

1st Read At 11:00 AM
 12/21/2021
 Taken By Rulph Schuld (1-6)
 CGI # 45303.
 Taken by Larry Ruhoff (7-17)
 CGI # 52660.



Go



Scale 1: 564

2° N
3° W

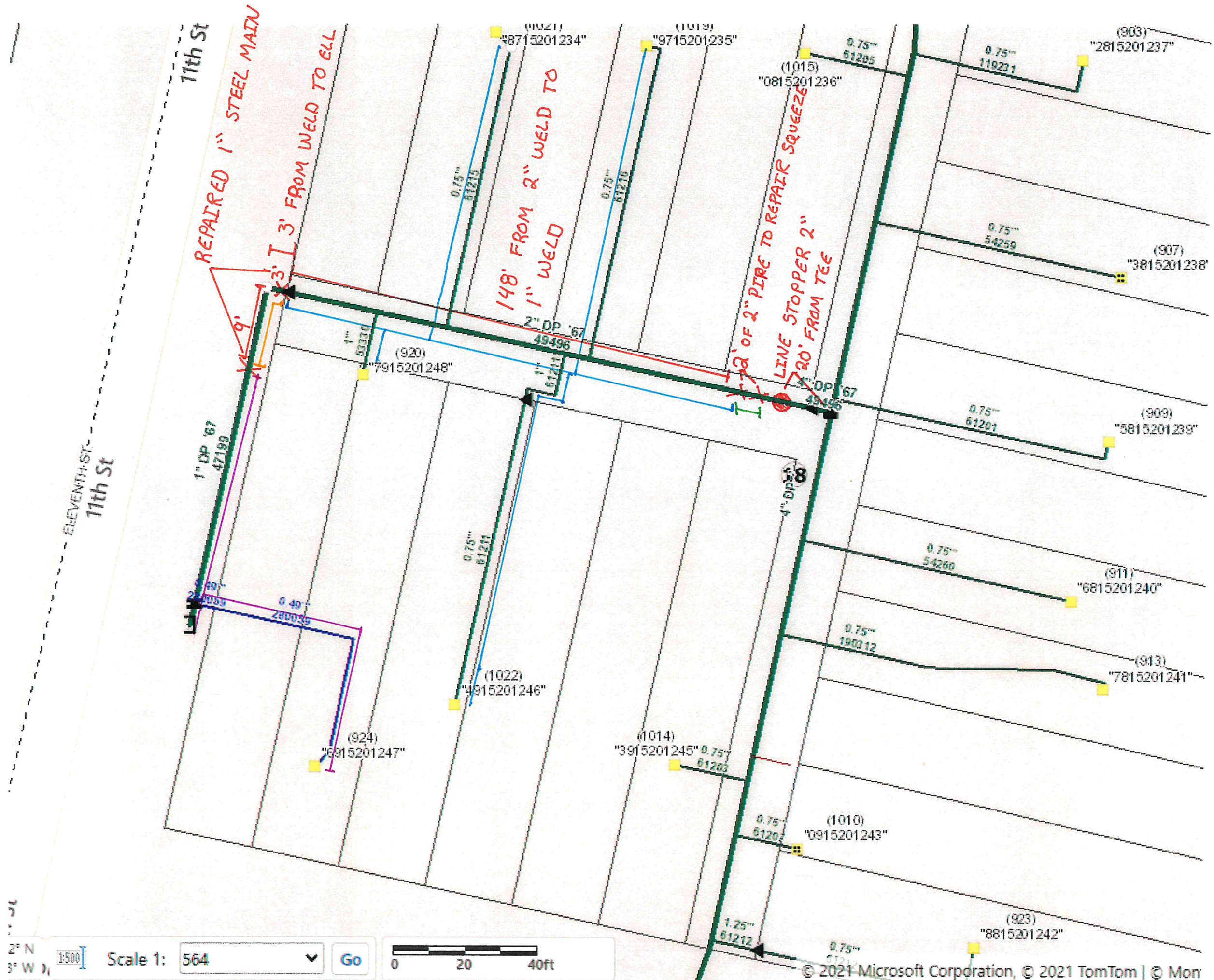
2:57 PM 2nd Check. 1/24/2021

10:20 AM 12-30-21

#1 - 0%	0%
#2 - 0%	0%
#3 - 0%	0%
#4 - .3%	.5%
#5 - 15.4%	2.5%
#6 - 1.9%	1.9
#7 - 18.1%	4.9%
#8 - 79.7%	24.3
#9 - 47.4%	10%
#10 - 52.8%	23%
#11 - 26.1%	11%
#12 - 6.5%	6%
#13 - 4.8%	.5%
#14 - 0%	0%
#15 - 9.4%	.5% GAT
#16 - .1%	2.5%
#17 - 0%	0%

