

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](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

Federal Tax I.D.# 20-2886107

Phone 785-483-1071  
Cell 785-324-1041

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

No. 2635

Date	12-16-21	Sec.	34	Twp.	20	Range	14	County	Barton	State	Ks	On Location		Finish	11:30 AM
------	----------	------	----	------	----	-------	----	--------	--------	-------	----	-------------	--	--------	----------

Lease **Cotter** Well No. **1** Location **281 + S mile BLK top S of Geat Bend**

Contractor	<b>Southwind #1</b>	Owner	<b>GW, 15 1/4 E S1 Into</b>
Type Job	<b>Surface</b>	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.	

Hole Size	<b>12 1/4"</b>	T.D.	<b>835'</b>	Charge To	<b>Charter Energy</b>
Csg.	<b>8 5/8"</b>	Depth	<b>833'</b>	Street	

Tbg. Size		Depth		City	State
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Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	<b>40'</b>	Shoe Joint	<b>40'</b>	Cement Amount Ordered	<b>450 60/40 4% CL 20% Gel</b>

Meas Line		Displace	<b>50 Bls</b>	<b>1/2# Flo-seal</b>
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EQUIPMENT					
Pumptrk	<b>16</b>	No.	<b>Cementor Rick</b>	Common	<b>270</b>
Bulktrk	<b>21</b>	No.	<b>Driver Jordan</b>	Poz. Mix	<b>180</b>
Bulktrk		No.	<b>Driver</b>	Gel.	<b>9</b>
Bulktrk		No.	<b>Driver</b>	Calcium	<b>20</b>

### JOB SERVICES & REMARKS

Remarks:	<b>Cement did Circulate</b>	Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	<b>225 #</b>
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
		Sand	
		Handling	<b>479</b>
		Mileage	

### FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	<b>1- Rubber plug</b>
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge	<b>Long Surface</b>
Mileage	<b>15</b>

Signature	<b>Frank J. Rowe</b>	Tax	
		Discount	
		Total Charge	

*Thanks*





TICKET 33930

CHARGE TO: **Charter Energy**  
 ADDRESS  
 CITY, STATE, ZIP CODE

PAGE 1 OF 2

SERVICE LOCATIONS  
 1. **Ness City, KS**  
 2.  
 3.  
 4.

WELL/PROJECT NO. **#1**  
 LEASE **Cotter**  
 COUNTY/PARISH **Barren**  
 STATE **KS**  
 CITY **Creat Bend**  
 DATE **12-22-2021**  
 OWNER

TICKET TYPE  
 SERVICE  
 SALES

CONTRACTOR **Southwind**  
 RIG NAME/NO.  
 SHIPPED VIA **CT Location**  
 ORDER NO.

WELL TYPE **Oil**  
 WELL CATEGORY **Development**  
 JOB PURPOSE **Long string 5 1/2"**  
 WELL PERMIT NO.  
 WELL LOCATION **Skw of Creat Bend**

INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		UNIT		AMOUNT	
		LOC	ACCT	DF		U/M	U/M	PRICE			
575					MILEAGE <b>Trk #116</b>			70	mi	6.00	420.00
578					<b>Pump Charge - Long string</b>			1	job	1,520.00	1,520.00
402					<b>Centralizers</b>			6	EA	75.00	450.00
406					<b>Latch Down Plug + Baffle</b>			1	EA	250.00	250.00
407					<b>Insert Flow Shoe w/ Auto Fill</b>			1	EA	325.00	325.00
681					<b>Mud Flush</b>			520	gal	1.50	780.00
221					<b>KCL</b>			2	gal	25.00	50.00

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.  
**X**

DATE SIGNED **12-22-2021** TIME SIGNED **2:00**  
 A.M.  P.M.

REMIT PAYMENT TO:  
**SWIFT SERVICES, INC.**  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

SURVEY	AGREE	UNDECIDED	DISAGREE	PAGE TOTAL	TOTAL
				1	3746.00
				2	5283.30
				3	9028.50
				4	4381.81

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES: The customer hereby acknowledges receipt of the materials and services listed on this ticket.  
 SWIFT OPERATOR **Debra Taylor** APPROVAL **[Signature]**  
 Thank You!





PO Box 466  
Ness City, KS 67560  
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 33932

CUSTOMER *CHARTER Energy*

WELL *Cutter #1*

DATE *12-22-2011* PAGE *2* OF *7*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL		UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY	U/M		
<i>275</i>						<i>Shaded Cement</i>			<i>14</i>	<i>2537</i>
<i>284</i>						<i>Cal Seal</i>			<i>8</i>	<i>320</i>
<i>283</i>						<i>SALT</i>			<i>920</i>	<i>226</i>
<i>292</i>						<i>Halad-322</i>			<i>8</i>	<i>850</i>
<i>276</i>						<i>Flocel</i>			<i>3</i>	<i>180</i>
<i>290</i>						<i>D-Air</i>			<i>5</i>	<i>42</i>
<i>681</i>						<i>SERVICE CHARGE</i>			<i>175</i>	<i>2</i>
<i>583</i>						<i>MILEAGE CHARGE</i>			<i>18322</i>	<i>1</i>
						<i>TOTAL WEIGHT</i>			<i>70</i>	<i>641</i>
						<i>LOADED MILES</i>				
						<i>CUBIC FEET</i>				
						<i>TON MILES</i>				

CONTINUATION TOTAL

*5283*



JOB LOG

SWIFT Services, Inc.

DATE 12-22-2022 PAGE NO. 1 of 2

CUSTOMER CHAPTER Energy WELL NO. #1 LEASE Cotter JOB TYPE Long String TICKET NO. 33930

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2200							ON LOCATION 5 1/2" 1416/ft RTD: 3640' TP: 3635' SJ: 21' Cent: 1, 4, 7, 10, 14, 17
	2245							START Csg IN well
	0025							<del>Break</del> Drop Ball - Circulate
	0040	4	12		✓	300		Pump 500 gal Mud Flush
		4	20		✓	300		Pump 20 bbl KLL SPACER
	0050	1 1/2	7-5			75		Plug RH-MH [30-20]
	1300	4	30		✓	200		Mix 125 sks of EA-2 @ 15.36ppg
	1325							Wash Pump + Lines Release Latch down Plug
	1330	6 1/2	0		✓	200		Begin Displacement
		6 1/2	67		✓	300		116 PSI
		6 1/2	87		✓	650		MAX 116 PSI
	1345	5 1/2	88.3		✓	1600		LAND Latch down Plug -Release *Dried up*
	1350							Wash Trk #115
	1420							Job Complete
								175 sks of EA-2 used 30 RH, 20-MH, 125 down well
								Thanks!
								Puckey, Preston, Shawn, Mark

