

Ohio Rural Natural Gas Service Line Order (SLO)

Date: 3-29-16 Crew: ORNG Prepared By: Rowden ML WO# _____ SL WO# _____
 Address: 7371 Reynolds Rd Cty/Twp Mentor Sub./Lot#: _____
 Cust. Name Tillotte Sys. Name & No.: _____ Bldg. Type Res ☒ Com ☐ Indus. ☐

Company SL Info: New ☐ Repair ☒ Replace ☐

Size: /" Length: 80' PL ☒ SDR 11.5 ST ☐ WT _____
 Installer: (Name or) ORNG Contractor ☐
 Mtr Size/Tag# _____ Reg/Orf _____
 EFV Yes ☒ No ☐ SL Valve Yes ☐ No ☐

Customer SL Info: New ☐ Repair ☒ Replace ☐

Size: /" Length: 80' PL ☒ SDR 11.5 ST ☐ WT _____
 Installer: (Name or) ORNG Contractor ☐
 Billable: Y ☐ N ☐ Direct Observation ☐

Tested By: Rowden Pressure 90 (PSIG) Duration 10 min Med Air Acceptable Test: Y ☒ N ☐
 Tested By: _____ Pressure _____ (PSIG) Duration _____ Med _____ Acceptable Test: Y ☐ N ☐

Main Line Information

Pipe Type _____ Pipe Diameter: 2" Is the pipe able to be located? Y ☒ N ☐

☐ Plastic
☒ Steel (☐ Fusion Bonded Epoxy ☐ Extruded Polyethylene ☒ Tar & Wrap ☐ Bare)
☐ Other (Specify: _____)

Pipe Details: (MFG: _____ Type: _____ Wall Thickness/SDR: _____ MFG Date: _____)

Internal Inspection

Is the inside pipe accessible: Y ☐ N ☒ Internal Condition (If accessible) ☐ Smooth ☐ Pitted & Depth: _____
 Any Fluid: Y ☐ N ☒ Type of Fluid: _____

External Inspection

Is the pipe under Cathodic Protection: Y ☒ N ☐ Pipe Condition: ☒ Smooth ☐ Pitted & Depth: _____
 Coating Condition (If Coated): ☒ Good ☐ Fair ☐ Poor Backfill Condition: ☐ Good ☒ Fair ☐ Poor
 New Anodes Installed: Y ☒ N ☐ How Many: 1 Anode Size: 20"

Use sketch area to list additional fitting information

Sketch

Indicate North

GPS Coordinates of Tap: Longitude (X): _____

Latitude (Y): _____

House Riser to nearest corner of structure

C/L Dr. to EFV/Vlv. _____

C/L of St. to EFV/Vlv. _____

Farm Tap Riser to nearest corner of structure

C/L Dr. to EFV/Vlv. _____

C/L of St. to EFV/Vlv. _____

Tested and installed according to current O&M Procedures-Signature _____

Date _____

Ohio Rural Natural Gas Service Line Order (SLO)

Date: 11-12-15 Crew: ORNG - D. Strickland Prepared By: ML WO# L4-2015 SL WO# L4-2015
Address: 800 OAK ST. Pville Cty/Twp Pville Ohio Sub./Lot#:
Cust. Name LAKE GEORGE Recovery Center Sys. Name & No. ORNG TI-001 Bldg. Type Res ☐ Com ☐ Indus. ☐

Company SL Info: New ☒ Repair ☐ Replace ☐

Size: 1" Length: 4' PL ☒ SDR ST ☐ WT
Installer: (Name or) ORNG Contractor ☒
Mtr Size/Tag# Reg/Orf
EFV Yes ☐ No ☐ SL Valve Yes ☒ No ☐

Customer SL Info: New ☒ Repair ☐ Replace ☐

Size: 1" Length: 165' PL ☒ SDR ST ☐ WT
Installer: (Name or) ORNG Contractor ☐
Billable: Y ☐ N ☒ Direct Observation ☐

5- Tested By: Strickland Pressure 90 (PSIG) Duration 10 min Med Air Acceptable Test: Y ☒ N ☐
Tested By: Strickland Pressure 750 (PSIG) Duration 22 hrs Med Nitrogen Acceptable Test: Y ☒ N ☐

Main Line Information

Pipe Type Pipe Diameter: 8" Is the pipe able to be located? Y ☒ N ☐

☐ Plastic
☒ Steel (☐ Fusion Bonded Epoxy ☒ Extruded Polyethylene ☐ Tar & Wrap ☐ Bare)
☐ Other (Specify:)

Pipe Details: (MFG: Type: Wall Thickness/SDR: MFG Date:)

Internal Inspection

Is the inside pipe accessible: Y ☐ N ☒ Internal Condition (If accessible) ☐ Smooth ☐ Pitted & Depth:
Any Fluid: Y ☐ N ☒ Type of Fluid:

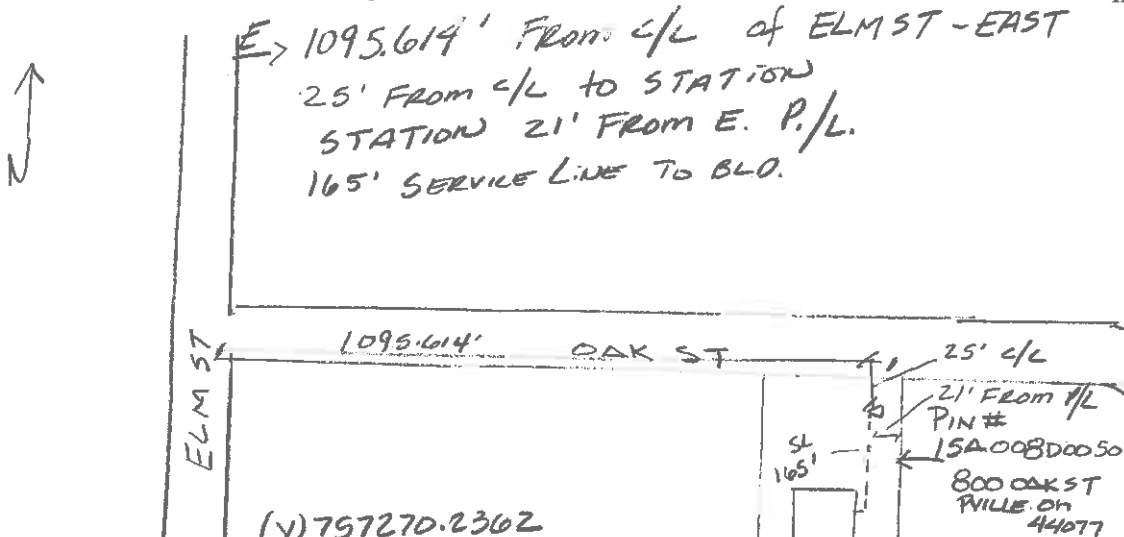
External Inspection

Is the pipe under Cathodic Protection: Y ☒ N ☐ Pipe Condition: ☒ Smooth ☐ Pitted & Depth:
Coating Condition (If Coated): ☒ Good ☐ Fair ☐ Poor Backfill Condition: ☒ Good ☐ Fair ☐ Poor
New Anodes Installed: Y ☐ N ☒ How Many: Anode Size:

Use sketch area to list additional fitting information

Sketch

Indicate North



GPS Coordinates of Tap: Longitude (X): 2312880.4272

Latitude (Y):

House Riser to nearest corner of structure

C/L Dr. to EFV/Vlv.

C/L of St. to EFV/Vlv.

Farm Tap Riser to nearest corner of structure

C/L Dr. to EFV/Vlv.

C/L of St. to EFV/Vlv.

Tested and installed according to current O&M Procedures-Signature

Date

Ohio Rural Natural Gas Service Line Order (SLO)

Date: 9-24-15 Crew: ORNG Prepared By: _____ ML WO# _____ SL WO# _____
Address: 13164 Leroy Center Cty/Twp Leroy Sub./Lot#: _____
Cust. Name MUZIC Sys. Name & No.: _____ Bldg. Type Res ☐ Com ☐ Indus. ☐

Company SL Info: New ☒ Repair ☐ Replace ☐

Size: 1" Length: 76' PL ☒ SDR 11 ST ☐ WT _____
Installer: (Name or) ORNG Contractor ☐
Mtr Size/Tag# _____ Reg/Orf _____
EFV Yes ☐ No ☒ SL Valve Yes ☒ No ☐

Customer SL Info: New ☒ Repair ☐ Replace ☐

Size: 1" Length: 76' PL ☒ SDR 11 ST ☐ WT _____
Installer: (Name or) ORNG Contractor ☐
Billable: Y ☐ N ☐ Direct Observation ☐

Tested By: ORNG Pressure 90 (PSIG) Duration 10 Min Med Air Acceptable Test: Y ☒ N ☐
Tested By: _____ Pressure _____ (PSIG) Duration _____ Med _____ Acceptable Test: Y ☐ N ☐

Main Line Information

Pipe Type _____ Pipe Diameter: _____ Is the pipe able to be located? Y ☒ N ☐

☐ Plastic
☒ Steel (☒ Fusion Bonded Epoxy ☐ Extruded Polyethylene ☐ Tar & Wrap ☐ Bare)
☐ Other (Specify: _____)

Pipe Details: (MFG: _____ Type: _____ Wall Thickness/SDR: _____ MFG Date: _____)

Internal Inspection

Is the inside pipe accessible: Y ☐ N ☒ Internal Condition (If accessible) ☐ Smooth ☐ Pitted & Depth: _____
Any Fluid: Y ☐ N ☐ Type of Fluid: _____

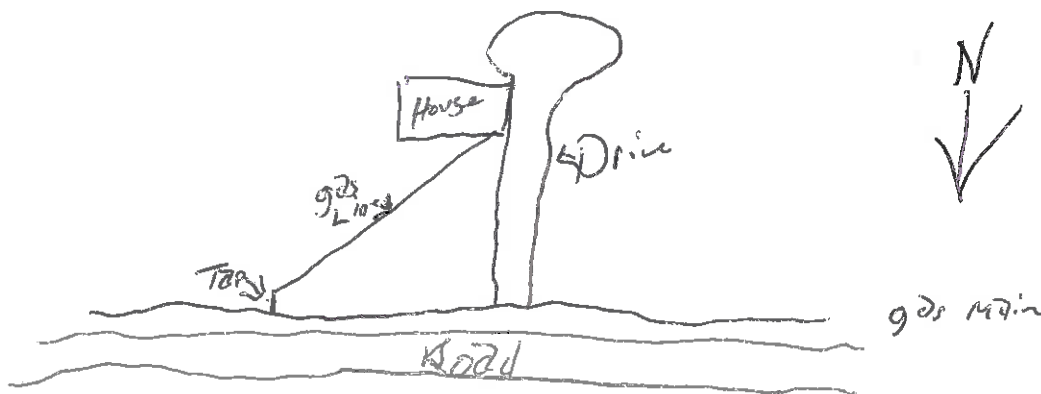
External Inspection

Is the pipe under Cathodic Protection: Y ☐ N ☐ Pipe Condition: ☒ Smooth ☐ Pitted & Depth: _____
Coating Condition (If Coated): ☒ Good ☐ Fair ☐ Poor Backfill Condition: ☒ Good ☐ Fair ☐ Poor
New Anodes Installed: Y ☐ N ☒ How Many: _____ Anode Size: _____

Use sketch area to list additional fitting information

Sketch

Indicate North



GPS Coordinates of Tap: Longitude (X): _____

Latitude (Y): _____

House Riser to nearest corner of structure

C/L Dr. to EFV/Vlv.

C/L of St. to EFV/Vlv.

Farm Tap Riser to nearest corner of structure

C/L Dr. to EFV/Vlv.

C/L of St. to EFV/Vlv.

Tested and installed according to current O&M Procedures-Signature Paul Sull

Date 9-24-15

Ohio Rural Natural Gas Service Line Order (SLO)

Date: 9-21-15 Crew: _____ Prepared By: Strickland ML WO# _____ SL WO# _____
Address: 12321 Carter Rd Cty/Twp Concord Sub./Lot#: _____
Cust. Name Dove Sys. Name & No.: _____ Bldg. Type Res ☒ Com ☐ Indus. ☐

Company SL Info: New ☒ Repair ☐ Replace ☐

Size: 1" Length: 15' PL ☒ SDR 11 ST ☐ WT _____

Installer: (Name or) ORNG Contractor ☐

Mtr Size/Tag# _____ Reg/Orf _____

EFV Yes ☐ No ☒ SL Valve Yes ☒ No ☐

Customer SL Info: New ☒ Repair ☐ Replace ☐

Size: 1" Length: 130' PL ☒ SDR 11 ST ☐ WT _____

Installer: (Name or) ORNG Contractor ☐

Billable: Y ☒ N ☐ Direct Observation ☐

Tested By: ORNG Pressure 90 (PSIG) Duration 10 min Med Div Acceptable Test: Y ☒ N ☐

Tested By: Strickland Pressure 750 (PSIG) Duration _____ Med With CO2 Acceptable Test: Y ☒ N ☐

Main Line Information

Pipe Type _____ Pipe Diameter: 2" Is the pipe able to be located? Y ☒ N ☐

☐ Plastic

☒ Steel (☐ Fusion Bonded Epoxy ☐ Extruded Polyethylene ☒ Tar & Wrap ☐ Bare)

☐ Other (Specify: _____)

Pipe Details: (MFG: _____ Type: _____ Wall Thickness/SDR: _____ MFG Date: _____)

Internal Inspection

Is the inside pipe accessible: Y ☐ N ☒ Internal Condition (If accessible) ☐ Smooth ☐ Pitted & Depth: _____

Any Fluid: Y ☐ N ☒ Type of Fluid: _____

External Inspection

Is the pipe under Cathodic Protection: Y ☐ N ☐ Pipe Condition: ☒ Smooth ☐ Pitted & Depth: _____

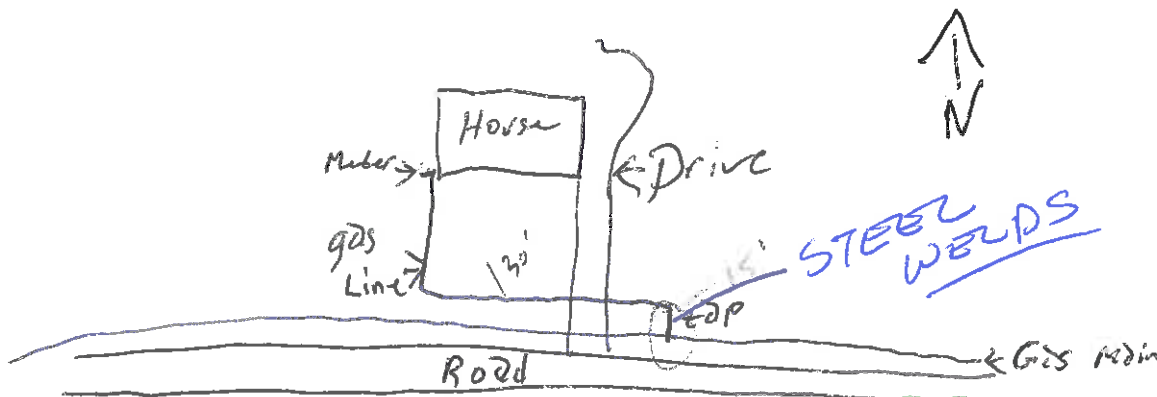
Coating Condition (If Coated): ☒ Good ☐ Fair ☐ Poor Backfill Condition: ☒ Good ☐ Fair ☐ Poor

