Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1259418

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 3532
Name: CMX, Inc.
Address 1: 1700 N WATERFRONT PKWY BLDG 300B
Address 2:
City: WICHITA State: KS Zip: 67206 + __ __ __ __
Contact Person: Leah Kasten
Phone: (316) 269-9052
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: Ken LeBlanc
Purchaser: Coffeyville Resources

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☑ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

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

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

05/13/2015	5/19/2015	06/22/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-053-21323-00-00
Spot Description:
SW NE SW SW Sec. 20 Twp. 17 S. R. 9 ☐ East ☑ West
925 Feet from ☐ North / ☑ South Line of Section
710 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Ellsworth
Lease Name: Bushton Well #: 1-20
Field Name: Stoltenberg
Producing Formation: Arbuckle
Elevation: Ground: 1764 Kelly Bushing: 1777
Total Vertical Depth: 3320 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 350 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: 7000 ppm Fluid volume: 700 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 08/03/2015
☑ **Confidential Release Date:** 08/02/2017
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ I ☐ II ☐ III **Approved by:** NAOMI JAMES **Date:** 08/04/2015

[redacted]

1259418

Operator Name: CMX, Inc. Lease Name: Bushton Well #: 1-20

Sec. 20 Twp. 17 S. R. 9 ☐ East ☑ West County: Ellsworth

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Anhydrite	460	1317
Heebner	2747	-970
Lansing	2878	-1101
Arbuckle	3220	-1443

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	350	60/40 Poz	240	2% cc
Production	7.875	5.5	15.5	3318	AA-2	175	10% salt

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☑ Plug Off Zone	3214-3219	Polymer	2310	X-linked Polymer Squeeze
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	Perforate	250 gal MCA-7.5% HCL	3214-3219

TUBING RECORD: Size: 2.875 Set At: 3152 Packer At: 3152 Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR.

Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Form	ACO1 - Well Completion
Operator	CMX, Inc.
Well Name	Bushton 1-20
Doc ID	1259418

All Electric Logs Run

Neutron Density
Induction
MIcro
Sonic

Form	ACO1 - Well Completion
Operator	CMX, Inc.
Well Name	Bushton 1-20
Doc ID	1259418

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	350	60/40 Poz	240	2% cc
Production	7.875	5.5	15.5	3318	AA-2	175	10% salt

BASIC ENERGY SERVICES

PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1000793	1718	05/15/2015

INVOICE NUMBER

91810451

Pratt (620) 672-1201

BILL TO
CMX INC
1700 N WATERFRONT PKWY BLDG 300 STE B
WICHITA
KS US 67206
ATTN: ACCOUNTS PAYABLE

JOB SITE
LEASE NAME: Bushton 1-20
LOCATION:
COUNTY: Ellsworth
STATE: KS
JOB DESCRIPTION: Cement-New Well Casing/Pi
JOB CONTACT:

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40841365	19905		Net - 30 days	06/14/2015

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 05/14/2015 to 05/14/2015				
0040841365				
171811964A Cement-New Well Casing/Pi 05/14/2015				
Cement 8 5/8" Surface				
60/40 POZ	240.00	EA	5.40	1,295.91 T
Celloflake	61.00	EA	1.66	101.66 T
Calcium Chloride	621.00	EA	0.47	293.40 T
"Wooden Cmt Plug, 8 5/8"""	1.00	EA	71.99	71.99
"Unit Mileage Chg (PU, cars one way)"	65.00	MI	2.02	131.62
Heavy Equipment Mileage	130.00	MI	3.37	438.72
"Proppant & Bulk Del. Chgs., per ton mil	673.00	EA	1.12	757.07
Depth Charge; 0-500'	1.00	EA	449.97	449.97
Blending & Mixing Service Charge	240.00	BAG	0.63	151.19
Plug Container Util. Chg.	1.00	EA	112.49	112.49
"Service Supervisor, first 8 hrs on loc.	1.00	EA	78.74	78.74

PLEASE REMIT TO:
BASIC ENERGY SERVICES,LP
PO BOX 841903
DALLAS,TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES,LP
801 CHERRY ST, STE 2100
FORT WORTH, TX 76102

SUB TOTAL	3,882.66
TAX	120.90
INVOICE TOTAL	4,003.56

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET
1718 11964 A

DATE TICKET NO.

DATE OF JOB 5-14-15 DISTRICT Pratt	NEW WELL ☑ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Crix Inc	LEASE Bushion WELL NO. 1
ADDRESS	COUNTY Ellsworth STATE K
CITY STATE	SERVICE CREW Martin, McGinn, Somm
AUTHORIZED BY	JOB TYPE: CNW 8 5/8 Surface

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
19905	.5				
1478	.5				

	DATE	AM/PM	TIME
TRUCK CALLED	5-13-15	PM	1:30
ARRIVED AT JOB	5-14	AM	12:00
START OPERATION	5-14	AM	2:00
FINISH OPERATION	5-14	AM	2:25
RELEASED	5-14	AM	3:30
MILES FROM STATION TO WELL	65		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

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

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP103	60/40 Poz	sk	240		2,680 00
CC102	Cellofiake	lb	61		225 70
CC109	Calcium Chloride	lb	621		652 05
CF153	Wooden Plug 8 5/8	ea	1		160 00
E100	P.U. Miles	mi	65		292 50
E101	Heavy eq miles	mi	130		975 00
E113	Prop + bulk del	Tm	673		1,681 88
CE200	Depth charge 0-500'	4hr	1		1,000 00
CE240	blend + Mix charge	sk	240		336 00
CE504	Plug cont.	Job	1		250 00
S003	Supervisor	ea	1		175 00

SUB TOTAL 5,698 13

CHEMICAL / ACID DATA:			

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

TOTAL JWD 3,882 66
Discounted Price

SERVICE REPRESENTATIVE [signature]

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: X [signature]
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO Abilene, TX

BASIC energy services, L.P.

TREATMENT REPORT

Customer CMX INC.	Lease No.	Date 5-14-15	
Lease BUSHTON	Well # 1-20		
Field Order # 11964	Station PRATT	Casing 8 5/8 Depth 352.07	County ELLSWORTH State KS
Type Job CMW 8 5/8 SURFACE	Formation RTD 3	Legal Description 20-17S-9W	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 8 5/8	Tubing Size	Shots/Ft		Acid CMT 240 SKS 60/40 POZ 2%CC .25 CF	RATE	PRESS	ISIP
Depth 352	Depth	From	To	Pre Pad	Max		5 Min.
Volume 22.4	Volume 29.1	From	To	Pad	Min		10 Min.
Max Press 300	Max Press	From	To	Frac	Avg		15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 339.07	Packer Depth	From	To	Flush 20.5	Gas Volume		Total Load

Customer Representative LEAH KASPER | Station Manager KEVIN GOODLEY | Treater MIKE MATTH

Service Units	37586		77686	19405		19889	73768				
Driver Names	MATTH		McG	GW		SCMPL					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
12:30 AM					ON LOCATION / SAFETY MEETING
- 5					RUNNING 8 5/8 24# CASING
1:30					CASING ON BOTTOM
1:35					HOOK TO CASING
2:00	250		3	5.5	PUMP 3 BBL WATER
2:02	300		52	5.5	MIX 240 SKS 60/40 POZ
2:20	—		—	—	RELEASE PLUG
2:22	200		—	5	START DISPLACEMENT
2:28	200		20.5		PLUG DOWN, SHUT IN WELL
					10 BBL CMT TO PIT
					JOB COMPLETE
					THANK YOU!
					MIKE MATTH
					MIKE + TIM

Taylor Printing, Inc. 620-672-3656

BASIC ENERGY SERVICES

PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1000793	1718	05/21/2015

INVOICE NUMBER

91814351

Pratt (620) 672-1201

BILL TO
CMX INC
1700 N WATERFRONT PKWY BLDG 300 STE B
WICHITA
KS US 67206
ATTN: ACCOUNTS PAYABLE

JOB SITE
LEASE NAME Bushton 1-20
LOCATION
COUNTY Ellsworth
STATE KS
JOB DESCRIPTION Cement-New Well Casing/Pi
JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40842745	19843		Net - 30 days	06/20/2015

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 05/20/2015 to 05/20/2015				
0040842745				
171812262A Cement-New Well Casing/Pi 05/20/2015				
Cement 5 1/2" Longstring				
AA2 Cement	175.00	EA	7.65	1,338.75 T
60/40 POZ	50.00	EA	5.40	270.00 T
C-41P	33.00	EA	1.80	59.40 T
Salt	810.00	EA	0.23	182.25 T
Cement Friction Reducer	50.00	EA	2.70	135.00 T
FLA-322	83.00	EA	3.37	280.12 T
Gilsonite	875.00	EA	0.30	263.81 T
Mud Flush	500.00	EA	0.68	337.50 T
"Latch Down Plug & Baffle, 5 1/2"" (Blu	1.00	EA	180.00	180.00
Cementing Shoe Packer Type, 5 1/2" Blue	1.00	EA	1,260.00	1,260.00
"Turbolizer, 5 1/2"" (Blue)"	10.00	EA	49.50	495.00
"5 1/2"" Basket (Blue)"	1.00	EA	130.50	130.50
"Unit Mileage Chg (PU, cars one way)"	65.00	MI	2.03	131.63
Heavy Equipment Mileage	130.00	MI	3.38	438.75
"Proppant & Bulk Del. Chgs., per ton mil	676.00	EA	1.13	760.50
Depth Charge; 3001-4000'	1.00	EA	972.00	972.00
Blending & Mixing Service Charge	225.00	BAG	0.63	141.75
Plug Container Util. Chg.	1.00	EA	112.50	112.50
"Service Supervisor, first 8 hrs on loc.	1.00	EA	78.75	78.75

PLEASE REMIT TO:
BASIC ENERGY SERVICES,LP
PO BOX 841903
DALLAS,TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES,LP
801 CHERRY ST, STE 2100
FORT WORTH, TX 76102

SUB TOTAL	7,568.21
TAX	204.98
INVOICE TOTAL	7,773.19

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET
1718 12262 A

20-175-9W

DATE TICKET NO.

