

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	CMX, Inc.
Well Name	MCMANNIS B 2-25
Doc ID	1530747

All Electric Logs Run

DIL
Micro
Sonic
Comp Density/Neutron



HURRICANE SERVICES INC

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

Customer:
CMX INC
1700 N WATERFRONT PKWY
BLDG 300, STE B
WICHITA, KS 67206

Invoice Date: 8/5/2020
Invoice #: 0348649
Lease Name: McMannis B
Well #: 2-25 (New)
County: Pratt, Ks
Job Number: ICT3906
District: Medicine Lodge

Date/Description	HRS/QTY	Rate	Total
Surface	0.000	0.000	0.00
H-CON	200.000	15.960	3,192.00
Cement Class A	200.000	12.920	2,584.00
Calcium Chloride	376.000	0.570	214.32
Cello Flake	51.000	1.330	67.83
8 5/8" Flapper insert valve	1.000	285.000	285.00
8 5/8" Top rubber plug	1.000	133.000	133.00
8 5/8" Centralizer x 12 1/4"	2.000	68.400	136.80
Light Eq Mileage	30.000	1.520	45.60
Heavy Eq Mileage	30.000	3.040	91.20
Ton Mileage	564.000	1.140	642.96
Cement Pump Service	1.000	570.000	570.00
Cement Plug Container	1.000	190.000	190.00

Total 8,152.71

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

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

WE APPRECIATE YOUR BUSINESS!



Customer	CMX INC	Lease & Well #	MCMANNIS B 2-25	Date	8/5/2020
Service District	MLK	County & State	PRATT KS	25-27S-14W	Job #
Job Type	SURFACE	<input checked="" type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> SWD	New Well? <input checked="" type="checkbox"/> YES <input type="checkbox"/> No	Ticket #	ICT3906
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures <input checked="" type="checkbox"/> Hard hat <input checked="" type="checkbox"/> Gloves <input type="checkbox"/> Lockout/Tagout <input type="checkbox"/> Warning Signs & Flagging <input checked="" type="checkbox"/> H2S Monitor <input checked="" type="checkbox"/> Eye Protection <input type="checkbox"/> Required Permits <input type="checkbox"/> Fall Protection <input checked="" type="checkbox"/> Safety Footwear <input type="checkbox"/> Respiratory Protection <input type="checkbox"/> Slip/Trip/Fall Hazards <input type="checkbox"/> Specific Job Sequence/Expectations <input checked="" type="checkbox"/> FRC/Protective Clothing <input type="checkbox"/> Additional Chemical/Acid PPE <input type="checkbox"/> Overhead Hazards <input type="checkbox"/> Muster Point/Medical Locations <input type="checkbox"/> Hearing Protection <input type="checkbox"/> Fire Extinguisher <input type="checkbox"/> Additional concerns or issues noted below			
912	MATTAL				
528/521	MCGRAW				
527/533	MARTINEZ				
Comments					
SULFITE <200 CHLORIDES 0					

Product Service Code	Description	Unit of Measure	Quantity	Net Amount
CP025	H-Con	sack	200.00	\$3,192.00
CP010	Class A Cement	sack	200.00	\$2,684.00
CP100	Calcium Chloride	lb	376.00	\$214.32
CP120	Cello-Sake	lb	51.00	\$67.83
FE275	8 5/8" AFU Flapper Insert Valve	ea	1.00	\$285.00
FE285	8 5/8" Rubber Plug	ea	1.00	\$133.00
FE250	8 5/8" Centralizer	ea	2.00	\$138.80
M015	Light Equipment Mileage	mi	30.00	\$45.60
M010	Heavy Equipment Mileage	mi	30.00	\$91.20
M020	Ton Mileage	tm	664.00	\$842.96
C010	Cement Pump Service	ea	1.00	\$670.00
C050	Cement Plug Container	job	1.00	\$190.00

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

Based on this job, how likely is it you would recommend HSI to a colleague?
 1 2 3 4 5 6 7 8 9 10 Extremely Likely

Total Taxable	\$ -	Tax Rate:	
Sale Tax:	\$ -	Total:	\$ 6,152.71

HSI Representative: *Mike Mattal*

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

Kurt Mack
 x _____ **CUSTOMER AUTHORIZATION SIGNATURE**



HURRICANE SERVICES INC

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

Customer:

CMX INC
1700 N WATERFRONT PKWY
BLDG 300, STE B
WICHITA, KS 67206

Invoice Date: 8/15/2020
Invoice #: 0348803
Lease Name: McMannis B
Well #: 2-25 (New)
County: Pratt, Ks
Job Number: ICT3979
District: Medicine Lodge

Date/Description	HRS/QTY	Rate	Total
5 1/2" Longstring	0.000	0.000	0.00
H-Long	200.000	21.000	4,200.00
H-Plug	100.000	9.750	975.00
Cello Flake	51.000	1.313	66.94
5 1/2" Floatshoe-Flapper AFU	1.000	281.250	281.25
5 1/2" LD Plug & Baffle	1.000	262.500	262.50
5 1/2" Turbolizers	8.000	60.000	480.00
KCL-CS701	5.000	22.500	112.50
Light Eq Mileage	30.000	1.500	45.00
Heavy Eq Mileage	30.000	3.000	90.00
Ton Mileage	408.000	1.125	459.00
Cement Pump Service	1.000	1,125.000	1,125.00
Cement Plug Container	1.000	187.500	187.50

Total 8,284.69

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 1/2% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

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

WE APPRECIATE YOUR BUSINESS!

Hurricane Services, Inc
 260 N. Water St., Suite #200
 Wichita, KS 67202



Customer	CMX, INC.	Well #	McMANNIS "B" 2-25	Date	8/19/2020
Service District	MEDICINE LODGE, KS	County & State	PRATT, KS	Legals S/T/R	28-275-14W
Job Type	5 1/2" LONGSTRIN® PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	New Well? <input type="checkbox"/> YES <input type="checkbox"/> No	Job #
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			
75	LESLEY	<input type="checkbox"/> Hard hat	<input type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
179-522	OSBORN	<input type="checkbox"/> H2S Monitor	<input type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
176-260	MARTINEZ	<input type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
		<input type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	
Comments					

Product/Service Code	Description	Unit of Measure	Quantity	Net Amount
CP030	H-Long	sack	200.00	\$4,200.00
CP055	H-Plug	sack	100.00	\$975.00
CP120	Cello-Slabe	lb	81.00	\$86.94
FE145	5 1/2" Float Shoe - AFU Flapper Type	ea	1.00	\$281.25
FE170	5 1/2" Latch Down Plug & Baffle	ea	1.00	\$282.00
FE133	5 1/2" Turbolizer	ea	6.00	\$480.00
AF055	Liquid KCL Substitute	gal	6.00	\$112.50
M015	Light Equipment Mileage	mi	30.00	\$48.00
M010	Heavy Equipment Mileage	mi	30.00	\$90.00
M020	Ton Mileage	tm	408.00	\$459.00
C015	Cement Pump Service	ea	1.00	\$1,125.00
C050	Cement Plug Container	job	1.00	\$187.50

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

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

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

Total Taxable \$ - Tax Rate: -

State tax laws deem certain products and services based on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.

Sale Tax: \$ -

Total: \$ 8,284.69

HSI Representative: *Kevin Lesley*

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1.5% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon firm, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms and conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

x *Kevin Lesley* CUSTOMER AUTHORIZATION SIGNATURE



CEMENT TREATMENT REPORT

Customer: CMX, INC.	Well: McMANNIS "B" 2-25	Ticket: ICT 3979
City, State:	County: PRATT, KS	Date: 8/16/2020
Field Rep: KEITH BRIGHT	S-T-R: 25-27S-14W	Service: 5 1/2" LONGSTRING

Downhole Information		Calculated Slurry - Lead		Calculated Slurry - Tail	
Hole Size:	7 7/8 in	Blend:	H- PLUG	Blend:	H - LONG
Hole Depth:	4540 ft	Weight:	13.8 ppg	Weight:	15 ppg
Casing Size:	5 1/2 in 17#	Water / Sk:	6.9 gal / sk	Water / Sk:	6.0 gal / sk
Casing Depth:	4525 ft	Yield:	1.43 ft³ / sk	Yield:	1.43 ft³ / sk
Tubing / Liner:	in	Annular Bbls / Ft.:	bbs / ft.	Annular Bbls / Ft.:	bbs / ft.
Depth:	ft	Depth:	ft	Depth:	4540 ft
Tool / Packers:		Annular Volume:	0.0 bbls	Annular Volume:	0 bbls
Plug Depth:	4491 ft	Excess:		Excess:	
Displacement:	104.0 bbls	Total Slurry:	25.0 bbls	Total Slurry:	51.0 bbls
		Total Sacks:	100 sk	Total Sacks:	200 sk

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
4:30PM			-	-	ON LOCATION
6:30PM					RUN 104 JTS 5 1/2" X 17#
					TURBOLIZERS- 1 -3 - 5 - 7 - 9 - 11 - 13 - 15
11:15PM					CSG ON BOTTOM
11:30PM					HOOK UP TO CSG / BREAK CIRCULATION WITH RIG PUMP
12:36AM	6.0	400.0	10.0	10.0	H2o AHEAD
12:35PM	6.0	400.0	13.0	23.0	MIX 50 SKS SCAVENGER SLURRY @ 13 PPG
12:38AM	6.0	200.0	51.0	74.0	MIX 200 SKS H-LONG CEMENT @ 15 PPG
12:45AM				74.0	SHUT DOWN - CLEAR PUMP AND LINES - DROP L.D. PLUG
12:55AM	6.0	-	-	74.0	START DISPLACEMENT
1:10AM	5.0	300.0	75.0	149.0	LIFT PRESSURE
1:16AM	4.0	500.0	84.0	243.0	SLOW RATE
1:30AM	4.0	1,500.0	104.0	347.0	PLUG DOWN - HELD
				347.0	CIRCULATION THRU JOB
1:45AM			7.5		PLUG RATHOLE AND MOUSEHOLE (RATHOLE - 30SKS ,,,, MOUSEHOLE 20 SKS BOTH H PLUG CEMENT)
2:00AM					WASHUP PUMP TRUCK
					JOB COMPLETE,
					THANKS!

Cementor:	LESLEY	75	UNIT	SUMMARY		
	OSBORN	175-522		Average Rate	Average Pressure	Total Fluid
Pump Operator:	MARTINEZ	176-260		5.3 bpm	471 psi	347 bbls
Bulk #1:						
Bulk #2:						



DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

9330 E Central STE 300
Wichita, KS 67206

ATTN: Ken LeBlanc

McMannis B #2-25

25-26s-14w Pratt,KS

Start Date: 2020.08.10 @ 00:06:54

End Date: 2020.08.10 @ 07:50:24

Job Ticket #: 60659 DST #: 1

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

Printed: 2020.08.17 @ 12:06:20



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

CMX Inc
9330 E Central STE 300
Wichita, KS 67206
ATTN: Ken LeBlanc

25-26s-14w Pratt, KS
McMannis B #2-25
Job Ticket: 60659 **DST#: 1**
Test Start: 2020.08.10 @ 00:06:54

GENERAL INFORMATION:

Formation: **LKC B**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 02:37:09 Tester: Matt Smith
Time Test Ended: 07:50:24 Unit No: 68
Interval: 3844.00 ft (KB) To 3856.00 ft (KB) (TVD) Reference Elevations: 1975.00 ft (KB)
Total Depth: 3856.00 ft (KB) (TVD) 1963.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 12.00 ft

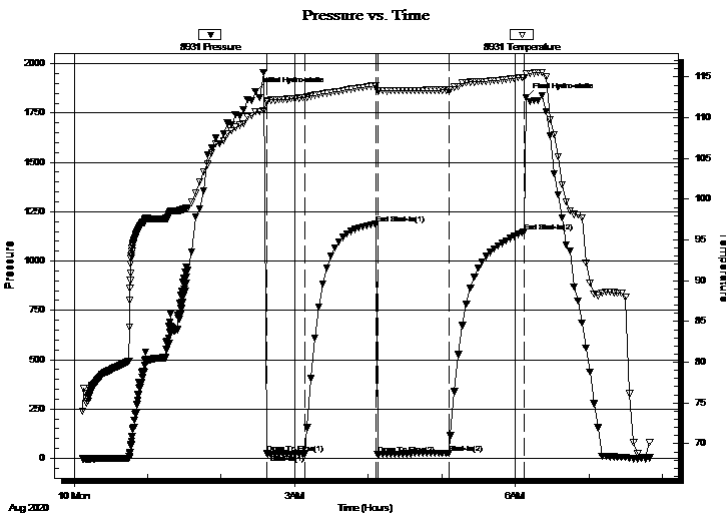
Serial #: 8931

Inside

Press@RunDepth: 26.13 psig @ 3845.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2020.08.10 End Date: 2020.08.10 Last Calib.: 2020.08.10
Start Time: 00:06:59 End Time: 07:50:23 Time On Btm: 2020.08.10 @ 02:27:54
Time Off Btm: 2020.08.10 @ 06:08:54