New Anodes Installed: Y ☐ N ☒ How Many: _____ Anode Size: _____

Use sketch area to list additional fitting information

Sketch

Indicate North



GPS Coordinates of Tap: Longitude (X): _____

Latitude (Y): _____

House Riser to nearest corner of structure _____

C/L Dr. to EFV/Vlv. _____

C/L of St. to EFV/Vlv. _____

Farm Tap Riser to nearest corner of structure _____

C/L Dr. to EFV/Vlv. _____

C/L of St. to EFV/Vlv. _____

Tested and installed according to current O&M Procedures-Signature Dave Smith

Date 9-21-15

CATHODIC PROTECTION REPORT

Company: OPNG

System Name: Rowd 12321 Carter Rd

System No: T7-002

Criteria Used: _____ -850mV

Survey For Calendar Year: 2016

Total Test Points /

Date(s) Of Survey 4/13/16

Total Points In Compliance 1

Total Points Out Of Compliance 0

Inspected By Dave Stanish

Remedial TP Numbers

Remedial Report(s) Completed? ☐ Yes ☐ NoPage 1 of 1[illegible]

CATHODIC PROTECTION REPORT

Company: ORNG

System Name: 7325 Reynolds

System No: T1-008

Criteria Used: -850mV

Survey For Calendar Year: 2016

Total Test Points

Date(s) Of Survey 4/13/16

Total Points In Compliance _____

Total Points Out Of Compliance _____

Inspected By Dave Stanish

Remedial TP Numbers _____

Remedial Report(s) Completed? ☐ Yes ☐ NoPage 1 of 1[illegible]

CATHODIC PROTECTION REPORT

Company: ORNG

System Name: Offk St

System No: T1-001

Criteria Used: _____ -850mV

Survey For Calendar Year: 20 16

Total Test Points _____ /

Date(s) Of Survey 4/13/16

Total Points In Compliance _____

Total Points Out Of Compliance 1

Inspected By Dave Stanish

Remedial TP Numbers

Remedial Report(s) Completed? ☐ Yes ☐ NoPage 1 of 1[illegible]

CATHODIC PROTECTION REPORT

Company: ORNG

System Name: Williams Rd Barn

System No: 71-005

Criteria Used: -850mV

Survey For Calendar Year: 2016

Total Test Points _____

Date(s) Of Survey 4/13/16

Total Points In Compliance _____ / _____

Total Points Out Of Compliance 0

Inspected By Dave Stanish

Remedial TP Numbers _____

Remedial Report(s) Completed? ☐ Yes ☐ NoPage 1 of 1[illegible]

CATHODIC PROTECTION REPORT

System Name: Steelhead Williams Rd

System No: T1-006

Criteria Used: _____ -850mV

Survey For Calendar Year: 2016

Total Test Points _____

Total Points Out Of Compliance 1

Total Points In Compliance 0

Inspected By Dave Stanish

Remedial TP Numbers

Remedial Report(s) Completed? ☐ Yes ☐ NoPage 1 of 1[illegible]

CATHODIC PROTECTION REPORT

Company: COBRA

System Name: V. 341

System No: CPC 101-V341

Criteria Used: -850mV

Survey For Calendar Year: 2015

Total Test Points 1

Date(s) Of Survey .

Total Points In Compliance 1

Total Points Out Of Compliance 0

Inspected By

Remedial TP Numbers

Remedial Report(s) Completed? ☐ Yes ☐ No

Page 1 of 1

		Reading Structure to Soil [-] Volts		
Test Point #	Location/Description	Read 1	Read 2	Read 3
	AT INLET RISER OF			
	METER SET # MS			
	3228 HALLOCK YOUNG ROAD			
	HALLOCK YOUNG/LYNTZ ROAD			
	METER SET			

CATHODIC PROTECTION REPORT

System Name: Hallock-Young

System No: S2-001

Criteria Used: _____ -850mV

Survey For Calendar Year: 2016

Total Test Points _____/_____

Total Points Out Of Compliance 0

Total Points In Compliance _____/_____

Inspected By Dave Stanish

Remedial TP Numbers _____

Remedial Report(s) Completed? ☐ Yes ☐ NoPage 1 of 1[illegible]

CATHODIC PROTECTION REPORT

Company: ORNG

System Name: Sugar high

System No: S1-002

Criteria Used: -850mV

Survey For Calendar Year: 20 16

Total Test Points

Date(s) Of Survey 4/13/16

Total Points In Compliance 1

Total Points Out Of Compliance 0

Inspected By Dale Stanish

Remedial TP Numbers _____

Remedial Report(s) Completed? ☐ Yes ☐ NoPage 1 of 1[illegible]

CATHODIC PROTECTION REPORT

Company: ORNG

System Name: Muzic 13164 Leroy Center

System No: 77-003

Criteria Used: -850mV

Survey For Calendar Year: 20 16

Total Test Points _____

Date(s) Of Survey 4/13/16

Total Points In Compliance 1

Total Points Out Of Compliance _____

Inspected By Dave Stanish

Remedial TP Numbers _____

Remedial Report(s) Completed? ☐ Yes ☐ NoPage 1 of 1[illegible]

OHIO RURAL NATURAL GAS**ATMOSPHERIC CORROSION INSPECTION REPORT (\$192.481)****Inspection Frequency:** Once every 3 calendar years, NTE 39 monthsSystem Name: WILLIAMS RD BARNSystem No: T1-005Description of Area Inspected: TAP, EXPOSED PIPE, Meter Box +
METER LOCATIONInspection

1. Was Atmospheric Corrosion discovered in the area inspected? ☐ yes ☒ no
2. If "yes" to Number 1 above, describe the extent and area effected:
- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____
- g) _____
3. Performed By: DAVE STANISH Date: 2-4-16
4. Comments: _____
- _____
- _____

Corrective Action

5. Describe in detail the corrective action(s) taken in Number 2 above:
- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____
- g) _____
6. Performed By: [Signature] Date: 2-4-16
7. Comments: _____
- _____

DAVE Stanish + EO Sealing

OHIO RURAL NATURAL GAS

ATMOSPHERIC CORROSION INSPECTION REPORT (\$192.481)

Inspection Frequency: Once every 3 calendar years, NTE 39 months

System Name:

OAK ST

System No:

T1-001

Description of Area Inspected:

TAP at 800 OAK ST. Meter BAR at BUD.

Inspection

1. Was Atmospheric Corrosion discovered in the area inspected? ☐ yes ☒ no
2. If "yes" to Number 1 above, describe the extent and area effected:
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____
 - f) _____
 - g) _____
3. Performed By: DAVE STANISH Date: 2-4-16
4. Comments: _____

Corrective Action

5. Describe in detail the corrective action(s) taken in Number 2 above:
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____
 - f) _____
 - g) _____
6. Performed By: Dave Stanish Date: 2-4-16
7. Comments: _____

OHIO RURAL NATURAL GAS

ATMOSPHERIC CORROSION INSPECTION REPORT (\$192.481)

Inspection Frequency: Once every 3 calendar years, NTE 39 months

System Name: Steelhead System No: T1-006

Description of Area Inspected: Tap on Williams Rd - meter bar

Inspection

1. Was Atmospheric Corrosion discovered in the area inspected? ☐ yes ☒ no

2. If "yes" to Number 1 above, describe the extent and area effected:

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____
- g) _____

3. Performed By: Dave Sednig Date: 2-4-16

4. Comments: _____

Corrective Action

5. Describe in detail the corrective action(s) taken in Number 2 above:

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____
- g) _____

6. Performed By: _____ Date: _____

7. Comments: _____

OHIO RURAL NATURAL GAS

ATMOSPHERIC CORROSION INSPECTION REPORT (§192.481)

Inspection Frequency: Once every 3 calendar years, NTE 39 months

System Name: ELLSWORTH RD

System No: 02W933-001

Description of Area Inspected: ELLSWORTH + WEAVER RD Station

Inspection

1. Was Atmospheric Corrosion discovered in the area inspected?

☐ yes

☒ no

2. If "yes" to Number 1 above, describe the extent and area effected:

a) _____

b) _____

c) _____

d) _____

e) _____

f) _____

g) _____

3. Performed By: _____

Date: 2-5-16

4. Comments: _____

Corrective Action

5. Describe in detail the corrective action(s) taken in Number 2 above:

a) _____

b) _____

c) _____

d) _____

e) _____

f) _____

g) _____

6. Performed By: h. mitchell

Date: 2-5-16

7. Comments: _____

OHIO RURAL NATURAL GAS
ATMOSPHERIC CORROSION INSPECTION REPORT (\$192.481)

Inspection Frequency: Once every 3 calendar years, NTE 39 months

System Name: SUGAR BUSH System No: SI-002

Description of Area Inspected: STATION Location: 9240 SUGAR BUSH

Inspection

1. Was Atmospheric Corrosion discovered in the area inspected? ☐ yes ☒ no

2. If "yes" to Number 1 above, describe the extent and area effected:

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____
- g) _____

New system

3. Performed By: _____ Date: 2-05-16

4. Comments: _____

Corrective Action

5. Describe in detail the corrective action(s) taken in Number 2 above:

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____
- g) _____

6. Performed By: [Signature] Date: 2-5-16

7. Comments: _____

OHIO RURAL NATURAL GAS

ATMOSPHERIC CORROSION INSPECTION REPORT (\$192.481)

Inspection Frequency: Once every 3 calendar years, NTE 39 months

System Name: Muzik 13164 Leroy Center System No: T1-003

Description of Area Inspected: METER SET AT HOUSE
REG. STATION T1-003

Inspection

1. Was Atmospheric Corrosion discovered in the area inspected? ☐ yes ☒ no
2. If "yes" to Number 1 above, describe the extent and area effected:
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____
 - f) _____
 - g) _____
3. Performed By: / Date: 2/4/16
4. Comments: New System 2015

Corrective Action

5. Describe in detail the corrective action(s) taken in Number 2 above:
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____
 - f) _____
 - g) _____
6. Performed By: [Signature] Date: 2-4-16
7. Comments: _____

OHIO RURAL NATURAL GAS

ATMOSPHERIC CORROSION INSPECTION REPORT (\$192.481)

Inspection Frequency: Once every 3 calendar years, NTE 39 months

System Name: Carter Rd, Dowd

System No: T1-002

Description of Area Inspected:

Station on 12321 Carter Rd. Leroy Ohio 44077

Inspection

1. Was Atmospheric Corrosion discovered in the area inspected? ☐ yes ☒ no
2. If "yes" to Number 1 above, describe the extent and area effected:
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____
 - f) _____
 - g) _____
3. Performed By: _____ Date: _____
4. Comments: _____

Corrective Action

5. Describe in detail the corrective action(s) taken in Number 2 above:
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____
 - f) _____
 - g) _____
6. Performed By: [Signature] Date: 2-4-16
7. Comments: [Signature]

OHIO RURAL NATURAL GAS

ATMOSPHERIC CORROSION INSPECTION REPORT (\$192.481)

Inspection Frequency: Once every 3 calendar years, NTE 39 months

System Name: FRAXI CT

System No: 51-001

Description of Area Inspected: Farm taps located at the end of
Tracci Court in Mentor.

Inspection

1. Was Atmospheric Corrosion discovered in the area inspected? ☐ yes ☒ no
2. If "yes" to Number 1 above, describe the extent and area effected:
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____
 - f) _____
 - g) _____
3. Performed By: P.S Date: 2-5-16
4. Comments: _____

Corrective Action

5. Describe in detail the corrective action(s) taken in Number 2 above:
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____
 - f) _____
 - g) _____
6. Performed By: [Signature] Date: 2-5-16
7. Comments: _____

OHIO RURAL NATURAL GAS TEST REPORT

Attachment DK-17

System Name: MUZIC System No: T1-003 Job Name: LeRoy C. Road W.O. #: L6-2015

Description of Area Tested:

145.46' WEST of C/L of Indian Point Rd + LeRoy Center Rd
33' South of C/L LeRoy Center Rd.
LAT: 41°41'12.6528"N Long: 81°51'9756" WCounty: LAKE Twp: LeRoy Date Installed(Begin): _____ (End): _____Mainline Size(s) _____ 4" Wall Thickness & Grade(Steel) Steel BSDR(Plastic) _____ PE _____ Total Feet X42

Services Tested With Main (addresses) _____

Service Line Size(s) 1" Total Service Line Feet 15'Service Line Wall Thickness & Grade(Steel) 0.179 SDR(Plastic) _____ PE _____Appurtenances: No. of valves 1 Type of valves BALL Lowest Pressure Rating 740No. of flanges 0 Lowest Pressure Rating — NA —No. of drips/filters 1 Lowest Pressure Rating 500 PSIGNo. of fittings 5 Lowest Pressure Rating GRADE B Schedule 80 ²¹⁰⁰ ₂₀₀₀ ✓☐ Gauge ☒ Chart Recorder 0 to 1500 Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N. & Calib. Date: 84020286-15Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ OtherTest Date/Time Started: 9-22 Test Type: ☒ Initial ☐ RetestTest Date/Time Stopped: 9-23 Duration: 22 hrsTest Pressure Start: 775 PSIG Test Pressure Stop: 775 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigg'd? ☐ Y ☒ N

Comments: _____

Tested By: STRICKLAND Test Witnessed By: ROLANDTest Approved: ☐ Yes ☐ No By(manager or supervisor): [Signature]Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS TEST REPORT

System Name: Reynolds Rd System No: 71- Job Name: _____ W.O. #: _____

Description of Area Tested: 7347 Reynolds Rd

County: Lake Twp: Mentor Date Installed(Begin): 3-7-16 (End): 3-8-16

Mainline Size(s) 2" Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves / Type of valves _____ Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☐ Chart Recorder 0 to _____ Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N.& Calib.Date: 8402028 6-2015

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 3-7-16 3:00 PM Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 3-8-16 9:00 AM Duration: 18:00 hrs

Test Pressure Start: 750 PSIG Test Pressure Stop: 750 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Piggged? ☐ Y ☒ N

Comments: _____

Tested By: T Rowland Test Witnessed By: D Scrieland

Test Approved: ☒ Yes ☐ No By(manager or supervisor): _____

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS
TEST REPORT

System Name: Reynolds Rd System No: 71-008 Job Name: Reynolds #8 W.O. #: _____

Description of Area Tested:

7325 Reynolds Rd

County: Lake Twp: _____ Date Installed(Begin): 7-28 (End): 7-29

Mainline Size(s) _____ Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves _____ Type of valves _____ Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☐ Chart Recorder 0 to 1500 PSIG Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N.& Calib. Date: 8402028 6/2/2016

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 7-28 Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 7-29 Duration: 20 hrs

Test Pressure Start: 750 PSIG Test Pressure Stop: 750 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigg'd? ☐ Y ☒ N

Comments: _____

Tested By: T Rowan Test Witnessed By: D Sericland

Test Approved: ☒ Yes ☐ No By(manager or supervisor): _____

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS
TEST REPORT

System Name: Reynolds Rd System No: TJ Job Name: _____ W.O. #: _____

Description of Area Tested:

5319 Reynolds Rd.

County: Lake Twp: Mentor Date Installed(Begin): 3-4-16 (End): 3-5-16

Mainline Size(s) 2" Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

S

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves / Type of valves _____ Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☐ Chart Recorder 0 to 1500 PSIG Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N.& Calib.Date: 8402028 6-2-2015