DATE OF JOB 5-20-2015	DISTRICT Prstt, KS	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐	CUSTOMER ORDER NO.:
CUSTOMER Cmx, Inc		LEASE Bushton	WELL NO. 1-20
ADDRESS		COUNTY Ellsworth	STATE KS
CITY	STATE	SERVICE CREW Dsrin, Ed, Beschey	
AUTHORIZED BY		JOB TYPE: CNW/ 5½ Longsdring	

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS		DATE	AM/PM	TIME
19843	½					TRUCK CALLED	5 20	AM	7 00
19862	¼					ARRIVED AT JOB	5 20	AM	10 00
						START OPERATION	5 20	PM	3 00
						FINISH OPERATION	5 20	PM	3 30
						RELEASED	5 20	PM	4 30
						MILES FROM STATION TO WELL	81		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

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

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP105	AA2 Cement	SK	175		2,975 00
CP103	60/40 POZ	SK	50		600 00
CC105	C-41P	lb	33		132 00
CC111	Salt	Lb	810		405 00
CC112	Cement Friction Reducer	Lb	50		300 00
CC129	FLA-322	Lb	83		622 50
CC201	Gilsonite	Lb	875		386 25
CF607	Latch Down Plug & Baffle, 5½ (Blue)	Ea	1		400 00
CF1051	Cementing Shoe Packer Type, 5½ (Blue)	Ea	1		2,800 00
CF1651	Turbolizers, 5½ (Blue)	Ea	10		1,100 00
CF1901	5½ Baskets	Ea	1		296 00
CC151	Mud Flush	Gal	500		750 00
E100	Unit Mileage Charge - Pickups, Small Vans & Cars	mi	65		292 50
E101	Heavy Equipment Mileage	mi	130		975 00
E113	Proppant and Bulk Delivery Charges, Per ton Mile	Tn/m	676		1,690 00
CE204	Depth Charge; 3001'-4000'	4hr	1		2160 00
CE240	Blending & Mixing Service Charge	SK	225		315 00
CE504	Plug Container Utilization Charge	Job	1		250 00
S003	Service Supervisor First 8 hrs on loc.	Ea	1		175 00
				SUB TOTAL	16,518 25

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

Discounted TOTAL 7,568 21

JWW

CHEMICAL / ACID DATA:			

SERVICE REPRESENTATIVE [signature]

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: [signature]
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO Abilene TX

BASIC energy services, L.P.

TREATMENT REPORT

Customer CMX, Inc	Lease No.			Date 5-20-2015	
Lease Bushton	Well # 1-20				
Field Order # 12262	Station Pratt, KS	Casing 5½	Depth 3343	County Ellsworth	State KS
Type Job CNW/ 5½ Longstring		Formation TD-3320		Legal Description 20-17s-9w	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 5½	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth 3343	Depth	From	To	Pre Pad	Max		5 Min.
Volume 79½	Volume	From	To	Pad	Min		10 Min.
Max Press	Max Press	From	To	Frac	Avg		15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 3323	Packer Depth	From	To	Flush Freshwater	Gas Volume		Total Load

Customer Representative Keith | Station Manager Kevin Gorsley | Treater Dsrin Franklin

Service Units	9251	84981	19843	19960	18862							
Driver Names	Dsrin	Ed	Ed	Beschy	Beschy							

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:00Am					on location / Safety meeting
					5½ Csg. Set @ 3318 - 3343' Csg. tally
					C: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
					B-12
					175sk AA2 cement, .5% Fluid loss, 10% Salt
					.2% Dispersant, .3% Friction Reducer, 5 lb/sk
					Gilsonite, 15.3 ppg, 1.36 yield, 5.54 water
3:00pm	350		5	6	Pump 5 bbls water
	350		12	6	12 bbls mud flush
	350		5	6	5 bbls water
	350		42	6	mix 175sk cement
					Shut down
					wash pump & lines
					Release Plug
	150		0	6	Start displacement
	400		53	6	Lift pressure
	500		70	3	slow rate
3:30	1500		79	3	Bump plug
					Release
	100		7	3	Plug Rat + mouse hole @ wash up, R/S Down
4:30					Job Complete / Dsrin & crew

Taylor Printing, Inc. 620-672-3656

15 M.
45 M.
1 HR. 30 M.
15 M.
45 M.
1 HR. 30 M.
15 M.
0
1000
2000
3000
4000
5000
6000
SUITABLE FOR MARTIN DECKER
CHART

DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Water Front Pkwy Bldg 300B Wichita
KS 67206

ATTN: Ken Leblanc

Bushton #1-20

26-17s-9w Ellsworth,KS

Start Date: 2015.05.17 @ 05:00:00

End Date: 2015.05.17 @ 10:33:00

Job Ticket #: 62921 DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2015.05.20 @ 09:30:55

DRILL STEM TEST REPORT

CMX Inc

1700 N Water Front Pkw y Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62921 **DST#: 1**

Test Start: 2015.05.17 @ 05:00:00

GENERAL INFORMATION:

Formation: **LKC B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:23:30
Time Test Ended: 10:33:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 55

Interval: 2898.00 ft (KB) To 2920.00 ft (KB) (TVD)
Total Depth: 2920.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

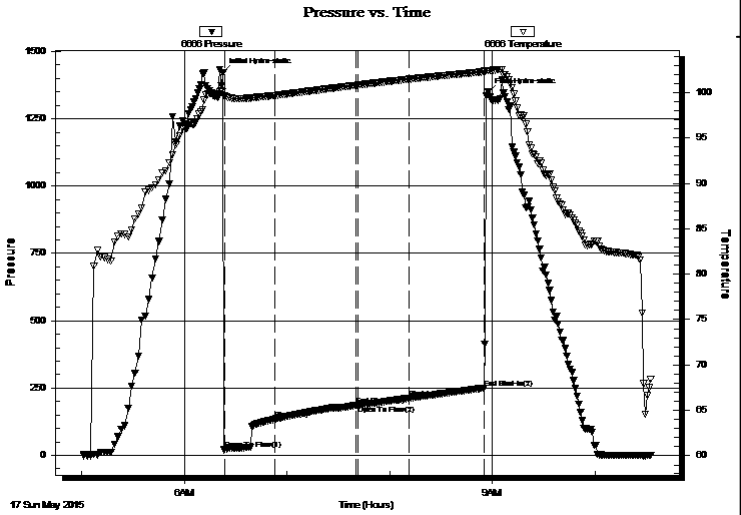
Reference Elevations: 1773.00 ft (KB)
1765.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6666 **Inside**

Press@RunDepth: 212.51 psig @ 2916.00 ft (KB)
Start Date: 2015.05.17 End Date: 2015.05.17
Start Time: 05:01:00 End Time: 10:33:00

Capacity: 5000.00 psig
Last Calib.: 2015.05.17
Time On Btm: 2015.05.17 @ 06:22:30
Time Off Btm: 2015.05.17 @ 08:57:30

TEST COMMENT: IFP-30 Minutes-Weak blow built 2 1/2"
ISIP-45 Minutes-No blow back
FFP-30 Minutes-Very w eak surge did not build
FSIP-45 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1421.99	100.11	Initial Hydro-static
1	22.73	99.67	Open To Flow (1)
31	134.80	99.69	Shut-In(1)
78	185.00	100.79	End Shut-In(1)
79	186.43	100.83	Open To Flow (2)
109	212.51	101.48	Shut-In(2)
153	250.05	102.29	End Shut-In(2)
155	1348.59	102.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.05

Gas Rates

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

DRILL STEM TEST REPORT

CMX Inc

1700 N Water Front Pkw y Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62921 **DST#: 1**

Test Start: 2015.05.17 @ 05:00:00

GENERAL INFORMATION:

Formation: **LKC B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:23:30
Time Test Ended: 10:33:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 55

Interval: 2898.00 ft (KB) To 2920.00 ft (KB) (TVD)
Total Depth: 2920.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

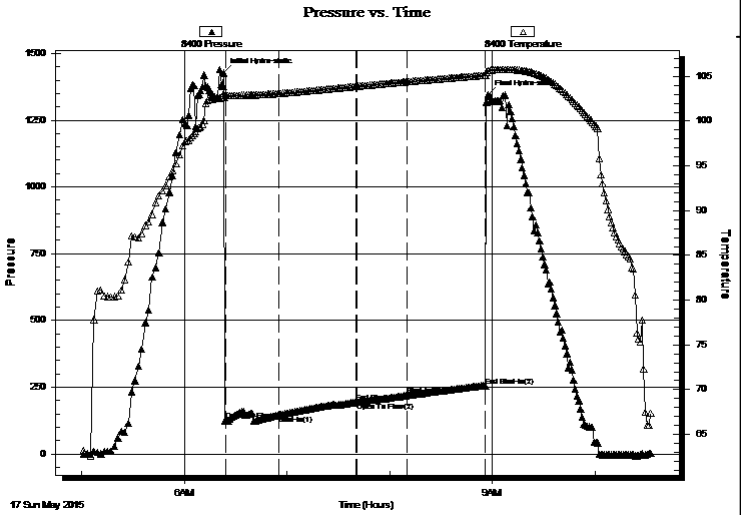
Reference Elevations: 1773.00 ft (KB)
1765.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8400 **Outside**

Press@RunDepth: 253.21 psig @ 2917.00 ft (KB)
Start Date: 2015.05.17 End Date: 2015.05.17
Start Time: 05:01:00 End Time: 10:33:00

Capacity: 5000.00 psig
Last Calib.: 2015.05.17
Time On Btm: 2015.05.17 @ 06:23:00
Time Off Btm: 2015.05.17 @ 08:57:30

TEST COMMENT: IFP-30 Minutes-Weak blow built 2 1/2"
ISIP-45 Minutes-No blow back
FFP-30 Minutes-Very w eak surge did not build
FSIP-45 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1426.54	103.10	Initial Hydro-static
1	125.35	102.81	Open To Flow (1)
32	145.76	103.09	Shut-In(1)
77	193.82	103.87	End Shut-In(1)
78	194.40	103.89	Open To Flow (2)
107	218.85	104.40	Shut-In(2)
153	253.21	105.12	End Shut-In(2)
155	1344.72	105.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.05