tree
10/1000

Notn BY
TREE



REPAIRED 1" STEEL MAIN

148' FROM 2" WELD TO 1" WELD

LINE STOPPER 2" 20' FROM TEE

2° N
3° W

1:500

Scale 1: 564

Go

0 20 40ft

Odorometer Sniff Test -- 11/29/21
Fire Investigation -- 920 11th Street

<u>Tool Serial #</u>	<u>Work Order</u>	<u>Work Type</u>	<u>Actual Finish</u>	<u>Time</u>	<u>Owner</u>	<u>Owner Group</u>	<u>External Own</u>
2000650006	NA	NA	Nov 29, 2021	5:00 PM	Ralph Schad	NA	NA

<u>READ LOCATION</u>	<u>READ DETECTABLE (Y/N)</u>	<u>ODOROMETER READING</u>	<u>Manufacturer</u>
924 11th Street	YES	0.500	Heath

MARKED ON MAP PURPLE

MDU Utilities Group PRESSURE TEST REPORT

Project/Work Order No.:	Town: RAPID CITY	District: BLACK HILLS
Project Description: 924 11th St 1" MAIN + SL		

PART I - DESIGN DATA - To Be Completed By Engineering / Construction Services / Field Operations Personnel

Class Location	New Pipe <input type="checkbox"/>	Existing Pipe <input type="checkbox"/>	Pre-Test Pipe <input type="checkbox"/>	MAOP (psig)	Design Pressure (psig)		
PIPE/FITTING SIZE		GRADE OF PIPE/FITTING		% OF S.M.Y.S.			APPROXIMATE FOOTAGE TO BE TESTED
O.D.	W.T.	SEAM TYPE (I.E. ERW, Seamless)	S.M.Y.S.	At Required MAOP	At Minimum Test Pressure	At Maximum Test Pressure	
1"	.133						

Lowest ANSI / Pressure Rating: _____ PSIG Maximum test pressure for ANSI / pressure rated component(s): _____

Minimum test pressure: 32 PSIG	Test Medium to be Used	Minimum Test Duration	Estimated N2 Required
Maximum test pressure: 90 PSIG	<input type="checkbox"/> N2 <input type="checkbox"/> GAS <input type="checkbox"/> H2O <input checked="" type="checkbox"/> AIR	Hour(s)	SCF

HYDROTEST INFORMATION

STATIC HEAD DUE TO ELEVATION DIFFERENCE (Where Applicable)	Max. Elevation Ft.	Static Head Calculation	Estimated H2O Required
	Min. Elevation Ft.	WATER: = 0.433 (psig/ft) x Difference (ft.)	
	Difference Ft.	= _____ (PSIG)	GAL

Prepared By: _____	Date: _____	Engineering Approval: _____	Date: _____
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PART II - LEAK TEST DATA - To be completed by the person supervising the leak test (except as noted)

Time and Date Leak Test Started 3:42 11-30-21	Maximum Leak Pressure 32 PSIG	Maximum Pressure During Test PSIG	Minimum Test Duration Required 1 Hour(s)
Time and Date Leak Test Ended 4:42 11-30-21	Minimum Leak Pressure 30-32 PSIG	Minimum Pressure During Test PSIG	Leak Test Supervised By: (Name, Company) LARRY/JORDAN

PART III - STRENGTH TEST DATA - To be completed by person supervising test

NOTE: Any change of the Minimum or Maximum Test Pressures, Test Medium, and/or Test Duration requires Engineering Approval.