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 3-4-16 11:45 AM Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 3-5-16 10:30 AM Duration: 22:45

Test Pressure Start: 750 PSIG Test Pressure Stop: 750 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigg'd? ☐ Y ☒ N

Comments: _____

Tested By: T. Rowland Test Witnessed By: D. Strickland

Test Approved: ☒ Yes ☐ No By(manager or supervisor): _____

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS
TEST REPORT

System Name: Reynolds Rd System No: TI- Job Name: _____ W.O. #: _____

Description of Area Tested:

7371 Reynolds Rd

County: Lake Twp: Mentor Date Installed(Begin): 3-8-16 (End): 3-10-16

Mainline Size(s) _____ Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves / Type of valves _____ Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☐ Chart Recorder 0 to 1500 PSI Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N. & Calib. Date: 8402028 6-15

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 3-9-16 9:00 AM Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 3-10-16 8:45 AM Duration: 23:45

Test Pressure Start: 750 PSI Test Pressure Stop: 750 PSI

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigg'd? ☐ Y ☒ N

Comments: _____

Tested By: T. Bowland Test Witnessed By: D. Scrickland

Test Approved: ☒ Yes ☐ No By(manager or supervisor): _____

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS, CO-OP
MAOP CALCULATION SHEET

System Name: DGWD

System No: ORNGT1-002

Description Of Area Under Consideration: 12321 Carter Rd

41°41'40.00 N, 81°11'42.15 W

Class Location Design: _____

Design Factor: _____

Pipe Used (describe)	Design Pressure (PSIG)

Test Pressure (lowest) _____

Valves (lowest rated) _____

Flanges (lowest rated) _____

Fittings (lowest rated) _____

Separator (lowest rated) _____

Drip (lowest rated) _____

Filter (lowest rated) _____

Regulator (lowest rated) _____

Relief Valve (lowest rated) _____

Meter (lowest rated) _____

Other Appurtenances (describe)	Design Pressure (PSIG)

Steel Welding: ☐ API 1104 ☐ Appendix C ☐ Section IX ☒ n/a

Comments: _____

Approved MAOP: _____ By: _____ Date: _____

OHIO RURAL NATURAL GAS
TEST REPORT

System Name: David System No: _____ Job Name: _____ W.O. #: _____

Description of Area Tested:

12321 Carter Rd. Leroy

County: Lake Twp: Concord Date Installed(Begin): _____ (End): _____

Mainline Size(s) _____ Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves _____ Type of valves _____ Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☐ Chart Recorder 0 to 1500 PSIG Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N. & Calib. Date: 8306091 6/2/2016

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 7/26 Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 7/27 Duration: 2 1/2 hrs

Test Pressure Start: 250 PSIG Test Pressure Stop: 250 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigg'd? ☐ Y ☒ N

Comments: _____

Tested By: _____ Test Witnessed By: _____

Test Approved: ☒ Yes ☐ No By(manager or supervisor): _____

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS
TEST REPORT

System Name: OS Arc System No: _____ Job Name: _____ W.O. #: _____

Description of Area Tested:

8667 East Arc to 8649 East Ave

County: Lake Twp: Mentor Date Installed(Begin): 8-15 (End): 8-24

Mainline Size(s) 4 Wall Thickness & Grade(Steel) _____

SDR(Plastic) 11 PE 4710 Total Feet 560 ft

Services Tested With Main (addresses) NO

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) 11 PE _____

Appurtenances: No. of valves 1 Type of valves ball Lowest Pressure Rating 90 PSI

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☒ Chart Recorder 0 to 500 PSI Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N. & Calib. Date: 13270136 5-16

Test Medium: ☐ Nitrogen ☒ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 8-23-16 2:15 PM Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 8-24-16 8:00 PM Duration: 17:45

Test Pressure Start: 120 PSI Test Pressure Stop: 120 PSI

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Piggled? ☒ Y ☐ N

Comments: _____

Tested By: G Papp Test Witnessed By: _____

Test Approved: ☒ Yes ☐ No By(manager or supervisor): _____

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS
TEST REPORT

System Name: Av Plant System No: _____ Job Name: _____ W.O. #: _____

Description of Area Tested:

8653 East Ave OS Air

County: Lake Twp: _____ Date Installed(Begin): 8/16/16 (End): 8/17/16

Mainline Size(s) 2" Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

S

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) .154 SDR(Plastic) _____ PE _____

Appurtenances: No. of valves 2 Type of valves ball Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☒ Chart Recorder 0 to 1500 PSIG Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N.& Calib.Date: 8306091 6-2016

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 8-16 1:15 PM Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 8-17 7:30 AM Duration: 18 hrs

Test Pressure Start: 250 PSIG Test Pressure Stop: 250 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Piggled? ☐ Y ☒ N

Comments: _____

Tested By: T Rowlen Test Witnessed By: G. Papp

Test Approved: ☒ Yes ☐ No By(manager or supervisor): _____

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

MAOP WORKSHEET

System Name: ELLSWORTH RD Phase I

Operator Name: ORNG

Pressure (psig)	Criterion	Source (Please attach documentation)															
64	The Maximum Allowable Operating Pressure of a piping system can not exceed the lowest of the following:																
	a. The design pressure of the weakest element in the system. For example, the working pressure of a curb stop or a domestic regulator may determine the MAOP of a system.																
CLASS 1.5 3 90	b. The pressure obtained by dividing the pressure to which the segment was tested after construction as follows: 1. For plastic pipe, the test pressure divided by a factor of 1.5. 2. For steel pipe operated at 100 psig or more, the test pressure is divided by a factor determined in accordance with the following: <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Class Location</th> <th style="text-align: left;">Pre 11/12/70</th> <th style="text-align: left;">Post 11/11/70</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1.1</td> <td>1.1</td> </tr> <tr> <td>2</td> <td>1.25</td> <td>1.25</td> </tr> <tr> <td>3</td> <td>1.4</td> <td>1.5</td> </tr> <tr> <td>4</td> <td>1.4</td> <td>1.5</td> </tr> </tbody> </table>	Class Location	Pre 11/12/70	Post 11/11/70	1	1.1	1.1	2	1.25	1.25	3	1.4	1.5	4	1.4	1.5	
Class Location	Pre 11/12/70	Post 11/11/70															
1	1.1	1.1															
2	1.25	1.25															
3	1.4	1.5															
4	1.4	1.5															
	c. For systems installed before November 12, 1970, the highest actual operating pressure to which the system was subjected during the 5 years preceding July 1, 1970, if it is in satisfactory condition, considering its operating and maintenance history.																
60	d. The pressure determined to be the maximum safe pressure after considering the history of the system, particularly known corrosion and actual operating pressure.																

If no records are available for the above, please complete the following.

	Notarized affidavit given by an employee (or past employee) to affirm operating pressure from the past history of the system.	
--	---	--

Determined MAOP	<u>60</u> (psig)	
Completed by:	Date: <u>DEC 14, 2015</u>	

have overpressure protection

Part 192.621(a)(3)

25 psig for any cast iron
pipe without reinforced joints

NA

Part 192.621(a)(4)

Pressure limit on joints

NA

- C. Part 192.619(a)(4) and Part 192.621(a)(5): Additional Consideration for Transmission or High Pressure Distribution Lines.

Highest operating pressure considered safe
based on operating history

NA

- D. Part 192.623: Low Pressure Distribution Systems.

Highest delivery pressure that can be safely
applied to customer piping and properly
adjusted gas appliances.

NA

Lowest delivery pressure that can be safely
applied to customer piping and properly
adjusted gas appliances.

NA

- E. Part 192.619(a)(3): Alternate consideration for transmission lines.
Highest operating pressure between 7/1/65 and 7/1/70
(7/1/71 and 7/1/76 for off shore gathering lines.)

NA

- F. Determination of MAOP.

Either item E., where applicable, or the lowest pressure on any of the above lines is the
MAOP.

MAOP

By

Date

60

MAOP

DEC 14, 2015

OHIO RURAL NATURAL GAS TEST REPORT

System Name: ELSWORTH RD ^{ORNGS.} System No: 3-001 Job Name: ELSWORTH RD
PHASE 1 W.O. #: 2015-301
Description of Area Tested: START AT 41°03'16"N, 80°55'19"W END: 41°02'44"N, 80°54'22"W
NORTH SIDE OF ELSWORTH RD 94' FROM C/L OF WEAVER RD & ELSWORTH RD (EAST)
SOUTH/EAST 5473' ALONG ELSWORTH RD.
[PARCEL #22-005-0-034.00-0 STATION] [VALVE: #PIN 22012-0-001.03-0]
County: MAHoning Twp: BERLIN Date Installed(Begin): -2015 (End): 12-09-2015
Mainline Size(s) 4" OD: 4.5 Wall Thickness & Grade(Steel) - NA -
SDR(Plastic) 11 PE 3408 Total Feet 5473
Services Tested With Main (addresses) - NA -

Service Line Size(s) 1" Total Service Line Feet _____
Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____
Appurtenances: No. of valves 0 Type of valves 0 Lowest Pressure Rating NA
No. of flanges 0 Lowest Pressure Rating ~ NA ~
No. of drips/filters 0 Lowest Pressure Rating ~ NA ~
No. of fittings _____ Lowest Pressure Rating _____

Instrumentation: ☐ Gauge ☒ Chart Recorder 0 to 500 PSIG Pressure Range ☐ Dead Weight
☐ Other _____ Gauge/Recorder S.N. & Calib. Date: _____

Test Medium: ☐ Nitrogen ☒ Air ☐ Natural Gas ☐ Water ☐ Other
Test Date/Time Started: 12-09-2015 1:05 PM Test Type: ☒ Initial ☐ Retest
Test Date/Time Stopped: 12-10-2015 1:15 PM Duration: 24 HRS 10 MIN.
Test Pressure Start: 130 PSIG Test Pressure Stop: 130 PSIG
Reason for Line Loss: - NA - Corrective Measures Taken: - NA -

Was The Line Pigg'd? ☒ Y ☐ N

Comments: _____
Tested By: JACK McLOMICK Test Witnessed By: DAVE STANISH

Test Approved: ☒ Yes ☐ No By(manager or supervisor): John Cessna

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OD: 4.5
Large sweeping

TEST REPORT

Company: Cobra

System Name: V341 System No: _____ Job Name: _____ W.O. #: _____

Description of Area Tested: _____

Elsworth + weaver

County: M2 Honing Twp: Berlin Date Installed(Begin): 2-10-15 (End): 2-11-15

Mainline Size(s) _____ Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves 1 Type of valves Ball Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

Instrumentation:

☐ Gauge ☒ Chart Recorder 0 to 1500 PSIG Pressure Range ☐ Dead Weight

☐ Other _____ Gauge/Recorder S.N.& Calib.Date: 8402028

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 2-10 Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 2-11 Duration: 16 hrs

Test Pressure Start: 825 PSIG Test Pressure Stop: 825 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Piggged? ☐ Y ☒ N

Comments: _____

Tested By: Strickland Test Witnessed By: Rawland

Test Approved: ☒ Yes ☐ No By(manager or supervisor): [Signature]

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS TEST REPORT

System Name: ELSWORTH RD ^{OR GAS} System No: 3-001 Job Name: ELSWORTH RD W.O. #: 2015-301
PHASE 1

Description of Area Tested: START AT 41°03'16"N, 80°55'19"W END: 41°02'44"N, 80°54'22"W
NORTH SIDE OF ELSWORTH RD 94' FROM C/L OF WEAVER RD & ELSWORTH RD (EAST)
SOUTH/EAST 5473' ALONG ELSWORTH RD.

[PARCEL # 22-005-0-034,00-0 STATION] [VALVE: #PIN 22012-0-001.03-0]

County: MANHONG Twp: BERLIN Date Installed(Begin): -2015 (End): 12-09-2015

Mainline Size(s) 4" OD: 4.5 Wall Thickness & Grade(Steel) - NA -

SDR(Plastic) 11 PE 3408 Total Feet 5473

Services Tested With Main (addresses) - NA -

Service Line Size(s) 1" Total Service Line Feet - NA -

Service Line Wall Thickness & Grade(Steel) - NA - SDR(Plastic) - NA - PE - NA -

Appurtenances: No. of valves 0 Type of valves 0 Lowest Pressure Rating NA

No. of flanges 0 Lowest Pressure Rating ~ NA ~

No. of drips/filters 0 Lowest Pressure Rating ~ NA ~

No. of fittings - Lowest Pressure Rating -

Instrumentation: ☐ Gauge ☒ Chart Recorder 0 to 500 PSIG Pressure Range ☐ Dead Weight

☐ Other - Gauge/Recorder S.N. & Calib. Date: -

Test Medium: ☐ Nitrogen ☒ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 12-09-2015 1:05 PM Test Type: ☒ Initial ☐ Retest

Test Date/Time Stopped: 12-10-2015 1:15 PM Duration: 24 HRS 10 MIN.

Test Pressure Start: 130 PSIG Test Pressure Stop: 130 PSIG

Reason for Line Loss: - NA - Corrective Measures Taken: - NA -

Was The Line Pigg'd? ☒ Y ☐ N

Comments: -

Tested By: JACK McLOMICK Test Witnessed By: DAVE STANISH

Test Approved: ☒ Yes ☐ No By(manager or supervisor): John Cessna

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OD: 4.5
Large sweeping

TEST REPORT

Company: Cobra

System Name: V341 System No: _____ Job Name: _____ W.O. #: _____

Description of Area Tested: _____

Elsworth + weaver

County: Md Honing Twp: Berlin Date Installed(Begin): 2-10-15 (End): 2-11-15

Mainline Size(s) _____ Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves 1 Type of valves Ball Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

Instrumentation: ☐ Gauge ☒ Chart Recorder 0 to 1500 PSIG Pressure Range ☐ Dead Weight

☐ Other _____ Gauge/Recorder S.N.& Calib.Date: 8402028

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 2-10 Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 2-11 Duration: 16 hrs

Test Pressure Start: 825 PSIG Test Pressure Stop: 825 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Piggged? ☐ Y ☒ N

Comments: _____

Tested By: Strickland Test Witnessed By: Rowland

Test Approved: ☐ Yes ☐ No By(manager or supervisor): [Signature]

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS, CO-OP

MAOP CALCULATION

SHEET

System Name: ELLsworth Road Phase 1

System No: ORNG S3-001

Description Of Area Under Consideration: FARM TAP ON North Side of ELLsworth Rd
94' FROM ^(SE) SURVEY Monument C/ WEAVER + ELLsworth Rd - 5500'
SE ALONG ELLsworth Rd. to South Duck Creek Rd.