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc

1700 N Water Front Pkw y Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62921 **DST#: 1**

Test Start: 2015.05.17 @ 05:00:00

Tool Information

Drill Pipe:	Length:	2706.00 ft	Diameter:	3.80	inches	Volume:	37.96	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	180.00 ft	Diameter:	2.25	inches	Volume:	0.89	bbl	
						Total Volume:	38.85	bbl	

Drill Pipe Above KB:	10.00 ft
Depth to Top Packer:	2898.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	22.00 ft
Tool Length:	44.00 ft
Number of Packers:	2
Diameter:	6.75 inches

Tool Weight:		1000.00 lb
Weight set on Packer:		20000.00 lb
Weight to Pull Loose:		56000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	50000.00 lb
	Final	50000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			2881.00		
Hydraulic tool	5.00			2886.00		
Safety Joint	2.00			2888.00		
Packer	5.00			2893.00	22.00	Bottom Of Top Packer
Packer	5.00			2898.00		
Anchor	17.00			2915.00		
Recorder	1.00	6666	Inside	2916.00		
Recorder	1.00	8400	Outside	2917.00		
Bullnose	3.00			2920.00	22.00	Bottom Packers & Anchor
Total Tool Length:	**44.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc

1700 N Water Front Pkw y Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62921 **DST#: 1**

Test Start: 2015.05.17 @ 05:00:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.56 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud	0.049

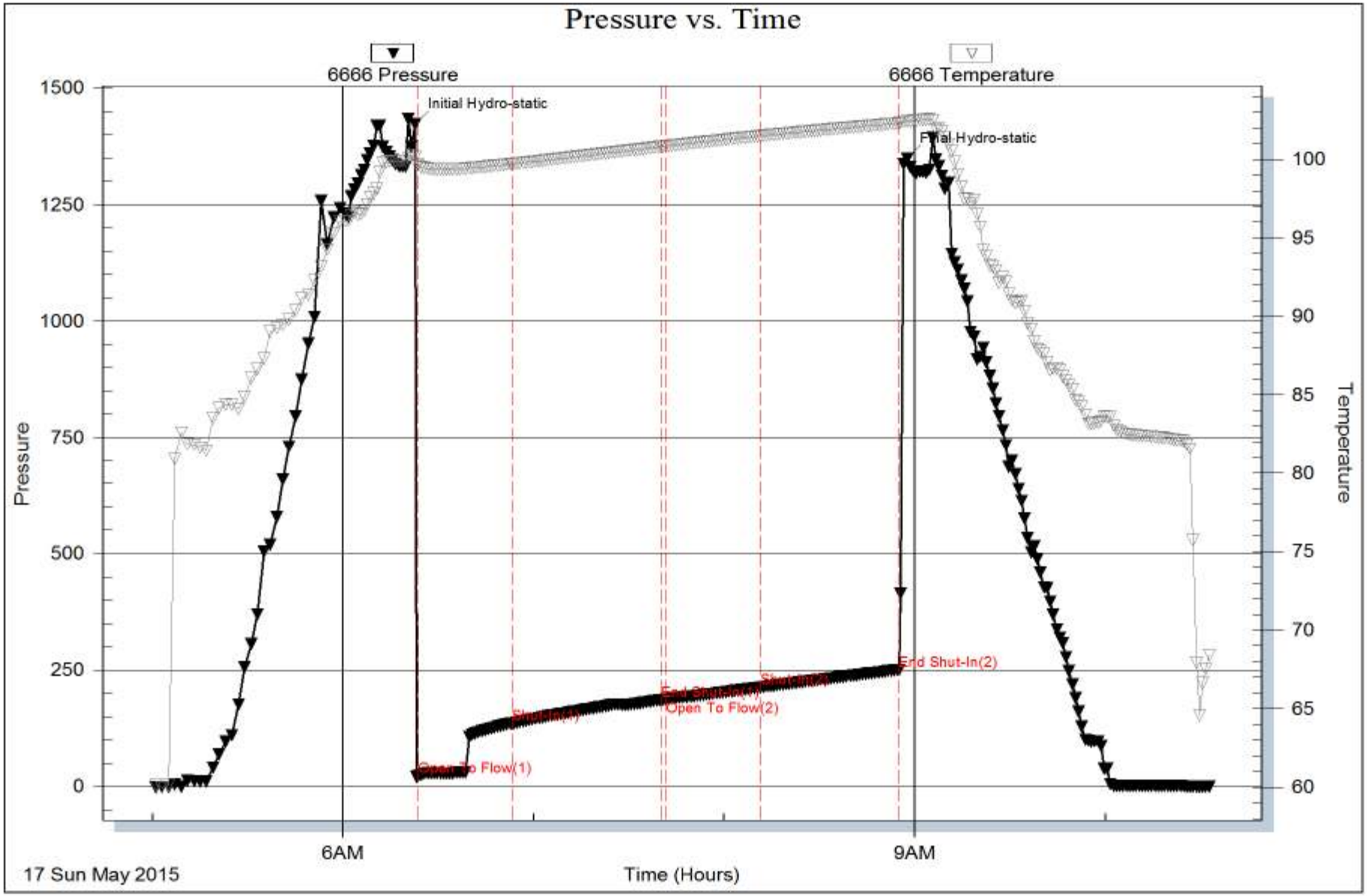
Total Length: 10.00 ft Total Volume: 0.049 bbl

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

Laboratory Name: Laboratory Location:

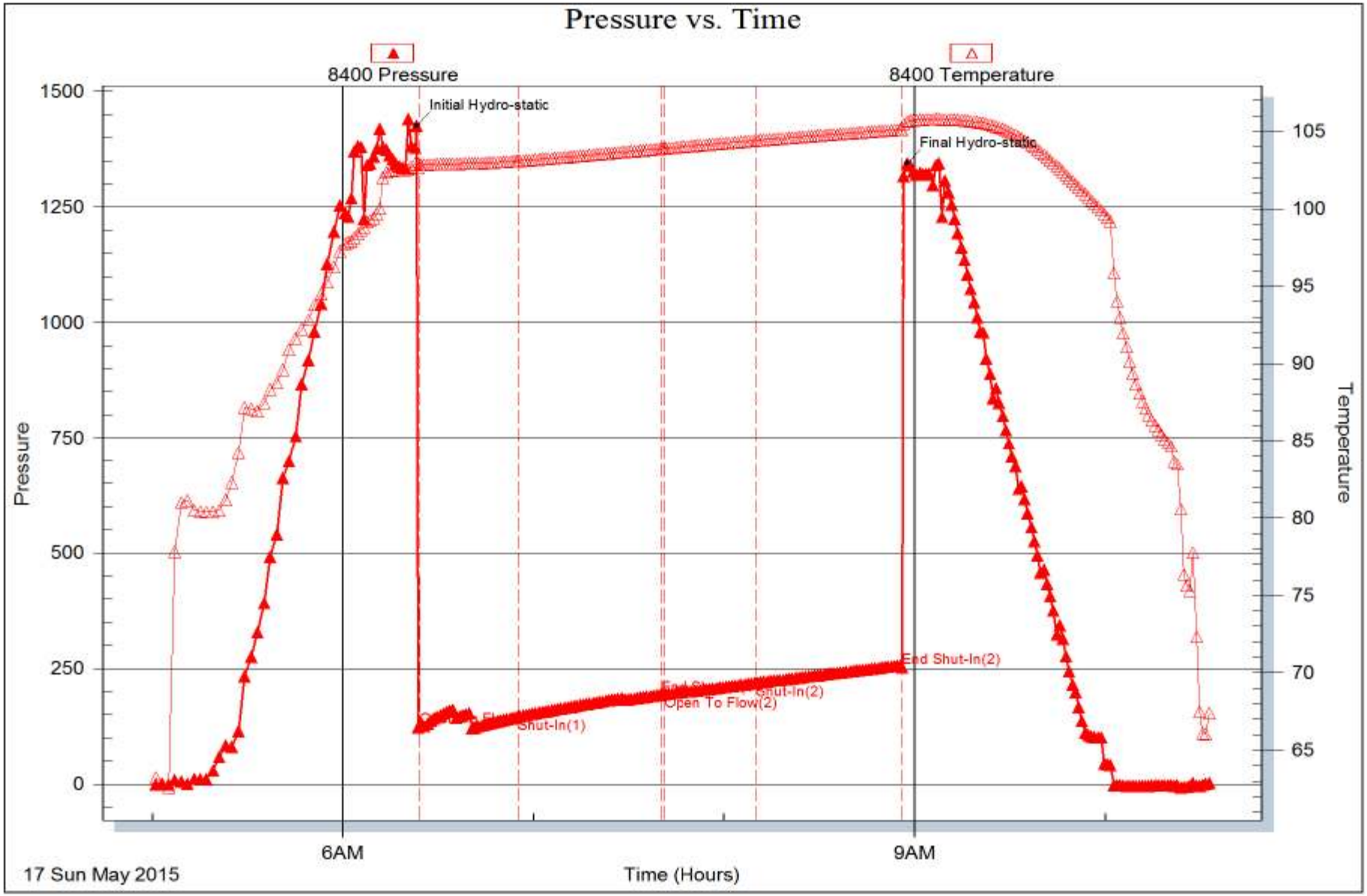
Recovery Comments:

Serial #: 6666 **Inside** CMX Inc Bushton #1-20 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 62921 Printed: 2015.05.20 @ 09:30:56

Serial #: 8400 **Outside** CMX Inc Bushton #1-20 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 62921 Printed: 2015.05.20 @ 09:30:56

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Water Front Pkwy Bldg 300B Wichita
KS 67206

ATTN: Ken Leblanc

Bushton #1-20

26-17s-9w Ellsworth,KS

Start Date: 2015.05.18 @ 09:15:00

End Date: 2015.05.18 @ 16:38:00

Job Ticket #: 62922 DST #: 2

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2015.05.20 @ 09:29:56

DRILL STEM TEST REPORT

CMX Inc

1700 N Water Front Pkwy Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62922 **DST#: 2**

Test Start: 2015.05.18 @ 09:15:00

GENERAL INFORMATION:

Formation: **Simpson Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:05:30
Time Test Ended: 16:38:00

Test Type: Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 55

Interval: 3168.00 ft (KB) To 3222.00 ft (KB) (TVD)
Total Depth: 3222.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

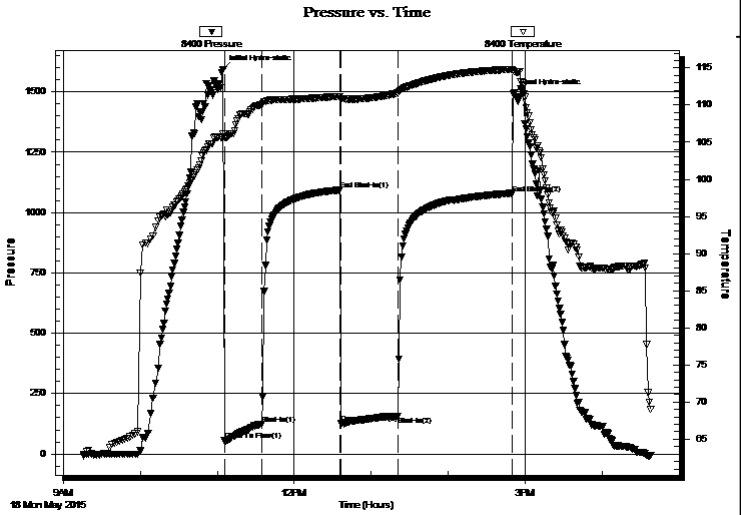
Reference Elevations: 1773.00 ft (KB)
1765.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8400 **Inside**

Press@RunDepth: 157.72 psig @ 3218.00 ft (KB)
Start Date: 2015.05.18 End Date: 2015.05.18
Start Time: 09:16:00 End Time: 16:38:00

Capacity: 5000.00 psig
Last Calib.: 2015.05.18
Time On Btm: 2015.05.18 @ 11:04:30
Time Off Btm: 2015.05.18 @ 14:50:30

TEST COMMENT: IFP-30 Minutes-Fair blow built 7"
ISIP-60 Minutes-Very weak surface blow
FFP-45 Minutes-BOB in 26 minutes
FSIP-90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1593.42	106.19	Initial Hydro-static
1	54.52	105.57	Open To Flow (1)
30	122.75	110.02	Shut-In(1)
91	1093.61	111.17	End Shut-In(1)
92	128.15	110.86	Open To Flow (2)
136	157.72	111.62	Shut-In(2)
225	1079.83	114.80	End Shut-In(2)
226	1491.73	114.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OGM 10%O 30%G 60%M	0.30
60.00	GMO 20%G 50%O 30%M	0.30
60.00	GOM 10%G10%O 80%M	0.30
60.00	OGM 20%O 40%G 40%M	0.84
65.00	Oil 100%	0.91
300.00	Gas in pipe	4.21

Gas Rates

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

DRILL STEM TEST REPORT

CMX Inc

1700 N Water Front Pkw y Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62922 **DST#: 2**

Test Start: 2015.05.18 @ 09:15:00

GENERAL INFORMATION:

Formation: **Simpson Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:05:30
Time Test Ended: 16:38:00

Test Type: Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 55

Interval: 3168.00 ft (KB) To 3222.00 ft (KB) (TVD)
Total Depth: 3222.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

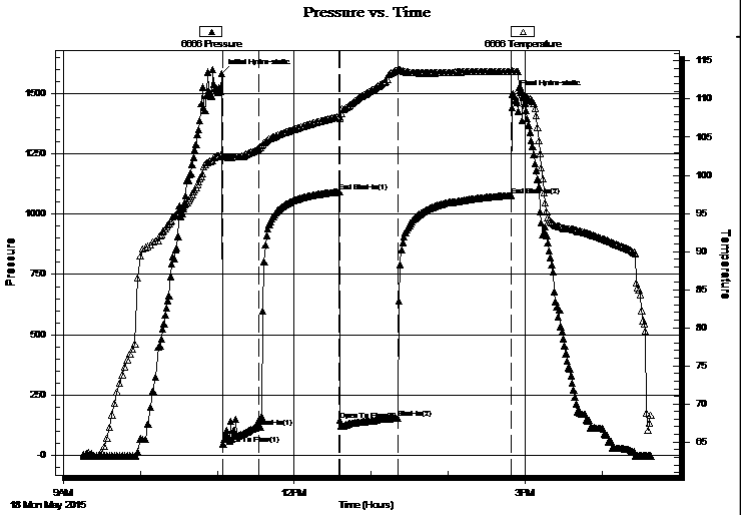
Reference Elevations: 1773.00 ft (KB)
1765.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6666 **Outside**

Press@RunDepth: 1078.06 psig @ 3219.00 ft (KB)
Start Date: 2015.05.18 End Date: 2015.05.18
Start Time: 09:16:00 End Time: 16:38:00

Capacity: 5000.00 psig
Last Calib.: 2015.05.18
Time On Btm: 2015.05.18 @ 11:03:30
Time Off Btm: 2015.05.18 @ 14:50:00

TEST COMMENT: IFP-30 Minutes-Fair blow built 7"
ISIP-60 Minutes-Very w eak surface blow
FFP-45 Minutes-BOB in 26 minutes
FSIP-90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1582.20	102.68	Initial Hydro-static
1	45.14	102.44	Open To Flow (1)
29	116.98	103.47	Shut-In(1)
92	1092.44	107.69	End Shut-In(1)
92	146.75	107.48	Open To Flow (2)
137	154.66	113.82	Shut-In(2)
226	1078.06	113.62	End Shut-In(2)
227	1497.09	113.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OGM 10%O 30%G 60%M	0.30
60.00	GMO 20%G 50%O 30%M	0.30
60.00	GOM 10%G10%O 80%M	0.30
60.00	OGM 20%O 40%G 40%M	0.84
65.00	Oil 100%	0.91
300.00	Gas in pipe	4.21

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc

1700 N Water Front Pkw y Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62922 **DST#: 2**

Test Start: 2015.05.18 @ 09:15:00

Tool Information

Drill Pipe:	Length:	2976.00 ft	Diameter:	3.80 inches	Volume:	41.75 bbl	Tool Weight:		1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	180.00 ft	Diameter:	2.25 inches	Volume:	0.89 bbl	Weight to Pull Loose:		70000.00 lb
					Total Volume:	42.64 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		10.00 ft					String Weight:	Initial	58000.00 lb
Depth to Top Packer:		3168.00 ft						Final	60000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		54.00 ft							
Tool Length:		76.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3151.00		
Hydraulic tool	5.00			3156.00		
Safety Joint	2.00			3158.00		
Packer	5.00			3163.00	22.00	Bottom Of Top Packer
Packer	5.00			3168.00		
Change Over Sub	0.75			3168.75		
Drill Pipe	31.50			3200.25		
Change Over Sub	0.75			3201.00		
Anchor	16.00			3217.00		
Recorder	1.00	8400	Inside	3218.00		
Recorder	1.00	6666	Outside	3219.00		
Bullnose	3.00			3222.00	54.00	Bottom Packers & Anchor
Total Tool Length:	**76.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc

1700 N Water Front Pkw y Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62922 **DST#: 2**

Test Start: 2015.05.18 @ 09:15:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	49 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OGM 10%O 30%G 60%M	0.295
60.00	GMO 20%G 50%O 30%M	0.295
60.00	GOM 10%G10%O 80%M	0.295
60.00	OGM 20%O 40%G 40%M	0.842
65.00	Oil 100%	0.912
300.00	Gas in pipe	4.208

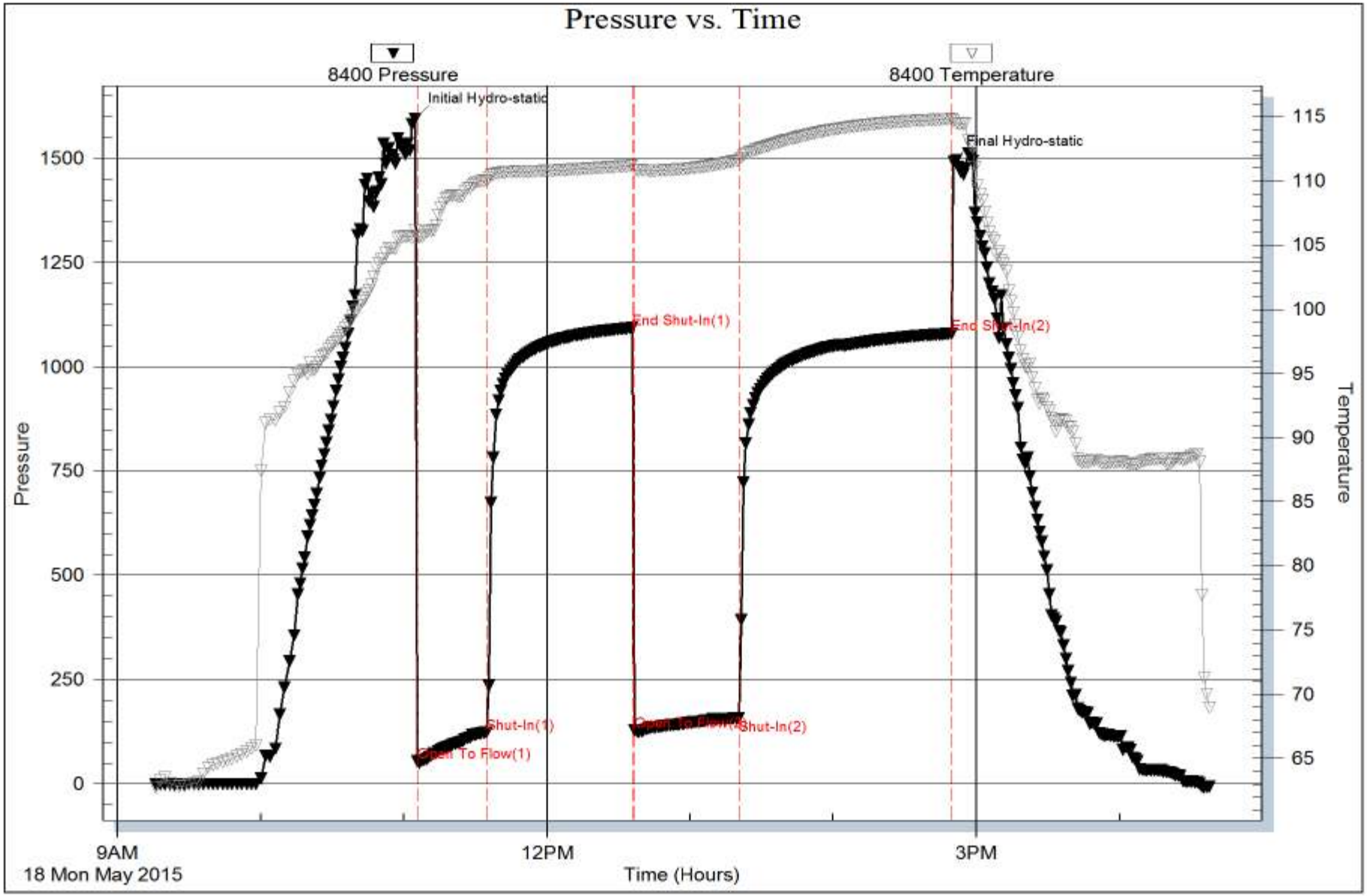
Total Length: 605.00 ft Total Volume: 6.847 bbl