**Charter Energy, Inc.  
Cotter #1  
500' FNL & 1300' FWL  
Section 34-20s-14w  
Barton County, Kansas**

**Contractor:** Southwind Drilling Company Rig # 1

**Geologist:** Joshua Austin

**Commenced:** 12-12-2021

**Completed:** 12-21-2021

**Elevation:** GL 1902', KB 1912'

**Casing Program:** Surface; 8 5/8" @ 833'  
Production; 5 1/2" @ 3638'

**Samples:** Samples saved and examined 2800' to Rotary Total Depth.

**Drilling Time:** One (1) foot drilling time recorded and kept 2800' to Rotary Total Depth.

**Measurements:** All depths measured from the kelly bushing.

**Formation Testing:** Two drill stem test were performed by Trilobite Testing

**Electric Log:** ELI Wireline (CNL/CDL, DIL, MEL)

<b>Formations</b>	<b>Log Top</b>	<b>Sub-Sea Datum</b>
<b>Anhydrite</b>	<b>827</b>	<b>1085</b>
<b>B/ Anhydrite</b>	<b>852</b>	<b>1060</b>
<b>Topeka</b>	<b>2835</b>	<b>-923</b>
<b>Heebner</b>	<b>3179</b>	<b>-1267</b>
<b>Toronto</b>	<b>3198</b>	<b>-1286</b>
<b>Douglas</b>	<b>3212</b>	<b>-1300</b>
<b>Brown Lime</b>	<b>3283</b>	<b>-1371</b>
<b>Lansing</b>	<b>3293</b>	<b>-1381</b>
<b>Base KC</b>	<b>3522</b>	<b>-1610</b>
<b>Simpson</b>	<b>3534</b>	<b>-1622</b>
<b>Arbuckle</b>	<b>3567</b>	<b>-1655</b>
<b>Total Depth</b>	<b>3635</b>	<b>-1723</b>



## SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

### Lansing Section

- 3295-3302' Limestone; cream-buff, fine crystalline, fossiliferous, inter crystalline -vuggy porosity, brown stain, SFO, faint odor
- 3324-3329' Limestone; cream-grey, fossiliferous/oolitic, fair-good porosity, brown stain, SFO, faint odor  
Circulated for samples at 3,350'
- 3338-3343' Limestone; lt. grey-cream, fine xln, dense, poor visible porosity, trace brown stain, NSFO, no odor, plus white chalk
- 3362-3366' Limestone; white-cream, highly oolitic, good porosity, brown-golden brown stain, SFO, faint odor  
Circulated for samples at 3,373'

DST #1                      LKC 'B-F'                      3,313-3,373'

Times: 30-45-45-60

(tool slide, flushed tool)

Blow; B.O.B. in 10 min  
No blow back  
Final; B.O.B. in 15 seconds  
B.O.B blow back

Recovery: 1152' GIP  
32' GHOCM (10% G, 25% O, 65% M)  
64' GHOCM (30%G, 30% O, 40% M)  
64' GHOCM (55%G, 30% O, 15% M)  
192' GHOCM (30%G, 50% O, 20% M)

Pressure:	ISIP	1094	psi
	FSIP	1853	psi
	IFP	36-49	psi
	FFP	63-165	psi
	HSH	1646-1609	psi

- 3418-3424' Limestone; tan-buff, sub oomoldic, oolitic, chalky in part, fair oomoldic-vuggy porosity, dark brown stain, SFO/SAT, fair odor  
Circulated for samples at 3,430'

**Simpson Sand Section**

3536-3542' Sand; white-clear, sub angular, sub rounded, few loose unconsolidated quartz, good inter granular porosity, brown stain, SFO and fair odor when sample broke.

**Arbuckle Section**

3570'-3571' Dolomite; cream-tan, fine to medium crystalline, sucrosic, inter crystalline porosity, brown stain, SFO, good odor  
Circulated for samples at 3,571'

DST #2 Arbuckle 3,542-3,571'  
Hit two bridges and stacked tool out 180' from bottom

DST #3 Arbuckle 3,542-3,571'

Times: 30-30-45-60

Blow; Weak, built to 1.5"  
No blow back  
Final; Fair, built to 5"  
no blow back

**Recovery:**

64' VSOWCM (3% O, 27% W, 70% M)  
320' HOMCW (10% O, 5% M, 85% W)  
192' HOMCW (45% O, 5% M, 50% W)  
192' HOWCM (15% O, 35% W, 20% M)  
79' HOWCM (25% O, 30% W, 45% M)

Pressure: ISIP 1204 psi  
FSIP 1209 psi  
IFP 34-207 psi  
FFP 214-390 psi  
HSH 1782-1753 psi

3572'-3579' Dolomite; cream-tan, fine to medium crystalline, sucrosic, inter crystalline -finely vuggy porosity, brown stain, SFO, good odor

**Rotary Total Depth 3640' (-1728)**

**Loggers Total Depth 3635' (-1723)**



**Recommendations:**

Based on the structural position, drill stem test, shows in the samples and after reviewing the electric log, it was recommended by all parties involved in the Cotter #1 to set 5 ½" casing to further test the following zones:

ARBUCKLE	3,569-70'
Simp Sd	3,536-40' (before plugging)
LKC 'H'	3,418-21'
LKC 'F'	3,362-66'
LKC 'B'	3,324-30'
LKC 'A'	3,298-3,301' (before plugging)

**Respectfully submitted.**

**Joshua R. Austin  
Petroleum Geologist**



## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

PO Box 252  
Great Bend, KS 67530

ATTN: Josh Austin

### **Cotter #1**

### **34-20s-14w Barton,KS**

Start Date: 2021.12.19 @ 16:22:39

End Date: 2021.12.19 @ 23:59:39

Job Ticket #: 67215                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.12.22 @ 14:08:04





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Charter Energy Inc  
 PO Box 252  
 Great Bend, KS 67530  
 ATTN: Josh Austin

**34-20s-14w Barton,KS**  
**Cotter #1**  
 Job Ticket: 67215 **DST#: 1**  
 Test Start: 2021.12.19 @ 16:22:39

## GENERAL INFORMATION:

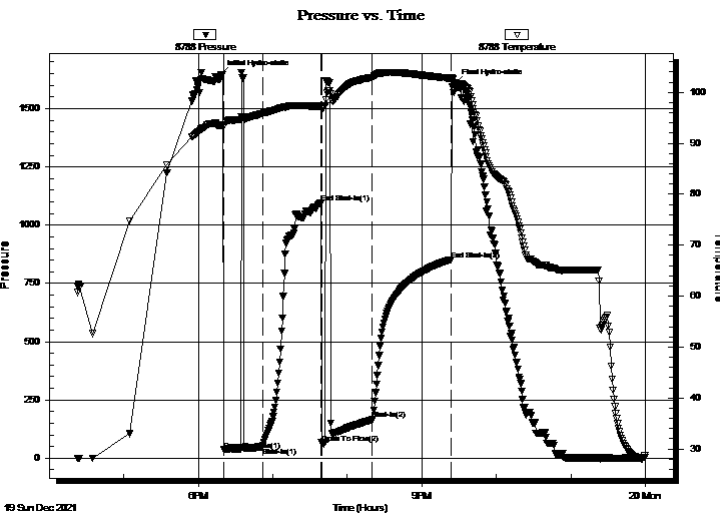
Formation: **LKC "B-F"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:20:24  
 Time Test Ended: 23:59:39  
 Interval: **3313.00 ft (KB) To 3373.00 ft (KB) (TVD)**  
 Total Depth: 3373.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Matt Smith  
 Unit No: 68  
 Reference Elevations: 1913.00 ft (KB)  
 1903.00 ft (CF)  
 KB to GR/CF: 10.00 ft