TEST COMMENT: IF: Strong Bow . B.O.B. in 1 min. Built to 134".
IS: No Blow .
FF: Strong blow . B.O.B. immediate. Built to 239.16".
FS: No Blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1858.73	110.76	Initial Hydro-static
10	25.21	111.95	Open To Flow (1)
41	22.06	112.48	Shut-In(1)
98	1188.80	113.95	End Shut-In(1)
100	20.36	113.35	Open To Flow (2)
158	26.13	113.39	Shut-In(2)
219	1146.85	114.96	End Shut-In(2)
221	1830.27	115.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	GM 2%g 98%m	0.28
0.00	2059' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
9330 E Central STE 300
Wichita, KS 67206
ATTN: Ken LeBlanc

25-26s-14w Pratt, KS
McMannis B #2-25
Job Ticket: 60659 **DST#: 1**
Test Start: 2020.08.10 @ 00:06:54

Tool Information

Drill Pipe:	Length: 3839.00 ft	Diameter: 3.80 inches	Volume: 53.85 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: 53000.00 lb
			<u>Total Volume: 53.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3844.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3817.00	
Shut In Tool	5.00			3822.00	
Hydraulic tool	5.00			3827.00	
EMT	5.00			3832.00	
Safety Joint	3.00			3835.00	
Packer	4.00			3839.00	28.00 Bottom Of Top Packer
Packer	5.00			3844.00	
Stubb	1.00			3845.00	
Recorder	0.00	8931	Inside	3845.00	
Recorder	0.00	8788	Outside	3845.00	
Perforations	8.00			3853.00	
Bullnose	3.00			3856.00	12.00 Bottom Packers & Anchor

Total Tool Length: 40.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc

25-26s-14w Pratt, KS

9330 E Central STE 300
Wichita, KS 67206

McMannis B #2-25

Job Ticket: 60659

DST#: 1

ATTN: Ken LeBlanc

Test Start: 2020.08.10 @ 00:06:54

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

4700 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.97 in³

Gas Cushion Type:

Resistivity: 4700.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	GM 2%g 98%m	0.281
0.00	2059' GIP	0.000

Total Length: 20.00 ft Total Volume: 0.281 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

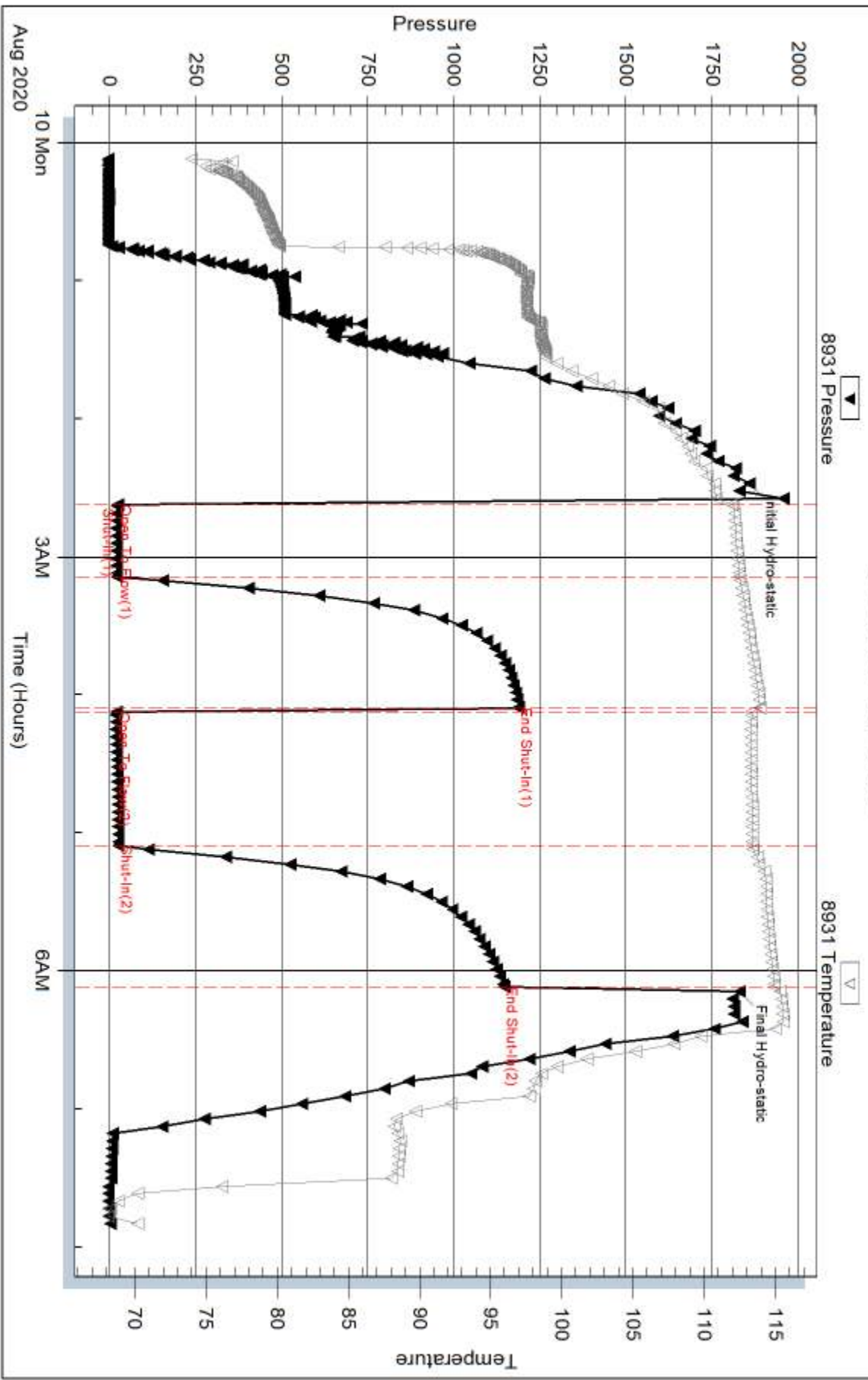
Serial #: None

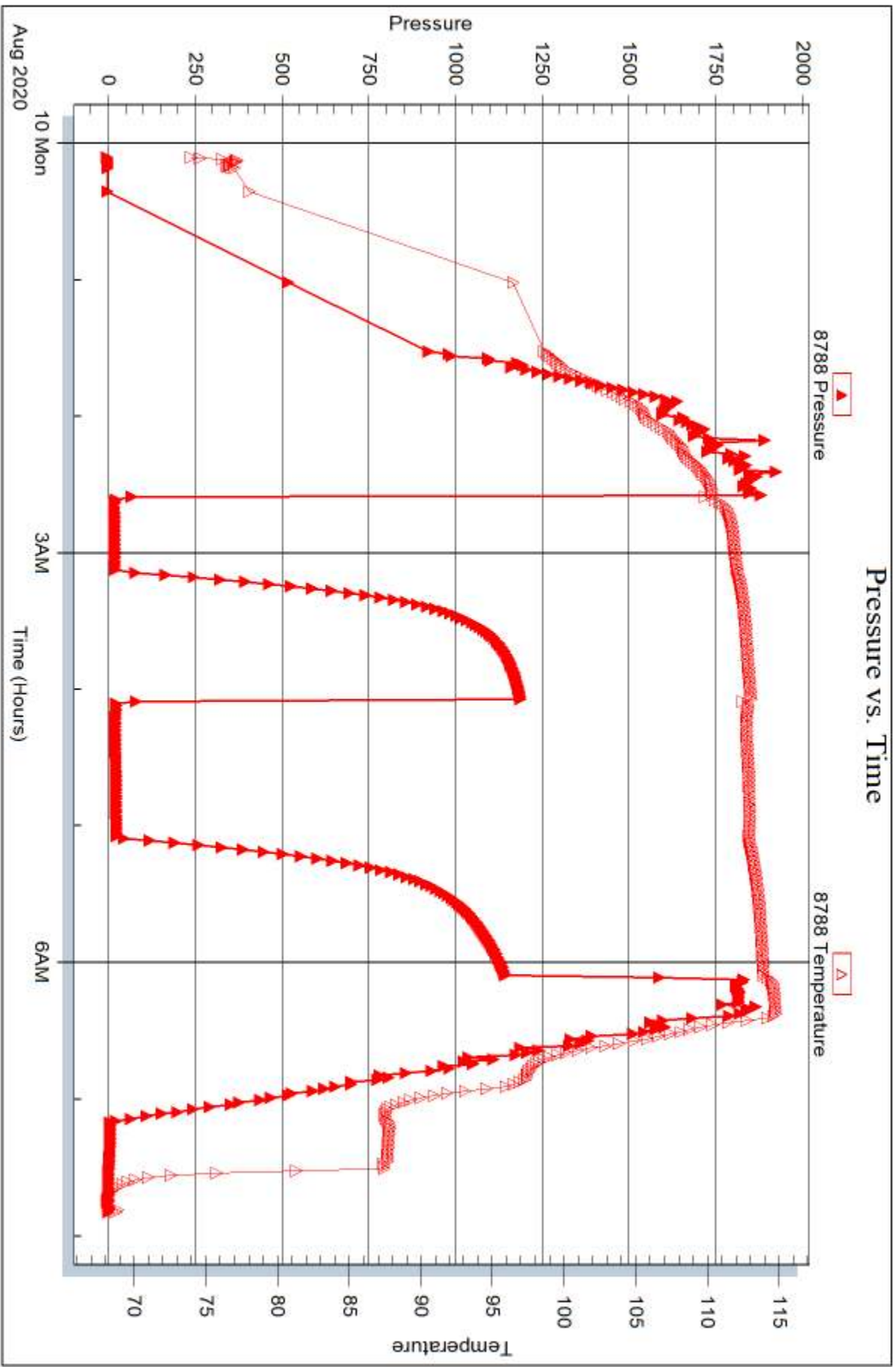
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

9330 E Central STE 300
Wichita, KS 67206

ATTN: Ken LeBlanc

McMannis B #2-25

25-26s-14w Pratt,KS

Start Date: 2020.08.10 @ 23:14:15

End Date: 2020.08.11 @ 07:52:15

Job Ticket #: 60660 DST #: 2

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

Printed: 2020.08.17 @ 12:01:14



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

CMX Inc
9330 E Central STE 300
Wichita, KS 67206
ATTN: Ken LeBlanc

25-26s-14w Pratt,KS
McMannis B #2-25
Job Ticket: 60660 **DST#: 2**
Test Start: 2020.08.10 @ 23:14:15

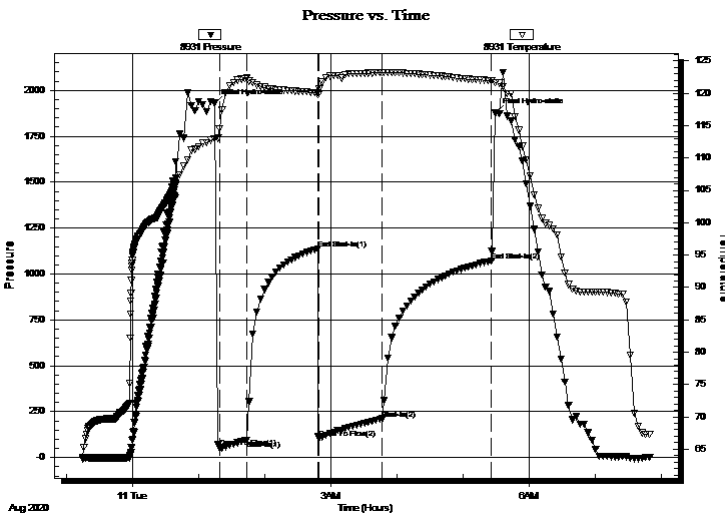
GENERAL INFORMATION:

Formation: **LKC H**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:18:30
Time Test Ended: 07:52:15
Interval: **3958.00 ft (KB) To 3980.00 ft (KB) (TVD)**
Total Depth: 3856.00 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: 1975.00 ft (KB)
1963.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8931 Inside
Press@RunDepth: 211.21 psig @ 3959.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2020.08.10 End Date: 2020.08.11 Last Calib.: 2020.08.11
Start Time: 23:14:20 End Time: 07:52:15 Time On Btm: 2020.08.11 @ 01:14:00
Time Off Btm: 2020.08.11 @ 05:29:30

TEST COMMENT: IF: Strong Blow . B.O.B. in 2 mins. Built to 71.61".
IS: Weak Blow . Built to .54".
FF: Strong Blow . B.O.B. 11 mins. Built to 65.67".
FS: Weak - Fair Blow . Built to 4 1/2".