Time and Date Strength Test Started	Maximum Pressure During Test (psig)	Elevation points only need to be recorded on Hydrostatic Tests (info provided by Eng. Svcs.)	Elevation at Test Point Ft.
Time and Date Strength Test Ended	Minimum Pressure During Test (psig)		Maximum Elevation of Test Section Ft.
Actual Duration of Strength Test	Test Medium Used		Minimum Elevation of Test Section Ft.
Make, Range, and Serial No. of Recording Device			Calibration Expiration Date
Make, Range, and Serial No. of Verification Gage / Device (If Used)			Calibration Expiration Date
Strength Test Conducted By: (Name(s), Company)		OQ Qualified <input type="checkbox"/>	Strength Test Supervised By: (Name(s), Company)
Established MAOP PSIG	Strength Test Approved By: _____		Date: _____

MDU Utilities Group PRESSURE TEST REPORT

Project/Work Order No.: **924 11th ST 1" MAIN + SL**

PART IV - PRESSURE & TEMPERATURE READINGS (check all that apply)

- Pressure/Temp. readings on chart (attached)
 Pressure/Temp. readings electronically (results attached)
 Pressure/Temp. readings recorded below
 Additional Pressure/Temp. readings on attached Pressure Test Log Sheet(s)

TIME OF READING	PRESSURE MONITOR READING - PSIG	Ambient Temp °F	Pipe Temp °F	TIME OF READING	PRESSURE MONITOR READING - PSIG	Ambient Temp °F	Pipe Temp °F	TIME OF READING	PRESSURE MONITOR READING - PSIG	Ambient Temp °F	Pipe Temp °F
3:42	32			4:43	90						
4:42	32			5:40	90						

Soap test performed on all tie-in joints at operating pressure

PART V - FULL DESCRIPTION OF MATERIALS TESTED & NOTES Drawing and Material List Attached

AIR TESTED FROM 924 11th ST TO 1" DAMAGE THAT WAS CAPPED. AIR TESTED AT 32psi FOR 1hour. RETEST AT 90 PSI FOR 53MIN ALL OKAY

**GAUGE S/N # 190305
CALIBRATED 5-14-21**

MARKED BLUE ON MAP

MDU Utilities Group PRESSURE TEST REPORT

Project/Work Order No.:	Town: RAPID CITY	District: BLACKHILLS
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Project Description: **11th / SOUTH ST ALLEY EXISTING 2" + S.L.(4)**

PART I - DESIGN DATA - To Be Completed By Engineering / Construction Services / Field Operations Personnel

PIPE/FITTING SIZE		GRADE OF PIPE/FITTING		% OF S.M.Y.S.			APPROXIMATE FOOTAGE TO BE TESTED
O.D.	W.T.	SEAM TYPE (I.E. ERW, Seamless)	S.M.Y.S.	At Required MAOP	At Minimum Test Pressure	At Maximum Test Pressure	
2"	.154						

Lowest ANSI / Pressure Rating: _____ PSIG	Maximum test pressure for ANSI / pressure rated component(s): _____
Minimum test pressure: 30 PSIG	Test Medium to be Used
Maximum test pressure: 90 PSIG	<input type="checkbox"/> N2 <input type="checkbox"/> GAS <input type="checkbox"/> H2O <input checked="" type="checkbox"/> AIR
	Minimum Test Duration: 1/2 Hour(s)
	Estimated N2 Required: _____ SCF

HYDROTEST INFORMATION			
STATIC HEAD DUE TO ELEVATION DIFFERENCE (Where Applicable)	Max. Elevation . . . _____ Ft.	Static Head Calculation WATER: = 0.433 (psig/ft) x Difference (ft.) = _____ (PSIG)	Estimated H2O Required GAL
	Min. Elevation . . . _____ Ft.		
	Difference _____ Ft.		

Prepared By: _____	Date: _____	Engineering Approval: _____	Date: _____
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PART II - LEAK TEST DATA - To be completed by the person supervising the leak test (except as noted)

Time and Date Leak Test Started 3:28 pm 11-30-21	Maximum Leak Pressure PSIG	Maximum Pressure During Test 30 PSIG	Minimum Test Duration Required 1 Hour(s)
Time and Date Leak Test Ended 4:28 pm 11-30-21	Minimum Leak Pressure PSIG	Minimum Pressure During Test 30 PSIG	Leak Test Supervised By: (Name, Company) LARRY / JORDAN

PART III - STRENGTH TEST DATA - To be completed by person supervising test
NOTE: Any change of the Minimum or Maximum Test Pressures, Test Medium, and/or Test Duration requires Engineering Approval.

