



DRILL STEM TEST REPORT

Prepared For: **M & M Exploration Inc.**

4257 Main St., #230
Westminster, CO. 80031

ATTN: Beth Brock

Z-Bar #22-4

22-34s.-15w. Barber Co.

Start Date: 2013.07.08 @ 06:53:26

End Date: 2013.07.08 @ 17:06:56

Job Ticket #: 52338 DST #: 1

Trilobite Testing, Inc

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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

M & M Exploration Inc.
4257 Main St., #230
Westminster, CO. 80031
ATTN: Beth Brock

22-34s.-15w. Barber Co.
Z-Bar #22-4
Job Ticket: 52338 **DST#: 1**
Test Start: 2013.07.08 @ 06:53:26

GENERAL INFORMATION:

Formation: **Ft. Scott**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:44:41
Time Test Ended: 17:06:56
Interval: **4699.00 ft (KB) To 4727.00 ft (KB) (TVD)**
Total Depth: 4727.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 1604.00 ft (KB)
1594.00 ft (CF)
KB to GR/CF: 10.00 ft

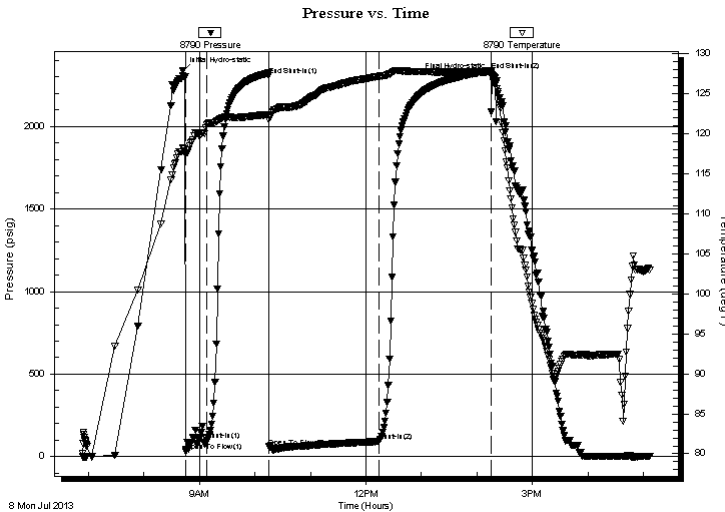
Serial #: 8790

Inside

Press @ Run Depth: 92.01 psig @ 4700.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.07.08 End Date: 2013.07.08 Last Calib.: 2013.07.08
Start Time: 06:53:31 End Time: 17:06:56 Time On Btm: 2013.07.08 @ 08:41:26
Time Off Btm: 2013.07.08 @ 14:16:26

TEST COMMENT: IF: Weak blow . Surf. - 2"
IS: No blow
FF: Strong blow . BOB @ 45 min.
FS: No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2335.31	118.30	Initial Hydro-static
4	29.11	117.43	Open To Flow (1)
27	96.93	121.12	Shut-In(1)
93	2310.69	122.41	End Shut-In(1)
94	59.20	121.77	Open To Flow (2)
213	92.01	127.19	Shut-In(2)
334	2340.16	127.75	End Shut-In(2)
335	2299.01	127.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	SLI OCMW 4%oil, 30% mud, 66% w tr	0.30
60.00	OWCM 25%oil, 25% w tr, 50% mud	0.31
45.00	OCM 17%oil, 83% mud	0.63
0.00	370' GIP	0.00

Gas Rates

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



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TOOL DIAGRAM

M & M Exploration Inc.

22-34s.-15w. Barber Co.