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1930.13	112.94	Initial Hydro-static
5	53.94	114.49	Open To Flow (1)
30	95.73	122.35	Shut-In(1)
94	1137.35	120.10	End Shut-In(1)
96	105.12	120.64	Open To Flow (2)
153	211.21	123.16	Shut-In(2)
252	1072.05	121.98	End Shut-In(2)
256	1876.91	121.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	GVSOCMW 2%g 3%o 10%m 85%w	1.77
252.00	GVSOMCW 2%g 5%o 5%m 88%w	3.53
63.00	GOMCW 10%g 15%o 35%m 40%w	0.88
31.00	GOWCM 17%g 33%o 10%w 40%m	0.43
0.00	1,228'. G.I.P. 100%g	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
9330 E Central STE 300
Wichita, KS 67206
ATTN: Ken LeBlanc

25-26s-14w Pratt, KS
McMannis B #2-25
Job Ticket: 60660 **DST#: 2**
Test Start: 2020.08.10 @ 23:14:15

Tool Information

Drill Pipe:	Length: 3953.00 ft	Diameter: 3.80 inches	Volume: 55.45 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: 60000.00 lb
			<u>Total Volume: 55.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3958.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	50.00 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			3931.00	
Shut In Tool	5.00			3936.00	
Hydraulic tool	5.00			3941.00	
EMT	5.00			3946.00	
Safety Joint	3.00			3949.00	
Packer	4.00			3953.00	28.00 Bottom Of Top Packer
Packer	5.00			3958.00	
Stubb	1.00			3959.00	
Recorder	0.00	8931	Inside	3959.00	
Recorder	0.00	8788	Outside	3959.00	
Perforations	18.00			3977.00	
Bullnose	3.00			3980.00	22.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc

25-26s-14w Pratt, KS

9330 E Central STE 300
Wichita, KS 67206

McMannis B #2-25

Job Ticket: 60660

DST#: 2

ATTN: Ken LeBlanc

Test Start: 2020.08.10 @ 23:14:15

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 60.00 sec/qt
Water Loss: 9.97 in³
Resistivity: 4700.00 ohm.m
Salinity: ppm
Filter Cake: 0.20 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 54000 ppm

Recovery Information

Recovery Table

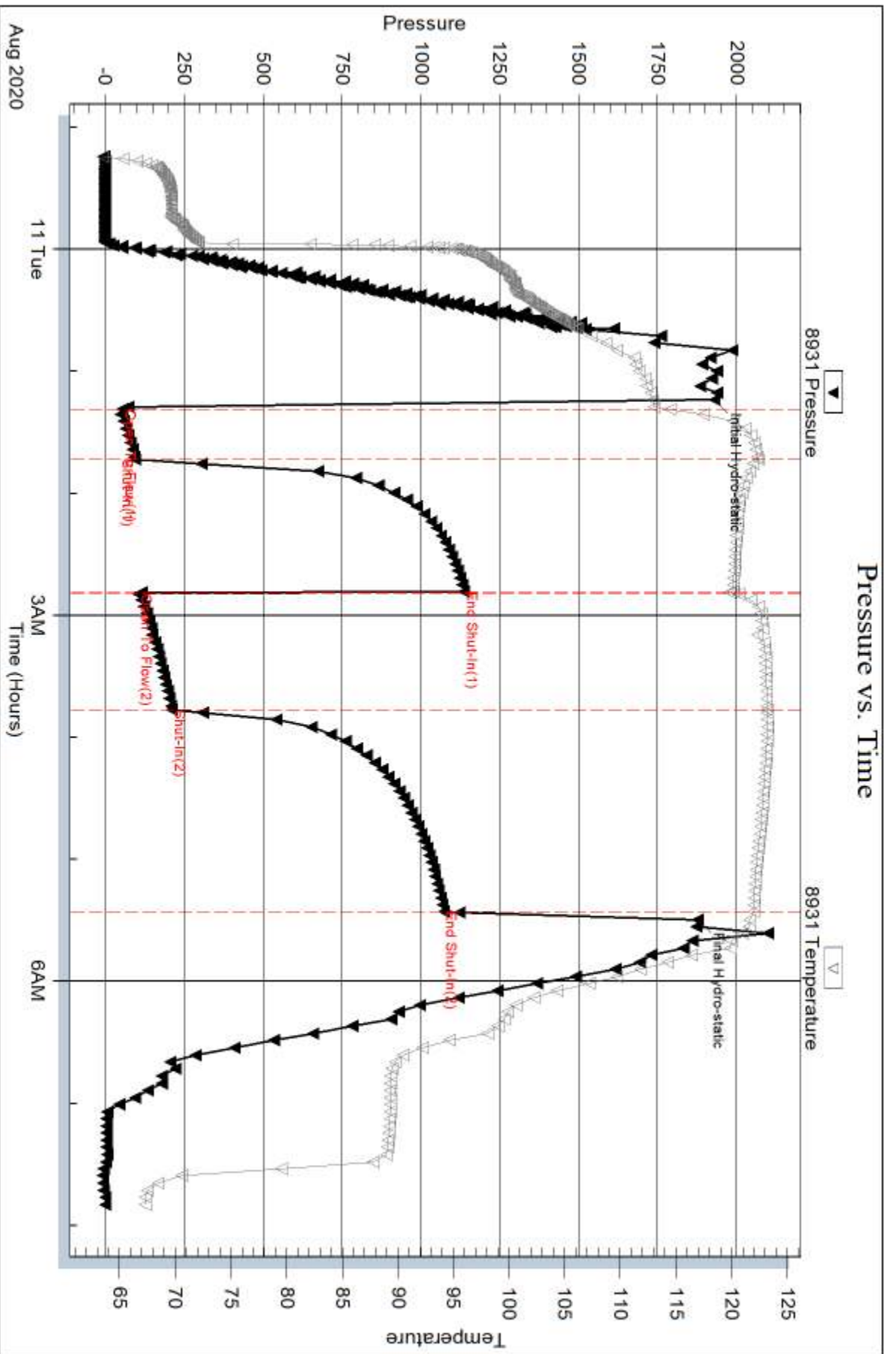
Length ft	Description	Volume bbl
126.00	GVSOCMW 2%g 3%o 10%m 85%w	1.767
252.00	GVSOMCW 2%g 5%o 5%m 88%w	3.535
63.00	GOMCW 10%g 15%o 35%m 40%w	0.884
31.00	GOWCM 17%g 33%o 10%w 40%m	0.435
0.00	1,228'. G.I.P. 100%g	0.000

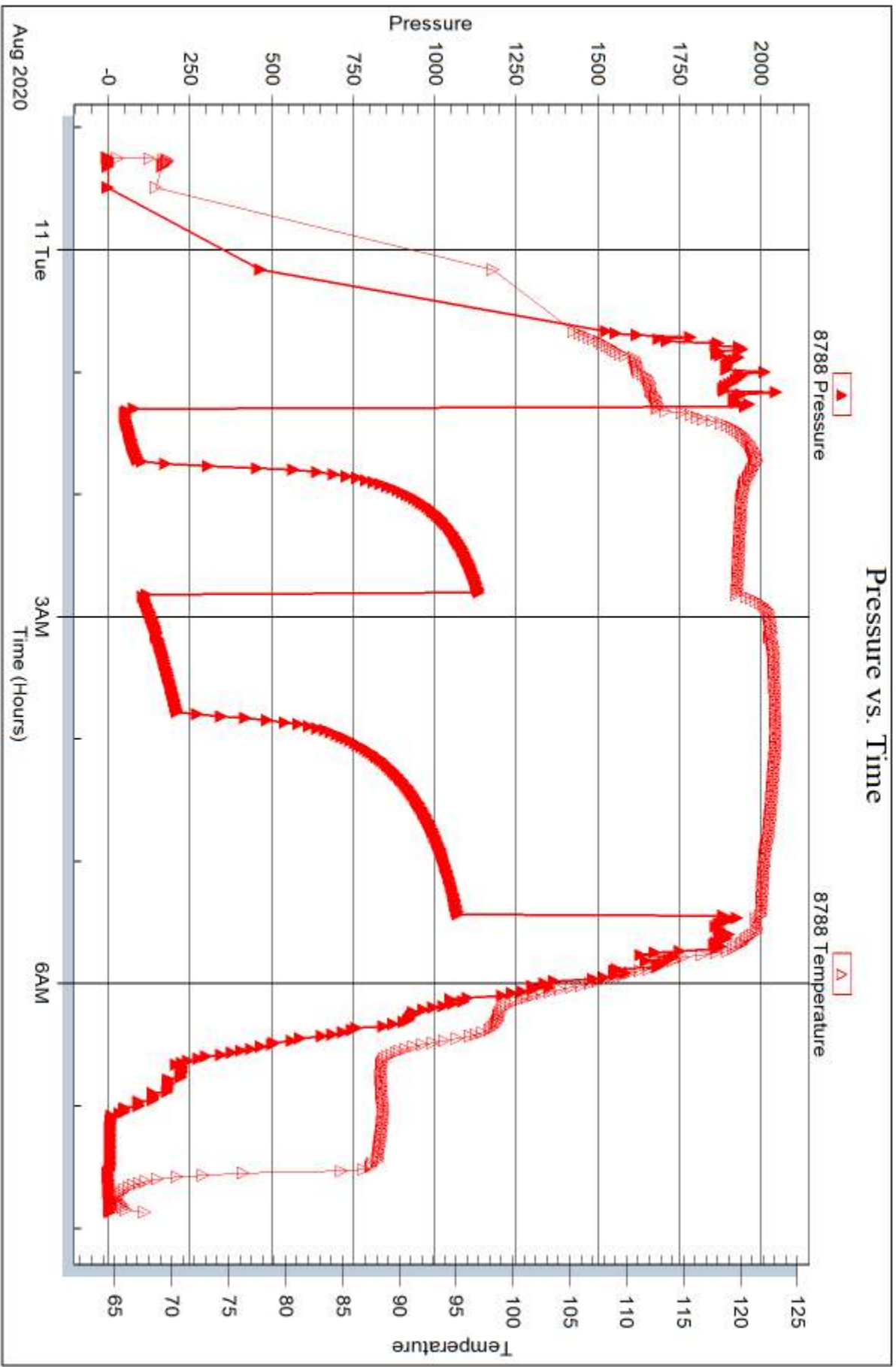
Total Length: 472.00 ft Total Volume: 6.621 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW is .15 @ 67 Degrees = 54,000 Chlorides.







DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

9330 E Central STE 300
Wichita, KS 67206

ATTN: Ken LeBlanc

McMannis B #2-25

25-26s-14w Pratt,KS

Start Date: 2020.08.11 @ 17:21:05

End Date: 2020.08.12 @ 01:34:20

Job Ticket #: 60661 DST #: 3

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

Printed: 2020.08.17 @ 12:00:46

CMX Inc
25-26s-14w Pratt,KS
McMannis B #2-25
DST # 3
LKC J
2020.08.11



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

CMX Inc
 9330 E Central STE 300
 Wichita, KS 67206
 ATTN: Ken LeBlanc

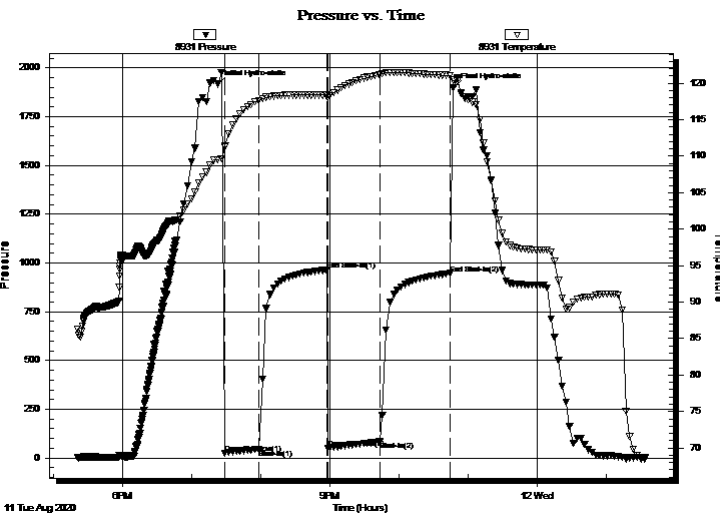
25-26s-14w Pratt,KS
McMannis B #2-25
 Job Ticket: 60661 **DST#: 3**
 Test Start: 2020.08.11 @ 17:21:05

GENERAL INFORMATION:

Formation: **LKC J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:28:50
 Time Test Ended: 01:34:20
 Interval: **4012.00 ft (KB) To 4030.00 ft (KB) (TVD)**
 Total Depth: 4030.00 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: 1975.00 ft (KB)
 1963.00 ft (CF)
 KB to GR/CF: 12.00 ft

Serial #: 8931 Inside
 Press@RunDepth: 83.50 psig @ 4013.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.08.11 End Date: 2020.08.12 Last Calib.: 2020.08.12
 Start Time: 17:21:10 End Time: 01:34:19 Time On Btm: 2020.08.11 @ 19:22:35
 Time Off Btm: 2020.08.11 @ 22:47:20

TEST COMMENT: IF: Strong Blow . B.O.B. in 4 mins. Built to 55.56".
 IS: No Blow .
 FF: Strong Blow . B.O.B. in 12 mins. Built to 36".
 FS: Weak Blow . Built to .57".