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

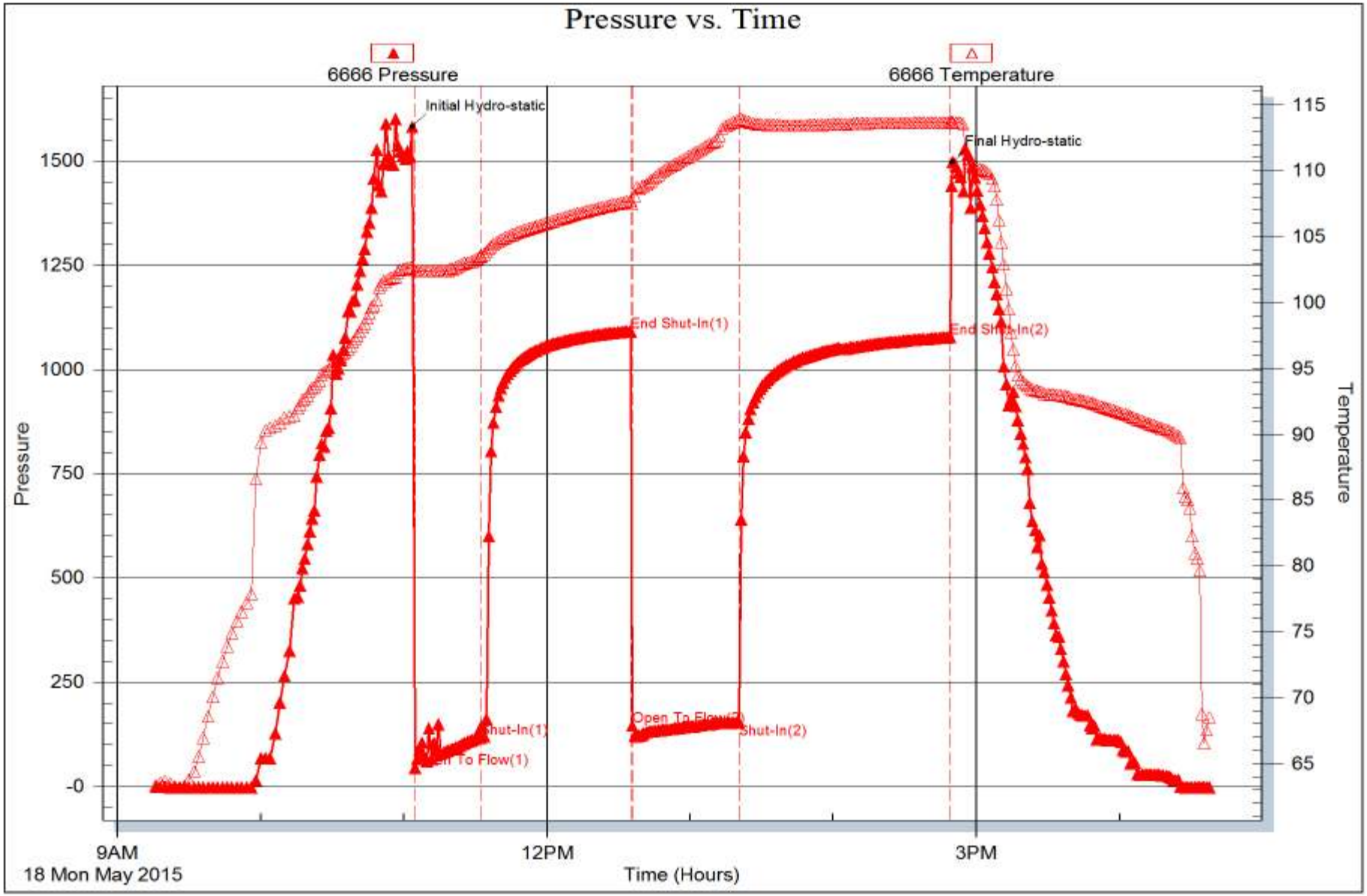
Laboratory Name: Laboratory Location:

Recovery Comments: Gravity 49

Serial #: 8400 **Inside** CMX Inc Bushton #1-20 DST Test Number: 2



Serial #: 6666 **Outside** CMX Inc Bushton #1-20 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 62922 Printed: 2015.05.20 @ 09:29:58

DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Water Front Pkwy Bldg 300B Wichita
KS 67206

ATTN: Ken Leblanc

Bushton #1-20

26-17s-9w Ellsworth,KS

Start Date: 2015.05.18 @ 23:00:00

End Date: 2015.05.19 @ 06:25:00

Job Ticket #: 62923 DST #: 3

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2015.05.20 @ 09:25:52

DRILL STEM TEST REPORT

CMX Inc

1700 N Water Front Pkwy Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62923 **DST#: 3**

Test Start: 2015.05.18 @ 23:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:21:00
Time Test Ended: 06:25:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 55

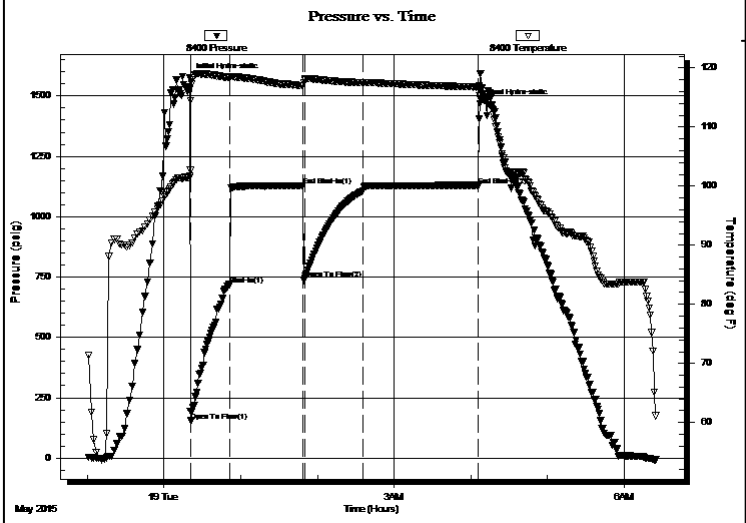
Interval: 3222.00 ft (KB) To 3227.00 ft (KB) (TVD)
Total Depth: 3227.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1773.00 ft (KB)
1765.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8400 **Inside**
Press@RunDepth: 1106.01 psig @ 3223.00 ft (KB)
Start Date: 2015.05.18 End Date: 2015.05.19
Start Time: 23:01:00 End Time: 06:25:00

Capacity: 5000.00 psig
Last Calib.: 2015.05.19
Time On Btm: 2015.05.19 @ 00:20:00
Time Off Btm: 2015.05.19 @ 04:07:00

TEST COMMENT: IFP-30 Minutes-BOB 1 1/2 minutes
ISIP-60 Minutes-No blow back
FFP-45 Minutes-BOB in1 minute
FSIP-90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1575.12	101.68	Initial Hydro-static
1	154.95	114.50	Open To Flow (1)
32	718.98	118.41	Shut-In(1)
89	1129.13	117.01	End Shut-In(1)
90	743.98	118.09	Open To Flow (2)
136	1106.01	117.51	Shut-In(2)
226	1129.74	116.75	End Shut-In(2)
227	1467.06	115.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1320.00	water	16.88
600.00	omw 1%o10%m89%w	8.42
180.00	omw 5%o 85%w 10%m	2.52
180.00	omw 10%o 10%m 80%w	2.52
60.00	mw o 10%m 205w 70%o	0.84

Gas Rates

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

DRILL STEM TEST REPORT

CMX Inc

1700 N Water Front Pkw y Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62923 **DST#: 3**

Test Start: 2015.05.18 @ 23:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:21:00
Time Test Ended: 06:25:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 55

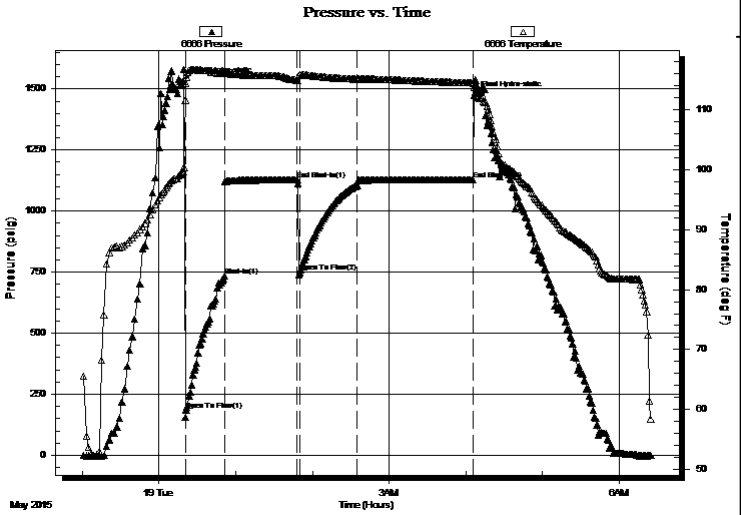
Interval: 3222.00 ft (KB) To 3227.00 ft (KB) (TVD)
Total Depth: 3227.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1773.00 ft (KB)
1765.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6666 **Outside**
Press@RunDepth: 1128.15 psig @ 3224.00 ft (KB)
Start Date: 2015.05.18 End Date: 2015.05.19
Start Time: 23:01:00 End Time: 06:24:30

