



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Mike Kelso Oil Inc**
PO Box 467
Chase KS 67524+0467

ATTN: Mike Kelso

FHW-Wierman #15-1

15-17s-21w Ness,KS

Start Date: 2016.09.28 @ 00:00:00

End Date:

Job Ticket #: 63480 DST #: 1

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

Printed: 2016.09.29 @ 13:50:48

Mike Kelso Oil Inc 15-17s-21w Ness,KS FHW-Wierman #15-1 DST # 1 Chorokoo Sand 'A' 2016.09.28



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DRILL STEM TEST REPORT

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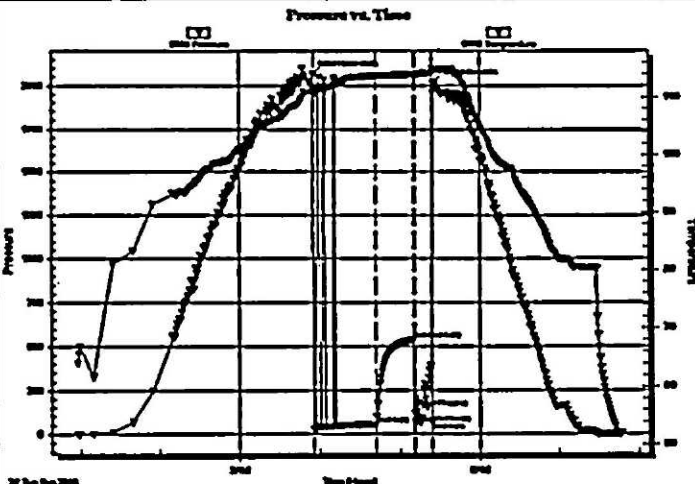
15-17s-21w Ness, KS
FHW-Wierman #15-1
Job Ticket: 63480 DST#:1
Test Start: 2016.09.28 @ 00:00:00

GENERAL INFORMATION:

Formation: Cherokee Sand 'A'
Deviated: No Whipstock ft (KB)
Time Tool Opened: 03:55:30
Time Test Ended:
Interval: 4086.00 ft (KB) To 4131.00 ft (KB) (TVD)
Total Depth: 4131.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches
Hole Condition:
Test Type: Conventional Bottom Hole (Initial)
Tester: Spencer J. Staab
Unit No: 84
Reference Elevations: 2210.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8938 Inside
Press@RunDepth: 54.39 psig @ 4088.00 ft (KB)
Start Date: 2016.09.27 End Date: 2016.09.27
Start Time: 00:58:15 End Time: 07:47:15
Capacity: 8000.00 psig
Last Calb.: 2016.09.27
Time On Blmt: 2016.09.27 @ 03:55:15
Time Off Blmt: 2016.09.27 @ 05:24:45

TEST COMMENT: FP30 Weak blow built to 1 3/4"
SI 30 No Blow
FFP5 No blow - pulled tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2065.67	110.95	Initial Hydro-static
1	26.69	110.46	Open To Flow (1)
47	54.39	113.68	Shut-in(1)
75	537.54	113.83	End Shut-in(1)
76	115.09	113.70	Tool Flugging
76	59.54	113.77	Open To Flow (2)
89	62.80	114.10	Shut-in(2)
90	2015.37	114.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	M 100% Mw with oil specs	0.50

Gas Rates

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



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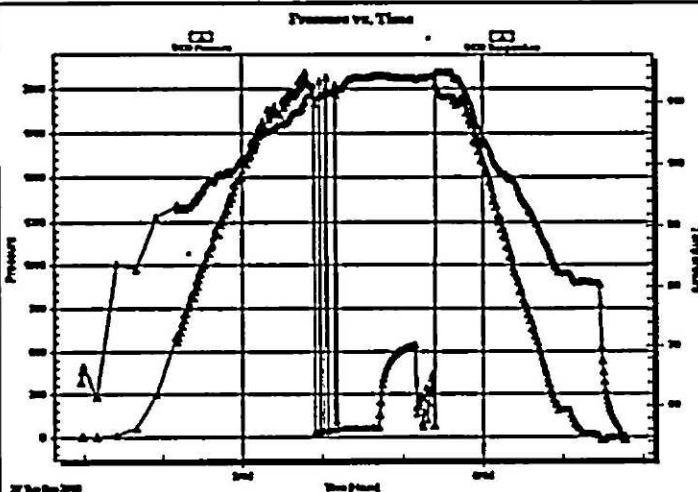
15-17s-21w Ness, KS
 FHW-Wierman #15-1
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 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 03:55:30 Tester: Spencer J. Staab
 Time Test Ended: Unit No: 84
 Interval: 4086.00 ft (KB) To 4131.00 ft (KB) (TVD) Reference Elevations: 2210.00 ft (KB)
 Total Depth: 4131.00 ft (KB) (TVD) 2203.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 7.00 ft