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1916.44	109.46	Initial Hydro-static
7	25.29	111.22	Open To Flow (1)
36	45.37	117.60	Shut-In(1)
95	963.35	118.39	End Shut-In(1)
96	49.21	118.06	Open To Flow (2)
141	83.50	121.22	Shut-In(2)
202	945.31	121.07	End Shut-In(2)
205	1898.26	120.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
127.00	GV/SOMCW 5%g 5%o 20%m 70%w	1.78
31.00	GOWCM 10%g 10%o 15%w 65%m	0.43
0.00	1,071' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
9330 E Central STE 300
Wichita, KS 67206
ATTN: Ken LeBlanc

25-26s-14w Pratt, KS
McMannis B #2-25
Job Ticket: 60661 **DST#: 3**
Test Start: 2020.08.11 @ 17:21:05

Tool Information

Drill Pipe:	Length: 3995.00 ft	Diameter: 3.80 inches	Volume: 56.04 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:	54000.00 lb
			<u>Total Volume: 56.04 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	4012.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	46.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3985.00	
Shut In Tool	5.00			3990.00	
Hydraulic tool	5.00			3995.00	
EMT	5.00			4000.00	
Safety Joint	3.00			4003.00	
Packer	4.00			4007.00	28.00 Bottom Of Top Packer
Packer	5.00			4012.00	
Stubb	1.00			4013.00	
Recorder	0.00	8931	Inside	4013.00	
Recorder	0.00	8788	Outside	4013.00	
Perforations	14.00			4027.00	
Bullnose	3.00			4030.00	18.00 Bottom Packers & Anchor

Total Tool Length: 46.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc

25-26s-14w Pratt,KS

9330 E Central STE 300
Wichita, KS 67206

McMannis B #2-25

Job Ticket: 60661

DST#: 3

ATTN: Ken LeBlanc

Test Start: 2020.08.11 @ 17:21:05

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:

68000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 4500.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
127.00	GVSOMCW 5%g 5%o 20%m 70%w	1.781
31.00	GOWCM 10%g 10%o 15%w 65%m	0.435
0.00	1,071' GIP	0.000

Total Length: 158.00 ft Total Volume: 2.216 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: None

Laboratory Name:

Laboratory Location:

Recovery Comments: RW is .13 @ 63 Degrees = 68,000 Chlorides.

Serial #: 8931

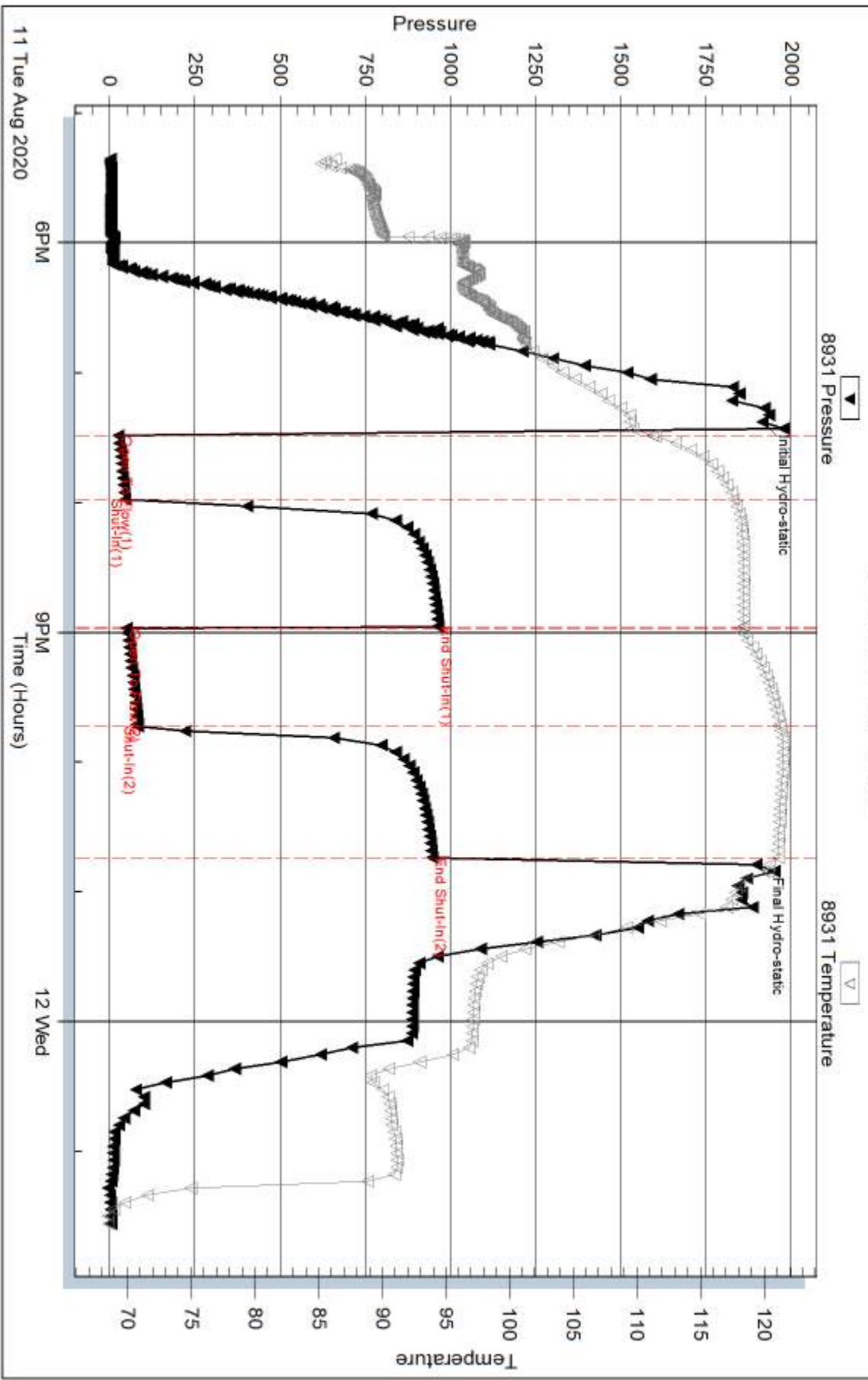
Inside

CMX Inc

McMannis B #2-25

DST Test Number: 3

Pressure vs. Time

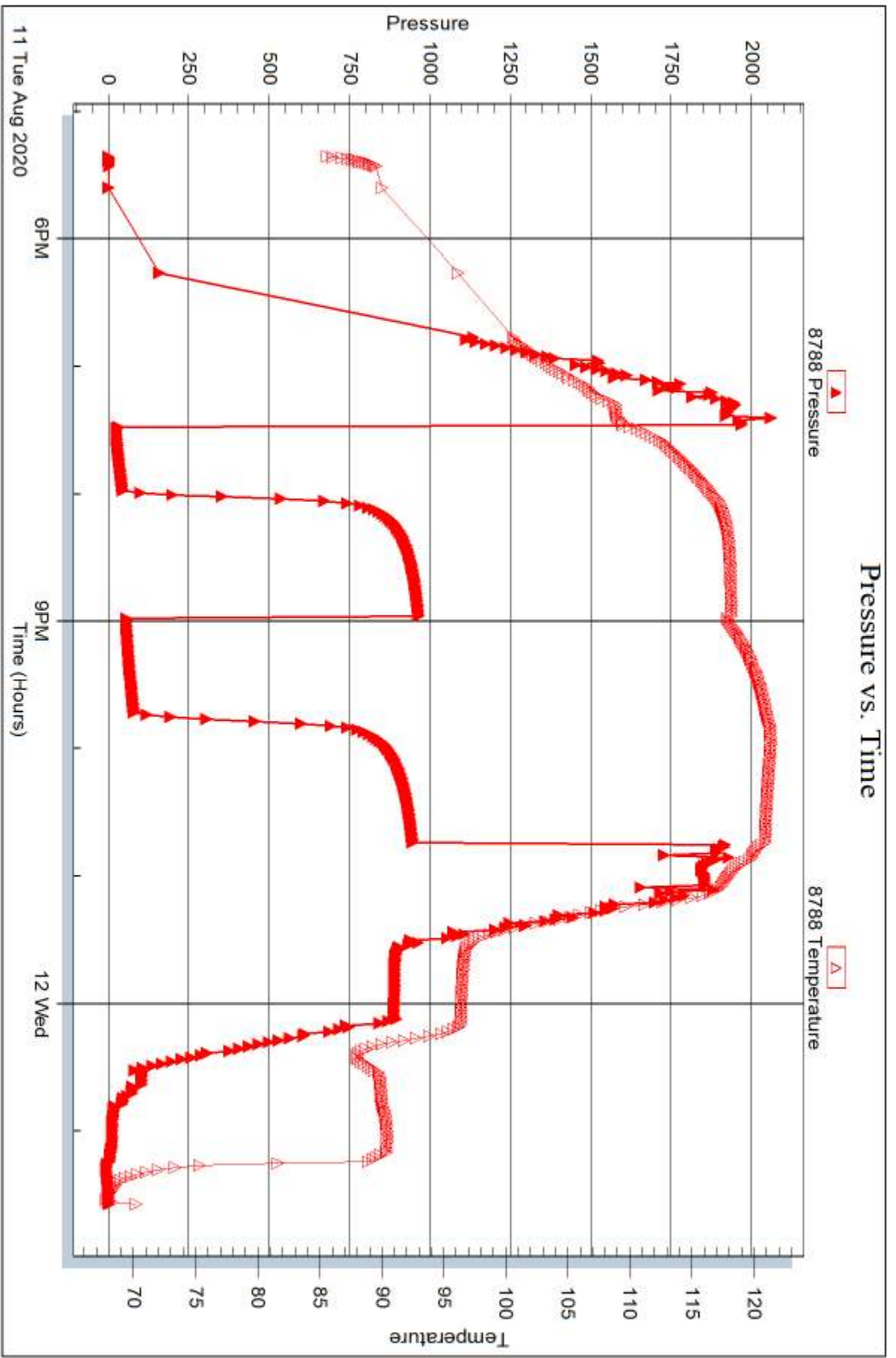


Serial #: 8788

Outside CMX Inc

McMannis B #2-25

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

9330 E Central STE 300
Wichita, KS 67206

ATTN: Ken LeBlanc

McMannis B #2-25

25-26s-14w Pratt,KS

Start Date: 2020.08.12 @ 11:10:46

End Date: 2020.08.12 @ 20:08:16

Job Ticket #: 60662 DST #: 4

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

Printed: 2020.08.17 @ 11:58:07

CMX Inc
25-26s-14w Pratt,KS
McMannis B #2-25
DST # 4
KC Swope
2020.08.12



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

CMX Inc
 9330 E Central STE 300
 Wichita, KS 67206
 ATTN: Ken LeBlanc

25-26s-14w Pratt, KS
McMannis B #2-25
 Job Ticket: 60662 **DST#: 4**
 Test Start: 2020.08.12 @ 11:10:46

GENERAL INFORMATION:

Formation: **KC Swope**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:00:46
 Time Test Ended: 20:08:16
 Interval: **4040.00 ft (KB) To 4070.00 ft (KB) (TVD)**
 Total Depth: 3856.00 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: 1975.00 ft (KB)
 1963.00 ft (CF)
 KB to GR/CF: 12.00 ft

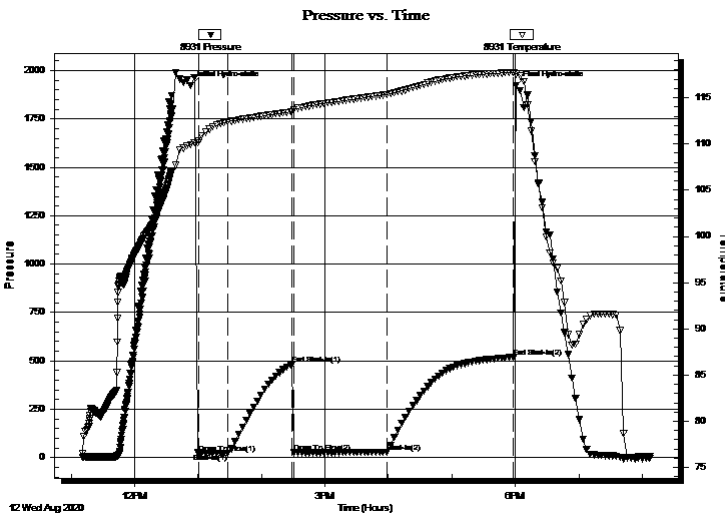
Serial #: 8931

Inside

Press@RunDepth: 27.95 psig @ 4041.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.08.12 End Date: 2020.08.12 Last Calib.: 2020.08.12
 Start Time: 11:10:51 End Time: 20:08:16 Time On Btm: 2020.08.12 @ 12:53:01
 Time Off Btm: 2020.08.12 @ 18:01:01