Capacity: 5000.00 psig
Last Calib.: 2015.05.19
Time On Btm: 2015.05.19 @ 00:19:00
Time Off Btm: 2015.05.19 @ 04:06:30

TEST COMMENT: IFP-30 Minutes-BOB 1 1/2 minutes
ISIP-60 Minutes-No blow back
FFP-45 Minutes-BOB in1 minute
FSIP-90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1529.57	99.61	Initial Hydro-static
2	186.27	114.40	Open To Flow (1)
32	733.93	116.02	Shut-In(1)
89	1127.66	114.86	End Shut-In(1)
91	749.10	115.78	Open To Flow (2)
136	1106.03	115.07	Shut-In(2)
227	1128.15	114.41	End Shut-In(2)
228	1473.02	113.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1320.00	w ater	16.88
600.00	omw 1%o10%m89%w	8.42
180.00	omw 5%o 85%w 10%m	2.52
180.00	omw 10%o 10%m 80%w	2.52
60.00	mw o 10%m 205w 70%o	0.84

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc

1700 N Water Front Pkw y Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62923 **DST#: 3**

Test Start: 2015.05.18 @ 23:00:00

Tool Information

Drill Pipe:	Length:	3050.00 ft	Diameter:	3.80	inches	Volume:	42.78	bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	180.00 ft	Diameter:	2.25	inches	Volume:	0.89	bbl	Weight to Pull Loose:	75000.00 lb
						Total Volume:	43.67	bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		30.00 ft							String Weight: Initial	60000.00 lb
Depth to Top Packer:		3222.00 ft							Final	70000.00 lb
Depth to Bottom Packer:		ft								
Interval betw een Packers:		5.00 ft								
Tool Length:		27.00 ft								
Number of Packers:		2	Diameter:	6.75	inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3205.00		
Hydraulic tool	5.00			3210.00		
Safety Joint	2.00			3212.00		
Packer	5.00			3217.00	22.00	Bottom Of Top Packer
Packer	5.00			3222.00		
Recorder	1.00	8400	Inside	3223.00		
Recorder	1.00	6666	Outside	3224.00		
Anchor	3.00			3227.00	5.00	Bottom Packers & Anchor
Total Tool Length:	**27.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc

1700 N Water Front Pkwy Bldg 300B Wichita KS 67206

ATTN: Ken Leblanc

26-17s-9w Ellsworth,KS

Bushton #1-20

Job Ticket: 62923 **DST#: 3**

Test Start: 2015.05.18 @ 23:00:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	8.00 lb/gal	Cushion Length:	ft	Water Salinity:	28000 ppm
Viscosity:	64.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1320.00	water	16.876
600.00	omw 1%o10%m89%w	8.416
180.00	omw 5%o 85%w 10%m	2.525
180.00	omw 10%o 10%m 80%w	2.525
60.00	mw o 10%m 205w 70%o	0.842

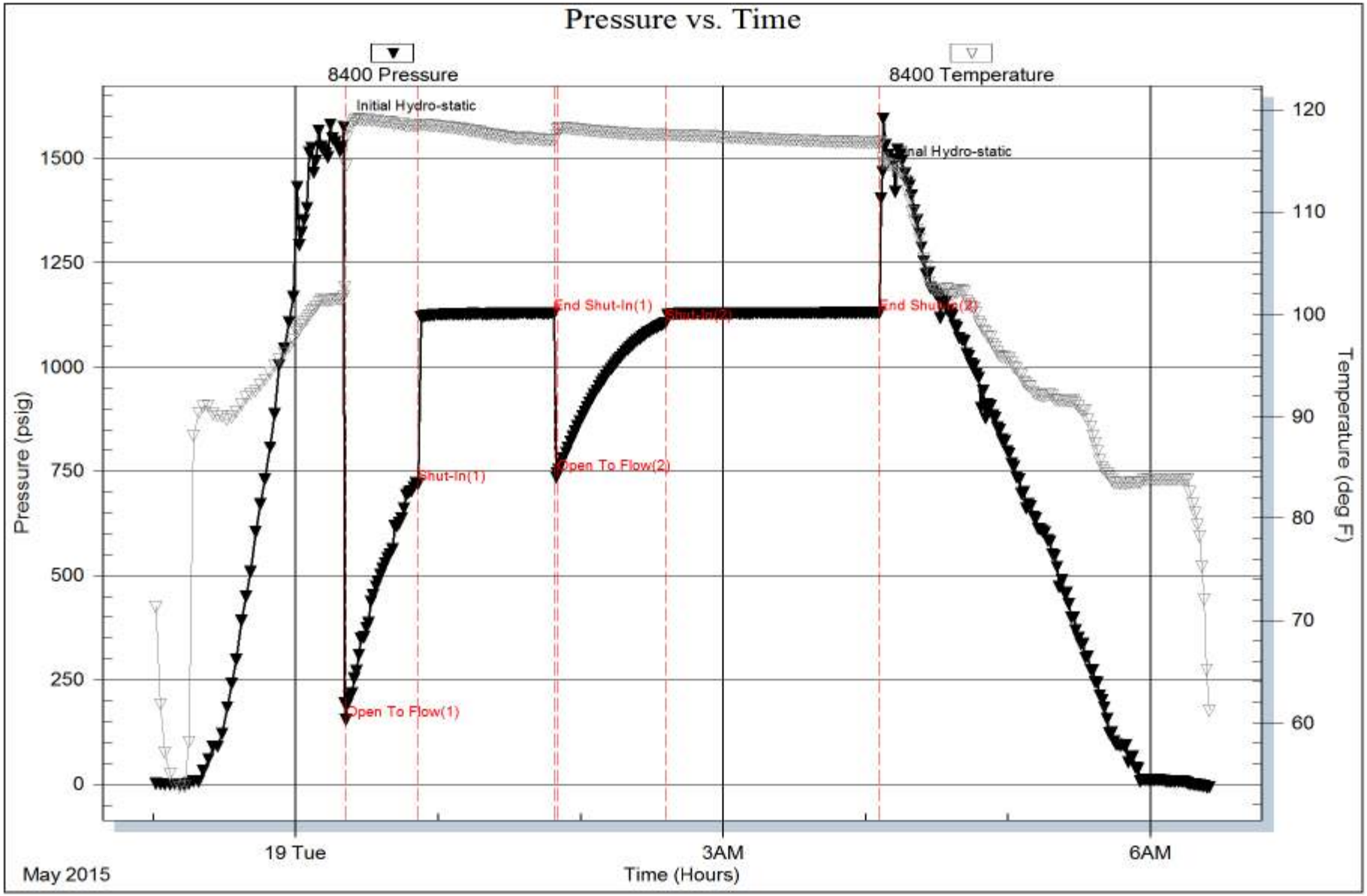
Total Length: 2340.00 ft Total Volume: 31.184 bbl

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

Laboratory Name: Laboratory Location:

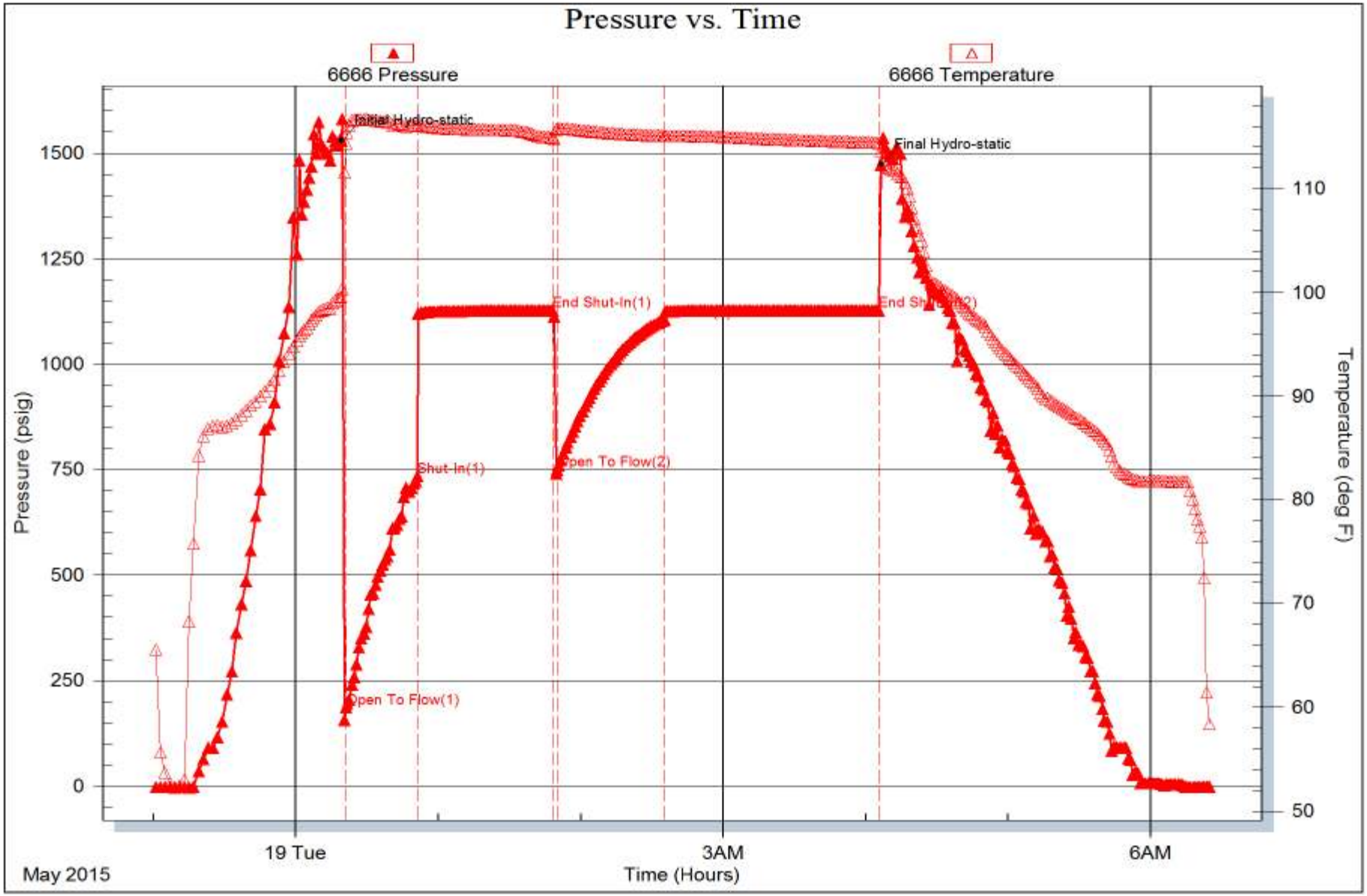
Recovery Comments: rW .2 @ 60

Serial #: 8400 **Inside** CMX Inc Bushton #1-20 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 62923 Printed: 2015.05.20 @ 09:25:53