Serial #: 9120 Outside
 Press@RunDepth: psig @ 4088.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2016.09.27 End Date: 2016.09.27 Last Calib.: 2016.09.27
 Start Time: 00:58:15 End Time: 07:47:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: FP 30 Weak blow built to 1 3/4"
 ISI 30 No Blow
 FFP 5 No blow - pulled tool



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
70.00	M 100% Mw @h oil specs	0.50

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Mike Kelso Oil Inc
PO Box 467
Chase KS 67524+0467

ATTN: Mike Kelso

15-17s-21w Ness,KS
FHW-Wierman #15-1
Job Ticket: 63480 DST#: 1
Test Start: 2016.09.28 @ 00:00:00

Tool Information

Drill Pipe:	Length: 3628.00 ft	Diameter: 3.82 inches	Volume: 51.43 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 460.00 ft	Diameter: 2.70 inches	Volume: 3.26 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 51000.00 lb
			<u>Total Volume: 54.69 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4086.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4059.00	
Shut In Tool	5.00			4064.00	
Hydraulic tool	5.00			4069.00	
Jars	5.00			4074.00	
Safety Joint	3.00			4077.00	
Packer	5.00			4082.00	28.00 Bottom Of Top Packer
Packer	4.00			4086.00	
Stubb	1.00			4087.00	
Perforations	1.00			4088.00	
Recorder	0.00	9120	Outside	4088.00	
Recorder	0.00	8938	Inside	4088.00	
Perforations	5.00			4093.00	
Change Over Sub	1.00			4094.00	
Drill Pipe	32.00			4126.00	
Change Over Sub	1.00			4127.00	
Bullnose	4.00			4131.00	45.00 Bottom Packers & Anchor
Total Tool Length:	73.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Mike Kelso Oil Inc
PO Box 467
Chase KS 67524+0467
ATTN: Mike Kelso

15-17s-21w Ness, KS
FHW-Wierman #15-1
Job Ticket: 63480 DST#: 1
Test Start: 2016.09.28 @ 00:00:00