TEST COMMENT: IF: Strong Blow . B.O.B. in 15 mins. Built to 24.51".
 IS: No Blow .
 FF: Strong Blow . B.O.B. Immediate. Built to 106.25".
 FS: No Blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1920.86	109.88	Initial Hydro-static
8	22.02	110.31	Open To Flow (1)
36	21.39	112.40	Shut-In(1)
96	480.41	113.50	End Shut-In(1)
98	24.86	113.73	Open To Flow (2)
186	27.95	115.35	Shut-In(2)
306	517.68	117.74	End Shut-In(2)
308	1921.47	117.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
36.00	GHOCM 15%g 45%o 40%m	0.50
0.00	1,543' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
9330 E Central STE 300
Wichita, KS 67206
ATTN: Ken LeBlanc

25-26s-14w Pratt, KS
McMannis B #2-25
Job Ticket: 60662 **DST#: 4**
Test Start: 2020.08.12 @ 11:10:46

Tool Information

Drill Pipe:	Length: 4029.00 ft	Diameter: 3.80 inches	Volume: 56.52 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: 62000.00 lb
			<u>Total Volume: 56.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4040.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			4013.00	
Shut In Tool	5.00			4018.00	
Hydraulic tool	5.00			4023.00	
EMT	5.00			4028.00	
Safety Joint	3.00			4031.00	
Packer	4.00			4035.00	28.00 Bottom Of Top Packer
Packer	5.00			4040.00	
Stubb	1.00			4041.00	
Recorder	0.00	8931	Inside	4041.00	
Recorder	0.00	8788	Outside	4041.00	
Perforations	26.00			4067.00	
Bullnose	3.00			4070.00	30.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc

25-26s-14w Pratt,KS

9330 E Central STE 300
Wichita, KS 67206

McMannis B #2-25

Job Ticket: 60662

DST#: 4

ATTN: Ken LeBlanc

Test Start: 2020.08.12 @ 11:10:46

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

5700 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: 5700.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
36.00	GHOCM 15%g 45%o 40%m	0.505
0.00	1,543' GIP	0.000

Total Length: 36.00 ft Total Volume: 0.505 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

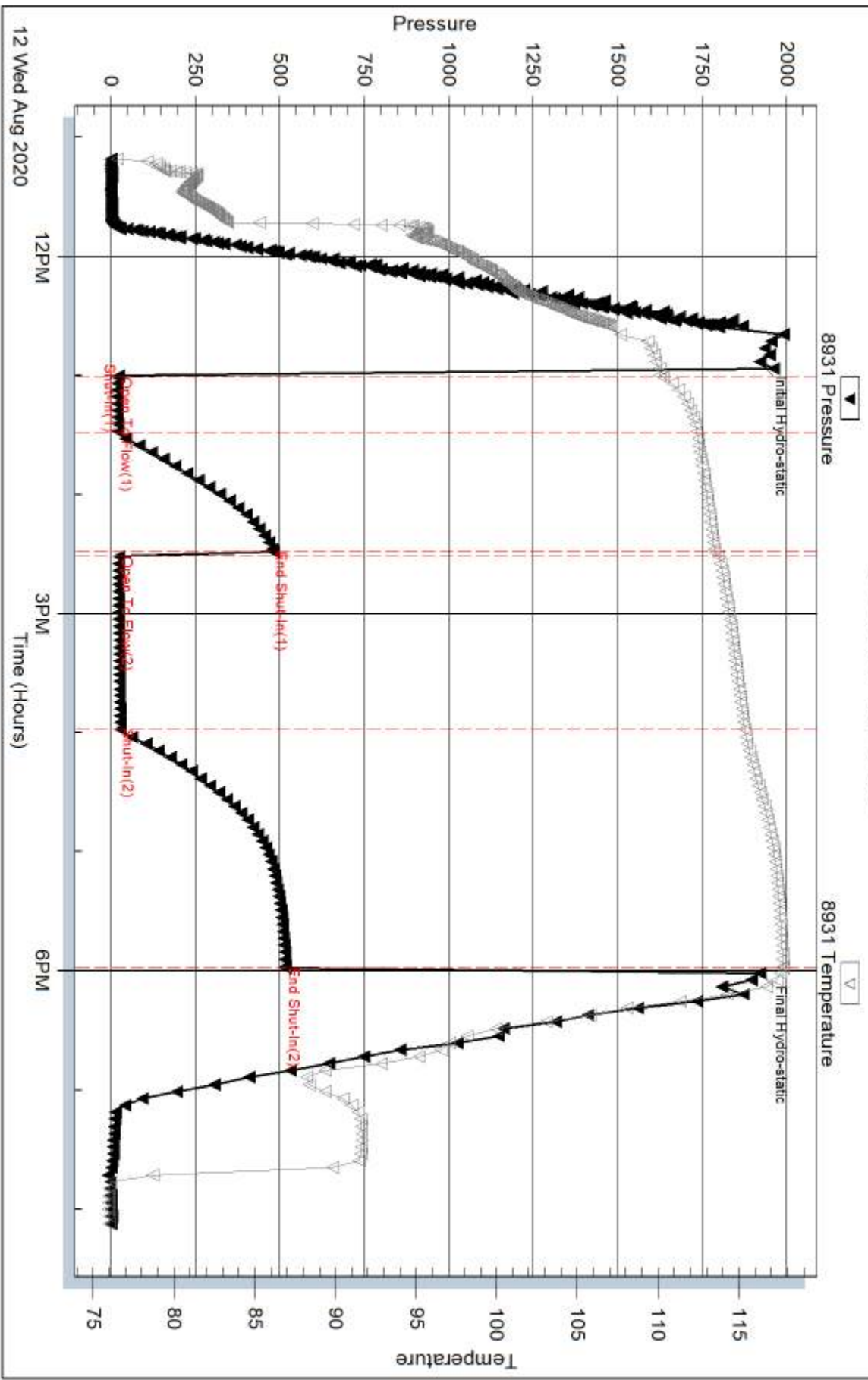
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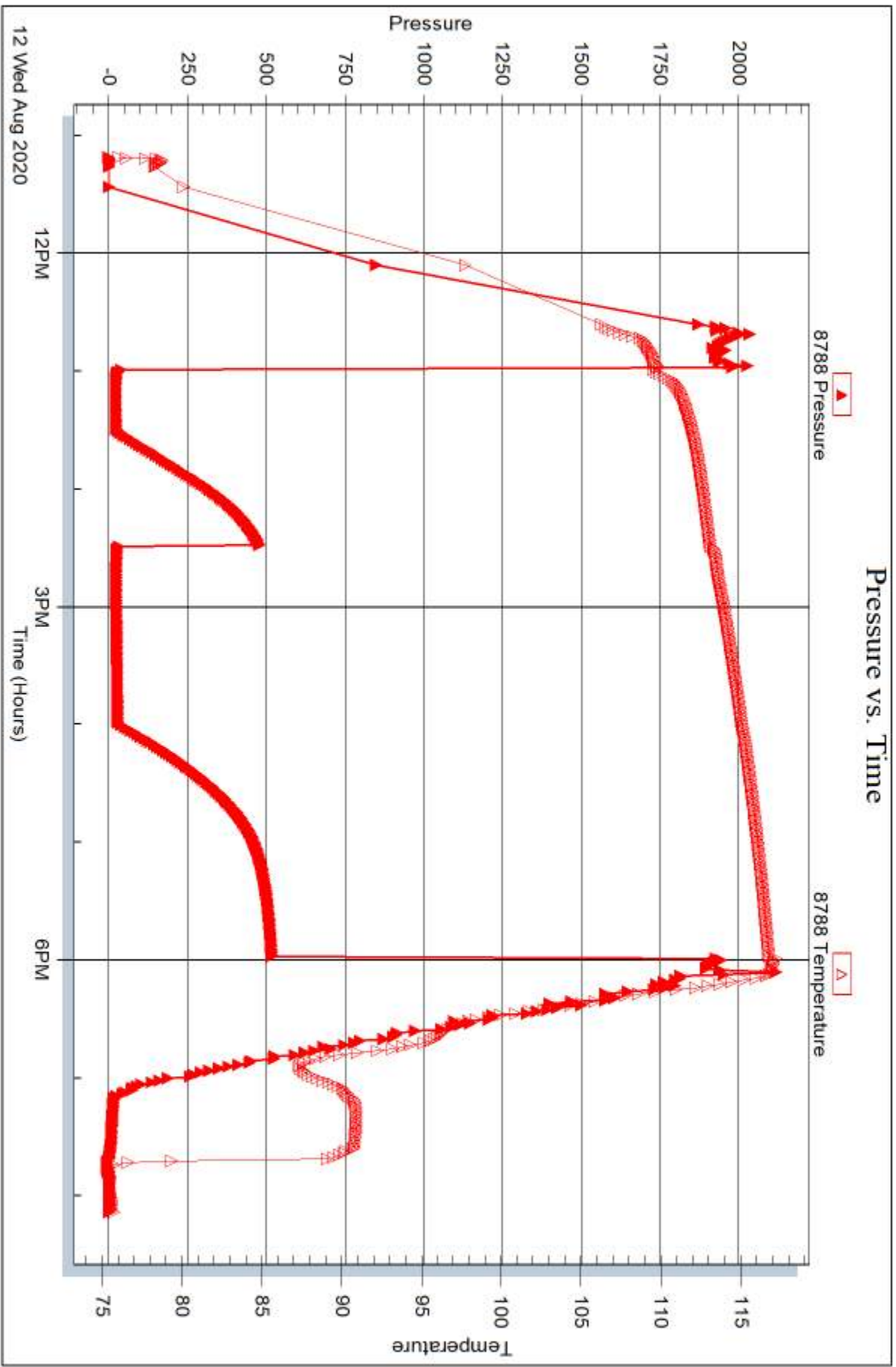
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

9330 E Central STE 300
Wichita, KS 67206

ATTN: Ken LeBlanc

McMannis B #2-25

25-26s-14w Pratt,KS

Start Date: 2020.08.13 @ 15:52:26

End Date: 2020.08.14 @ 00:45:56

Job Ticket #: 60663 DST #: 5

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

Printed: 2020.08.17 @ 11:57:37

CMX Inc
25-26s-14w Pratt,KS
McMannis B #2-25
DST # 5
Mississippi
2020.08.13



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

CMX Inc
 9330 E Central STE 300
 Wichita, KS 67206
 ATTN: Ken LeBlanc

25-26s-14w Pratt, KS
McMannis B #2-25
 Job Ticket: 60663 **DST#: 5**
 Test Start: 2020.08.13 @ 15:52:26

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:09:56
 Time Test Ended: 00:45:56
 Interval: **4205.00 ft (KB) To 4260.00 ft (KB) (TVD)**
 Total Depth: 4260.00 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: 1975.00 ft (KB)
 1963.00 ft (CF)
 KB to GR/CF: 12.00 ft

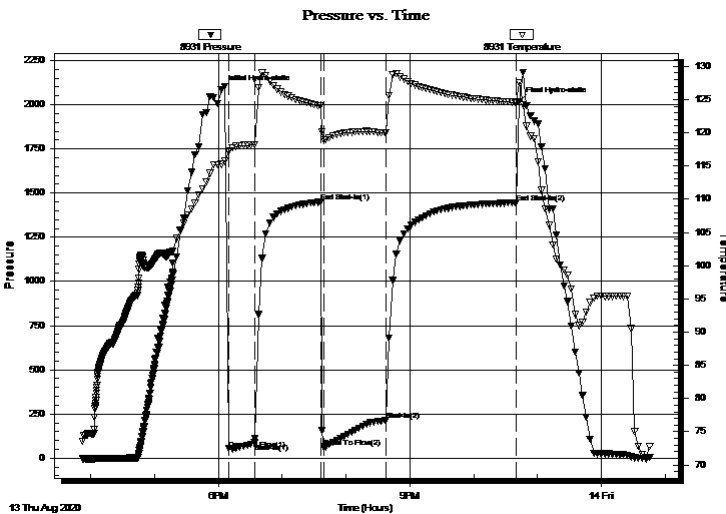
Serial #: 8931

Inside

Press@RunDepth: 214.26 psig @ 4206.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.08.13 End Date: 2020.08.14 Last Calib.: 2020.08.14
 Start Time: 15:52:31 End Time: 00:45:56 Time On Btm: 2020.08.13 @ 18:02:41
 Time Off Btm: 2020.08.13 @ 22:42:41

TEST COMMENT: IF: Strong Blow . Built to 800+ . GTS @ 29 mins on bleed off
 IS: No Blow .
 FF: Strong Blow , BOB Immediately . Gauged Gas .
 FS: Weak Blow . Built to 1 18".