Serial #: 6666 **Outside** CMX Inc Bushton #1-20 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 62923 Printed: 2015.05.20 @ 09:25:53

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 62921

Well Name & No. Bushton #1-20 Test No. 1 Date 5-17-2015

Company CMX Inc Elevation 1773 KB 1765 GL

Address 1700 N Water Front PKWY Bldg 300B Wichita KS 67206

Co. Rep / Geo. Ken LeBlanc Rig Duke Drilling Rig #7

Location: Sec. 26 Twp. 17S Rge. 9W Co. Ellsworth State KS

Interval Tested 2895-2920 Zone Tested Lansing B zone

Anchor Length 22 Drill Pipe Run Mud Wt. 8.9

Top Packer Depth 2890 Drill Collars Run Vis 56

Bottom Packer Depth 2895 Wt. Pipe Run WL 9.6

Total Depth 2920 Chlorides 4,000 ppm System LCM -

Blow Description IFP-Weak Blow Built 2½ inches into water Died off

ISIP - No Blow Back

FFP - Very Weak Surface Blow Did not Build

FSIP - NO Blow Back

Rec 10	Feet of mud	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total BHT Gravity API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1421

(B) First Initial Flow 22

(C) First Final Flow 134

(D) Initial Shut-In 185

(E) Second Initial Flow 186

(F) Second Final Flow 212

(G) Final Shut-In 250

(H) Final Hydrostatic 1348

Initial Open 30

Initial Shut-In 45

Final Flow 30

Final Shut-In 45

- [x] Test 850
- [ ] Jars
- [x] Safety Joint 75
- [ ] Circ Sub
- [ ] Hourly Standby
- [x] Mileage 75 RT Great Bend 55
- [ ] Sampler
- [ ] Straddle
- [ ] Shale Packer
- [ ] Extra Packer
- [ ] Extra Recorder
- [ ] Day Standby
- [ ] Accessibility

Sub Total 980

T-On Location 3:15AM

T-Started 5:00AM

T-Open 6:24AM

T-Pulled 8:54

T-Out 10:33

Comments

- [ ] Ruined Shale Packer
- [ ] Ruined Packer
- [ ] Extra Copies

Sub Total 0

Total 980

MP/DST Disc't

Approved By Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 62922

Well Name & No. Bushton # 1-20 Test No. 2 Date 5-18-2015

Company CMX Inc Elevation 1773 KB 1765 GL

Address 1700 N water Front Pkwy Bldg 300 D wichita KS 67206

Co. Rep / Geo. Ken Leblanc Rig Duke Drilling Rig # 7

Location: Sec. 26 Twp. 17s Rge. 9w Co. Ellsworth State KS

Interval Tested 3168 - 3222 Zone Tested Simpson Sand

Anchor Length 54 Drill Pipe Run Mud Wt. 9.1

Top Packer Depth 3163 Drill Collars Run Vis 60

Bottom Packer Depth 3168 Wt. Pipe Run WL 8.0

Total Depth 3222 Chlorides 3,800 ppm System LCM

Blow Description IFP- Fair Blow Built 7 inches into Bucket

ISIP- Very Weak Surface Blow

FFP- Fair Blow Built Bottom of Bucket in 26 minutes

FSIP- NO Blow Back

Rec 60	Feet of GOM	30 %gas	10 %oil	- %water	60 %mud
Rec 60	Feet of GOM	20 %gas	50 %oil	%water	30 %mud
Rec 60	Feet of GOM	10 %gas	10 %oil	%water	80 %mud
Rec 60	Feet of GOM	40 %gas	20 %oil	%water	40 %mud
Rec 65	Feet of O	%gas	100 %oil	%water	%mud
300 feet Gas in Pipe					
Rec Total 305	BHT	Gravity 49	API RW	@ °F	Chlorides ppm

(A) Initial Hydrostatic	1593	☒ Test	1050	T-On Location	8:40A
(B) First Initial Flow	54	☐ Jars		T-Started	9:15A
(C) First Final Flow	122	☒ Safety Joint	75	T-Open	10:59A
(D) Initial Shut-In	1093	☐ Circ Sub		T-Pulled	2:45
(E) Second Initial Flow	128	☐ Hourly Standby		T-Out	4:38
(F) Second Final Flow	159	☒ Mileage	75 RT Great Bend	Comments	
(G) Final Shut-In	1079	☐ Sampler	55		
(H) Final Hydrostatic	1491	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	60	☐ Extra Recorder		Sub Total	0
Final Flow	45	☐ Day Standby		Total	1180
Final Shut-In	90	☐ Accessibility		MP/DST Disc't	
		Sub Total	1180		

Approved By Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 62923

Well Name & No. Bushton #420 Test No. 3 Date 5-18-2015

Company CMX Inc Elevation 1773 KB 1765 GL

Address 1700 N Waterfront Pkwy Bldg 300 B Wichita KS 67206

Co. Rep / Geo. Ken LaBlonc Rig Duke Drilling Rig #7

Location: Sec. 26 Twp. 17s Rge. 9w Co. Ellsworth State KS

Interval Tested 3222 - 3227 Zone Tested Arbuckle

Anchor Length 5 Drill Pipe Run Mud Wt. 8.10

Top Packer Depth 3217 Drill Collars Run Vis 64

Bottom Packer Depth 3222 Wt. Pipe Run WL 10.

Total Depth 3227 Chlorides 5000 ppm System LCM

Blow Description IFP- Strong Blow Built Bottom Bucket in 1½ minutes
ISIP- NO Blow Back
FFP- Strong Blow Built Bottom of Bucket in 1 minute
FSIP- No Blow Back

Rec 1320	Feet of Water	%gas	%oil	%water	%mud
Rec 600	Feet of OMW	%gas	1 %oil	89 %water	10 %mud
Rec 180	Feet of OMW	%gas	5 %oil	85 %water	10 %mud
Rec 180	Feet of OMW	%gas	10 %oil	80 %water	10 %mud
Rec 60	Feet of MWO	%gas	70 %oil	20 %water	10 %mud

Rec Total 2340 BHT Gravity API RW .20 @ 50 °F Chlorides 28,000 ppm

(A) Initial Hydrostatic	1575	☒ Test	1050	T-On Location	10:40p
(B) First Initial Flow	154	☐ Jars		T-Started	12:00
(C) First Final Flow	718	☒ Safety Joint	75	T-Open	12:22
(D) Initial Shut-In	1129	☐ Circ Sub		T-Pulled	4:07
(E) Second Initial Flow	743	☐ Hourly Standby		T-Out	
(F) Second Final Flow	1106	☒ Mileage	75 1ST Grout Bend	Comments	
(G) Final Shut-In	1129	☐ Sampler	55		
(H) Final Hydrostatic	1467	☐ Straddle			
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	30	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	60	☐ Extra Recorder		☐ Extra Copies	
Final Flow	45	☐ Day Standby		Sub Total	0
Final Shut-In	90	☐ Accessibility		Total	1180
		Sub Total	1180	MP/DST Disc't	