Mud and Cushion Information

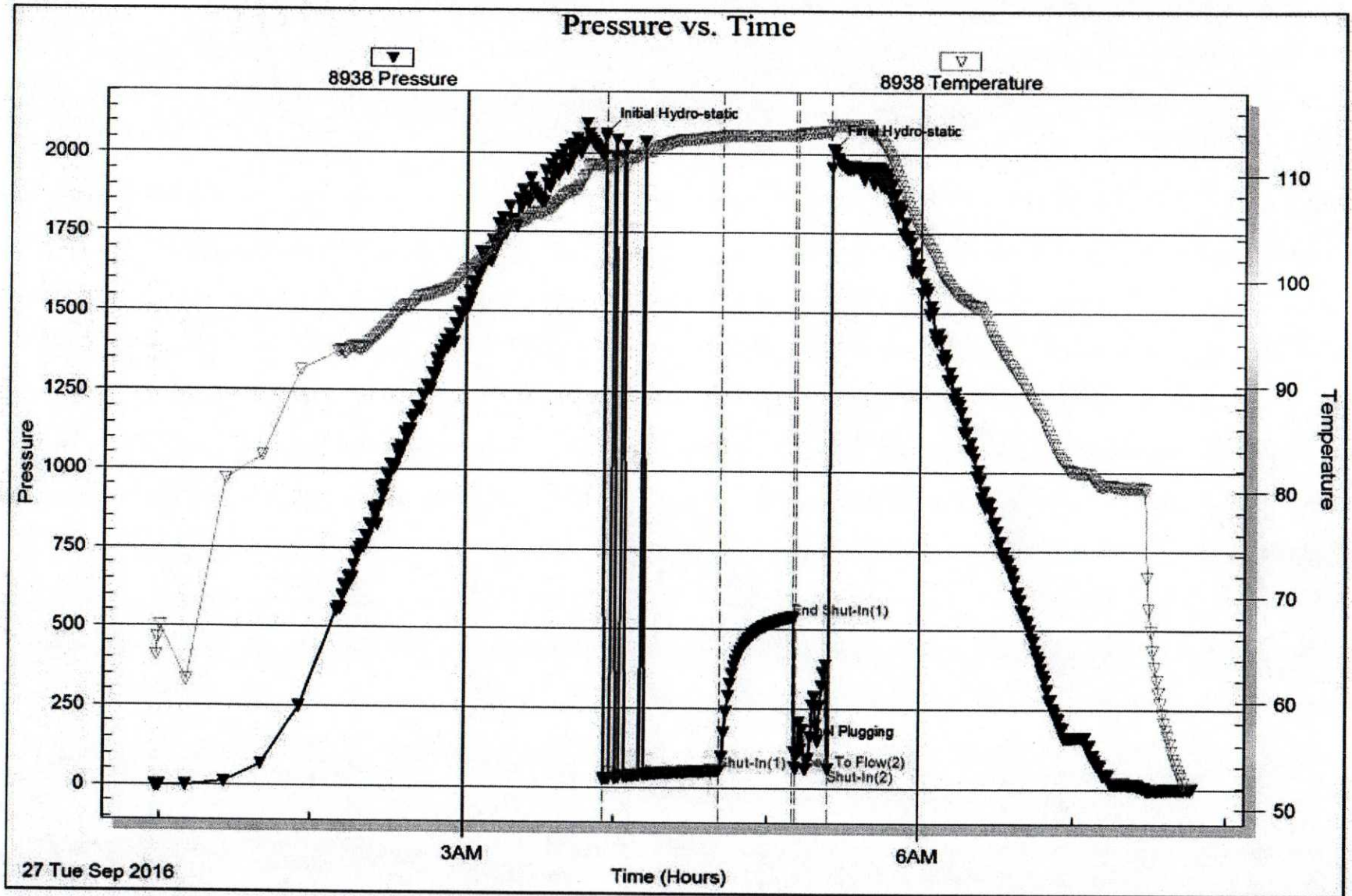
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 In ³	Gas Cushion Type:		
Resistivity: 4000.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	M 100% M with oil specs	0.496

Total Length: 70.00 ft Total Volume: 0.496 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