## Serial #: 8788

Inside

Press@RunDepth: 165.38 psig @ 3314.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2021.12.19 End Date: 2021.12.19 Last Calib.: 2021.12.20  
 Start Time: 16:22:44 End Time: 23:59:38 Time On Btm: 2021.12.19 @ 18:18:09  
 Time Off Btm: 2021.12.19 @ 21:26:24

TEST COMMENT: IF: Started Fair. Flushed after 15 mins. Strong Blow . B.O.B. 10 mins. Built to 17.07". (30)  
 IS: No Blow . (45)  
 FF: Strong Blow . B.O.B. n 15 secs. Slid another 7' after 14 mins. Built to 179.27". (45)  
 FS: Strong Blow . B.O.B. in 9 mins. Built to 55.99". (60)



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1646.40	93.51	Initial Hydro-static
3	35.95	93.32	Open To Flow (1)
34	48.61	95.86	Shut-In(1)
81	1094.21	97.30	End Shut-In(1)
82	63.28	96.76	Open To Flow (2)
122	165.38	102.96	Shut-In(2)
186	852.67	102.71	End Shut-In(2)
189	1608.77	101.35	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
192.00	GHOCM 30%g 50%o 20%m	2.69
64.00	GHOCM 55%g 30%o 15%m	0.90
64.00	GHOCM 30%g 30%o 40%m	0.90
32.00	GHOCM 10%g 25%o 65%m	0.45
0.00	1152 GIP 100%g	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

Charter Energy Inc  
 PO Box 252  
 Great Bend, KS 67530  
 ATTN: Josh Austin

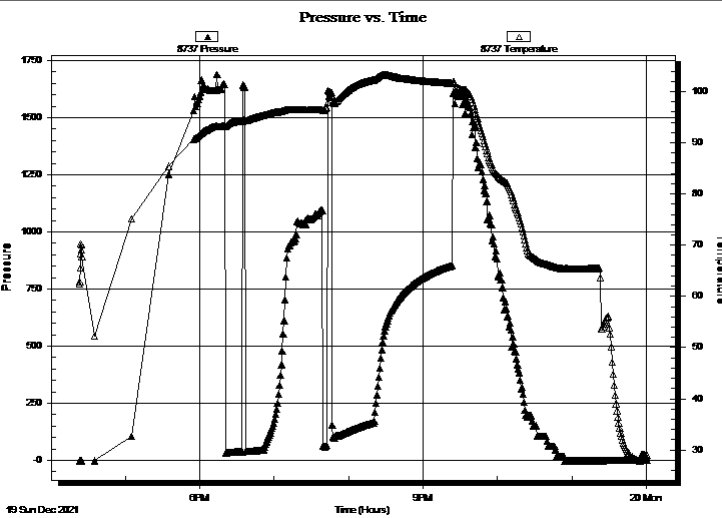
**34-20s-14w Barton,KS**  
**Cotter #1**  
 Job Ticket: 67215      **DST#: 1**  
 Test Start: 2021.12.19 @ 16:22:39

## GENERAL INFORMATION:

Formation: **LKC "B-F"**  
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 18:20:24 Tester: Matt Smith  
 Time Test Ended: 23:59:39 Unit No: 68  
**Interval: 3313.00 ft (KB) To 3373.00 ft (KB) (TVD)** Reference Elevations: 1913.00 ft (KB)  
 Total Depth: 3373.00 ft (KB) (TVD) 1903.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 10.00 ft

**Serial #: 8737 Outside**  
 Press@RunDepth: psig @ 3314.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2021.12.19 End Date: 2021.12.20 Last Calib.: 2021.12.20  
 Start Time: 16:22:57 End Time: 00:00:21 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF: Started Fair. Flushed after 15 mins. Strong Blow . B.O.B. 10 mins. Built to 17.07". (30)  
 IS: No Blow . (45)  
 FF: Strong Blow . B.O.B. n 15 secs. Slid another 7' after 14 mins. Built to 179.27". (45)  
 FS: Strong Blow . B.O.B. in 9 mins. Built to 55.99". (60)



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

Recovery		
Length (ft)	Description	Volume (bbl)
192.00	GHOCM 30%g 50%o 20%m	2.69
64.00	GHOCM 55%g 30%o 15%m	0.90
64.00	GHOCM 30%g 30%o 40%m	0.90
32.00	GHOCM 10%g 25%o 65%m	0.45
0.00	1152 GIP 100%g	0.00

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Josh Austin

**34-20s-14w Barton,KS**  
**Cotter #1**  
Job Ticket: 67215      **DST#: 1**  
Test Start: 2021.12.19 @ 16:22:39

**Tool Information**

Drill Pipe:	Length: 3296.00 ft	Diameter: 3.80 inches	Volume: 46.23 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: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.80 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 46.23 bbl</u>	Tool Chased 20.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3313.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	86.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3288.00	
Shut In Tool	5.00			3293.00	
Hydraulic tool	5.00			3298.00	
EMT	3.00			3301.00	
Safety Joint	3.00			3304.00	
Packer	4.00			3308.00	26.00      Bottom Of Top Packer
Packer	5.00			3313.00	
Stubb	1.00			3314.00	
Recorder	0.00	8788	Inside	3314.00	
Recorder	0.00	8737	Outside	3314.00	
Perforations	3.00			3317.00	
Change Over Sub	1.00			3318.00	
Blank Spacing	32.00			3350.00	
Change Over Sub	1.00			3351.00	
Perforations	19.00			3370.00	
Bullnose	3.00			3373.00	60.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>86.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Josh Austin