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2087.11	115.27	Initial Hydro-static
8	52.85	117.20	Open To Flow (1)
32	86.54	118.15	Shut-In(1)
94	1450.20	124.05	End Shut-In(1)
97	60.78	118.88	Open To Flow (2)
155	214.26	119.97	Shut-In(2)
277	1445.63	124.57	End Shut-In(2)
280	2017.65	127.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	GOSM 2%g 98%m	0.56
0.00	4,146' GIP	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	65.47	29.89
Last Gas Rate	0.13	179.43	72.55
Max. Gas Rate	0.13	179.43	72.55



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
9330 E Central STE 300
Wichita, KS 67206
ATTN: Ken LeBlanc

25-26s-14w Pratt,KS
McMannis B #2-25
Job Ticket: 60663 **DST#: 5**
Test Start: 2020.08.13 @ 15:52:26

Tool Information

Drill Pipe:	Length: 4186.00 ft	Diameter: 3.80 inches	Volume: 58.72 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: 65000.00 lb
			<u>Total Volume: 58.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4205.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4178.00	
Shut In Tool	5.00			4183.00	
Hydraulic tool	5.00			4188.00	
EMT	5.00			4193.00	
Safety Joint	3.00			4196.00	
Packer	4.00			4200.00	28.00 Bottom Of Top Packer
Packer	5.00			4205.00	
Stubb	1.00			4206.00	
Recorder	0.00	8931	Inside	4206.00	
Recorder	0.00	8788	Outside	4206.00	
Perforations	2.00			4208.00	
Change Over Sub	1.00			4209.00	
Blank Spacing	31.00			4240.00	
Change Over Sub	1.00			4241.00	
Perforations	16.00			4257.00	
Bullnose	3.00			4260.00	55.00 Bottom Packers & Anchor
Total Tool Length:	83.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc

25-26s-14w Pratt,KS

9330 E Central STE 300
Wichita, KS 67206

McMannis B #2-25

Job Ticket: 60663

DST#: 5

ATTN: Ken LeBlanc

Test Start: 2020.08.13 @ 15:52:26

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

6200 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: 6200.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	GOSM 2%g 98%m	0.561
0.00	4,146' GIP	0.000

Total Length: 40.00 ft Total Volume: 0.561 bbl

Num Fluid Samples: 1

Num Gas Bombs: 2

Serial #: P2

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

CMX Inc

25-26s-14w Pratt, KS

9330 E Central STE 300
Wichita, KS 67206

McMannis B #2-25

Job Ticket: 60663

DST#: 5

ATTN: Ken LeBlanc

Test Start: 2020.08.13 @ 15:52:26

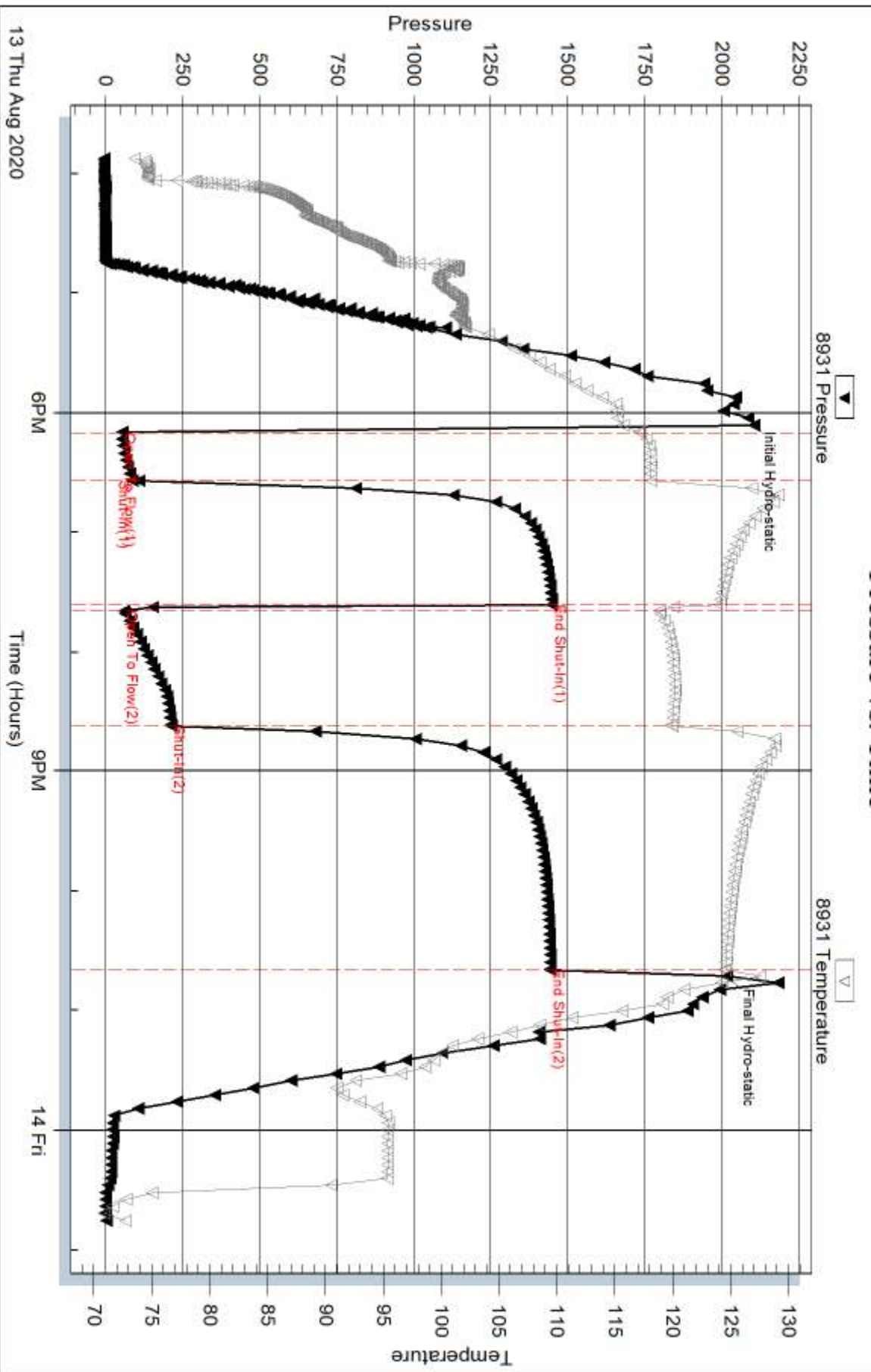
Gas Rates Information

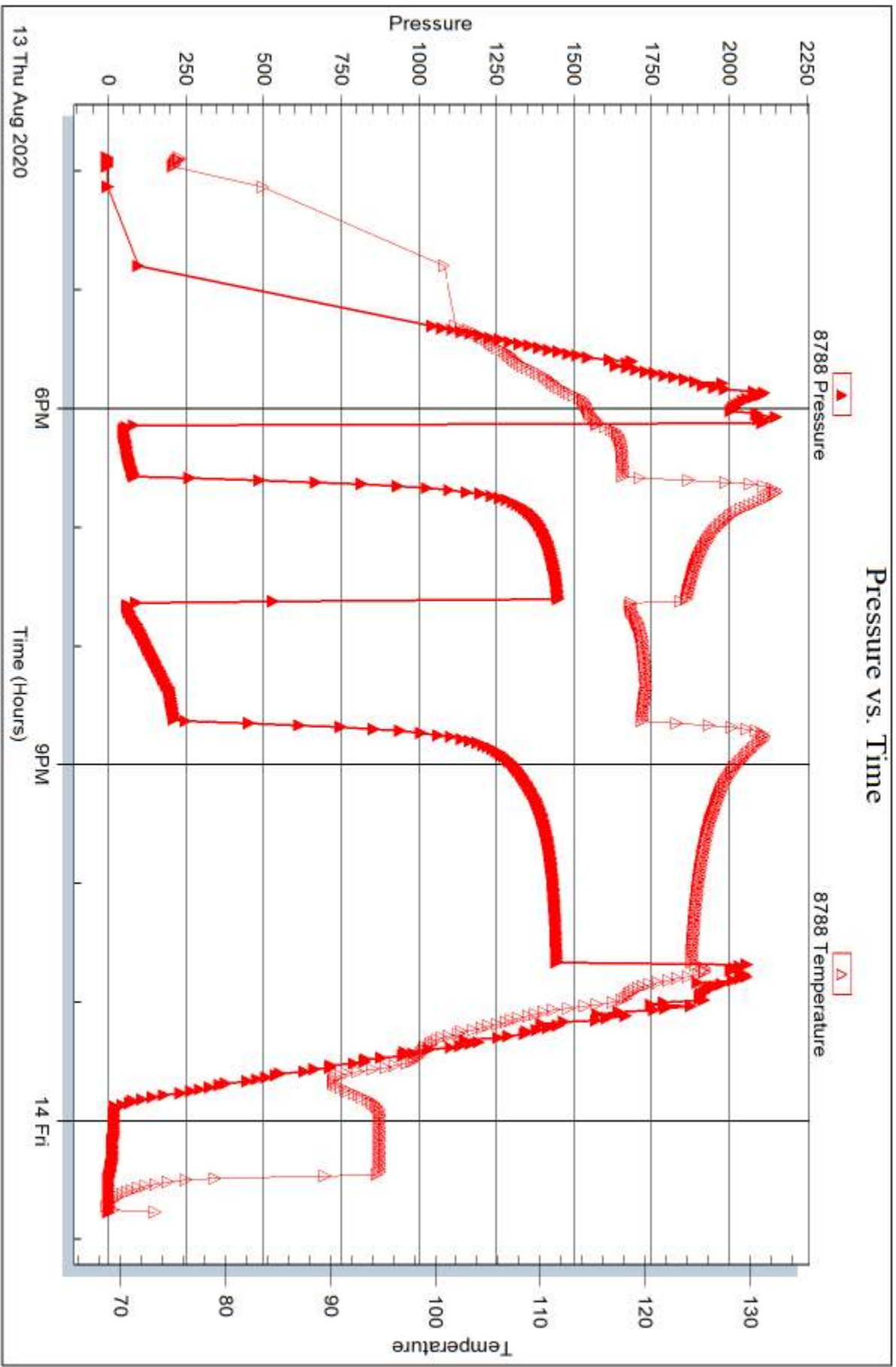
Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.13	65.47	29.89
2	20	0.13	101.55	43.40
2	30	0.13	122.85	51.37
2	40	0.13	156.17	63.84
2	50	0.13	170.71	69.28
2	60	0.13	179.43	72.55

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60659

Well Name & No. Mc Mannis B 2-25 Test No. 1 Date 8/18/09/20
 Company CMX Inc Elevation 1975 KB 1963 GL
 Address 9330 E. Central STE 300
 Co. Rep / Geo. Ken LeBlanc Rig Duke #1
 Location: Sec. 25 Twp. 26s Rge. 14W Co. PRATT State KS

Interval Tested 3844 - 3856 Zone Tested LSG/KC Lansing B
 Anchor Length 12' Drill Pipe Run 3839 Mud Wt. 9.2
 Top Packer Depth 3839 Drill Collars Run 2 Vis 60
 Bottom Packer Depth 3844 Wt. Pipe Run 2 WL 10.0
 Total Depth 3856 Chlorides 4,700 ppm System LCM 0#

Blow Description IF: Strong Blow, B.O.B. in 1-min. Built to 134"
ISI: NO Blow
FF: Strong Blow, B.O.B. immediate. Built to 239.16"
FSI: NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2059</u>	<u>G.I.P.</u>	<u>100</u>			
<u>20</u>	<u>GM</u>	<u>2</u>			<u>98</u>

Rec Total 20 Flare BHT 112° Gravity NA API RW NA @ — °F Chlorides 4,700 ppm
 (A) Initial Hydrostatic 1859 Test 1200 T-On Location 2205
 (B) First Initial Flow 25 Jars _____ T-Started 0006
 (C) First Final Flow 22 Safety Joint 75 T-Open 0237
 (D) Initial Shut-In 1189 Circ Sub _____ T-Pulled 0645
 (E) Second Initial Flow 20 Hourly Standby _____ T-Out 0750
 (F) Second Final Flow 26 Mileage 16 16 Comments * EM Tool *
 (G) Final Shut-In 1147 Sampler _____
 (H) Final Hydrostatic 1830 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1291
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1291

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

Approved By _____ Our Representative Mark Smith

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60660

Well Name & No. Mc Mann's B 2-25 Test No. 2 Date 8/10/20
 Company CMX Inc. Elevation 1975 KB 1863 GL
 Address 9330 E. Central STE 300 Wichita, KS. 67206
 Co. Rep / Geo. Ken LeBlanc Rig Duke #1
 Location: Sec. 25 Twp. 26S Rge. 14W Co. PRACT State KS.