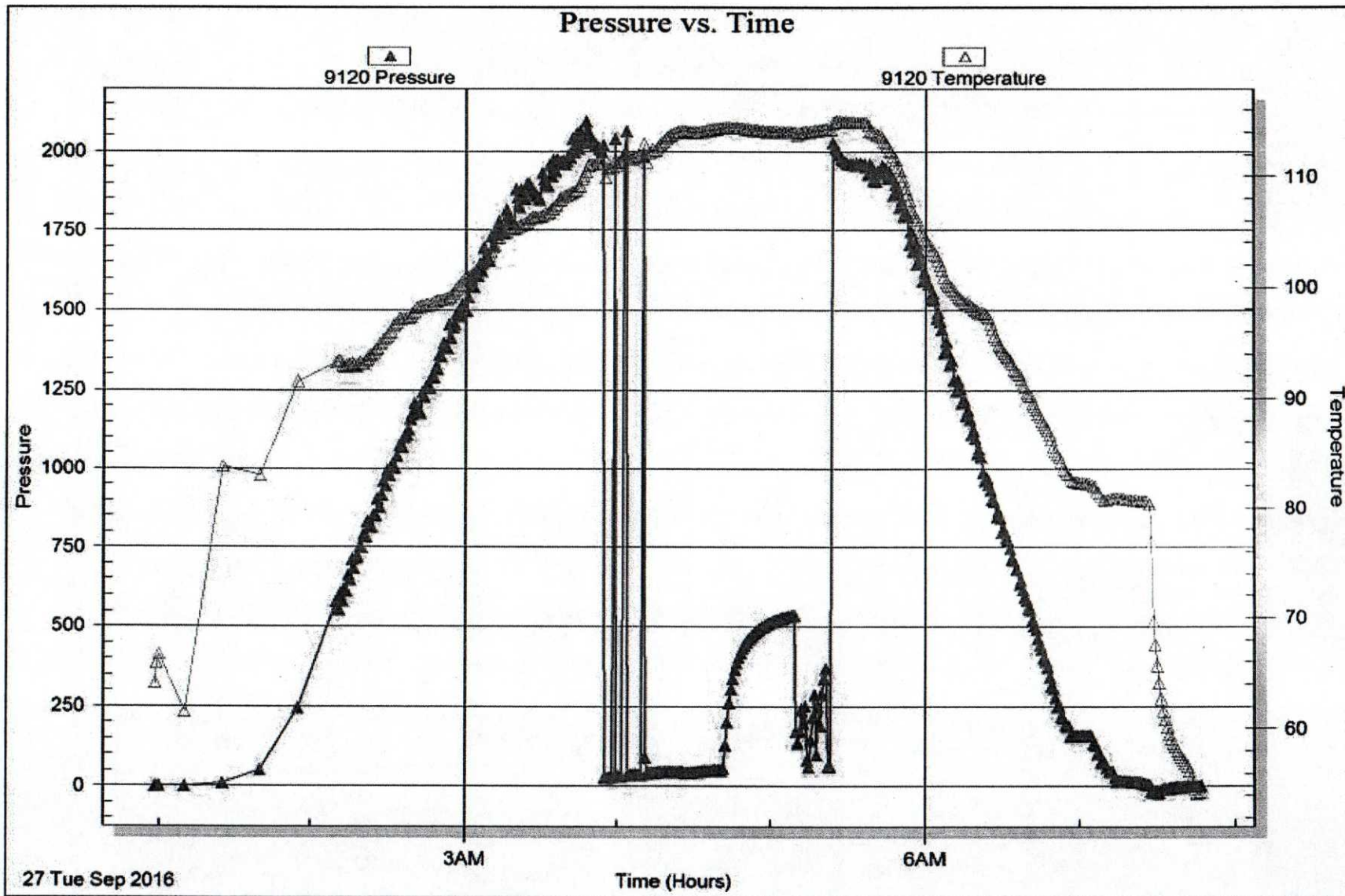


Serial #: 9120

Outside Mike Kelso Oil Inc

FHW-Wierman #15-1

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63480

Well Name & No. F.H.W - Wierman #15-1 Test No. 1 Date 09/26/2016
 Company Mike Kelso Oil Inc Elevation 2210 KB _____ GL _____
 Address PO BOX 467
 Co. Rep / Geo. Mike KASO Rig Skytop Rig # 1
 Location: Sec. 15 Twp. 17 Rge. 21 Co. Ness State KS

Interval Tested 4086 - 4131 Zone Tested Cherokee Sand 'A'
 Anchor Length 45 Drill Pipe Run 3628 Mud Wt. 9.3
 Top Packer Depth 4081 Drill Collars Run — Vis 50
 Bottom Packer Depth 4086 Wt. Pipe Run 460 WL 9.2
 Total Depth 4131 Chlorides 4000 ppm System LCM 1#
 Blow Description IF - Weak Blow; Built to 1 3/4 inch
ISI - No Blow
FF - NO Blows; pulled tool
FBI - — —

Sec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>Feet of 70 70 w/oil Specs</u>			<u>100</u>	
____	Feet of _____	%gas	%oil	%water	%mud
____	Feet of _____	%gas	%oil	%water	%mud
____	Feet of _____	%gas	%oil	%water	%mud
____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 70 BHT 114 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

A) Initial Hydrostatic 2065 Test 1150 T-On Location 23:50
 B) First Initial Flow 27 Jars 250 T-Started 00:58 09/27/2016
 C) First Final Flow 54 Safety Joint 75 T-Open 4:10
 D) Initial Shut-In 538 Circ Sub _____ T-Pulled 5:16
 E) Second Initial Flow 66 Hourly Standby _____ T-Out 7:47
 F) Second Final Flow — Mileage 84 RT 63 Comments _____
 G) Final Shut-In — Sampler _____
 H) Final Hydrostatic 2015 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1538
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1538

Approved By _____ Our Representative Spencer J. Stueb

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