Approved By Our Representative

POLYMER SERVICES LLC

POLYMER GEL TECHNOLOGY FOR THE OIL AND GAS INDUSTRY

CMX, Inc.
Bushton #1-20
Stoltenberg Field
Ellsworth County, KS
API# 15-053-21323

DATE	TIME	RATE	BBLS	CUM. BWI	Pressure	PSIG/BWI	PPM	BHP (PSI)	COMMENTS
15-Jul-15	8:08a	1440.0	40.0	0.0	0	0.00			Start 25bbl H2O treated Preflush
15-Jul-15	8:31a	1440.0	40.0	25.0	-22	-0.02			End Preflush
15-Jul-15	8:31 AM	1440.0	40.0	0.0	-22	-0.02	1500		Start Waterblock 247 treatment @ 1500ppm
15-Jul-15	9:10 AM	1440.0	40.0	40.0	-25	-0.02			
15-Jul-15	9:50 AM	1440.0	40.0	80.0	-27	-0.02			
15-Jul-15	10:30 AM	1440.0	40.0	120.0	-27	-0.02			
15-Jul-15	11:10 AM	1440.0	40.0	160.0	-27	-0.02			
15-Jul-15	11:50 AM	1440.0	40.0	200.0	-27	-0.02			
15-Jul-15	12:30 PM	1440.0	40.0	240.0	-27	-0.02			
15-Jul-15	1:10 PM	1440.0	40.0	280.0	-27	-0.02			
15-Jul-15	1:50 PM	1440.0	40.0	320.0	-27	-0.02			
15-Jul-15	2:30 PM	1440.0	40.0	360.0	-27	-0.02			
15-Jul-15	3:10 PM	1440.0	40.0	400.0	-27	-0.02			
15-Jul-15	3:50 PM	1440.0	40.0	440.0	-27	-0.02			
15-Jul-15	4:30 PM	1440.0	40.0	480.0	-27	-0.02			
15-Jul-15	5:10 PM	1440.0	40.0	520.0	-27	-0.02			
15-Jul-15	5:50 PM	1440.0	40.0	560.0	-27	-0.02			
15-Jul-15	6:30 PM	1440.0	40.0	600.0	-27	-0.02			
15-Jul-15	7:10 PM	1440.0	40.0	640.0	-27	-0.02	3000		Switch to 3000ppm
15-Jul-15	7:50 PM	1440.0	40.0	680.0	-22	-0.02			
15-Jul-15	8:30 PM	1440.0	40.0	720.0	-22	-0.02			
15-Jul-15	9:10 PM	1440.0	40.0	760.0	-21	-0.01			
15-Jul-15	9:50 PM	1440.0	40.0	800.0	-21	-0.01			
15-Jul-15	10:30 PM	1440.0	40.0	840.0	-20	-0.01			
15-Jul-15	11:03 PM	1440.0	40.0	873.0	-20	-0.01			Started Triplex
15-Jul-15	11:10 PM	1440.0	40.0	880.0	-20	-0.01			
15-Jul-15	11:23 PM	1440.0	40.0	893.0	15	0.01			Caught Pressure
15-Jul-15	11:50 PM	1440.0	40.0	920.0	1	0.00			
16-Jul-15	12:30 AM	1440.0	40.0	960.0	16	0.01			
16-Jul-15	1:10 AM	1440.0	40.0	1000.0	29	0.02			
16-Jul-15	1:50 AM	1440.0	40.0	1040.0	39	0.03			
16-Jul-15	2:30 AM	1440.0	40.0	1080.0	50	0.03			
16-Jul-15	3:10 AM	1440.0	40.0	1120.0	58	0.04			
16-Jul-15	3:50 AM	1440.0	40.0	1160.0	70	0.05			
16-Jul-15	4:30 AM	1440.0	40.0	1200.0	83	0.06			
16-Jul-15	5:10 AM	1440.0	40.0	1240.0	91	0.06			
16-Jul-15	5:50 AM	1440.0	40.0	1280.0	100	0.07			
16-Jul-15	6:30 AM	1440.0	40.0	1320.0	102	0.07			
16-Jul-15	7:10 AM	1440.0	40.0	1360.0	120	0.08			
16-Jul-15	7:50 AM	1440.0	40.0	1400.0	129	0.09			
16-Jul-15	8:30 AM	1440.0	40.0	1440.0	142	0.10			
16-Jul-15	9:10 AM	1440.0	40.0	1480.0	160	0.11			
16-Jul-15	9:50 AM	1440.0	40.0	1520.0	179	0.12			
16-Jul-15	10:30 AM	1440.0	40.0	1560.0	187	0.13			
16-Jul-15	11:10 AM	1440.0	40.0	1600.0	200	0.14			Fall off test, see additional pages
16-Jul-15	11:51 AM	1440.0	40.0	1640.0	212	0.15			
16-Jul-15	12:31 PM	1440.0	40.0	1680.0	218	0.15			
16-Jul-15	1:11 PM	1440.0	40.0	1720.0	236	0.16			
16-Jul-15	1:51 PM	1440.0	40.0	1760.0	245	0.17			
16-Jul-15	2:31 PM	1440.0	40.0	1800.0	257	0.18			
16-Jul-15	3:10 PM	1440.0	40.0	1840.0	266	0.18			

16-Jul-15	3:51 PM	1440.0	40.0	1880.0	273	0.19			
16-Jul-15	4:31 PM	1440.0	40.0	1920.0	276	0.19	4500		Switch to 4500ppm
16-Jul-15	5:09 PM	1440.0	40.0	1957.0	280	0.19			Shutdown triplex drive overheated 6 min
16-Jul-15	5:17 PM	1440.0	40.0	1960.0	250	0.17			
16-Jul-15	5:57 PM	1440.0	40.0	2000.0	323	0.22			
16-Jul-15	6:37 PM	1440.0	40.0	2040.0	388	0.27			
16-Jul-15	7:17 PM	1440.0	40.0	2080.0	400	0.28			Fall off test, see additional pages
16-Jul-15	8:03 PM	1440.0	40.0	2120.0	399	0.28			
16-Jul-15	8:43 PM	1440.0	40.0	2160.0	429	0.30	6000		Switch to 6000ppm
16-Jul-15	9:23 PM	1440.0	40.0	2200.0	496	0.34			
16-Jul-15	10:03 PM	1440.0	40.0	2240.0	574	0.40			
16-Jul-15	10:43 PM	1440.0	40.0	2280.0	611	0.42			End WB247 treatment & drain tanks
16-Jul-15	11:02 PM	1440.0	40.0	2280.0	623	0.43			End job/fall off test, see additional pages
									80 bbl treated crude flush- 1bpm - 950 psi max - Broke to 650psi
									Unit #4
									Supervisor: J. Makings
									Field Tech: D. Peterson, D. Kerr
									Approved By:

POLYMER SERVICES LLC

POLYMER GEL TECHNOLOGY FOR THE OIL AND GAS INDUSTRY

CMX, Inc.
Bushton #1-20
Stoltenberg Field
Ellsworth County, Kansas
API#: 15-053-21323

2280 BBLS Polymer
July 15th, 2015 – July 16th, 2015

1-800-625-3791 1733 W. Road – Plainville, Kansas www.polymergel.com

POLYMER SERVICES LLC

POLYMER GEL TECHNOLOGY FOR THE OIL AND GAS INDUSTRY

July 21st, 2015

For: Mr. Curtis Clark
CMX, Inc.
1700 N. Waterfront Parkway
Building 300, Suite B
Wichita, KS 67206

RE: Bushton #1-20
Stoltenberg Field
Ellsworth County, KS
API: 15-053-21323

Dear Sirs:

Attached is the job log and injection plot for the Water-Block 247 polymer gel water shut off treatment performed on the Bushton #1-20 producing well located in the Stoltenberg Field in Ellsworth County, Kansas. A job recap is presented below.

PURPOSE

Use WATER-BLOCK 247 polymer gel technology to:

1. Decrease water production
2. Lower producing fluid level
3. Improve draw-down on oil-saturated reservoir matrix rock
4. Improve oil recovery and well economics

TREATMENT

Polymer Services, LLC equipment and personnel arrived on location at 8:00 A.M. on July 15th, 2015. A tailgate safety meeting was held to discuss all potential hazards specific to the jobsite. Polymer Services, LLC's polymer blending and pumping unit was then connected to the wellhead and water supply. The following table provides details for each stage of the treatment.

	Date Begin	Time Begin	Date End	Time End	WB247® Polymer ppm	WB247® Polymer Lbs.	WB248® X-Linker Gals.	Gel Bbls.	PSIG Begin	PSIG End	BHP Begin And End	Pump Rate Begin (BPM)	Pump Rate End (BPM)	Comments
1	07/15/15	8:08a	7/15/15	8:31a				25H2O	0	-22		1.0bpm	1.0bpm	25bbl H2O preflush
2	7/15/15	8:31a	07/15/15	7:10p	1500	336	7	640	-22	-27		1.0bpm	1.0bpm	Start Waterblock 247 treatment
3	7/15/15	7:10p	07/16/15	4:31p	3000	1344	28	1280	-27	276psi		1.0bpm	1.0bpm	
4	7/16/15	4:31p	7/16/15	8:43p	4500	378	8	240	276psi	429psi		1.0bpm	1.0bpm	
5	07/16/15	8:43p	07/16/15	11:02p	6000	252	5	120	429psi	623psi		1.0bpm	1.0bpm	End WB247 Treatment
	Totals					2310	48						Unit #4 Super: J. Makings	Field Techs: D. Peterson, D. Kerr

Gel Quality Monitoring

No representative samples of cross-linked polymer solution were collected during Stages 1, 2, 3 or 4 of the treatment to ensure that the intended gels would ultimately form. Pre-gels samples were stored at a temperature of 100° F in an oven onboard the PSI portable polymer injection unit. All samples indicated that gels formed as intended. Below is a table that provides gel sample information.

Sample No.	Treatment Stage	Sample Date	Sample Time	Polymer ppm	Polymer:X-Linker Ratio	Gel Grade	Comments
1	1	No Sample		1500	Standard		
2	2	No Sample		3000	Standard		
3	3	No Sample		4500	Standard		
4	4	No Sample		6000	Standard		

The standard gel grading system gels is defined as follows:

Grade	Description	
A	***No detectable gel formed.***	The gel appears to have the same viscosity (fluidity) as the original polymer solution and no gel can be visually detected
B	***High flowing gel***.	The gel appears to be only slightly more viscous than the initial relatively low viscosity polymer solution.
C	***Flowing gel***.	Most of the obviously detectable gel flows to the bottle cap upon inversion.
D	***Moderately flowing gel***	A small portion (about 5 to 15%) of the gel does not readily flow the bottle cap upon inversion – usually characterized as a "tonguing" gel (i.e., after hanging out of the bottle, the gel can be made to flow back into the bottle by slowly turning the bottle upright).
E	***Barely flowing gel.***	The gel slowly flows to the bottle cap and/or a significant portion (>15%) of the gel does not flow to the bottle cap upon inversion.
F	***Highly deformable nonflowing gel.***	The gel does not flow to the bottle cap upon inversion (gel flows to just short of reaching the bottle cap).
G	***Moderately deformable nonflowing gel.***	The gel flows about halfway down to the bottle cap upon inversion.
H	***Slightly deformable nonflowing gel***	The gel surface only slightly deforms upon inversion.
I	***Rigid gel.***	There is no gel-surface deformation upon inversion.
J	***Ringing rigid gel***	A tuning –fork like mechanical vibration can be felt after the bottle is tapped.

Polymer Services, LLC, is very interested in monitoring and evaluating the results of this treatment with time. If you should have questions or comments regarding the job, please do not hesitate to call me in our Plainville office at 785-434-2474. We greatly appreciate the opportunity to be of service to CMX, Inc. and look forward to working with you again in the future.

Best regards,

Randy Prater, President
Polymer Services, LLC
P.O. Box 1387
Hays, KS 67601

Email: randy@polymergel.com Visit our website at: www.polymergel.com
Attachments