**34-20s-14w Barton,KS**  
**Cotter #1**  
Job Ticket: 67215      **DST#: 1**  
Test Start: 2021.12.19 @ 16:22:39

## Mud and Cushion Information

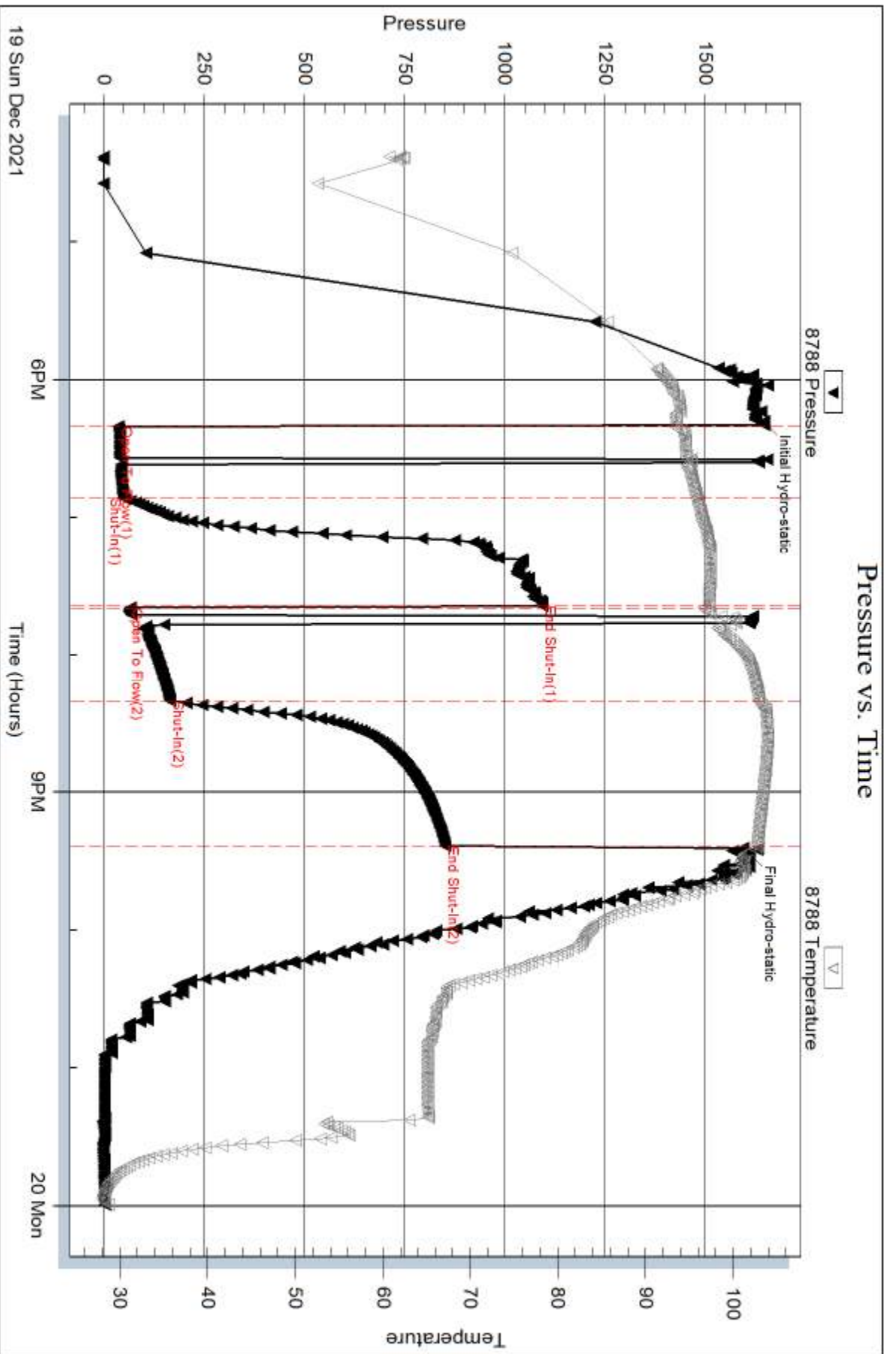
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	6000 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.18 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 6000.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
192.00	GHOCM 30%g 50%o 20%m	2.693
64.00	GHOCM 55%g 30%o 15%m	0.898
64.00	GHOCM 30%g 30%o 40%m	0.898
32.00	GHOCM 10%g 25%o 65%m	0.449
0.00	1152 GIP 100%g	0.000

Total Length: 352.00 ft      Total Volume: 4.938 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #: None  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: 1,152 Feet of Gas in Pipe.



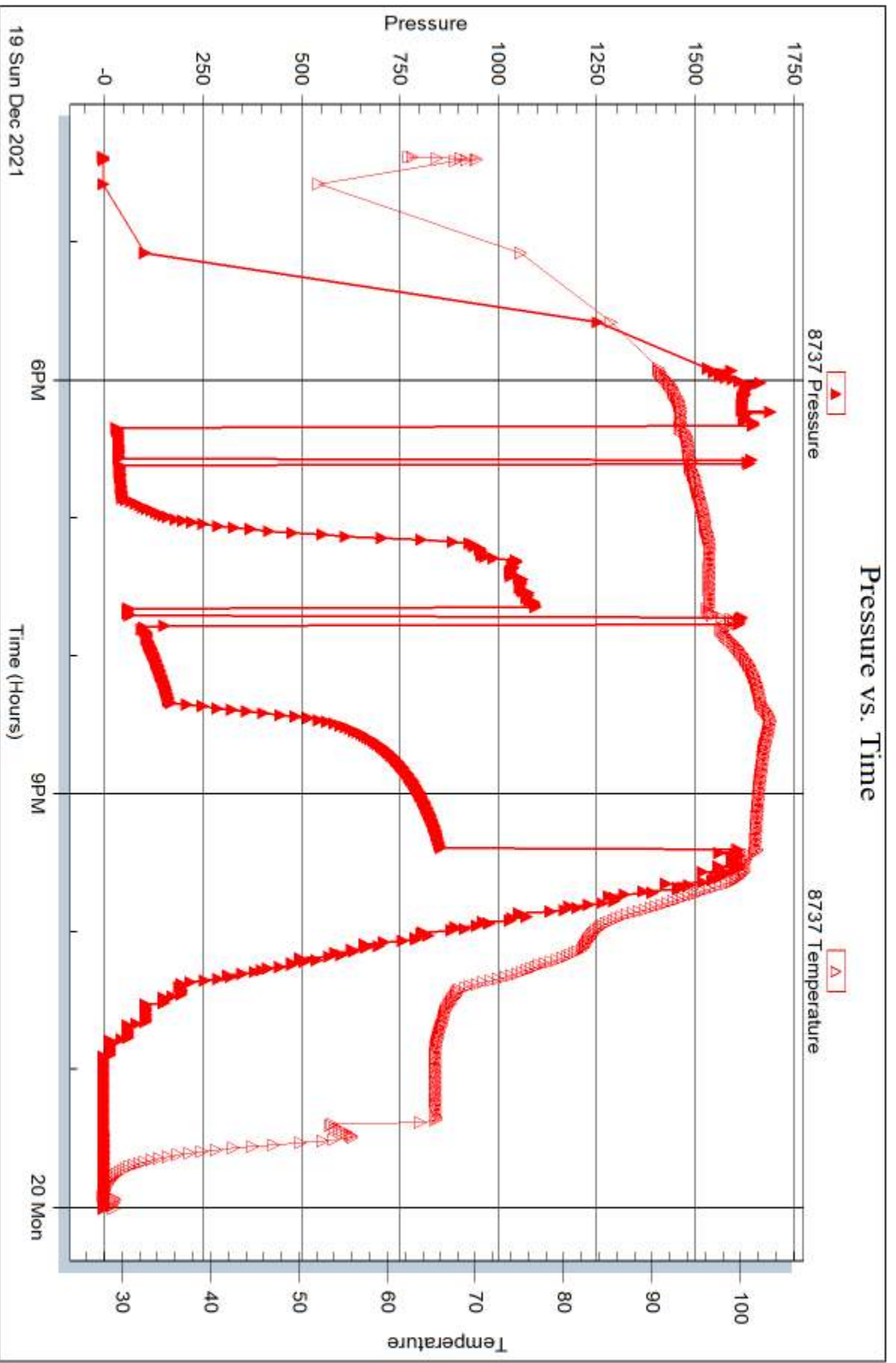


Serial #: 8737

Outside Charter Energy Inc

Cotter #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 67215

Printed: 2021.12.22 @ 14:08:05



## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

PO Box 252  
Great Bend, KS 67530

ATTN: Josh Austin

### **Cotter #1**

### **34-20s-14w Barton,KS**

Start Date: 2021.12.20 @ 14:45:04

End Date: 2021.12.20 @ 17:36:49

Job Ticket #: 67216                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.12.22 @ 14:04:24