Class Location Design: 3

Design Factor: .5

Pipe Used (describe)	Design Pressure (PSIG)
4" PE SDR 11 3408/4710	100
2" STEEL P. PE SCH 40	650#
4" PE SDR 13.5 2406/2708	64
4" STEEL PIPE SCH 40 Working Pressure	660#
SERVICE LINE 1" SDR 11.5 PE 2406	64

Test Pressure (lowest) (750# STEEL) (90# PE)

Valves (lowest rated) 100#

Flanges (lowest rated) 300#

Fittings (lowest rated) 80#

Separator (lowest rated) 5000#

Drip (lowest rated) 5000#

Filter (lowest rated) 1500#

Regulator (lowest rated) 1500#

Relief Valve (lowest rated) 2500#

Meter (lowest rated) 85#

Other Appurtenances (describe)	Design Pressure (PSIG)
REGULATOR 627m + 627 FISHER	1500#
PARKER Coalescing FILTER JUBE	5000#
FLANGE 4" KLEER BAND	2000#

Steel Welding: ☐ API 1104 ☐ Appendix C ☒ Section IX ☐ n/a

Comments: POSITIVE shut-off drip / ELSTER RISER 125#

1" Locking VALVES 1050# MULLER

4" x 1" TAP TEE 80# WITH EFV

MAOP OF TRANSMISSION SYSTEM 500#

Approved MAOP: 60# By: John Cessna

Date: DEC 14, 2015

MAOP WORKSHEET

System Name: ELLSWORTH RD Phase I

Operator Name: ORNG

Pressure (psig)	Criterion	Source (Please attach documentation)															
<u>64</u>	The Maximum Allowable Operating Pressure of a piping system can not exceed the lowest of the following:																
	a. The design pressure of the weakest element in the system. For example, the working pressure of a curb stop or a domestic regulator may determine the MAOP of a system.																
<u>CLASS 1.5</u> <u>3</u> <u>90</u>	b. The pressure obtained by dividing the pressure to which the segment was tested after construction as follows: ✓ 1. For plastic pipe, the test pressure divided by a factor of 1.5. 2. For steel pipe operated at 100 psig or more, the test pressure is divided by a factor determined in accordance with the following: <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Class Location</th> <th style="text-align: left;">Pre 11/12/70</th> <th style="text-align: left;">Post 11/11/70</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1.1</td> <td>1.1</td> </tr> <tr> <td>2</td> <td>1.25</td> <td>1.25</td> </tr> <tr> <td><u>3</u></td> <td>1.4</td> <td><u>1.5</u></td> </tr> <tr> <td>4</td> <td>1.4</td> <td>1.5</td> </tr> </tbody> </table>	Class Location	Pre 11/12/70	Post 11/11/70	1	1.1	1.1	2	1.25	1.25	<u>3</u>	1.4	<u>1.5</u>	4	1.4	1.5	
Class Location	Pre 11/12/70	Post 11/11/70															
1	1.1	1.1															
2	1.25	1.25															
<u>3</u>	1.4	<u>1.5</u>															
4	1.4	1.5															
	c. For systems installed before November 12, 1970, the highest actual operating pressure to which the system was subjected during the 5 years preceding July 1, 1970, if it is in satisfactory condition, considering its operating and maintenance history.																
<u>60</u>	d. The pressure determined to be the maximum safe pressure after considering the history of the system, particularly known corrosion and actual operating pressure.																

If no records are available for the above, please complete the following.

Notarized affidavit given by an employee (or past employee) to affirm operating pressure from the past history of the system.	
---	--

Determined MAOP <u>60</u> (psig)
Completed by: _____ Date: <u>DEC 14, 2015</u>

DETERMINATION OF MAXIMUM ALLOWABLE OPERATING PRESSURE IN NATURAL GAS PIPELINES

Identity of Pipeline/Distribution Area

ELLSWORTH RD. PHASE 1 ORNG S.3-001

A. Maximum Allowable operating Pressure: Steel or Plastic Pipelines (Part 192.619): and High-Pressure Distribution Systems (Part 192.621).

Part 192.619(a)(1) Design Pressure: Lowest design pressure for any of the following system elements

Part 192.621(a)(1)

Pipe (including service lines)

Valves (EFV)

Flanges

Fittings

Mechanical Couplings

Leak Clamps

Instruments

Odorizers

Overpressure Protection Devices

Upstream Regulator(s)-Outlet Pressure Rating

Downstream Regulators-Inlet Pressure Rating

Other (list) EF COUPLING

GH
80
80
NA
NA
NA

Spring Setting
40#
+
45#

45
40

80# Fisher

Part 192.619(a)(2) Pressure Test

Plastic Pipe: Test Pressure divided by 1.5

Steel Pipe operated at or over 100 psi:

Test Pressure divided by Class

Location Factor

60 (90)

Part 192.619(a)(3)

Historic Operations

Highest operating pressure between

7/1/65 and 7/1/70 unless the pressure

test in (a)(2) was after 7/1/65 or

an uprating in accordance with Subpart

K has been conducted.

NA

B. Part 192.621: High Pressure Distribution Systems Only.

Part 192.621(a)(2)

60 psig unless all services

**OHIO RURAL NATURAL GAS, CO-OP
MAOP CALCULATION
SHEET**

System Name: Hallock Young/Lyntz Rd.

System No: ORNG-04-100

Description Of Area Under Consideration: From tap on N side Hallock-Young Rd. approx. 911' E of C/L
Newton-Tomlinson Rd. Goes E along N side of H-Y Rd., turns N along intersection w/ Lyntz Rd. Continues N
along W side of Lyntz Rd. and terminates S of I-80.

Class Location: 2

Pipe and Appurtenances	Operating Pressure (PSIG)
4" SDR 13.5 PE yellow pipe, Duraline Polypipe	64#
4" Electrofusion Coupling, PE 2406/2708, Georg Fischer Central Plastics	125#
4"x2" Butt Fusion Reducer, PE 2406/2708, Georg Fischer Central Plastics	125#
2" Purge Point, PE 2406/2708, Georg Fischer Central Plastics	125#

Meter/Regulating Station Lowest Pressure Rating (PSIG) 85#

Comments: _____

Approved MAOP: 40# By: John Cessna Date: 8/28/15

DETERMINATION OF MAXIMUM ALLOWABLE OPERATING
PRESSURE IN NATURAL GAS PIPELINES

Identity of Pipeline/Distribution Area

A. Maximum Allowable operating Pressure: Steel or Plastic Pipelines (Part 192.619): and High-Pressure Distribution Systems (Part 192.621).

Part 192.619(a)(1) Design Pressure: Lowest design pressure for any of the following system elements

Part 192.621(a)(1)

Pipe (including service lines)

Valves

Flanges

Fittings

Mechanical Couplings

Leak Clamps

Instruments

Odorizers

Overpressure Protection Devices

Upstream Regulator(s) Outlet Pressure Rating

Downstream Regulators-Inlet Pressure Rating

Other (list) 495. CCF 102406

64
125
150
300
NA
NA
NA
NA
45
40
500
80

Part 192.619(a)(2) Pressure Test

Plastic Pipe: Test Pressure divided by 1.5

Steel Pipe operated at or over 100 psi:

Test Pressure divided by Class

Location Factor

60

Part 192.619(a)(3)

Historic Operations

Highest operating pressure between

7/1/65 and 7/1/70 unless the pressure

test in (a)(2) was after 7/1/65 or

an uprating in accordance with Subpart

K has been conducted.

B. Part 192.621: High Pressure Distribution Systems Only.

Part 192.621(a)(2)

60 psig unless all services

4.N.18

have overpressure protection

Part 192.621(a)(3)

25 psig for any cast iron
pipe without reinforced joints

Part 192.621(a)(4)

Pressure limit on joints

- C. Part 192.619(a)(4) and Part 192.621(a)(5): Additional Consideration for Transmission or High Pressure Distribution Lines.

Highest operating pressure considered safe
based on operating history

- D. Part 192.623: Low Pressure Distribution Systems.

Highest delivery pressure that can be safely
applied to customer piping and properly
adjusted gas appliances.

Lowest delivery pressure that can be safely
applied to customer piping and properly
adjusted gas appliances.

- E. Part 192.619(a)(3): Alternate consideration for transmission lines.

Highest operating pressure between 7/1/65 and 7/1/70
(7/1/71 and 7/1/76 for off shore gathering lines.)

- F. Determination of MAOP.

Either item E., where applicable, or the lowest pressure on any of the above lines is the
MAOP.

MAOP by
By MAOP
Date

John R. Lisan
40
OCT 11/15

OHIO RURAL NATURAL GAS TEST REPORT

System Name: Hollock Young Lyntz System No: _____ Job Name: LYNTZ Rd W.O. #: _____

Description of Area Tested: Begin on N side Hollock-Young approx. 911' E of C/L
Newton-Tomlinson Rd. E along N side of Hollock-Young turn N along intersection
w/ Lyntz Rd. Continue N along W side of Lyntz Rd to north S. of I-80
test also includes service lines

County: Madison Twp: Lordsburg Date Installed (Begin): 1-31-15 (End): 2-16-15

Mainline Size(s) 4" Wall Thickness & Grade (Steel) _____

SDR (Plastic) 13.5 PE 2406 Total Feet 6,714

Services Tested With Main (addresses) 3100 Lyntz Townline Rd, 3120, 3136, 3165, 3170, 3187,
3344, 3259, 3249 (x2), 3095, 3023, 3037, 3057

Service Line Size(s) 1" Total Service Line Feet 2,183

Service Line Wall Thickness & Grade (Steel) _____ SDR (Plastic) 13.5 PE 2406

Appurtenances: No. of valves 14 Type of valves EEV Lowest Pressure Rating 125#

No. of flanges 0 Lowest Pressure Rating N/A

No. of drips/filters 0 Lowest Pressure Rating N/A

No. of fittings 45 Lowest Pressure Rating 80#

☐ Gauge ☒ Chart Recorder 0 to 500 Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N. & Calib. Date: SN: 611957, exp 8-6-16

Test Medium: ☐ Nitrogen ☒ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 8/5/15 3:00 PM Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 8/6/15 2:15 PM Duration: 23:15

Test Pressure Start: 60 PSI Test Pressure Stop: 60 PSI

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigged? ☒ Y ☐ N

Comments: _____

Tested By: Dale Strickland Test Witnessed By: Jack McCormick

Test Approved: ☒ Yes ☐ No By (manager or supervisor): John Cessna

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS TEST REPORT

System Name: Hallack Young Lyntz System No: _____ Job Name: Lyntz Rd W.O. #: _____

Description of Area Tested: Begin on N side Hallack-Young approx. 911' E of C/L
Newton-Tomlinson Rd. E along N side of Hallack-Young curve N along Intersection
w/ Lyntz Rd. Continue N along W side of Lyntz Rd terminate S. of I-80
test also includes service lines

County: Adams Twp: Larkstown Date Installed(Begin): 1-31-15 (End): 2-16-15

Mainline Size(s) 4" Wall Thickness & Grade(Steel) _____

SDR(Plastic) 13.5 PE 2406 Total Feet 6,714

Services Tested With Main (addresses) 3100 Lyntz Townline Rd, 3120, 3136, 3165, 3170, 3187,
3344, 3259, 3249 (x2), 3095, 3023, 3037, 3057

Service Line Size(s) 1" Total Service Line Feet 2,183

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) 13.5 PE 2406

Appurtenances: No. of valves 14 Type of valves EEV Lowest Pressure Rating 125#

No. of flanges 0 Lowest Pressure Rating N/A

No. of drips/filters 0 Lowest Pressure Rating N/A

No. of fittings 45 Lowest Pressure Rating 80#

☐ Gauge ☒ Chart Recorder 0 to 500 Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N. & Calib. Date: _____

Test Medium: ☐ Nitrogen ☒ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 8/5/15 3:00 PM Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 8/6/15 2:15 PM Duration: 23:15

Test Pressure Start: 60 PSI Test Pressure Stop: 60 PSI

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigg'd? ☒ Y ☐ N

Comments: _____

Tested By: Dale Strickland Test Witnessed By: Jack McCormick

Test Approved: ☒ Yes ☐ No By(manager or supervisor): John Lessner

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

**OHIO RURAL NATURAL GAS, CO-OP
MAOP CALCULATION
SHEET**

System Name: Hallock Young/Lyntz Rd.

System No: ORNG-04-100

Description Of Area Under Consideration: From tap on N side Hallock-Young Rd. approx. 911' E of C/L
Newton-Tomlinson Rd. Goes E along N side of H-Y Rd., turns N along intersection w/ Lyntz Rd. Continues N
along W side of Lyntz Rd. and terminates S of I-80.

Class Location: 2

Pipe and Appurtenances	Operating Pressure (PSIG)
4" SDR 13.5 PE yellow pipe, Duraline Polypipe	64#
4" Electrofusion Coupling, PE 2406/2708, Georg Fischer Central Plastics	125#
4"x2" Butt Fusion Reducer, PE 2406/2708, Georg Fischer Central Plastics	125#
2" Purge Point, PE 2406/2708, Georg Fischer Central Plastics	125#

Meter/Regulating Station Lowest Pressure Rating (PSIG) 85#

Comments: _____

Approved MAOP: 40#

By: John Cessna

Date: 8/28/15

**OHIO RURAL NATURAL GAS, CO-OP
MAOP CALCULATION
SHEET**

System Name: SUGER Bush System No: ORNG-004

Description Of Area Under Consideration: X 2294423.4907 Y739828 8598

SUGER BUSH DR. MENTOR, Ohio / TAP + POD

PIN # 16B060B000070

Class Location Design: 4 Design Factor: 1.5

(3) + 400 (2) + 2" pipe (2) = 7

Pipe Used (describe)	Design Pressure (PSIG)
2" SDR 11 Poly: Dura Line	60#
1" STEEL Sch 80	2601#

Test Pressure (lowest)	<u>100#</u>	Valves (lowest rated)	<u>100#</u>
Flanges (lowest rated)		Fittings (lowest rated)	
Seperator (lowest rated)		Drip (lowest rated)	
Filter (lowest rated)		Regulator (lowest rated)	
Relief Valve (lowest rated)	<u>100#</u>	Meter (lowest rated)	

Other Appurtenances (describe)	Design Pressure (PSIG)

Steel Welding: ☐ API 1104 ☐ Appendix C ☐ Section IX ☐ n/a

Comments: _____

Approved MAOP: 60 By: AGinter Date: _____

SUGAR BUSH

FARM TAP

X 2294423.4907

Y 739828.8598

DETERMINATION OF MAXIMUM ALLOWABLE OPERATING
PRESSURE IN NATURAL GAS PIPELINES

Identity of Pipeline/Distribution Area PIN# 16B 060 B 00 0070
9260 SUGAR BUSH DR
MENTOR, OHIO 44060

A. Maximum Allowable operating Pressure: Steel or Plastic Pipelines (Part 192.619): and
High-Pressure Distribution Systems (Part 192.621).

Part 192.619(a)(1) Design Pressure: Lowest design pressure
for any of the following system elements

Part 192.621(a)(1)

Pipe (including service lines)

Valves

~~Flanges~~

Fittings

Mechanical Couplings EF 2400 ✓

Leak Clamps

Instruments

Odorizers

Overpressure Protection Devices 289 Fisher

Upstream Regulator(s)-Outlet Pressure Rating

Downstream Regulators-Inlet Pressure Rating

Other (list) Fisher Reg. 1500#

64#

0

0

125#

200#

-NA-

-NA-

-NA-

100#

60#

500#

375#

Part 192.619(a)(2) Pressure Test

Plastic Pipe: Test Pressure divided by 1.5

Steel Pipe operated at or over 100 psi:

Test Pressure divided by Class

Location Factor

90#

Part 192.619(a)(3)

Historic Operations

Highest operating pressure between

7/1/65 and 7/1/70 unless the pressure

test in (a)(2) was after 7/1/65 or

an uprating in accordance with Subpart

K has been conducted.

B. Part 192.621: High Pressure Distribution Systems Only.

Part 192.621(a)(2)

60 psig unless all services

have overpressure protection _____

Part 192.621(a)(3)

25 psig for any cast iron
pipe without reinforced joints _____

Part 192.621(a)(4)

Pressure limit on joints _____

- C. Part 192.619(a)(4) and Part 192.621(a)(5): Additional Consideration for Transmission or High Pressure Distribution Lines.