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Westminster, CO. 80031

Z-Bar #22-4

Job Ticket: 52338

DST#: 1

ATTN: Beth Brock

Test Start: 2013.07.08 @ 06:53:26

Tool Information

Drill Pipe:	Length: 4577.00 ft	Diameter: 3.80 inches	Volume: 64.20 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 110000.0 lb
			<u>Total Volume: 64.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4699.00 ft			Final 75000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	56.00 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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Shut In Tool	5.00			4676.00	
Sampler	2.00			4678.00	
Hydraulic tool	5.00			4683.00	
Jars	5.00			4688.00	
Safety Joint	2.00			4690.00	
Packer	5.00			4695.00	28.00 Bottom Of Top Packer
Packer	4.00			4699.00	
Stubb	1.00			4700.00	
Recorder	0.00	8790	Inside	4700.00	
Recorder	0.00	8792	Outside	4700.00	
Perforations	24.00			4724.00	
Bullnose	3.00			4727.00	28.00 Bottom Packers & Anchor

Total Tool Length: 56.00



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FLUID SUMMARY

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22-34s.-15w. Barber Co.

4257 Main St., #230
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Z-Bar #22-4

Job Ticket: 52338

DST#: 1

ATTN: Beth Brock

Test Start: 2013.07.08 @ 06:53:26

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: 225000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	SLI OCMW 4%oil, 30%mud, 66%w tr	0.295
60.00	OWCM 25%oil, 25%w tr, 50%mud	0.313
45.00	OCM 17%oil, 83%mud	0.631
0.00	370' GIP	0.000

Total Length: 165.00 ft

Total Volume: 1.239 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

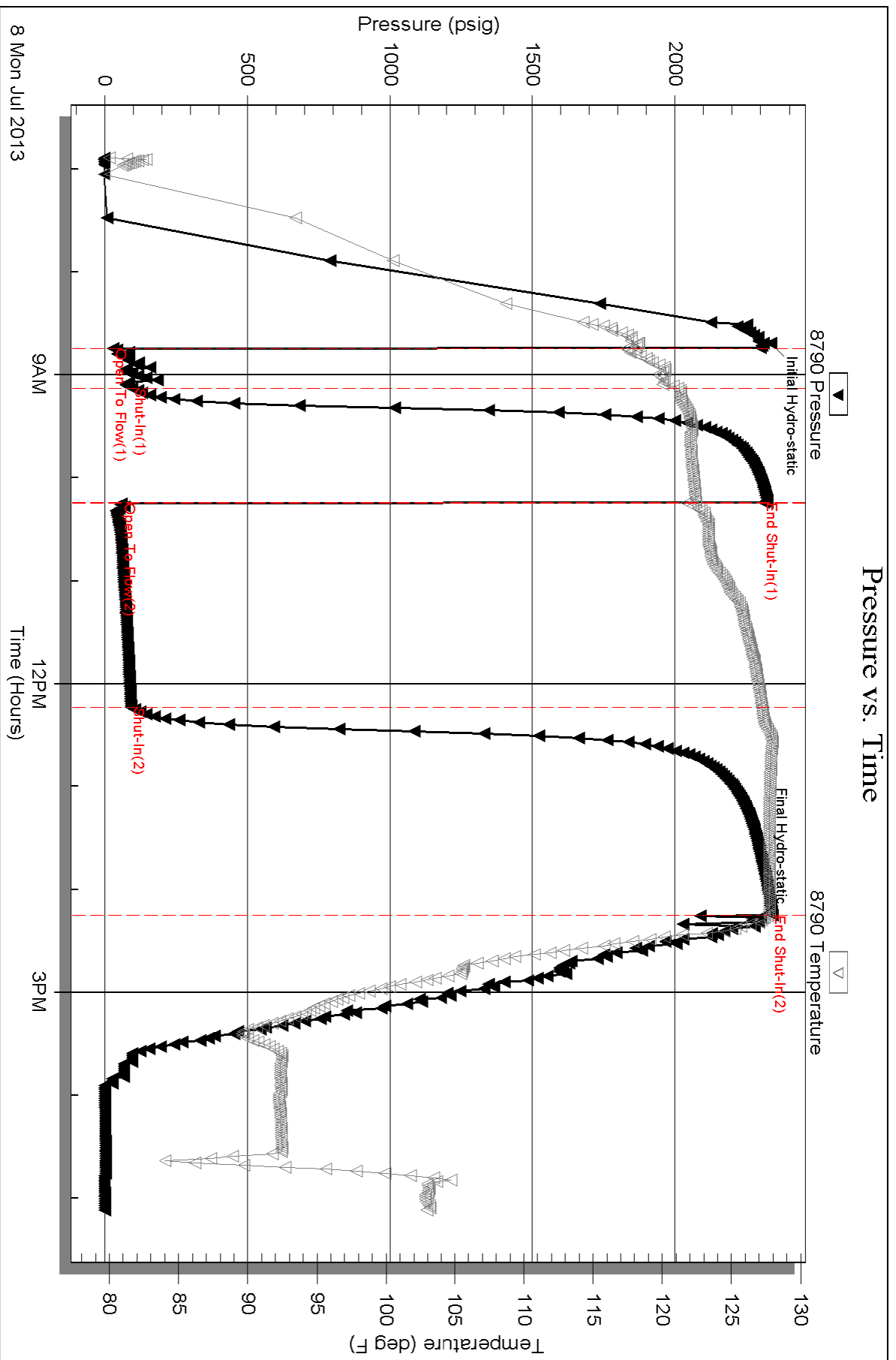
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