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Charter Energy Inc  
 PO Box 252  
 Great Bend, KS 67530  
 ATTN: Josh Austin

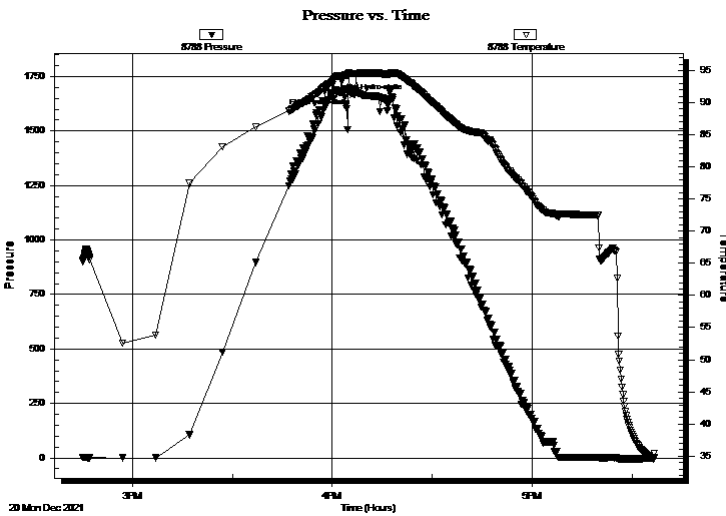
**34-20s-14w Barton, KS**  
**Cotter #1**  
 Job Ticket: 67216 **DST#: 2**  
 Test Start: 2021.12.20 @ 14:45:04

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 17:36:49  
 Interval: **3542.00 ft (KB) To 3571.00 ft (KB) (TVD)**  
 Total Depth: 3571.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Matt Smith  
 Unit No: 68  
 Reference Elevations: 1913.00 ft (KB)  
 1903.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8788 Inside**  
 Press@RunDepth: psig @ 3543.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2021.12.20 End Date: 2021.12.20 Last Calib.: 2021.12.20  
 Start Time: 14:45:09 End Time: 17:36:49 Time On Btm: 2021.12.20 @ 16:00:34  
 Time Off Btm: 2021.12.20 @ 16:07:19

TEST COMMENT: IF: Pulled test Bridged off Bottom 180 FT and couldn't Push through.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1647.78	93.64	Initial Hydro-static
7	1684.39	94.57	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Josh Austin

**34-20s-14w Barton,KS**  
**Cotter #1**  
Job Ticket: 67216      **DST#: 2**  
Test Start: 2021.12.20 @ 14:45:04

**Tool Information**

Drill Pipe:	Length: 3550.00 ft	Diameter: 3.80 inches	Volume: 49.80 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: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.80 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 49.80 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 0.00 lb
Depth to Top Packer:	3542.00 ft			Final 0.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3517.00	
Shut In Tool	5.00			3522.00	
Hydraulic tool	5.00			3527.00	
EMT	3.00			3530.00	
Safety Joint	3.00			3533.00	
Packer	4.00			3537.00	26.00      Bottom Of Top Packer
Packer	5.00			3542.00	
Stubb	1.00			3543.00	
Recorder	0.00	8788	Inside	3543.00	
Recorder	0.00	8737	Outside	3543.00	
Perforations	25.00			3568.00	
Bullnose	3.00			3571.00	29.00      Bottom Packers & Anchor

**Total Tool Length: 55.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Josh Austin

**34-20s-14w Barton,KS**  
**Cotter #1**  
Job Ticket: 67216      **DST#: 2**  
Test Start: 2021.12.20 @ 14:45:04

## 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:	6000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 6000.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl

Total Length:                      ft      Total Volume:                      bbl  
Num Fluid Samples: 0                      Num Gas Bombs: 0                      Serial #: None  
Laboratory Name:                      Laboratory Location:  
Recovery Comments:

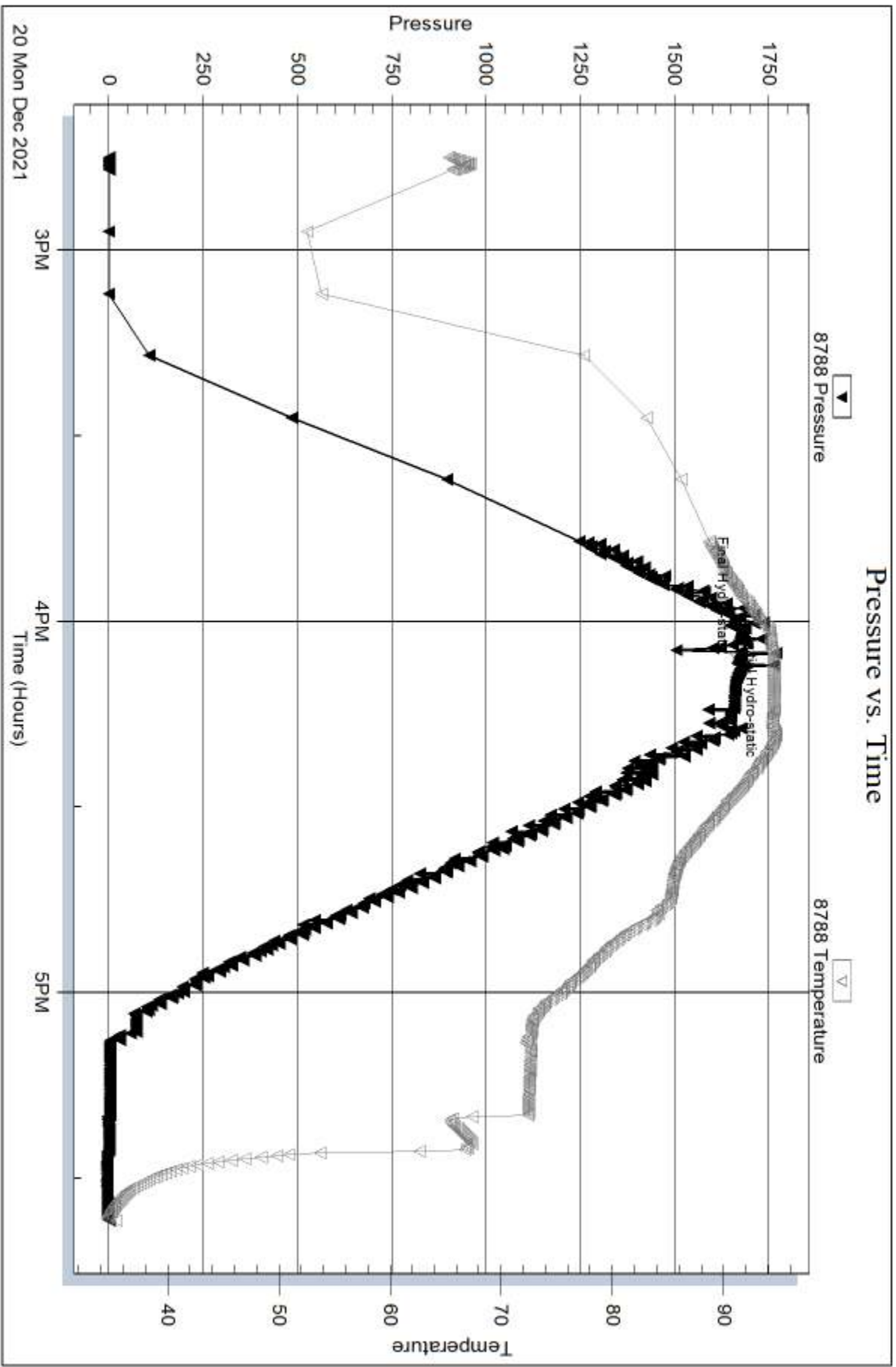
Serial #: 8788

Inside

Charter Energy Inc

Cotter #1

DST Test Number: 2

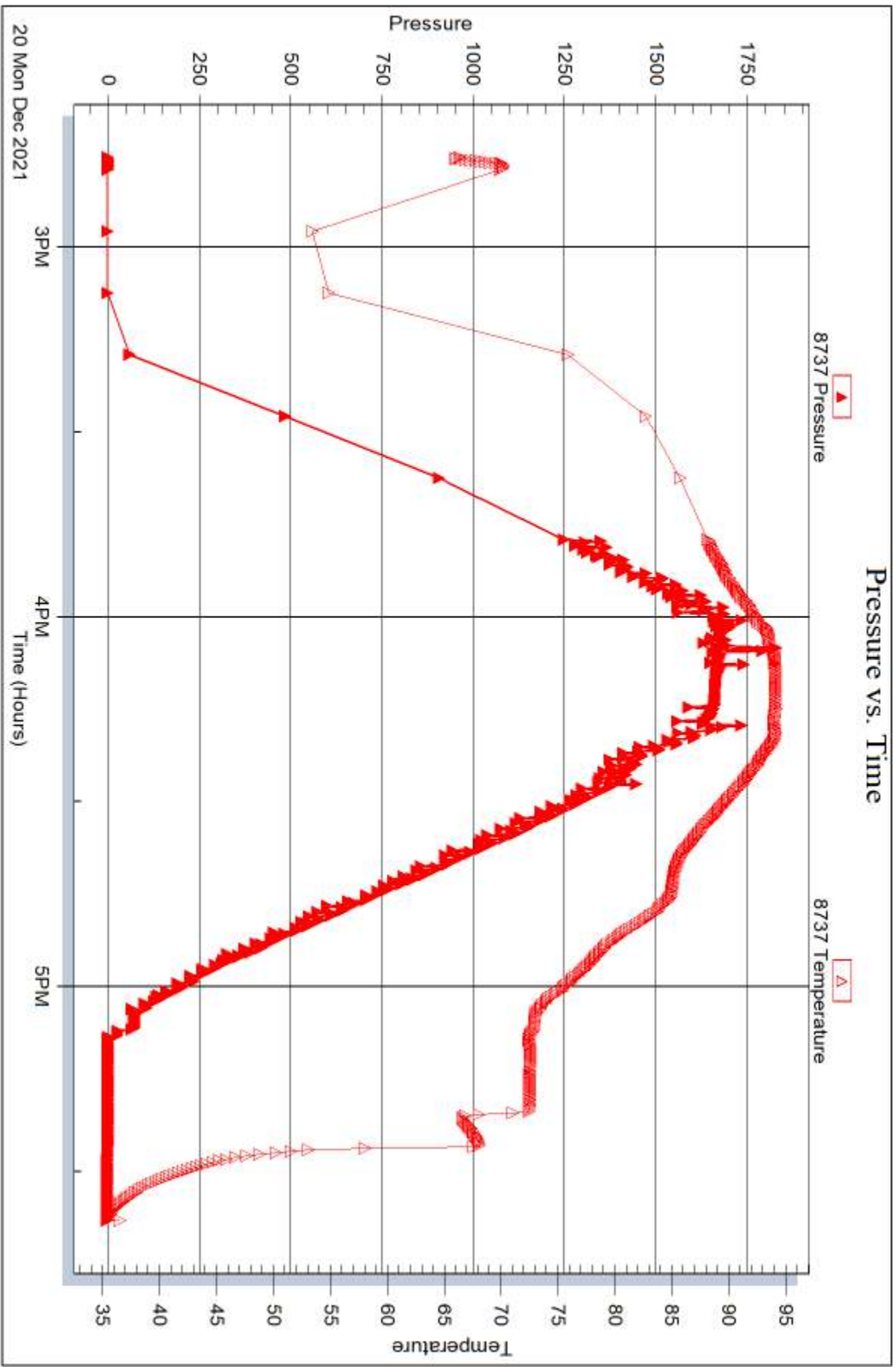


Triobite Testing, Inc

Ref. No: 67216

Printed: 2021.12.22 @ 14:04:25







## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

PO Box 252  
Great Bend, KS 67530

ATTN: Josh Austin

### **Cotter #1**

### **34-20s-14w Barton,KS**

Start Date: 2021.12.20 @ 22:35:19

End Date: 2021.12.21 @ 05:30:34

Job Ticket #: 67217                      DST #: 3

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.12.22 @ 14:02:00



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Charter Energy Inc  
 PO Box 252  
 Great Bend, KS 67530  
 ATTN: Josh Austin

**34-20s-14w Barton,KS**

**Cotter #1**

Job Ticket: 67217

**DST#: 3**

Test Start: 2021.12.20 @ 22:35:19

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:11:04  
 Time Test Ended: 05:30:34  
 Interval: **3542.00 ft (KB) To 3571.00 ft (KB) (TVD)**  
 Total Depth: 3571.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Matt Smith  
 Unit No: 68  
 Reference Elevations: 1913.00 ft (KB)  
 1903.00 ft (CF)  
 KB to GR/CF: 10.00 ft

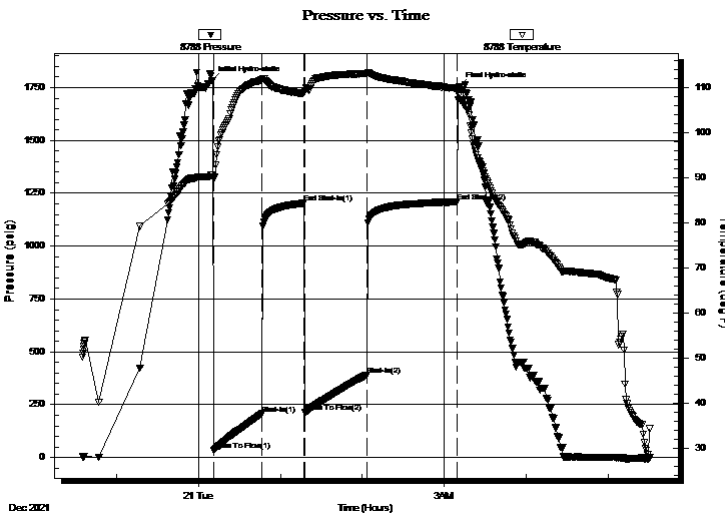
## Serial #: 8788

Inside

Press@RunDepth: 390.73 psig @ 3543.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2021.12.20 End Date: 2021.12.21 Last Calib.: 2021.12.21  
 Start Time: 22:35:24 End Time: 05:30:33 Time On Btm: 2021.12.21 @ 00:09:49  
 Time Off Btm: 2021.12.21 @ 03:10:34