Highest operating pressure considered safe
based on operating history _____

- D. Part 192.623: Low Pressure Distribution Systems.

Highest delivery pressure that can be safely
applied to customer piping and properly
adjusted gas appliances. _____

Lowest delivery pressure that can be safely
applied to customer piping and properly
adjusted gas appliances. _____

- E. Part 192.619(a)(3): Alternate consideration for transmission lines.
Highest operating pressure between 7/1/65 and 7/1/70
(7/1/71 and 7/1/76 for off shore gathering lines.) _____

- F. Determination of MAOP.
Either item E., where applicable, or the lowest pressure on any of the above lines is the
MAOP.

MAOP _____

By _____

Date _____

OHIO RURAL NATURAL GAS TEST REPORT

System Name: Sugarbush System No: 004 Job Name: Sugarbush W.O. #: _____

Description of Area Tested: _____

County: Lake Twp: Lake Date Installed(Begin): 11-7-15 (End): 11-9

Mainline Size(s) 2" Wall Thickness & Grade(Steel) _____

SDR(Plastic) 11 PE 2406 Total Feet 980

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves _____ Type of valves _____ Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

Instrumentation: ☐ Gauge ☒ Chart Recorder 0 to 500 Pressure Range ☐ Dead Weight

☐ Other _____ Gauge/Recorder S.N.& Calib.Date: 13270136 6-15

Test Medium: ☐ Nitrogen ☒ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 11-9 3:00PM Test Type: ☒ Initial ☐ Retest

Test Date/Time Stopped: 11-10 12:00PM Duration: 21 hrs

Test Pressure Start: 100 PSIG Test Pressure Stop: 100 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigg'd ? ☒ Y ☐ N

Comments: _____

Tested By: S. Rickland Test Witnessed By: R. Lathrop

Test Approved: ☒ Yes ☐ No By(manager or supervisor): Pat Smith

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS
TEST REPORT

System Name: Sugar Bush System No: SI-002 Job Name: Sugarbush W.O. #: _____

Description of Area Tested:

Sugarbush Drive Mentor

County: Lake Twp: Mentor Date Installed(Begin): 10-15 (End): 10-16

Mainline Size(s) _____ Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves / Type of valves B211 Lowest Pressure Rating 740

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☒ Chart Recorder 0 to 1500 PSIG Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N.& Calib.Date: 8402028 6-15

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 10-15 Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 10-16 Duration: 22 hrs

Test Pressure Start: 825 PSIG Test Pressure Stop: 825 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigg'd? ☐ Y ☒ N

Comments: _____

Tested By: Rowland Test Witnessed By: Strickland

Test Approved: ☒ Yes ☐ No By(manager or supervisor): [Signature]

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

MAOP WORKSHEET

System Name: Frazer Ct.

Operator Name: Ohio Rural Natural Gas CO-OP

Pressure (psig)	Criterion	Source (Please attach documentation)															
	The Maximum Allowable Operating Pressure of a piping system can not exceed the lowest of the following:																
	a. The design pressure of the weakest element in the system. For example, the working pressure of a curb stop or a domestic regulator may determine the MAOP of a system.																
90 psig	b. The pressure obtained by dividing the pressure to which the segment was tested after construction as follows: - For plastic pipe, the test pressure divided by a factor of 1.5. - For steel pipe operated at 100 psig or more, the test pressure is divided by a factor determined in accordance with the following: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Class Location</th> <th>Pre 11/12/70</th> <th>Post 11/11/70</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1.1</td> <td>1.1</td> </tr> <tr> <td>2</td> <td>1.25</td> <td>1.25</td> </tr> <tr> <td>3</td> <td>1.4</td> <td>1.5</td> </tr> <tr> <td>4</td> <td>1.4</td> <td>1.5</td> </tr> </tbody> </table>	Class Location	Pre 11/12/70	Post 11/11/70	1	1.1	1.1	2	1.25	1.25	3	1.4	1.5	4	1.4	1.5	
Class Location	Pre 11/12/70	Post 11/11/70															
1	1.1	1.1															
2	1.25	1.25															
3	1.4	1.5															
4	1.4	1.5															
	c. For systems installed before November 12, 1970, the highest actual operating pressure to which the system was subjected during the 5 years preceding July 1, 1970, if it is in satisfactory condition, considering its operating and maintenance history.	N/A															
	d. The pressure determined to be the maximum safe pressure after considering the history of the system, particularly known corrosion and actual operating pressure.																

If no records are available for the above, please complete the following.

	Notarized affidavit given by an employee (or past employee) to affirm operating pressure from the past history of the system.	
--	---	--

Determined MAOP <u>53</u> (psig)	
Completed by: <u>David O'Sheafano</u>	Date: <u>8/5/2016</u>

OHIO RURAL NATURAL GAS
TEST REPORT

System Name: Fracci Co. System No: 51-001 Job Name: Fracci Court W.O. #: _____

Description of Area Tested:

County: Lake Twp: _____ Date Installed(Begin): 8-4 (End): 8-5

Mainline Size(s) 2" PE Wall Thickness & Grade(Steel) _____

SDR(Plastic) // PE _____ Total Feet 432

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) // PE _____

Appurtenances: No. of valves _____ Type of valves _____ Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☒ Chart Recorder 0 to 500 Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N. & Calib. Date: _____

Test Medium: ☐ Nitrogen ☒ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 8-4-16 Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 8-5-16 Duration: 17 hrs

Test Pressure Start: 90 PSIG Test Pressure Stop: 90 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Piggled? ☒ Y ☐ N

Comments: _____

Tested By: T Rowden Test Witnessed By: E Papp

Test Approved: ☒ Yes ☐ No By(manager or supervisor): _____

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

OHIO RURAL NATURAL GAS
TEST REPORT

System Name: Fracci Ct. System No: 51-001 Job Name: Fracci Ct W.O. #: _____

Description of Area Tested:

County: Lake Twp: _____ Date Installed(Begin): 8-4 (End): 8-5

Mainline Size(s) 8" Wall Thickness & Grade(Steel) .250

SDR(Plastic) _____ PE _____ Total Feet 61 ft.

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves _____ Type of valves _____ Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

☐ Gauge ☐ Chart Recorder 0 to 1500 PSIG Pressure Range ☐ Dead Weight

Instrumentation:

☐ Other _____ Gauge/Recorder S.N. & Calib. Date: 8402028 6/2/2016

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 8-4 Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 8-5 Duration: 21 hrs

Test Pressure Start: 750 PSIG Test Pressure Stop: 750 PSIG

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Piggled? ☐ Y ☒ N

Comments: _____

Tested By: T Rouba Test Witnessed By: D Serickland

Test Approved: ☐ Yes ☐ No By(manager or supervisor): _____

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

TEST REPORT

Company: OTR

System Name: Williams Rd. System No: _____ Job Name: _____ W.O. #: _____

Description of Area Tested: _____

Williams Rd. Born

County: Lake Twp: Concord Date Installed(Begin): 10-15 (End): 10-16

Mainline Size(s) _____ Wall Thickness & Grade(Steel) _____

SDR(Plastic) _____ PE _____ Total Feet _____

Services Tested With Main (addresses) _____

Service Line Size(s) _____ Total Service Line Feet _____

Service Line Wall Thickness & Grade(Steel) _____ SDR(Plastic) _____ PE _____

Appurtenances: No. of valves 1 Type of valves ball Lowest Pressure Rating _____

No. of flanges _____ Lowest Pressure Rating _____

No. of drips/filters _____ Lowest Pressure Rating _____

No. of fittings _____ Lowest Pressure Rating _____

Instrumentation: ☐ Gauge ☒ Chart Recorder 0 to 1500 PSIG Pressure Range ☐ Dead Weight

☐ Other _____ Gauge/Recorder S.N.& Calib.Date: 8402028 6-15

Test Medium: ☒ Nitrogen ☐ Air ☐ Natural Gas ☐ Water ☐ Other

Test Date/Time Started: 10-15 Test Type: ☐ Initial ☐ Retest

Test Date/Time Stopped: 10-16 Duration: 18 hrs

Test Pressure Start: _____ Test Pressure Stop: _____

Reason for Line Loss: _____ Corrective Measures Taken: _____

Was The Line Pigged? ☐ Y ☒ N

Comments: _____

Tested By: Rowland Test Witnessed By: Strickland

Test Approved: ☒ Yes ☐ No By(manager or supervisor): Paul Smith

Required attachments to Test Report: ☐ Inventory List Copies ☐ As-Built/GPS note Copies

DATE: 8/2/2016		CLIENT: Cobra Pipeline			
REPORT No: 1 of 2		JOB LOCALE- CITY, STATE: Mentor, OH			
CLIENT PO No:		JANX JOB No: 209			
CLIENT W/O No:		JANX PROCEDURE No: MT-1			
CLIENT JOB No: 305 306 737 Reynolds		ACCEPTANCE CRITERIA: API 1104 20th Ed.			
MAGNETIC PARTICLE TECHNIQUE - YOKE				LIQUID PENETRANT TECHNIQUE	
Yoke Mfg: Parker		Yoke Model: DA 400		Mfg. / Product	
Serial No: 21372		Expire Date: 1/11/2017		Batch No.	
Leg Spacing: 4" - 5"		Coverage: 100%		Temperature	
☒ AC ☐ DC Two Opposing 90° Fields: ☒ Yes ☐ No				Penetrant: _____ °F	
☐ Contrast Paint, Mfg & Product: N/A				Developer: _____ °F	
☐ Wet ☒ Dry ☐ Non-Fluorescent ☐ Fluorescent				Remover: _____ °F	
Wet Particle Suspension: ☐ Oil Base ☐ Water Base				☐ Visible Dye ☐ Solvent Removable	
Particle Mfg / Batch: Circle Systems Color: Red				☐ Fluorescent Dye ☐ Water Washable	
Particles Applied by:				Extent of Test:	
☒ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current				Precleaning Method: ☐ Spray ☐ Dip ☐ Brush	
☐ Spraying ☐ Flowing				Penetrant Application: ☐ Spray ☐ Dip ☐ Brush	
☒ Procedure Demonstration Not Required by Customer				Developer Application: ☐ Spray ☐ Dip ☐ Brush	
☐ Procedure Adequacy Demonstrated by:				Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel	
☐ Lift Test of: _____ lbs. ☐ Field Indicator				Preclean Dry Time: _____ minutes	
☐ Other: _____				Penetrant Dwell Time: _____ minutes	
☐ Post Test Demag ☒ Demag Not Required				Dry Time After Penetrant Removal: _____ minutes	
				Developer Time: _____ minutes	
				Post Cleaning: _____	
				Notes:	
Item Temperature: 75 °F		Surface Condition: Clean		Surface Prep: Brushed	
Lighting Equipment: Sunlight					
Light Intensity: ☒ > 100 fc White Light ☐ > uW/cm2 Black Light				Black Light Warm-Up Time: ☐ > 5 mins.	
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE Y N		DEFECT & LOCATION	REMARKS / WELDER ID
MT-1	1" Fillet Weld Carbon Steel	/			TR
MT-2	1" Butt Weld Carbon Steel	/			TR
MT-3	1" Butt Weld Carbon Steel	/			TR
MT-4	2" Butt Weld Carbon Steel	/			TR
MT-5	2" Butt Weld Carbon Steel	/			TR
MT-6	1" Butt Weld Carbon Steel	/			TR
MT-7	1" Butt Weld Carbon Steel	/			TR
MT-8	1" Butt Weld Carbon Steel	/			TR
MT-9	1" Fillet Weld Carbon Steel	/			TR
MT-10	1" Butt Weld Carbon Steel	/			TR
MT-11	1" Butt Weld Carbon Steel	/			TR
MT-12	2" Butt Weld Carbon Steel	/			TR
MT-13	2" Butt Weld Carbon Steel	/			TR
BILLING					
ADDRESS: 3511 Lost Nation Rd. Willoughby, OH 44094					
CLIENT SIGNATURE		JANX LEVEL II SIGNATURE		LEVEL II TECHNICIAN	
				Jon Guhl	
CLIENT REP NAME & PHONE NUMBER		TRAVEL MILES		TOTAL HOURS TRAVEL & WORK	
				UNIT NUMBER	
		1		774	
				PER DIEM APPLICABLE	
				TOTAL ITEMS INSPECTED	
				28	
				Dakota Heminger - I	
Form: CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED.					
JANX P.O. Box 190 (517) 531-8210 Parma, MI 49269					

Attachment DK-18

[illegible]

DATE: 8/2/2016		CLIENT: Cobra Pipeline		JANX	
REPORT No: 1 of 2		JOB LOCALE- CITY, STATE: Mentor, OH			
CLIENT PO No:		JANX JOB No: 209			
CLIENT W/O No:		JANX PROCEDURE No: MT-1			
CLIENT JOB No: 305 306 7347 Reynolds		ACCEPTANCE CRITERIA: API 1104 20th Ed.			
MAGNETIC PARTICLE TECHNIQUE - YOKE				LIQUID PENETRANT TECHNIQUE	
Yoke Mfg: Parker		Yoke Model: DA 400		Mfg. / Product	
Serial No: 21372		Expire Date: 1/11/2017		Batch No.	
Leg Spacing: 4" - 5"		Coverage: 100%		Temperature	
☒ AC ☐ DC Two Opposing 90° Fields: ☒ Yes ☐ No				Penetrant: °F	
☐ Contrast Paint, Mfg & Product: N/A				Developer: °F	
☐ Wet ☒ Dry ☐ Non-Fluorescent ☐ Fluorescent				Remover: °F	
Wet Particle Suspension: ☐ Oil Base ☐ Water Base				☐ Visible Dye ☐ Solvent Removable	
Particle Mfg / Batch: Circle Systems Color: Red				☐ Fluorescent Dye ☐ Water Washable	
Particles Applied by:				Extent of Test:	
☒ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current				Precleaning Method: ☐ Spray ☐ Dip ☐ Brush	
☐ Spraying ☐ Flowing				Penetrant Application: ☐ Spray ☐ Dip ☐ Brush	
☒ Procedure Demonstration Not Required by Customer				Developer Application: ☐ Spray ☐ Dip ☐ Brush	
☐ Procedure Adequacy Demonstrated by:				Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel	
☐ Lift Test of: lbs. ☐ Field Indicator				Preclean Dry Time: minutes	
☐ Other:				Penetrant Dwell Time: minutes	
☐ Post Test Demag ☒ Demag Not Required				Dry Time After Penetrant Removal: minutes	
				Developer Time: minutes	
				Post Cleaning:	
				Notes:	
Item Temperature: 75 °F		Surface Condition: Clean		Surface Prep: Brushed	
Lighting Equipment: Sunlight					
Light Intensity: ☒ > 100 fc White Light ☐ > uW/cm2 Black Light		Black Light Warm-Up Time: ☐ > 5 mins.			
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE		DEFECT & LOCATION	REMARKS / WELDER ID
		Y	N		
MT-1	1" Fillet Weld Carbon Steel	/			TR
MT-2	1" Butt Weld Carbon Steel	/			TR
MT-3	1" Butt Weld Carbon Steel	/			TR
MT-4	2" Butt Weld Carbon Steel	/			TR
MT-5	2" Butt Weld Carbon Steel	/			TR
MT-6	1" Butt Weld Carbon Steel	/			TR
MT-7	1" Butt Weld Carbon Steel	/			TR
MT-8	1" Butt Weld Carbon Steel	/			TR
MT-9	1" Fillet Weld Carbon Steel	/			TR
MT-10	1" Butt Weld Carbon Steel	/			TR
MT-11	1" Butt Weld Carbon Steel	/			TR
MT-12	2" Butt Weld Carbon Steel	/			TR
MT-13	2" Butt Weld Carbon Steel	/			TR
BILLING					
ADDRESS: 3511 Lost Nation Rd. Willoughby, OH 44094					
CLIENT SIGNATURE		JANX LEVEL II SIGNATURE		LEVEL II TECHNICIAN	
				Jon Guhl	
CLIENT REP NAME & PHONE NUMBER		TRAVEL MILES	TOTAL HOURS TRAVEL & WORK	UNIT NUMBER	PER DIEM APPLICABLE
			1	774	TOTAL ITEMS INSPECTED
					28
Dakota Heminger - I					
Form: CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED. JANX P.O. Box 190 (517) 531-8210 Parma, MI 49269					