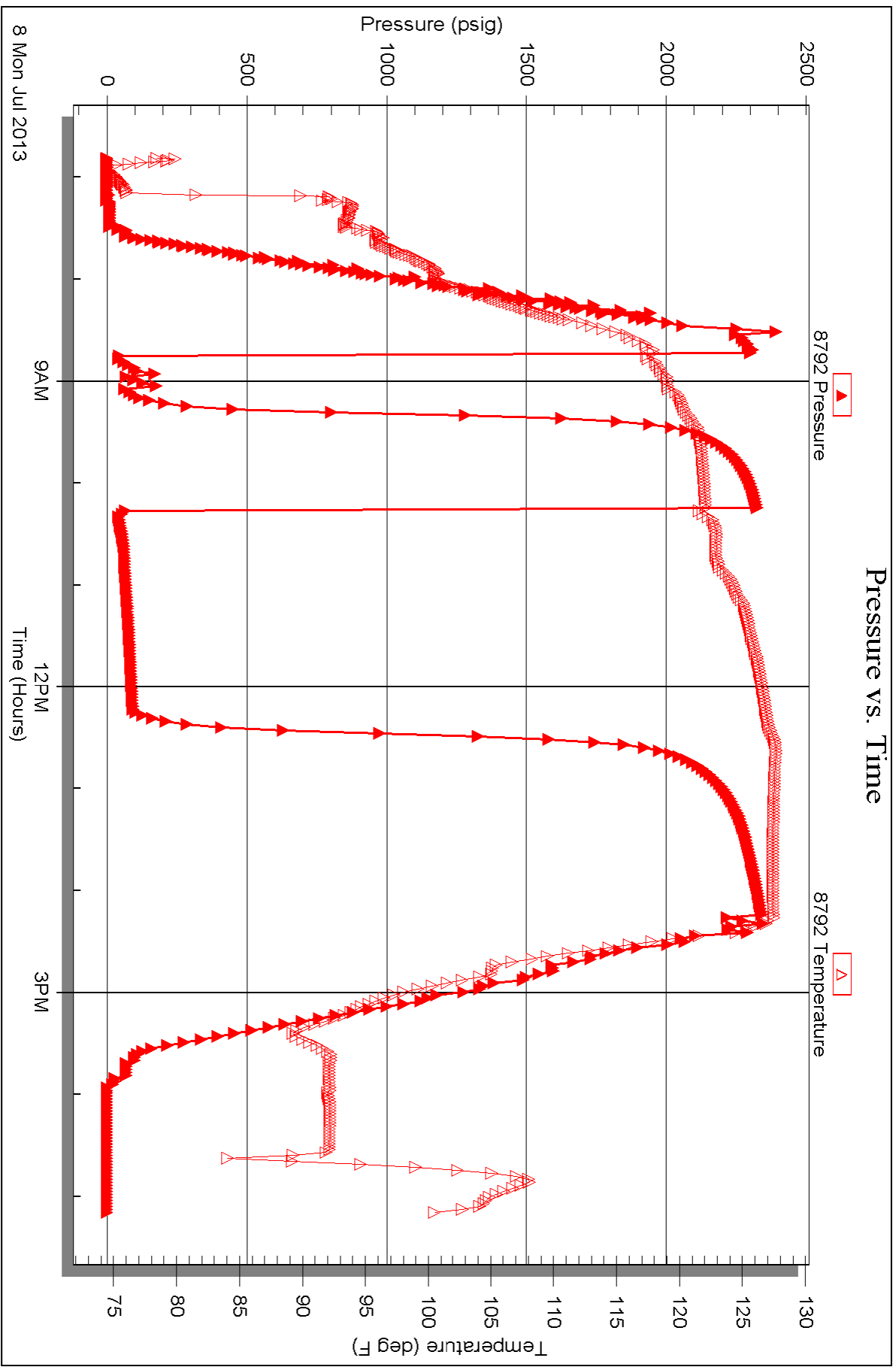


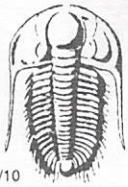
Serial #: 8792

Outside M & M Exploration Inc.

Z-Bar #22-4

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52338

Well Name & No. Z-Bar 22-4 Test No. 1 Date 7-8-13
 Company M & M Expl., Inc. Elevation 1604 KB 1594 GL
 Address 4257 Main St., #230 Westminster Co. 80031
 Co. Rep / Geo. Beth Brock Rig Hardt #1
 Location: Sec. 22 Twp. 34s. Rge. 15w. Co. Barber State KS

Interval Tested 4699-4727 Zone Tested Ft. Scott
 Anchor Length 28' Drill Pipe Run 4577 Mud Wt. 9.2
 Top Packer Depth 4694 Drill Collars Run 118 Vis 49
 Bottom Packer Depth 4699 Wt. Pipe Run ∅ WL 9.8
 Total Depth 4727 Chlorides 2800 ppm System LCM ∅
 Blow Description IF: Weak blow. surf. - 2" ISI: No blow

FF: Strong blow. BOB @ 45min
FST: No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>370</u>	<u>GIP</u>	<u>100</u>			
<u>45</u>	<u>OLM</u>		<u>17</u>		<u>83</u>
<u>60</u>	<u>DWLM</u>		<u>25</u>	<u>25</u>	<u>50</u>
<u>60</u>	<u>SLI OLMW</u>		<u>4</u>	<u>66</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 535 BHT _____ Gravity N/C API RW 203 @ 105° F Chlorides 22500 ppm

(A) Initial Hydrostatic <u>2335</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0545</u>
(B) First Initial Flow <u>29</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0653</u>
(C) First Final Flow <u>97</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0845</u>
(D) Initial Shut-In <u>2311</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1415</u>
(E) Second Initial Flow <u>59</u>	<input checked="" type="checkbox"/> Hourly Standby <u>1 1/4</u> <u>125</u>	T-Out <u>1707</u>
(F) Second Final Flow <u>92</u>	<input checked="" type="checkbox"/> Mileage <u>120</u> <u>186</u>	Comments _____
(G) Final Shut-In <u>2340</u>	<input checked="" type="checkbox"/> Sampler <u>Do Not charge</u>	_____
(H) Final Hydrostatic <u>2299</u>	<input type="checkbox"/> Straddle _____	_____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>120</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>120</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1886</u>
	Sub Total <u>1886</u>	MP/DST Disc't _____

Approved By Beth Brock Our Representative Ryan Reynolds
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