TEST COMMENT: IF: Weak Blow . Built to 1 1/2" in the Bucket. (30)  
 IS: No Blow in the Bucket. (30)  
 FF: Weak-Fair Blow . Built to 5 1/4" in the Bucket. (45)  
 FS: No Blow in the Bucket. (60)

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1782.04	90.62	Initial Hydro-static
2	34.52	90.12	Open To Flow (1)
37	207.07	111.79	Shut-In(1)
68	1204.03	109.01	End Shut-In(1)
69	214.83	109.26	Open To Flow (2)
114	390.73	113.21	Shut-In(2)
180	1209.51	109.92	End Shut-In(2)
181	1753.11	108.25	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
64.00	V SOWCM 3%o 27%w 70%m	0.90
320.00	HOMCW 10%o 5%m 85%w	4.49
192.00	HOMCW 45%o 5%m 50%w	2.69
192.00	HOWCM 15%o 35%w 50%m	2.69
79.00	HOWCM 25%o 30%w 45%m	1.11

\* Recovery from multiple tests

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Josh Austin

**34-20s-14w Barton,KS**  
**Cotter #1**  
Job Ticket: 67217      **DST#: 3**  
Test Start: 2021.12.20 @ 22:35:19

**Tool Information**

Drill Pipe:	Length: 3518.00 ft	Diameter: 3.80 inches	Volume: 49.35 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:	24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.80 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 49.35 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	44000.00 lb
Depth to Top Packer:	3542.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	29.00 ft				
Tool Length:	60.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: Shale Packer is in Tool String. Added Jaes ans Shale Packer on Request.

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3512.00	
Shut In Tool	5.00			3517.00	
Hydraulic tool	5.00			3522.00	
Jars	5.00			3527.00	
EMT	3.00			3530.00	
Safety Joint	3.00			3533.00	
Packer	4.00			3537.00	31.00      Bottom Of Top Packer
Packer	5.00			3542.00	
Stubb	1.00			3543.00	
Recorder	0.00	8788	Inside	3543.00	
Recorder	0.00	8737	Outside	3543.00	
Perforations	25.00			3568.00	
Bullnose	3.00			3571.00	29.00      Bottom Packers & Anchor

**Total Tool Length: 60.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Josh Austin

**34-20s-14w Barton,KS**  
**Cotter #1**  
Job Ticket: 67217      **DST#: 3**  
Test Start: 2021.12.20 @ 22:35:19

## 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: 102000 ppm	
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 6000.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

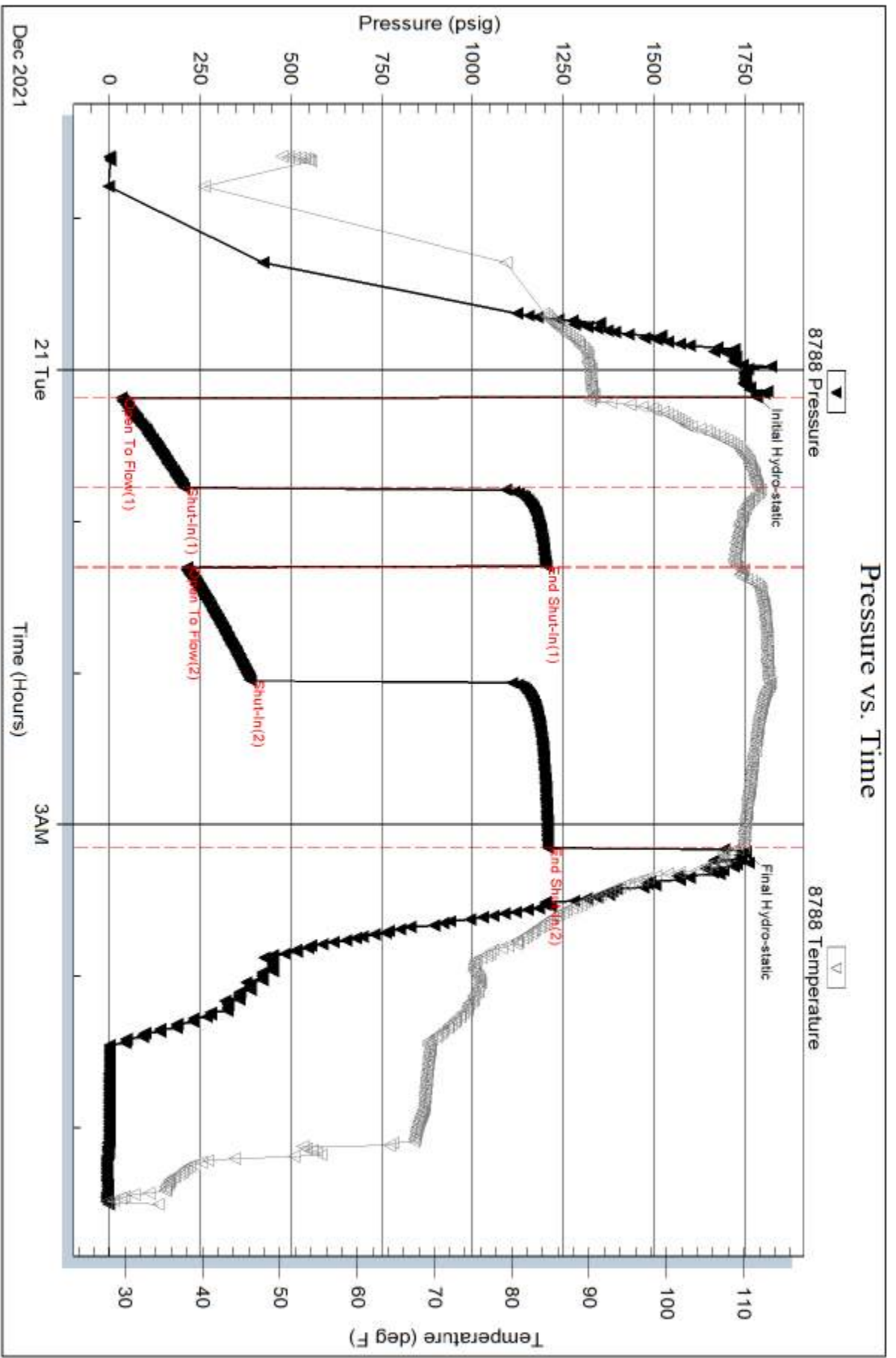
Length ft	Description	Volume bbl
64.00	VSOWCM 3%o 27%w 70%m	0.898
320.00	HOMCW 10%o 5%m 85%w	4.489
192.00	HOMCW 45%o 5%m 50%w	2.693
192.00	HOWCM 15%o 35%w 50%m	2.693
79.00	HOWCM 25%o 30%w 45%m	1.108

Total Length: 847.00 ft      Total Volume: 11.881 bbl

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

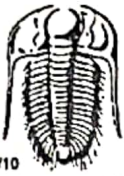
Laboratory Name:      Laboratory Location:

Recovery Comments: RW is .12 @ 47 Degrees = 102,000 Chlorides.









# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **67215**

Well Name & No. Coffer #1 Test No. 1 Date 12/19/21  
 Company Charter Energy, Inc. Elevation 1912 KB 1902 GL  
 Address P.O. Box 252 Great Bend, KS. 67530  
 Co. Rep / Geo. Josh Austin Rig Southwind 1  
 Location: Sec. 34 Twp 20S Rge. 14W Co. BARTON State KS.

Interval Tested 3313 - 3373 Zone Tested LKC "B-F"  
 Anchor Length 60' Drill Pipe Run 3296 Mud Wt. 9.2  
 Top Packer Depth 3308 Drill Collars Run 0 Vls 58  
 Bottom Packer Depth 3313 Wt. Pipe Run 0 WL 9.2  
 Total Depth 3373 Chlorides 6000 ppm System LCM 1"

Blow Description IF! Started Fast, Flushed after 15mins. Strong Blow. B.O.B. 10mins. Built to 17.07"

TSI! No Blow.

FF! Strong Blow. B.O.B. in 15 Sec. Slid another 7' after 14mins. Built to 179.27"

FSI! Strong Blow. B.O.B. 9mins. Built to 55.99"

Rec	Feet of	%gas	%oil	%water	%mud
<u>1152</u>	<u>G.I.P.</u>	<u>100</u>			
<u>32</u>	<u>GHOcm</u>	<u>10</u>	<u>25</u>		<u>65</u>
<u>64</u>	<u>GHOcm</u>	<u>30</u>	<u>30</u>		<u>40</u>
<u>64</u>	<u>GHOcm</u>	<u>55</u>	<u>30</u>		<u>15</u>
<u>192</u>	<u>GHOcm</u>	<u>30</u>	<u>50</u>		<u>20</u>

Rec Total 352' Fluid BHT 93° Gravity N/A API RW N/A @ —° F Chlorides 6000 ppm

- (A) Initial Hydrostatic 1646
- (B) First Initial Flow 36
- (C) First Final Flow 49
- (D) Initial Shut-In 1094
- (E) Second Initial Flow 63
- (F) Second Final Flow 165
- (G) Final Shut-In 853
- (H) Final Hydrostatic 1609

- Test 1300
- Jars
- Safety Joint
- Circ Sub
- Hourly Standby
- Mileage 96 Pratt 120
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1420

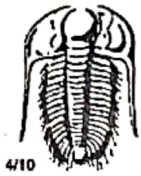
- T-On Location 1520
- T-Started 1622
- T-Open 1820
- T-Pulled 2130
- T-Out 2359

- Comments
- EM Tool 350 NS
- Ruined Shale Packer
- Ruined Packer
- Extra Copies
- Sub Total 0
- Total 1420
- MP/DST Disc't

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 60

Approved By \_\_\_\_\_ Our Representative Mark Smith

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.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **67216**

Well Name & No. Cotter #1 Test No. 2 Date 12/20/21  
 Company Charter Energy, Inc. Elevation 1912 KB 1902 GL  
 Address P.O. Box 252 Great Bend, KS, 67530  
 Co. Rep / Geo. Josh Austin Rig Southwind 1  
 Location: Sec. 34 Twp 20S Rge. 14W Co. Barton State KS.

Interval Tested 3542 - 3571 Zone Tested Arbuckle  
 Anchor Length 29' Drill Pipe Run 3550 Mud Wt. 9.4  
 Top Packer Depth 3537 Drill Collars Run 0 Vis 51  
 Bottom Packer Depth 3542 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3571 Chlorides 6000 ppm System LCM 1\*

Blow Description IF: Pulled Test Bridged 183' off Bottom. Couldn't Push Through  
ISI!  
FF!  
FSI!

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>					

Rec Total 0 BHT — Gravity N/A API RW N/A @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1648  Test 1050 T-On Location 1418  
 (B) First Initial Flow —  Jars NO - Added for #3 T-Started 1445  
 (C) First Final Flow —  Safety Joint NO - Added for #3 T-Open 0  
 (D) Initial Shut-In —  Circ Sub — T-Pulled 1545  
 (E) Second Initial Flow —  Hourly Standby — T-Out 1736  
 (F) Second Final Flow —  Mileage 967 Prati 120 Comments —  
 (G) Final Shut-In —  Sampler —  
 (H) Final Hydrostatic 1684  Straddle —  EM Tool —  
 Initial Open —  Shale Packer NO - Added for #3  Ruined Shale Packer —  
 Initial Shut-In —  Extra Packer —  Ruined Packer —  
 Final Flow —  Extra Recorder —  Extra Copies —  
 Final Shut-In —  Day Standby — Sub Total 0  
 Accessibility — Total 1170  
 Sub Total 1170 MP/DST Disc't —

Approved By \_\_\_\_\_ Our Representative Matthew Smith

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.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **67217**

Well Name & No. Cotter #1 Test No. 3 Date 12/20/21  
 Company Charter Energy Inc. Elevation 1912 KB 1962 GL  
 Address P.O. Box 252 Great Bend, Ks. 67530  
 Co. Rep / Geo. Josh Austin Rig Southwind 1  
 Location: Sec. 34 Twp 20S Rge. 14W Co. Barton State Ks.

Interval Tested 3542 - 3571 Zone Tested Arbuckle  
 Anchor Length 29' Drill Pipe Run 3550 3518 Mud Wt. 9.4  
 Top Packer Depth 3537 Drill Collars Run 6 Vis 51  
 Bottom Packer Depth 3542 Wt. Pipe Run 6 WL 8.0  
 Total Depth 3571 Chlorides 6000 ppm System LCM 1\*

Blow Description IF: Weak Blow. 1 1/2" in the bucket.  
ISI: No Blow.  
FF: Weak-Fair Blow. Built to 5 1/4" in the bucket.  
FSI: No Blow.

Rec	Feet of	%gas	%oil	%water	%mud
79	HOWCM	25	30	45	
192	HOWCM	15	35	50	
320	HOMCW	10	85	5	
64	VSO WCM	3	27	70	
192	HOMCW	45	50	5	

Rec Total 847' Fluid BHT 90° Gravity N/A API RW 12 @ 47 °F Chlorides 102,000 ppm

(A) Initial Hydrostatic 1782  
 (B) First Initial Flow 35  
 (C) First Final Flow 207  
 (D) Initial Shut-In 1204  
 (E) Second Initial Flow 215  
 (F) Second Final Flow 391  
 (G) Final Shut-In 1210  
 (H) Final Hydrostatic 1753  
 Initial Open 30  
 Initial Shut-In 30  
 Final Flow 45  
 Final Shut-In 60

Test 1300  
 Jars 250  
 Safety Joint 75  
 Circ Sub  
 Hourly Standby  
 Mileage (96) Prot  
 Sampler  
 Straddle  
 Shale Packer 250  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility  
 Sub Total 1875

T-On Location 2100  
 T-Started 2235  
 T-Open 0011  
 T-Pulled 0313  
 T-Out 0530  
 Comments \* Stayed on location  
 EM Tool 350 NS  
 Ruined Shale Packer  
 Ruined Packer  
 Extra Copies  
 Sub Total 0  
 Total 1875

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