[illegible]

DATE: 8/2/2016		CLIENT: Cobra Pipeline			
REPORT No: 1 of 2		JOB LOCALE- CITY, STATE: Mentor, OH			
CLIENT PO No:		JANX JOB No: 209			
CLIENT W/O No:		JANX PROCEDURE No: MT-1			
CLIENT JOB No: 305 306 7325 Reynolds		ACCEPTANCE CRITERIA: API 1104 20th Ed.			
MAGNETIC PARTICLE TECHNIQUE - YOKE				LIQUID PENETRANT TECHNIQUE	
Yoke Mfg: Parker		Yoke Model: DA 400		Mfg. / Product	
Serial No: 21372		Expire Date: 1/11/2017		Batch No.	
Leg Spacing: 4" - 5"		Coverage: 100%		Temperature	
☒ AC ☐ DC Two Opposing 90° Fields: ☒ Yes ☐ No				Penetrant: _____ °F	
☐ Contrast Paint, Mfg & Product: N/A				Developer: _____ °F	
☐ Wet ☒ Dry ☐ Non-Fluorescent ☐ Fluorescent				Remover: _____ °F	
Wet Particle Suspension: ☐ Oil Base ☐ Water Base				☐ Visible Dye ☐ Solvent Removable	
Particle Mfg / Batch: Circle Systems Color: Red				☐ Fluorescent Dye ☐ Water Washable	
Particles Applied by:				Extent of Test: _____	
☒ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current				Precleaning Method: ☐ Spray ☐ Dip ☐ Brush	
☐ Spraying ☐ Flowing				Penetrant Application: ☐ Spray ☐ Dip ☐ Brush	
☒ Procedure Demonstration Not Required by Customer				Developer Application: ☐ Spray ☐ Dip ☐ Brush	
☐ Procedure Adequacy Demonstrated by:				Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel	
☐ Lift Test of: _____ lbs. ☐ Field Indicator				Preclean Dry Time: _____ minutes	
☐ Other: _____				Penetrant Dwell Time: _____ minutes	
☐ Post Test Demag ☒ Demag Not Required				Dry Time After Penetrant Removal: _____ minutes	
				Developer Time: _____ minutes	
				Post Cleaning: _____	
				Notes: _____	
Item Temperature: 75 °F		Surface Condition: Clean		Surface Prep: Brushed	
Lighting Equipment: Sunlight					
Light Intensity: ☒ > 100 fc White Light ☐ > uW/cm2 Black Light		Black Light Warm-Up Time: ☐ > 5 mins.			
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE Y N		DEFECT & LOCATION	REMARKS / WELDER ID
MT-1	1" Fillet Weld Carbon Steel	/			TR
MT-2	1" Butt Weld Carbon Steel	/			TR
MT-3	1" Butt Weld Carbon Steel	/			TR
MT-4	2" Butt Weld Carbon Steel	/			TR
MT-5	2" Butt Weld Carbon Steel	/			TR
MT-6	1" Butt Weld Carbon Steel	/			TR
MT-7	1" Butt Weld Carbon Steel	/			TR
MT-8	1" Butt Weld Carbon Steel	/			TR
MT-9	1" Fillet Weld Carbon Steel	/			TR
MT-10	1" Butt Weld Carbon Steel	/			TR
MT-11	1" Butt Weld Carbon Steel	/			TR
MT-12	2" Butt Weld Carbon Steel	/			TR
MT-13	2" Butt Weld Carbon Steel	/			TR
BILLING					
ADDRESS: 3511 Lost Nation Rd. Willoughby, OH 44094					
CLIENT SIGNATURE		JANX LEVEL II SIGNATURE		LEVEL II TECHNICIAN	
				Jon Guhl	
CLIENT REP NAME & PHONE NUMBER		TRAVEL MILES	TOTAL HOURS TRAVEL & WORK	UNIT NUMBER	PER DIEM APPLICABLE
			1	774	
					TOTAL ITEMS INSPECTED
					28
		Dakota Heminger - I			
Form: CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED. JANX P.O. Box 190 (517) 531-8210 Parma, MI 49269					

[illegible]

DATE: 8/2/2016

CLIENT: Cobra Pipeline

REPORT No: 1 of 2

JOB LOCALE- CITY, STATE: Mentor, OH

CLIENT PO No:

JANX JOB No: 209

CLIENT W/O No:

JANX PROCEDURE No: MT-1

CLIENT JOB No: 305 906 7319 Reynolds

ACCEPTANCE CRITERIA: API 1104 20th Ed.

MAGNETIC PARTICLE TECHNIQUE - YOKE

Yoke Mfg: Parker

Yoke Model: DA 400

Serial No: 21372

Expire Date: 1/11/2017

Leg Spacing: 4" - 5"

Coverage: 100%

☒ AC ☐ DC

Two Opposing 90° Fields: ☒ Yes ☐ No

☐ Contrast Paint, Mfg & Product: N/A

☐ Wet ☒ Dry ☐ Non-Fluorescent ☐ Fluorescent

Wet Particle Suspension: ☐ Oil Base ☐ Water Base

Particle Mfg / Batch: Circle Systems Color: Red

Particles Applied by:

☒ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current

☐ Spraying ☐ Flowing

☒ Procedure Demonstration Not Required by Customer

☐ Procedure Adequacy Demonstrated by:

☐ Lift Test of: lbs. ☐ Field Indicator

☐ Other:

☐ Post Test Demag ☒ Demag Not Required

LIQUID PENETRANT TECHNIQUE

Mfg. / Product

Batch No.

Temperature

Penetrant:

Developer:

Remover:

☐ Visible Dye ☐ Solvent Removable

☐ Fluorescent Dye ☐ Water Washable

Extent of Test:

Precleaning Method: ☐ Spray ☐ Dip ☐ Brush

Penetrant Application: ☐ Spray ☐ Dip ☐ Brush

Developer Application: ☐ Spray ☐ Dip ☐ Brush

Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel

Preclean Dry Time: minutes

Penetrant Dwell Time: minutes

Dry Time After Penetrant Removal: minutes

Developer Time: minutes

Post Cleaning:

Notes:

Item Temperature: 75 °F

Surface Condition: Clean

Surface Prep: Brushed

Lighting Equipment: Sunlight

Light Intensity: ☒ > 100 fc White Light ☐ > uW/cm2 Black Light

Black Light Warm-Up Time: ☐ > 5 mins.

ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE		DEFECT & LOCATION	REMARKS / WELDER ID
		Y	N		
MT-1	1" Fillet Weld Carbon Steel	/			TR
MT-2	1" Butt Weld Carbon Steel	/			TR
MT-3	1" Butt Weld Carbon Steel	/			TR
MT-4	2" Butt Weld Carbon Steel	/			TR
MT-5	2" Butt Weld Carbon Steel	/			TR
MT-6	1" Butt Weld Carbon Steel	/			TR
MT-7	1" Butt Weld Carbon Steel	/			TR
MT-8	1" Butt Weld Carbon Steel	/			TR
MT-9	1" Fillet Weld Carbon Steel	/			TR
MT-10	1" Butt Weld Carbon Steel	/			TR
MT-11	1" Butt Weld Carbon Steel	/			TR
MT-12	2" Butt Weld Carbon Steel	/			TR
MT-13	2" Butt Weld Carbon Steel	/			TR

BILLING

ADDRESS: 3511 Lost Nation Rd. Willoughby, OH 44094

CLIENT SIGNATURE

JANX LEVEL II SIGNATURE

LEVEL II TECHNICIAN

OTHER EMPLOYEES & LEVEL

CLIENT REP NAME & PHONE NUMBER

TRAVEL MILES

TOTAL HOURS TRAVEL & WORK

UNIT NUMBER

PER DIEM APPLICABLE

TOTAL ITEMS INSPECTED

Jon Guhl

Dakota Heminger - I

1

774

28

Form: MTypk PT Report 18-03

CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED.

JANX P.O. Box 190 Parma, MI 49269

(517) 531-8210

[illegible]

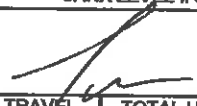
DATE: 8/9/2016					
CLIENT: Cobra Pipeline					
REPORT No: of JOB LOCALE- CITY, STATE: Mentor, OH					
JANX JOB No: 0209					
CLIENT PO No:					
JANX PROCEDURE No: MT1-REV0					
CLIENT W/O No:					
ACCEPTANCE CRITERIA: API 1104 20th					
CLIENT JOB No: oak					
MAGNETIC PARTICLE TECHNIQUE - YOKE					
Yoke Mfg: Parker Yoke Model: DA 400					
Serial No: 13670 Expire Date: 9/25/2016					
Leg Spacing: 3"-5" Coverage: Full					
☐ AC ☐ DC Two Opposing 90° Fields: ☒ Yes ☐ No					
☐ Contrast Paint, Mfg & Product:					
☒ Wet ☐ Dry ☒ Non-Fluorescent ☐ Fluorescent					
Wet Particle Suspension: ☒ Oil Base ☐ Water Base					
Particle Mfg / Batch: Circlesafe 850A Color: Red					
Particles Applied by:					
☐ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current					
☒ Spraying ☐ Flowing					
☒ Procedure Demonstration Not Required by Customer					
☐ Procedure Adequacy Demonstrated by:					
☐ Lift Test of: _____ lbs. ☐ Field Indicator					
☐ Other: _____					
☐ Post Test Demag ☐ Demag Not Required					
LIQUID PENETRANT TECHNIQUE					
Mfg. / Product	Batch No.	Temperature °F			
Penetrant:	_____	_____	°F		
Developer:	_____	_____	°F		
Remover:	_____	_____	°F		
☐ Visible Dye			☐ Solvent Removable		
☐ Fluorescent Dye			☐ Water Washable		
Extent of Test:					
Precleaning Method:	☐ Spray	☐ Dip	☐ Brush		
Penetrant Application:	☐ Spray	☐ Dip	☐ Brush		
Developer Application:	☐ Spray	☐ Dip	☐ Brush		
Excess Penetrant Removal:	☐ Water Wash		☐ Damp Towel		
Preclean Dry Time:	_____ minutes				
Penetrant Dwell Time:	_____ minutes				
Dry Time After Penetrant Removal:	_____ minutes				
Developer Time:	_____ minutes				
Post Cleaning:	Notes:				
Item Temperature: 77 °F Surface Condition: clean Surface Prep: as welded					
Lighting Equipment: Sunlight					
Light Intensity: ☒ > 100 fc White Light ☐ > uW/cm ² Black Light Black Light Warm-Up Time: ☐ > 5 mins.					
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE Y N		DEFECT & LOCATION	REMARKS / WELDER ID
Oak st		X			
MT 1	1"	X			
MT 2	1"	X			
MT 3	1"	X			
BILLING ADDRESS:	3511 Lost Nation Rd # 5, Willoughby, OH 44094				
CLIENT SIGNATURE	JANX LEVEL II SIGNATURE	LEVEL II TECHNICIAN		OTHER EMPLOYEES & LEVEL	
Date strickland		Jake Sautter			
CLIENT REP NAME & PHONE NUMBER	TRAVEL MILES	TOTAL HOURS INCLUDING TRAVEL AND WORK	PER DIEM APPLICABLE	TOTAL ITEMS INSPECTED	
216-406-7005				3	
CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED.					
Form: JmTyk PT Report 14-03			JANX P.O. Box 190 Parma, MI 49269 (517) 531-8210		

DATE: 7/28/2016		CLIENT: COBRA			
REPORT No: 1 of 5		JOB LOCALE- CITY, STATE: 12321 CARTER RD OHIO			
CLIENT PO No: 1" TAP		JANX JOB No: 0204			
CLIENT W/O No: farm tap CARTER RD		JANX PROCEDURE No: MT 1 REV 0			
CLIENT JOB No: DOWD		ACCEPTANCE CRITERIA: API 1104 20TH ED			
MAGNETIC PARTICLE TECHNIQUE - YOKE				LIQUID PENETRANT TECHNIQUE	
Yoke Mfg: PARKER		Yoke Model: PA 400		Mfg. / Product	
Serial No: 41256		Expire Date: 9/15/2016		Batch No.	
Leg Spacing: 6"		Coverage: 360DEG		Temperature	
☐ AC ☒ DC Two Opposing 90° Fields: ☐ Yes ☐ No		Penetrant: _____ °F		Developer: _____ °F	
☐ Contrast Paint, Mfg & Product: _____		Remover: _____ °F		☐ Visible Dye ☐ Solvent Removable	
☒ Wet ☐ Dry ☒ Non-Fluorescent ☐ Fluorescent		☐ Fluorescent Dye ☐ Water Washable		Extent of Test: _____	
Wet Particle Suspension: ☐ Oil Base ☐ Water Base		Precleaning Method: ☐ Spray ☐ Dip ☐ Brush		Penetrant Application: ☐ Spray ☐ Dip ☐ Brush	
Particle Mfg / Batch: MAGNAFLUX Color: WHITE		Developer Application: ☐ Spray ☐ Dip ☐ Brush		Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel	
Particles Applied by:		Preclean Dry Time: _____ minutes		Penetrant Dwell Time: _____ minutes	
☐ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current		Dry Time After Penetrant Removal: _____ minutes		Developer Time: _____ minutes	
☒ Spraying ☐ Flowing		Post Cleaning: _____		Notes: _____	
☒ Procedure Demonstration Not Required by Customer					
☐ Procedure Adequacy Demonstrated by:					
☐ Lift Test of: _____ lbs. ☐ Field Indicator					
☐ Other: _____					
☐ Post Test Demag ☐ Demag Not Required					
Item Temperature: 68 DEG °F		Surface Condition: AS WELDED		Surface Prep: BRUSHED	
Lighting Equipment: N/A					
Light Intensity: ☐ > 100 fc White Light ☐ > uW/cm2 Black Light		Black Light Warm-Up Time: ☐ > 5 mins.			
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE Y N		DEFECT & LOCATION	REMARKS / WELDER ID
MT 1	1" BUTT WELD	X			
MT 2	1" BUTT WELD	X			
MT 3	1" BUTT WELD	X			
MT 4	2" BUTT WELD	X			
MT 5	2" BUTT WELD	X			
MT 6	1" BUTT WELD	X			
MT 7	1" TAP	X			
BILLING COBRA					
ADDRESS:					
CLIENT SIGNATURE		JANX LEVEL II SIGNATURE		LEVEL II TECHNICIAN	
				JOSHUA SHUEMAKER	
CLIENT REP NAME & PHONE NUMBER		TRAVEL MILES	TOTAL HOURS INCLUDING TRAVEL AND WORK	PER DIEM APPLICABLE	TOTAL ITEMS INSPECTED
DALE STRICKLAND 2164067005		75	3	n/a	7
Form: CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED. JANX P.O. Box 190 Parma, MI 49269					