Interval Tested 3958 - 3980 Zone Tested LSG/KC H zone
 Anchor Length 22 Drill Pipe Run 3953 Mud Wt. 9.3
 Top Packer Depth 3953 Drill Collars Run 0 Vis 60
 Bottom Packer Depth 3958 Wt. Pipe Run 0 WL 9.2
 Total Depth 3980 Chlorides 4150 ppm System LCM 0*

Blow Description IF: Strong Blow. B.O.B. in 2 mins. Built to 71.61"
ISI: Weak Blow. Built to .54"
FF: Strong Blow. B.O.B. in 11 mins. Built 65.67"
FSI: Weak-Fair Blow. Built to 4 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>1,228</u>	<u>G.I.P.</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>31</u>	<u>GOWCM</u>	<u>17</u>	<u>33</u>	<u>10</u>	<u>40</u>
<u>63</u>	<u>GOMCW</u>	<u>10</u>	<u>15</u>	<u>40</u>	<u>35</u>
<u>252</u>	<u>GVSDMCW</u>	<u>2</u>	<u>5</u>	<u>88</u>	<u>5</u>
<u>126</u>	<u>GVDCMW</u>	<u>2</u>	<u>3</u>	<u>85</u>	<u>10</u>

Rec Total 472' Fluid BHT 114° Gravity N/A API RW .15 @ 67 °F Chlorides 54,000 ppm

(A) Initial Hydrostatic <u>1930</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>2252</u>
(B) First Initial Flow <u>54</u>	<input type="checkbox"/> Jars _____	T-Started <u>2314</u>
(C) First Final Flow <u>96</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0118</u>
(D) Initial Shut-In <u>1137</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>0605</u>
(E) Second Initial Flow <u>105</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>0752</u>
(F) Second Final Flow <u>211</u>	<input checked="" type="checkbox"/> Mileage <u>16</u> → <u>16</u>	Comments <u>* EMT Tool * NS</u>
(G) Final Shut-In <u>1072</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1877</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Sub Total 1291 Total 1291 MP/DST Disc't _____

Approved By _____ Our Representative Matthew Sweet

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60661

Well Name & No. McMannis B 2-25 Test No. 3 Date 8/11/20
 Company CMX Inc. Elevation 1975 KB 1963 GL
 Address 9330 E. Central STE 300 Wichita, KS. 67206
 Co. Rep / Geo. Ken LeBlanc Rig Duke # 1
 Location: Sec. 25 Twp. 26S Rge. 14W Co. Pratt State KS

Interval Tested 4012 - 4030 Zone Tested LSC J zone
 Anchor Length 18' Drill Pipe Run 3995 Mud Wt. 9.3
 Top Packer Depth 4007 Drill Collars Run Q Vis 54
 Bottom Packer Depth 4012 Wt. Pipe Run Q WL 8.8
 Total Depth 4030 Chlorides 4,500 ppm System LCM 2⁺

Blow Description IF: Strong Blow. B.O.B. in 4 mins. Burt to 55.56"
ISI: No Blow.
FF: Strong Blow. B.O.B. in 11 mins. Burt to 36"
FSI: Weak Blow. Burt to .57"

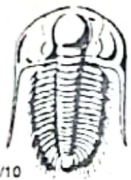
Rec	Feet of	%gas	%oil	%water	%mud
<u>1071</u>	<u>G.I.P.</u>	<u>100</u>			
<u>31</u>	<u>GOWCM</u>	<u>10</u>	<u>10</u>	<u>15</u>	<u>65</u>
<u>127</u>	<u>GVSOMCW</u>	<u>5</u>	<u>5</u>	<u>70</u>	<u>20</u>

Rec Total 158' fluid BHT 111° Gravity N/A API RW 13 @ 63 °F Chlorides 68,000 ppm

(A) Initial Hydrostatic <u>1916</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>1705</u>
(B) First Initial Flow <u>25</u>	<input type="checkbox"/> Jars	T-Started <u>1721</u>
(C) First Final Flow <u>45</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1928</u>
(D) Initial Shut-In <u>963</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>2247</u>
(E) Second Initial Flow <u>49</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0134</u>
(F) Second Final Flow <u>84</u>	<input checked="" type="checkbox"/> Mileage <u>16</u> → <u>16</u>	Comments <u>* FM TOI *</u> NS
(G) Final Shut-In <u>945</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1898 (1898)</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1391</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1391</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60662

Well Name & No. Mc Mannis B 2-25 Test No. 4 Date 8/12/20
 Company CMX Inc. Elevation 1975 KB 1963 GL
 Address 9330 E. Central STE 300 Wichita, KS. 67206
 Co. Rep / Geo. Ken Le Blanc Rig Duke #1
 Location: Sec. 25 Twp. 26S Rge. 14W Co. Pratt State KS.

Interval Tested 4040 - 4070 Zone Tested KC Swope
 Anchor Length 30' Drill Pipe Run 4029 Mud Wt. 9.3
 Top Packer Depth 4035 Drill Collars Run 0 Vis 52
 Bottom Packer Depth 4040 Wt. Pipe Run 0 WL 9.2
 Total Depth 4070 Chlorides 5,700 ppm System LCM 1 1/2"

Blow Description IF: Strong Blow. B.O.B. in 15 min. Built to 24.51"

FSI: No Blow.

FF: Strong Blow. B.O.B. immediate. Built to 106.25"

FSI: No Blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1543</u>	<u>G.I.P.</u>	<u>100</u>			
<u>36</u>	<u>G HOC m</u>	<u>15</u>	<u>45</u>		<u>40</u>

Rec Total 36' Fluid BHT 110° Gravity N/A API RW N/A @ — °F Chlorides 5,700 ppm

(A) Initial Hydrostatic 1921 Test 1300 T-On Location 1056
 (B) First Initial Flow 22 Jars _____ T-Started 1110
 (C) First Final Flow 21 Safety Joint 75 T-Open 1300
 (D) Initial Shut-In 480 Circ Sub _____ T-Pulled 1826
 (E) Second Initial Flow 25 Hourly Standby _____ T-Out 2008
 (F) Second Final Flow 28 Mileage 16.9 16 Comments * EM Tool *
 (G) Final Shut-In 518 Sampler _____
 (H) Final Hydrostatic 1921 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 620
 Final Flow 90
 Final Shut-In 120
 Sub Total 1391
 Total 1391
 MP/DST Disc't _____

Approved By _____ Our Representative Matthew Smith

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **60663**

Well Name & No. McMannis B 2-25 Test No. 5 Date 8/13/20
 Company CMX Inc. Elevation 1975 KB 1963 GL
 Address 9330 E Central STE 300 Wichita, KS 67206
 Co. Rep / Geo. Ken LeBlanc Rig Duke #1
 Location: Sec. 25 Twp. 26S Rge. 14W Co. Pratt State KS

Interval Tested 4205 - 4260 Zone Tested Mississippi
 Anchor Length 55' Drill Pipe Run 4186 Mud Wt. 9.4
 Top Packer Depth 4200 Drill Collars Run 0 Vis 57
 Bottom Packer Depth 4205 Wt. Pipe Run 0 WL 10.0
 Total Depth 4260 Chlorides 6,200 ppm System LCM 2#

Blow Description IF: Strong Blow. B.O.B. 1-min, Built to 800+ G.T.S. 29mins @ SI.
ISI: No Blow.

FF: Strong Blow. B.O.B. & G.T.S., immediate. Gauged Gas

FSI: Weak Blow. Built to 1 1/8"

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>605 spec M</u>	<u>2</u>			<u>98</u>
<u>4,146</u>	<u>G.I.P.</u>	<u>100</u>			
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud

Rec Total 40' Fluid BHT 117° Gravity N/A API RW N/A @ — °F Chlorides 6200 ppm

(A) Initial Hydrostatic 2087 Test 1300 T-On Location 1548
 (B) First Initial Flow 53 Jars _____ T-Started 1552
 (C) First Final Flow 87 Safety Joint 75 T-Open 1840
 (D) Initial Shut-In 1450 Circ Sub _____ T-Pulled 2310
 (E) Second Initial Flow 61 Hourly Standby _____ T-Out 0045
 (F) Second Final Flow 214 Mileage (16) x 2 ³² Comments *EM Tool*
 (G) Final Shut-In 1445 Sampler _____ 8/15/20 @ 10:40 Am. P.U.T.T.
 (H) Final Hydrostatic 2017 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1407
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1407

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 120

Approved By _____

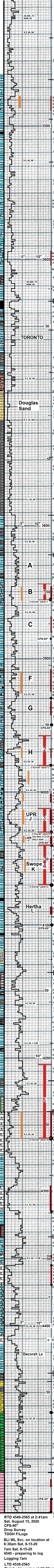
Our Representative [Signature]

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Zone Segment Number 1
 CurrentJobRpt.RPT
 FINAL JOB TOTAL REPORT

STAGE #	CARRIER	FLA	CONCENTRATION	SOLIDS	PUMPED gal	DESIGNED ppa	PUMPED LBS	DESIGNED LBS	WEIGHT	PUMPED BBS	DESIGNED BBS	SLURRY DESIGNED	SLR-RATE	JOB AVERAGES STP	JOB AVERAGES BHP
1	727.1	731.0	0.00	0.00	8.63	0.00	726.8	731.0	36.9	1605.90	3313.98				
0.10	133.1	142.9	0.10	0.10	567.71	600.00	133.7	143.5	41.1	1821.40	3527.41				
0.10	133.6	142.9	0.20	0.20	1129.09	1200.00	135.0	144.2	41.1	1903.99	3626.39				
0.20	136.4	142.9	0.30	0.30	1720.40	1800.00	138.3	144.8	41.1	1972.16	3703.10				
0.30	182.5	190.5	0.40	0.40	3054.66	3200.00	185.6	193.9	41.1	1984.31	3727.95				
0.40	183.2	190.5	0.50	0.50	3842.87	4000.00	187.3	194.8	41.2	1970.57	3730.75				
0.50	189.2	190.5	0.60	0.60	4770.74	4800.00	194.4	195.7	41.2	1937.40	3701.06				
0.60	173.7	190.5	0.70	0.70	5103.28	5600.00	179.3	196.5	41.2	1945.79	3722.30				
0.70	176.4	190.5	0.80	0.80	5923.59	6400.00	182.6	197.4	41.2	1954.82	3751.02				
0.80	193.7	190.5	0.90	0.90	7312.39	7200.00	201.5	198.2	41.1	1957.73	3759.31				
0.90	238.8	238.1	1.00	1.00	10072.01	10000.00	249.7	248.9	41.2	1983.73	3803.55				
1.00	239.6	238.1	1.50	1.50	15113.94	15000.00	255.8	254.3	41.3	1977.34	3836.46				
1.50	188.7	190.5	2.00	2.00	15869.26	16000.00	205.8	207.7	40.8	2030.51	3941.75				
2.00	188.7	190.5	2.50	2.50	19830.27	20000.00	210.1	212.1	40.9	1931.60	3896.59				
2.50	198.7	190.5	3.00	3.00	25055.69	24000.00	225.7	216.4	39.4	2137.05	4161.34				
3.00	82.5	71.4	3.16	3.50	10931.06	10500.00	94.3	82.8	39.3	2496.58	4551.48				
3.24	129.3	102.4	0.00	0.00	0.00	0.00	129.3	102.4	27.1	1444.82	3315.73				
0.00															

FracJob	3495.1	3523.8	0.00	0.88	130305.60	130300.00	3635.4	3664.4	39.3	1822.97	3639.94				
1.22															
TotlJob	3495.1	3523.8	0.00	0.88	130305.60	130300.00	3635.4	3664.4	39.3	1822.97	3639.94				
1.22															

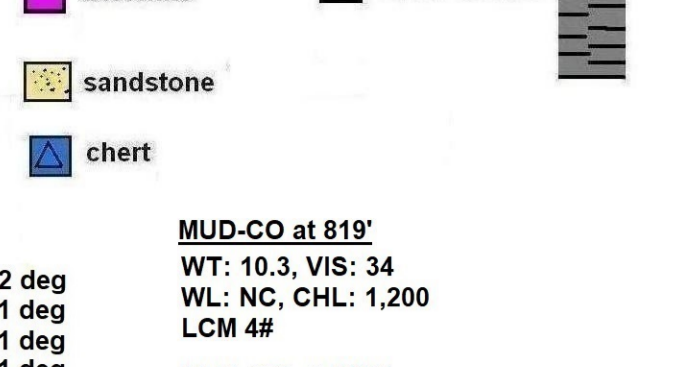


RTD 4540-2565 at 2:41am
Sat. August 15, 2020
CFS-90"
Drop Survey
TOOH F/Logs
ELI WL Svc. on location at
6:30am Sat. 8-15-20
7am Sat. 8-15-20
4540 - preparing to log
- logging 7am
LTD 4538-2563
Finished Logging at 10:30am
To Run 5-1/2" production
casing to RTD for further
evaluation

Displace Mud System at 3000'
Geologist on Location at 3188'
M&C Logging & Leasing on location
and operational at 1600 feet

FIELD (First Look) REPORT

Lithology Legend



SHT at 900' - 1/2 deg
at 1391' - 1 deg
at 1894' - 1 deg
at 2396' - 1 deg
at 2900' - 1 deg
at 3402' - 1 deg