Time and Date Strength Test Started	Maximum Pressure During Test (psig)	Elevation points only need to be recorded on Hydrostatic Tests (info provided by Eng. Svcs.)	Elevation at Test Point Ft.
Time and Date Strength Test Ended	Minimum Pressure During Test (psig)		Maximum Elevation of Test Section Ft.
Actual Duration of Strength Test	Test Medium Used		Minimum Elevation of Test Section Ft.
Make, Range, and Serial No. of Recording Device		Calibration Expiration Date	
Make, Range, and Serial No. of Verification Gage / Device (If Used)		Calibration Expiration Date	
Strength Test Conducted By: (Name(s), Company)		Strength Test Supervised By: (Name(s), Company)	
Established MAOP PSIG		Strength Test Approved By: _____ Date: _____	

MDU Utilities Group PRESSURE TEST REPORT

Project/Work Order No.: 11th / SOUTH ST ALLEY EXISTING 2" & SL(4)

PART IV - PRESSURE & TEMPERATURE READINGS (check all that apply)

- Pressure/Temp. readings on chart (attached) Pressure/Temp. readings electronically (results attached)
 Pressure/Temp. readings recorded below Additional Pressure/Temp. readings on attached Pressure Test Log Sheet(s)

TIME OF READING	PRESSURE MONITOR READING - PSIG	Ambient Temp °F	Pipe Temp °F	TIME OF READING	PRESSURE MONITOR READING - PSIG	Ambient Temp °F	Pipe Temp °F	TIME OF READING	PRESSURE MONITOR READING - PSIG	Ambient Temp °F	Pipe Temp °F
3:28	30			4:30	90			5:32	90		
4:28	30			5:00	86			6:02	90		

- Soap test performed on all tie-in joints at operating pressure

PART V - FULL DESCRIPTION OF MATERIALS TESTED & NOTES Drawing and Material List Attached

AIR TESTED 2" MAIN + 4 S.L AT 30psi for 1hr. RETESTED AT 90psi FOR 30min. LOST 4lbs DUE TO LEAKING STOPS AT 90psi 920 11th ST and 1022 SOUTH ST. REPLACE STOPS. RETEST AT 90psi FOR 30min. ALL OKAY

GAUGE S/N # RC-2289-1-P066495
CALIBRATED 5-14-21

Work Order Completion Responses

Job Plan: JP10000208 - GAS MONTHLY ODOROMETER SNIFF TEST

District: =RAPIDCITY

Actual Finish Date Range: 2021-01-01 to 2021-11-29

<u>District</u>	<u>City</u>	<u>Location</u>	<u>Location Description</u>	<u>Tool Serial #</u>	<u>Work Order</u>	<u>Work Type</u>	<u>Actual Finish</u>	<u>Owner</u>	<u>External Owner</u>	<u>READ LOCATION</u>	<u>READ DETECTABLE (Y/N)</u>	<u>ODOROMETER READING</u>	<u>COMMENTS</u>
RAPIDCITY	RAPID CITY	01556-ODST-58873	ODOROMETER SNIFF TEST TOWN OF RAPID CITY	2000650006	WO11169171	IN	Nov 1, 2021	KILES	KILES-002572	14300 SUNSHINE VALLE	YES	0.500	READILY DETECTABLE. ALL OK.
				2000650006	WO11104600	IN	Oct 4, 2021	KILES	KILES-002572	ROCKERVILLE	YES	0.500	READILY DETECTABLE.
				2000650006	WO11067010	IN	Sep 1, 2021	KILES	KILES-002572	718 STEELE AVE, RCSD	YES	0.500	READILY DETECTABLE
				2000650007	WO11014603	IN	Aug 3, 2021	KILES	KILES-002572	720 BEARTOOTH CT	YES	0.500	ALL OK. READILY DETECTABLE.
				2000650007	WO10943652	IN	Jul 1, 2021	KILES	KILES-002572	1669 SAMCO ROAD RCSD	YES	0.500	READILY DETECTABLE
				2000650007	WO10895321	IN	Jun 1, 2021	KILES	KILES-279772	PIEDMONT SD	YES	0.500	ALL OK. READILY DETECTABLE
				2000650007	WO10799558	IN	May 4, 2021	KILES	KILES-279772	404 11TH ST RCSD	YES	0.500	READILY DETECTABLE
				2000650007	WO10780202	IN	Apr 1, 2021	KILES	KILES-279772	RAPID CITY	YES	0.500	READILY DETECTABLE
				2000650007	WO10763972	IN	Mar 1, 2021	KILES	KILES-279772	RAPID CITY	YES	0.500	ALL OK. 3-1-21
				2000650007	WO10738667	IN	Feb 1, 2021	KILES	KILES-279772	525 BALLISTA, BOX EL	YES	0.500	ALL OK
				2000650007	WO10731808	IN	Jan 4, 2021	KILES	KILES-279772	450 E DISK DRIVE	YES	0.500	1-4-21.