[illegible]

DATE: 8/17/2016						CLIENT: COBRA PIPELINE LLC																							
REPORT No: 2 of 2						JOB LOCALE- CITY, STATE: MENTOR OHIO																							
CLIENT PO No: N/A						JANX JOB No: DEPT 0209																							
CLIENT W/O No: N/A						JANX PROCEDURE No: MT-1, REV 0																							
CLIENT JOB No: OSAIR						ACCEPTANCE CRITERIA: API-1104 20TH (9.4.2)																							
MAGNETIC PARTICLE TECHNIQUE - YOKE															LIQUID PENETRANT TECHNIQUE														
Yoke Mfg: PARKER Yoke Model: DA-400 Serial No: 16709 Expire Date: 7/7/2017 Leg Spacing: 4-6" Coverage: 100% FINAL PASS ☒ AC ☐ DC Two Opposing 90° Fields: ☒ Yes ☐ No ☒ Contrast Paint, Mfg & Product: WCP-2 MAGNAVIS 12E08K ☒ Wet ☐ Dry ☒ Non-Fluorescent ☐ Fluorescent Wet Particle Suspension: ☒ Oil Base ☐ Water Base Particle Mfg / Batch: 7HF MAGNAVIS Color: BLK 12C13K Particles Applied by: ☐ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current ☒ Spraying ☐ Flowing ☒ Procedure Demonstration Not Required by Customer ☐ Procedure Adequacy Demonstrated by: ☐ Lift Test of: _____ lbs. ☐ Field Indicator ☐ Other: _____ ☐ Post Test Demag ☒ Demag Not Required															Mfg. / Product Batch No. Temperature Penetrant: _____ °F Developer: _____ °F Remover: _____ °F ☐ Visible Dye ☐ Solvent Removable ☐ Fluorescent Dye ☐ Water Washable Extent of Test: Precleaning Method: ☐ Spray ☐ Dip ☐ Brush Penetrant Application: ☐ Spray ☐ Dip ☐ Brush Developer Application: ☐ Spray ☐ Dip ☐ Brush Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel Pre-clean Dry Time: _____ minutes Penetrant Dwell Time: _____ minutes Dry Time After Penetrant Removal: _____ minutes Developer Time: _____ minutes Post Cleaning: _____ Notes:														
Item Temperature: 55 °F Surface Condition: UNIFORM, CLEAN Surface Prep: WIRE WHEEL																													
Lighting Equipment: FLASHLIGHT 300 LUMENS																													
Light Intensity: ☒ > 100 fc White Light ☐ > uW/cm2 Black Light															Black Light Warm-Up Time: ☐ > 5 mins.														
ITEM ID (Note as MT or PT)		ITEM TYPE / SIZE / THICKNESS / MATERIAL						IN CODE Y N		DEFECT & LOCATION						REMARKS / WELDER ID													
MT-1		2" FILLET						/								WID TR													
BILLING N/A																													
ADDRESS:																													
CLIENT SIGNATURE					JANX LEVEL II SIGNATURE					LEVEL II TECHNICIAN					OTHER EMPLOYEES & LEVEL														
										TIM A CROSS					MATT COLLINS														
CLIENT REP NAME & PHONE NUMBER					TRAVEL MILES		TOTAL HOURS INCLUDING TRAVEL AND WORK			PER DIEM APPLICABLE		TOTAL ITEMS INSPECTED																	
DALE STRICKLAND 216-406-7005					N/A		SEE PAGE 1 OF 2			N/A		1																	
CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED.															JANX P.O. Box 190 (517) 531-8210 Parma, MI 49269														

DATE: 7/28/2016		CLIENT: COBRA		
REPORT No: 3 of 5		JOB LOCALE- CITY, STATE: 6970 WILLIAMS RD CONCORD TOWNSHIP OHIO		
CLIENT PO No: 1" TAP		JANX JOB No: 0204		
CLIENT W/O No: farm tap WILLIAMS RD		JANX PROCEDURE No: MT 1 REV 0		
CLIENT JOB No: STEEL HEAD		ACCEPTANCE CRITERIA: API 1104 20TH ED		
MAGNETIC PARTICLE TECHNIQUE - YOKE		LIQUID PENETRANT TECHNIQUE		
Yoke Mfg: PARKER Yoke Model: PA 400 Serial No: 41256 Expire Date: 9/15/2016 Leg Spacing: 6" Coverage: 360DEG ☐ AC ☒ DC Two Opposing 90° Fields: ☐ Yes ☐ No ☐ Contrast Paint, Mfg & Product: ☒ Wet ☐ Dry ☒ Non-Fluorescent ☐ Fluorescent Wet Particle Suspension: ☐ Oil Base ☐ Water Base Particle Mfg / Batch: MAGNAFLUX Color: WHITE Particles Applied by: ☐ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current ☒ Spraying ☐ Flowing ☒ Procedure Demonstration Not Required by Customer ☐ Procedure Adequacy Demonstrated by: ☐ Lift Test of: ___ lbs. ☐ Field Indicator ☐ Other: ☐ Post Test Demag ☐ Demag Not Required		Mfg. / Product Batch No. Temperature Penetrant: _____ °F Developer: _____ °F Remover: _____ °F ☐ Visible Dye ☐ Solvent Removable ☐ Fluorescent Dye ☐ Water Washable Extent of Test: Precleaning Method: ☐ Spray ☐ Dip ☐ Brush Penetrant Application: ☐ Spray ☐ Dip ☐ Brush Developer Application: ☐ Spray ☐ Dip ☐ Brush Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel Preclean Dry Time: _____ minutes Penetrant Dwell Time: _____ minutes Dry Time After Penetrant Removal: _____ minutes Developer Time: _____ minutes Post Cleaning: _____ Notes:		
Item Temperature: 68 DEG °F Surface Condition: AS WELDED Surface Prep: BRUSHED				
Lighting Equipment: N/A				
Light Intensity: ☐ > 100 fc White Light ☐ > uW/cm2 Black Light		Black Light Warm-Up Time: ☐ > 5 mins.		
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE Y N	DEFECT & LOCATION	REMARKS / WELDER ID
MT 1	1" BUTT WELD	X		
MT 2	1" BUTT WELD	X		
MT 3	1' TAP	X		
BILLING ADDRESS:	COBRA			
CLIENT SIGNATURE	JANX LEVEL II SIGNATURE	LEVEL II TECHNICIAN	OTHER EMPLOYEES & LEVEL	
		JOSHUA SHUEMAKER		
CLIENT REP NAME & PHONE NUMBER	TRAVEL MILES	TOTAL HOURS INCLUDING TRAVEL AND WORK	PER DIEM APPLICABLE	TOTAL ITEMS INSPECTED
DALE STRICKLAND 2164067005	75	3	n/a	3
FORM: CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED.		JANX P.O. Box 190 (517) 531-8210 Parma, MI 49269		

DATE: 7/28/2016		CLIENT: COBRA			
REPORT No: 1 of 5		JOB LOCALE- CITY, STATE: 6970 WILLIAMS RD CONCORD TOWNSHIP OHIO			
CLIENT PO No: 1" TAP		JANX JOB No: 0204			
CLIENT W/O No: farm tap WILLIAMS RD		JANX PROCEDURE No: MT 1 REV 0			
CLIENT JOB No:		ACCEPTANCE CRITERIA: API 1104 20TH ED			
MAGNETIC PARTICLE TECHNIQUE - YOKE				LIQUID PENETRANT TECHNIQUE	
Yoke Mfg: PARKER		Yoke Model: PA 400		Mfg. / Product	
Serial No: 41256		Expire Date: 9/15/2016		Batch No.	
Leg Spacing: 6"		Coverage: 360DEG		Temperature	
☐ AC ☒ DC Two Opposing 90° Fields: ☐ Yes ☐ No		Penetrant: _____ °F		Developer: _____ °F	
☐ Contrast Paint, Mfg & Product: _____		Remover: _____ °F		☐ Visible Dye ☐ Solvent Removable	
☒ Wet ☐ Dry ☒ Non-Fluorescent ☐ Fluorescent		☐ Fluorescent Dye ☐ Water Washable		Extent of Test: _____	
Wet Particle Suspension: ☐ Oil Base ☐ Water Base		Precleaning Method: ☐ Spray ☐ Dip ☐ Brush		Penetrant Application: ☐ Spray ☐ Dip ☐ Brush	
Particle Mfg / Batch: MAGNAFLUX Color: WHITE		Developer Application: ☐ Spray ☐ Dip ☐ Brush		Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel	
Particles Applied by:		Preclean Dry Time: _____ minutes		Penetrant Dwell Time: _____ minutes	
☐ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current		Dry Time After Penetrant Removal: _____ minutes		Developer Time: _____ minutes	
☒ Spraying ☐ Flowing		Post Cleaning: _____		Notes: _____	
☒ Procedure Demonstration Not Required by Customer					
☐ Procedure Adequacy Demonstrated by:					
☐ Lift Test of: _____ lbs. ☐ Field Indicator					
☐ Other: _____					
☐ Post Test Demag ☐ Demag Not Required					
Item Temperature: 68 DEG °F		Surface Condition: AS WELDED		Surface Prep: BRUSHED	
Lighting Equipment: N/A					
Light Intensity: ☐ > 100 fc White Light ☐ > uW/cm2 Black Light		Black Light Warm-Up Time: ☐ > 5 mins.			
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE		DEFECT & LOCATION	REMARKS / WELDER ID
		Y	N		
MT 1	1" BUTT WELD	X			
MT 2	1" BUTT WELD	X			
MT 3	2" BUTT WELD	X			
MT 4	2" BUTT WELD	X			
MT 5	1" BUTT WELD	X			
MT 6	1" TAP	X			
BILLING COBRA					
ADDRESS:					
CLIENT SIGNATURE		JANX LEVEL II SIGNATURE		LEVEL II TECHNICIAN	
				JOSHUA SHUEMAKER	
CLIENT REP NAME & PHONE NUMBER		TRAVEL MILES	TOTAL HOURS INCLUDING TRAVEL AND WORK	PER DIEM APPLICABLE	TOTAL ITEMS INSPECTED
DALE STRICKLAND 2164067005		75	3	n/a	6
FORM: CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED. JANX P.O. Box 190 (517) 531-8210 Parma, MI 49269					

DATE: 8/9/2016		CLIENT: Cobra Pipeline			
REPORT No: of		JOB LOCALE: CITY, STATE: Mentor, OH			
CLIENT PO No:		JANX JOB No: 0209			
CLIENT W/O No:		JANX PROCEDURE No: MT1-REVO			
CLIENT JOB No: Sugar bush		ACCEPTANCE CRITERIA: API 1104 20th			
MAGNETIC PARTICLE TECHNIQUE - YOKE				LIQUID PENETRANT TECHNIQUE	
Yoke Mfg: Parker		Yoke Model: DA 400		Mfg. / Product	
Serial No: 13670		Expire Date: 9/25/2016		Batch No.	
Leg Spacing: 3"-5"		Coverage: Full		Temperature	
☐ AC ☐ DC Two Opposing 90° Fields: ☒ Yes ☐ No		Penetrant: _____ °F		Developer: _____ °F	
☐ Contrast Paint, Mfg & Product: _____		Remover: _____ °F		☐ Visible Dye ☐ Solvent Removable	
☒ Wet ☐ Dry ☒ Non-Fluorescent ☐ Fluorescent		☐ Fluorescent Dye ☐ Water Washable		Extent of Test: _____	
Wet Particle Suspension: ☒ Oil Base ☐ Water Base		Precleaning Method: ☐ Spray ☐ Dip ☐ Brush		Penetrant Application: ☐ Spray ☐ Dip ☐ Brush	
Particle Mfg / Batch: Circlesafe 850A Color: Red		Developer Application: ☐ Spray ☐ Dip ☐ Brush		Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel	
Particles Applied by:		Preclean Dry Time: _____ minutes		Penetrant Dwell Time: _____ minutes	
☐ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current		Dry Time After Penetrant Removal: _____ minutes		Developer Time: _____ minutes	
☒ Spraying ☐ Flowing		Post Cleaning: _____		Notes: _____	
☒ Procedure Demonstration Not Required by Customer					
☐ Procedure Adequacy Demonstrated by:					
☐ Lift Test of: _____ lbs. ☐ Field Indicator					
☐ Other: _____					
☐ Post Test Demag ☐ Demag Not Required					
Item Temperature: 77 °F		Surface Condition: clean		Surface Prep: as welded	
Lighting Equipment: Sunlight					
Light Intensity: ☒ > 100 fc White Light ☐ > uW/cm2 Black Light		Black Light Warm-Up Time: ☐ > 5 mins.			
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE Y N	DEFECT & LOCATION	REMARKS / WELDER ID	
Sugarbush					
MT 1	1"	X			
MT 2	1"	X			
MT 3	2"	X			
MT 4	2"	X			
MT 5	1"	X			
MT 6	1"	X			
BILLING 3511 Lost Nation Rd # 5, Willoughby, OH 44094					
ADDRESS:					
CLIENT SIGNATURE		JANX LEVEL II SIGNATURE		LEVEL II TECHNICIAN	
Dale strickland				Jake Sautter	
CLIENT REP NAME & PHONE NUMBER		TRAVEL MILES	TOTAL HOURS INCLUDING TRAVEL AND WORK	PER DIEM APPLICABLE	TOTAL ITEMS INSPECTED
216-406-7005		150	8		
Form: CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED. JANX P.O. Box 190 (517) 531-8210 Parma, MI 49269					
MTyk PT Report 14-03					

DATE: 8/9/2016		CLIENT: Cobra Pipeline		JANX	
REPORT No:	of	JOB LOCALE- CITY, STATE: Mentor, OH			
CLIENT PO No:		JANX JOB No: 0209			
CLIENT W/O No:		JANX PROCEDURE No: MT1-REV0			
CLIENT JOB No: Fraccl		ACCEPTANCE CRITERIA: API 1104 20th			

MAGNETIC PARTICLE TECHNIQUE - YOKE		LIQUID PENETRANT TECHNIQUE		
Yoke Mfg: Parker	Yoke Model: DA 400	Mfg. / Product	Batch No.	Temperature
Serial No: 13670	Expire Date: 9/25/2016	Penetrant:		°F
Leg Spacing: 3"-5"	Coverage: Full	Developer:		°F
☐ AC ☐ DC Two Opposing 90° Fields: ☒ Yes ☐ No ☐ Contrast Paint, Mfg & Product: ☒ Wet ☐ Dry ☒ Non-Fluorescent ☐ Fluorescent		Remover:		°F
Wet Particle Suspension: ☒ Oil Base ☐ Water Base		☐ Visible Dye	☐ Solvent Removable	
Particle Mfg / Batch: Circlesafe 850A Color: Red		☐ Fluorescent Dye	☐ Water Washable	
Particles Applied by:		Extent of Test:		
☐ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current ☒ Spraying ☐ Flowing ☒ Procedure Demonstration Not Required by Customer ☐ Procedure Adequacy Demonstrated by: ☐ Lift Test of: _____ lbs. ☐ Field Indicator ☐ Other: _____ ☐ Post Test Demag ☐ Demag Not Required		Precleaning Method: ☐ Spray ☐ Dip ☐ Brush Penetrant Application: ☐ Spray ☐ Dip ☐ Brush Developer Application: ☐ Spray ☐ Dip ☐ Brush Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel Preclean Dry Time: _____ minutes Penetrant Dwell Time: _____ minutes Dry Time After Penetrant Removal: _____ minutes Developer Time: _____ minutes Post Cleaning: _____ minutes Notes:		

Item Temperature: 77 °F **Surface Condition:** clean **Surface Prep:** as welded

Lighting Equipment: Sunlight **Black Light Warm-Up Time:** ☐ > 5 mins.

