 60
 Final Flow 45
 Final Shut-In 60

Approved By _____

Our Representative Spencer J. Jacob Thanks!
 785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63526

Well Name & No. Barbara #1 Test No. 3 Date 12/13/2017
 Company Anchor Bay Petroleum Elevation 1848 KB 1840 GL
 Address 1952 Victoria Rd Hays KS 67601
 Co. Rep / Geo. Ed Glassman Rig Discovery #2
 Location: Sec. 2 Twp 11s Rge. 17w Co. Ellis State Ks

Interval Tested 3289'-3376' Zone Tested Conglomerate
 Anchor Length 87' Drill Pipe Run 3061' Mud Wt. 9.0
 Top Packer Depth 3284' Drill Collars Run - Vis 51
 Bottom Packer Depth 3289' Wt. Pipe Run 218' WL 8.0
 Total Depth 3376' Chlorides 7600 ppm System LCM 1 1/2#

Blow Description 87-9 Weak Blow; Built to 1 1/2"
1SD- No Return
77- Weak Surface Blow
7SD- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10'</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

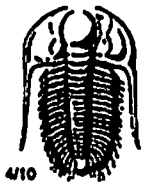
Rec Total 10' BHT 93° Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1585 Test 1050 T-On Location 00:25
 (B) First Initial Flow 25 Jars _____ T-Started 00:44
 (C) First Final Flow 20 Safety Joint _____ T-Open 02:25
 (D) Initial Shut-In 637 Circ Sub _____ T-Pulled 05:25
 (E) Second Initial Flow 23 Hourly Standby _____ T-Out 06:50
 (F) Second Final Flow 24 Mileage 4827 36 Comments _____
 (G) Final Shut-In 391 Sampler _____
 (H) Final Hydrostatic 1553 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1086
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1086

Initial Open 15
 Initial Shut-In 60
 Final Flow 45
 Final Shut-In 60

Approved By _____ Our Representative James J. Staal Thanks!
 TriLOBITE Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

785-259-0056



TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63527

Well Name & No. Barbara #1 Test No. 4 Date 12/13/2017
 Company Anchor Bay Petroleum Elevation 1848 KB 1840 GL
 Address 1952 Victoria Rd Hays Ks 67601
 Co. Rep / Geo. Ed Glassman Rig Discovery #2
 Location: Sec. 2 Twp 11s Rge. 17w Co. Ellis State Ks

Interval Tested 3388' - 3439' Zone Tested Arbuckle
 Anchor Length 51' Drill Pipe Run _____ Mud Wt. 8.9
 Top Packer Depth 3383' Drill Collars Run - Vis 45
 Bottom Packer Depth 3388' Wt. Pipe Run 218' WL 9.6
 Total Depth 3439' Chlorides 8000 ppm System LCM 2#

Blow Description 7 Fair Blow; Built to 7"
5SD No Return
77 Fair Blow; BOB in 31 mins
7SD No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>60'</u>	<u>9WCM</u>	<u>15</u>	<u>15</u>	<u>70</u>	<u></u>
<u>120'</u>	<u>10WCM</u>	<u>5</u>	<u>15</u>	<u>80</u>	<u></u>
<u>60'</u>	<u>2M w/oil specks</u>	<u>5</u>	<u></u>	<u>95</u>	<u></u>
<u>40'</u>	<u>OCM</u>	<u></u>	<u>1</u>	<u>99</u>	<u></u>
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 280' BHT 100° Gravity - API RW 327 @ 40' F Chlorides 39,000 ppm

(A) Initial Hydrostatic 1634 Test 1050 T-On Location 17:35
 (B) First Initial Flow 16 Jars _____ T-Started 18:07
 (C) First Final Flow 60 Safety Joint _____ T-Open 21:06
 (D) Initial Shut-In 1172 Circ Sub _____ T-Pulled 00:06 12/14/2017
 (E) Second Initial Flow 62 Hourly Standby _____ T-Out 01:41
 (F) Second Final Flow 149 Mileage 48 R7 x2 72 Comments Loaded tools
 (G) Final Shut-In 1171 Sampler _____ @ 14:00 12/14/2017
 (H) Final Hydrostatic 1627 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 15
 Initial Shut-In 60
 Final Flow 45
 Final Shut-In 60
 Sub Total _____ Total 1122
 MP/DST Disc't _____
 Sub Total _____

Approved By _____ Our Representative Spencer J. Strub Thanks!
 Triobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

785-259-0056