MUD-CO at 819'
WT: 10.3, VIS: 34
WL: NC, CHL: 1,200
LCM: 4#

MUD-CO at 1214'
WT: 8.6+, VIS: 28
WL: NC, CHL: 6,100
LCM: 0#

MUD-CO at 2208'
WT: 9.8+, VIS: 28
WL: NC, CHL: 123.2K
LCM: 0#

MUD-CO at 2982'
WT: 9.7, VIS: 27
WL: NC, CHL: 91K
LCM: 0#

Gas Increases Noted Prior to Geologists arrival to location

at 2093 - HW-10u Rooster
at 2203 - HW-28u Rooster
at 2714 - HW-15u Rooster

MUD-CO at 3684'
WT: 9.3, VIS: 45
WL: 10.0, CHL: 4,100
LCM: Trace

Short Trip 30 Stands at 3856'
CTCH 60"
SHT at 3856' - 1 deg
Pipe Strap at 3856' - 0.32' long to board

MUD-CO at 3856'
WT: 9.3, VIS: 60
WL: 9.2, CHL: 4,150
LCM: 0#

MUD-CO at 4065'
WT: 9.3, VIS: 52
WL: 9.2, CHL: 5,700
LCM: 1-1/2#

MUD-CO at 4320'
WT: 9.3+, VIS: 53
WL: 11.2, CHL: 6,400
LCM: 2#

shales black and dk gry HW-110u
Is tan-brn fn xln dn, lesser ls tan fn-med oolitic, ringed, no fluor, no odor, no staining
Is tan-lt gry fn xln dn, some chalky
Is lt gry and tan fn xln dn, some chalky to weathered
Is lt gry to tan fn xln dn, some suboolitic grades to chalky and weathered
Is cream and tan fn and fn-med oolitic and suboolitic, equal ls tan fn xln dn, some coarse xln with assoc. chalky thru-out to chalky oolitic ls
Is cream and tan fn and fn-med oolitic and suboolitic, equal ls tan fn xln dn, some coarse xln with assoc. chalky thru-out to chalky oolitic ls
Is cream to lt gry fn xln dn to weathered and chalky, some fn suboolitic, scattered ls tan fn-med oomoldic and oolitic, traces with fluor
7am Sun. 8-9-20, DRLG 3600'
Is tn gry fn xln dn
shales dk gry and blk
Is tan fn xln dn to fn-med suboolitic grades to chalky ls

Heebner Shale 3631-1656 HW-100u Rooster
shales blk, carb.
Is brn fn xln dn, lesser cream fn-med oolitic, chalky, dk gry ooids
shales gry, gry-green and blk
Is white and cream fn xln dn, some weathered

TORONTO
NO ODOR, Is cream-white fn xln dn, some slightly oolitic, traces faced with pyrite, rare chert cream-white, fresh, subopaque, NO SHOWS, NO GAS INC.
shales gry-green, dk gry, gry to blk
Is white and cream fn xln dn, some weathered
siltstone to sst gry, vfn grain, heavily included with organics and micas, poorly sorted, angular, NO SHOWS, NO GAS INC.

Douglas Sand
3700
siltstone to sst lt gry to lt green tinted, vfn grain, fair to well sorted, included with organics and micas, friable in part, angular, NO SHOWS, NO GAS INC.
sst lt gry and some tan vfn-fn grain, angular, fair to well sorted, friable, good I.G. porosity, heavily included with organics and micas, NO SHOWS, NO GAS INC.
shales gry-green, lt gry, included with organics to silty
shales gry-green, dk green, some silty, included with organics
shales lt gry, gry, soft, clayey
shales lt gry, gry, soft, clayey

Brn Ls 3792-1817
Is brn fn xln dn
shales gry, dk gry, green, soft, scattered sst brn and gry fn grain, hvy micac., tite, mixed with ls streaks brn fn xln dn

Lansing 3822-1847
Is cream-tan fn and med xln to fn suboolitic
shales gry, lt gry, silty in part, included with organics
FAINT ODOR, Is brn fn and med oolitic, occ. oomoldic porosity to subool. brn uncoated clasts, no fluor wet or dry.
VERY RARE SHOWS BRN LIVE OIL in occ. leached porosity, assoc. brn sptd stain, slow weak cut
NO SIGNIFICANT GAS INC.
CFS-60"

DST 1 - Chart
DST 1) 3844-3856 (LSG B Zn) [30-60-60-60]
Rec: 2059' Gas in Pipe
20' Mud (100% mud)
20' - Total Fluid - ALL in DP
IFP: 25-22, FFP: 20-26
BHP: 1189-1147

DST 2 - Chart
DST 2) 3958-3980 (LSG B Zn) [30-60-60-60]
Rec: 1228' Gas in Pipe - NO GTS
31' Gassy Oil Water Cut Mud (17% g, 33% o, 10% w, 35% m)
63' Gassy Oily Mud Cut Water (10% g, 15% o, 40% w, 35% m)
252' Gassy VSL Oil & Mud Cut Water (2% g, 5% o, 88% w, 5% m)
126' Gassy VSL Oil Cut Muddy Water (2% g, 3% o, 85% w, 10% m)
472' - Total Fluid - ALL in DP
IFP: 54-46, FFP: 105-211
BHP: 1137-1072

DST 3 - Chart
DST 3) 4012-4030 (UPR LSG J Zn) [30-60-45-60]
Rec: 1071' Gas in Pipe
31' Gassy Oil Water Cut Mud (10% g, 10% o, 15% w, 65% m)
127' Gassy VSL Oil & Mud Cut Water (5% g, 5% o, 70% w, 20% m)
158' Total Fluid - ALL in DP
IFP: 25-45, FFP: 49-84
BHP: 963-945
chlorides of mud system: 4,150 ppm
chlorides of formation water: 54,000 ppm
resistivity of formation water: 0.13 @ 63 deg F

DST 4 - Chart
DST 4) 4040-4070 (KC Swope) [30-60-90-120]
Rec: 1543' Gas in Pipe
36' Gassy Heavy Oil Cut Mud (15% g, 45% o, 40% m)
36' - Total Fluid - ALL in DP
IFP: 22-21, FFP: 25-28
BHP: 480-518

DST 5 - Chart
DST 5) 4205-4260 (Mississippian Unconf.) [30-60-60-120]
Rec: GTS/29" - 1st Flow - NO GAUGE
2nd open: gauged gas on 1/8" choke
10" 29.89 MCFG
20" 43.40 MCFG
30" 51.37 MCFG
40" 63.84 MCFG
50" 69.28 MCFG - gas sample
60" 72.55 MCFG
(GAS RATES STILL BUILDING AT END OF 2nd FLOW PERIOD)
40' Gassy Oil Specked Mud (--- NO WATER ---)
40' Total Fluid - ALL in DP
IFP: 53-87, FFP 61-214
BHP: 1450-1445

AFTER DST 4 - MUD SYSTEM IS CARRYING SOME HW-350u to HW-400u background gas

Stark Shale 4044-2069
fair oily odor, Is tan fn and med oolitic, occ. cream uncoated coarse embedded ls clasts, fine pinpoint to interparticle porosity, fair hvy sptd yellow-gold fluor wet and dry, very light tan sptd to hvy sptd stain, most fair and some good shows CLEAR live oil (oil does fluor), random tan oil and shows of gas on break, (zone is well represented in samples)
HW-200u, recycled HW-75u Rooster (C4's observed at 13u-15u)
HW-30u, recycled HW-15u Analog
Is tan-brn fn xln dn, scattered chalky ls
CFS-60"
Is cream and tan fn xln dn, lesser weathered

Hush Shale 4080-2105
Is cream and tan fn xln dn with assoc. chalky ls
Is tan med suboolimic and oolitic, dull sptd fluor wet, none dry, no odor, no shows oil or gas
Is cream and tan fn xln dn, lesser weathered
Is tan-brn fn xln dn
shales black, carb.
Is cream to tan fn xln dn, lesser ls lt gry to gry-white fn oolitic, grainy, no shows
siltstone gry-white vfn grain, poor porosity, slightly included with organics
Is tan-dk brn fn xln dn
shales maroon to brick red, some silty, some mixed with gry-green, blk 5%
Is dk brn fn xln dn
shales gry-green, green and maroon
Is cream to tan fn xln dn
shales gry-green, maroon, green
Is cream to tan fn xln dn, assoc. chert tan, fresh opaque, slightly oolitic
7am Thur. 8-13-20 DRLG 4170'
shales gry-green, maroon, green
Is cream and tan fn xln dn, assoc. chert tan, fresh, opaque, slightly oolitic
Is cream to tan fn xln dn, lesser chalky ls, small amts of chert white and tan, fresh, subopaque
shales gry, gry-green, dk gry
Is cream to tan fn xln dn, lesser chalky ls, small amts of chert white and tan, fresh, subopaque to translucent
Is cream and tan fn xln dn to chalky ls, lesser ls tan vfn oolitic, ringed, sparse chert milky to lt gry and tan, fresh, oolitic
shales blk, gry-green and dk gry
Is cream and tan fn xln dn to chalky ls, lesser ls tan vfn oolitic, ringed, sparse chert milky to tan, fresh, oolitic
shales maroon to reddish brn green, dk gry, lt green and blk

Mississippian 4240-2265
no odor, chert bone white, opaque, heavily weathered to tripolitic, well dev. vugs, oolitic in part, friable, rotten, detrital and conglomeric app. RARE shows of gas, no shows of oil, sptd tan and lesser brn staining, dull fluor wet, fair gold sptd fluor dry, fair cut
HW-300u, HW-20u recycle?? Rooster
HW-200u, recycled HW-150u Rooster (carrying C4 & C5)
HW-250u-OFFSCALE X5 Attenuation, recycled HW-125u Analog
4250-4260 - chert as above with increase in chert cream to lt gry, fresh, CFS-60" SHT at 4260' - 1 deg
chert cream and white, fresh, opaque and subopaque, blocky, dk brn sptd stain on weathered surfaces, no fluor wet, no fluor dry
no shows oil or gas, small amts of chert white, opaque, tripolitic, brittle w/sptd stain, no shows oil or gas, slow weak cut
chert as above mixed with increasing ls tan fn xln dn, smooth
Is tan fn xln dn, smooth, sparse chert 2-3%, cream, fresh, subopaque
NO ODOR, chert milky to lt gry, some tan tinted, fresh, subopaque, sharp, very slightly spicular, NO WEATHERING, NO SHOWS OIL OR GAS, NO STAIN, FLUOR CR CUT
HW-225u, NO recycle
CFS-60"
7am Fri. 8-13-20 CFS-4315'
Is tan-brn fn xln dn mixed with chert tan-milky, fresh, subopaque
shales maroon, lt gry, gry, reddish brn some mustard yellow

Viola 4334-2350
Is tan dn xln dn, scattered chert tan and lt gry, fresh, subopaque
chert cream to lt gry, fresh, opaque and subopaque, lesser chert tan to yellow tan and orange, subopaque, NO SHOW PARAMETERS, NO GAS INC.
CFS-60"
chert white and cream, lesser tan, fresh, opaque, blocky, some subopaque, scattered pcs, with blk sptd stain in weathered surfaces, no odor, no fluor wet or dry, no shows oil or gas
HW-100u, recycled HW-50u Rooster
HW-100u, recycled HW-15u Analog
CFS-60"
chert milky to lt gry, fresh, subopaque an opaque with interbedded ls tan fn xln dn
chert white to lt gry, fresh, opaque and subopaque, equal chert tan, fresh subopaque mixed with ls tan to brn fn xln dn
chert white to lt gry, fresh, opaque and subopaque, equal chert tan, fresh subopaque mixed with ls tan to brn fn xln dn
chert lt blue to milky, fresh, subopaque, sharp
Is cream med xln, weathered, assoc. chert milky to lt gry, fresh, subopaque, NO SHOWS OIL OR GAS, NO GAS INC.
Is cream med xln, weathered, assoc. chert milky to lt gry, fresh, subopaque

Simpson Shale 4436-2461
shales gry-green, green, dk gry, few blk
no odor, clear (white and tan) fn med, lesser coarse grain, rounded, poor to fair friability, fair to poorly sorted, limy in part, abundant loose Qtz, clear and some frosted, fn thru some coarse grains, NO SHOW PARAMETERS
shales gry-green, green, dk gry, few blk
sst gray and lesser cream fn-med grain, rounded, included with organics, poor I.G. porosity to tite, poorly sorted
NO SHOW PARAMETERS, NO GAS INC.
CFS-60"
shales gry-green, dk green, green, some blk (abundant chert milky, fresh stringing thru)
shales gry-green, dk green, green, some blk (abundant chert milky, fresh stringing thru)

Arbuckle 4510-2535
dolomite cream and tan fn xln, a few fn-med xln, fair to bright even mineral fluor, NO SHOW PARAMETERS, NO GAS INC.
dolomite cream and tan fn xln, some med suboolitic, fair to bright even mineral fluor, lesser subrhombic, abd, assoc. coarse clear calcite embedded thru-out, along with broken dolomite xials, NO SHOW PARAMETERS, NO GAS INC.
CFS-90"
SHT at 4540' - 1-1/4 deg

—Kinderhook Shale (elog)

—Viola (elog)

[THIS SHOWS PERSISTS TO RTD IN RANDOM SAMPLES - VERY MINOR AMOUNTS]