Light Intensity: ☒ > 100 fc White Light ☐ > uW/cm2 Black Light

ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE		DEFECT & LOCATION	REMARKS / WELDER ID
		Y	N		
Fraccl					
MT 1	2"	X			
MT 2	2"	X			
MT 3	2"	X			
MT 4	2"	X			
MT 5	2"	X			

BILLING ADDRESS: 3511 Lost Nation Rd # 5, Willoughby, OH 44094

CLIENT SIGNATURE	JANX LEVEL II SIGNATURE	LEVEL II TECHNICIAN	OTHER EMPLOYEES & LEVEL
Dale strickland		Jake Sautter	
CLIENT REP NAME & PHONE NUMBER	TRAVEL MILES	TOTAL HOURS INCLUDING TRAVEL AND WORK	PER DIEM APPLICABLE
216-406-7005			5

JANX P.O. Box 190
(517) 531-8210 Parma, MI 49269

Form: CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED.
MTyk PT Report 14-03

DATE: 7/28/2016		CLIENT: COBRA		JANX	
REPORT No: 4 of 5		JOB LOCALE- CITY, STATE: 6970 WILLIAMS RD CONCORD TOWNSHIP OHIO			
CLIENT PO No: 1" TAP		JANX JOB No: 0204			
CLIENT W/O No: MUSIZC		JANX PROCEDURE No: MT 1 REV 0			
CLIENT JOB No:		ACCEPTANCE CRITERIA: API 1104 20TH ED			
MAGNETIC PARTICLE TECHNIQUE - YOKE				LIQUID PENETRANT TECHNIQUE	
Yoke Mfg: PARKER		Yoke Model: PA 400		Mfg. / Product	
Serial No: 41256		Expire Date: 9/15/2016		Batch No.	
Leg Spacing: 6"		Coverage: 360DEG		Temperature	
☐ AC ☒ DC Two Opposing 90° Fields: ☐ Yes ☐ No		Penetrant: _____ °F		Developer: _____ °F	
☐ Contrast Paint, Mfg & Product: _____		Remover: _____ °F		☐ Visible Dye ☐ Solvent Removable	
☒ Wet ☐ Dry ☒ Non-Fluorescent ☐ Fluorescent		☐ Fluorescent Dye ☐ Water Washable		Extent of Test:	
Wet Particle Suspension: ☐ Oil Base ☐ Water Base		Precleaning Method: ☐ Spray ☐ Dip ☐ Brush		Penetrant Application: ☐ Spray ☐ Dip ☐ Brush	
Particle Mfg / Batch: MAGNAFLUX Color: WHITE		Developer Application: ☐ Spray ☐ Dip ☐ Brush		Excess Penetrant Removal: ☐ Water Wash ☐ Damp Towel	
Particles Applied by:		Preclean Dry Time: _____ minutes		Penetrant Dwell Time: _____ minutes	
☐ Blowing (Dry only) with excess removed by gentle air stream while maintaining the magnetizing current		Dry Time After Penetrant Removal: _____ minutes		Developer Time: _____ minutes	
☒ Spraying ☐ Flowing		Post Cleaning: _____		Notes:	
☒ Procedure Demonstration Not Required by Customer					
☐ Procedure Adequacy Demonstrated by:					
☐ Lift Test of: _____ lbs. ☐ Field Indicator					
☐ Other: _____					
☐ Post Test Demag ☐ Demag Not Required					
Item Temperature: 68 DEG °F		Surface Condition: AS WELDED		Surface Prep: BRUSHED	
Lighting Equipment: N/A					
Light Intensity: ☐ > 100 fc White Light ☐ > uW/cm2 Black Light		Black Light Warm-Up Time: ☐ > 5 mins.			
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATERIAL	IN CODE Y N		DEFECT & LOCATION	REMARKS / WELDER ID
MT 1	1" BUTT WELD	X			
MT 2	1" BUTT WELD	X			
MT 3	1" BUTT WELD	X			
MT 4	2" BUTT WELD	X			
MT 5	2" BUTT WELD	X			
MT 6	1" BUTT WELD	X			
MT 7	1" TAP	X			
BILLING COBRA					
ADDRESS:					
CLIENT SIGNATURE		JANX LEVEL II SIGNATURE		LEVEL II TECHNICIAN	
				JOSHUA SHUEMAKER	
CLIENT REP NAME & PHONE NUMBER		TRAVEL MILES	TOTAL HOURS INCLUDING TRAVEL AND WORK	PER DIEM APPLICABLE	TOTAL ITEMS INSPECTED
DALE STRICKLAND 2164067005		75	3	n/a	7
Form: MTyk PT Report 14-03		CUSTOMER'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS AND INTERPRETATION ARE ACCEPTED.		JANX P.O. Box 190 (517) 531-8210 Parma, MI 49269	

Pipeline Integrity

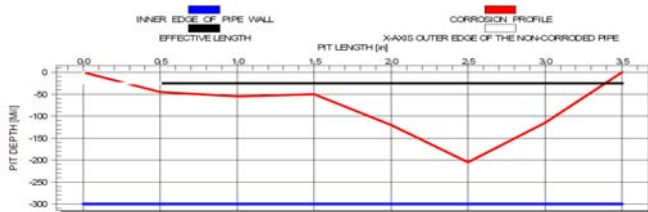
US Pipeline operators face increasing regulations focus on the safety of their transmission systems. The Office of Pipeline Safety mandates the development of comprehensive integrity management programs from pipeline operators. The revised CFR 49 Part 195 became regulation following the signing of the Pipeline Safety Act of 2002. The legislation requires the implementation of comprehensive Integrity Management Programs, the conduct of baseline assessments and period reassessments to identify and evaluate potential threats to pipelines, remediate significant defects discovered during these processes; and continually monitor program effectiveness so that modifications can be recognized and implemented.

Trained and Qualified Technicians

- Veriforce
- ISNetWorld
- NACE

METHOD	Max. Safe Pressure (psig)	Burst Pressure (psig)	Safety Factor
RSTRENG - Effective Area	964	2034	2.17
RSTRENG - 0.85dL	757	1513	1.62
ASME B31 G	770	1539	1.64

CORROSION PROFILE:



Bell-Hole Inspection Services

- Pipe to Soil Potentials
- pH Measurements
- MIC Evaluations
- Dent Analysis
- Corrosion Assessments
- Soil Resistivity
- Coating Evaluation
- Soil Analysis
- Remaining Strength Calculations
- SCC Investigations
- Detailed Reporting with Photo Documentation
- Advanced GPS Coordinates
- Coating Applications Inspection

OHIO RURAL NATURAL GAS LEAK SURVEY REPORT (§192.723)

Attachment DK-19

System Name: OAK ST System No: ORNG TI-001
Area Covered: From: North West End of Property 267' EAST Along COBRA'S Pipeline
To: 200' South Along Service Line

Is This Gas Odorized? (192.625): ☒ Yes ☐ No
Class Location: ☐ 1 ☐ 2 ☒ 3 ☐ 4
Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☒ 5 Year ☐ _____ Times Per Year
Type Of Detection Used: ☒ Flame Ionization ☐ CGI/Barhole ☐ Vegetation Survey ☐ Other _____
Were Any Leaks Discovered?: ☐ Yes ☒ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____
Was there any construction along or near the pipeline system?: ☐ yes ☒ no
Were there any of the following unusual conditions found during the survey?:
☒ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☐ Foreign Pipeline ☐ Buildings ☐ Other: _____
Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ no
Are there missing line markers in this system?: ☐ yes ☒ no
If yes to any of the questions above, to whom was it reported: _____

Additional Comments: _____

Performed By: Dave Stanish

Date: 2-4-16

OHIO RURAL NATURAL GAS LEAK SURVEY REPORT (§192.723)

System Name: Stallard System No: 71-006

Area Covered: From: Williams Rd
To: house

Is This Gas Odorized? (192.625): ☒ Yes ☐ No

Class Location: ☐ 1 ☐ 2 ☒ 3 ☐ 4

Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☒ 5 Year ☐ _____ Times Per Year

Type Of Detection Used: ☒ Flame Ionization ☐ CGI/Barhole ☒ Vegetation Survey ☐ Other _____

Were Any Leaks Discovered?: ☐ Yes ☒ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____

Was there any construction along or near the pipeline system?: ☐ yes ☒ no

Were there any of the following unusual conditions found during the survey?:

☒ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☐ Foreign Pipeline ☐ Buildings ☐ Other: _____

Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ no

Are there missing line markers in this system?: ☐ yes ☒ no

If yes to any of the questions above, to whom was it reported: _____

Additional Comments: _____

Performed By: Dave Starnish Date: 2-4-16

**OHIO RURAL NATURAL GAS
LEAK SURVEY REPORT (\$192.723)**System Name: Hallett Young Rd / Lyate Rd. System No: _____Area Covered: From: Hallett YoungTo: Lyate Rd I-76Is This Gas Odorized? (192.625): ☒ Yes ☐ NoClass Location: ☐ 1 ☒ 2 ☐ 3 ☐ 4Survey Interval Required: ☒ Annual NTE 15 mo ☐ 3 Year ☐ 5 Year ☐ _____ Times Per YearType Of Detection Used: ☒ Flame Ionization ☐ CGI/Barhole ☒ Vegetation Survey ☐ Other _____Were Any Leaks Discovered?: ☐ Yes ☒ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____Was there any construction along or near the pipeline system?: ☐ yes ☒ no

Were there any of the following unusual conditions found during the survey?:

☒ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☐ Foreign Pipeline ☐ Buildings ☐ Other: _____Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ noAre there missing line markers in this system?: ☐ yes ☒ no

If yes to any of the questions above, to whom was it reported: _____

Additional Comments: _____

Performed By: [Signature]Date: 8-29-2016

**OHIO RURAL NATURAL GAS
LEAK SURVEY REPORT (\$192.723)**

System Name: Ellsworth Rd System No: _____
Area Covered: From: Cocaine of Ellsworth / Weaver Rd
To: S. Duck Creek

Is This Gas Odorized? (192.625): ☒ Yes ☐ No
Class Location: ☐ 1 ☒ 2 ☐ 3 ☐ 4
Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☐ 5 Year ☐ _____ Times Per Year
Type Of Detection Used: ☒ Flame Ionization ☐ CGI/Barhole ☒ Vegetation Survey ☐ Other _____
Were Any Leaks Discovered?: ☐ Yes ☒ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____

Was there any construction along or near the pipeline system?: ☐ yes ☒ no

Were there any of the following unusual conditions found during the survey?:

☒ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☐ Foreign Pipeline ☐ Buildings ☐ Other: _____

Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ no

Are there missing line markers in this system?: ☐ yes ☒ no

If yes to any of the questions above, to whom was it reported: _____

Additional Comments: _____

Performed By: [Signature]

Date: 8-29-2016

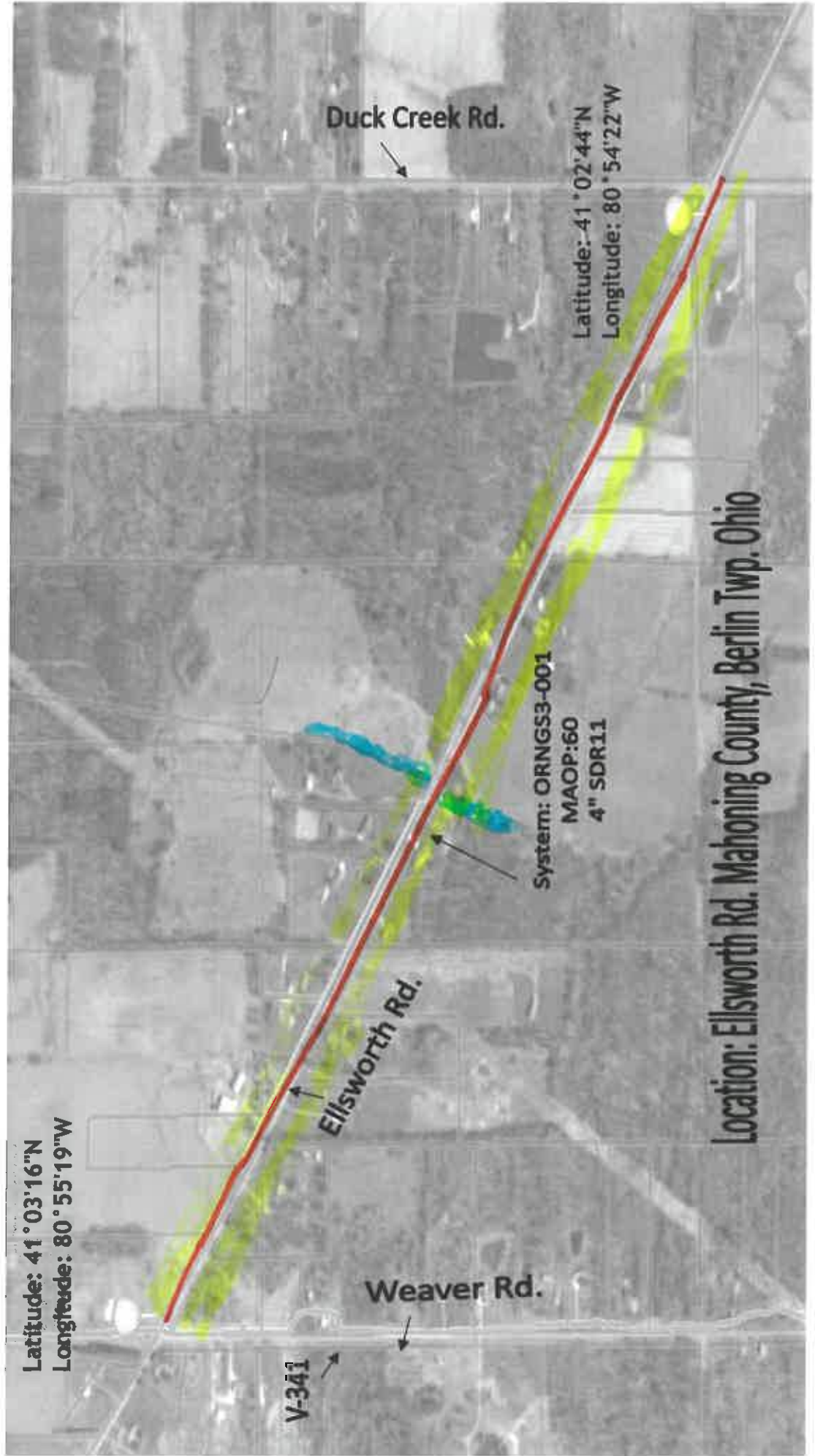
Leak Survey Map

- Flame Ionization Survey
- Available Opening Survey (CGI)
- Vegetation Survey

System: Ellsworth Rd
Leak record # 090406 - S3001
Date: 08/29/2016 Time: 9:50 AM
Performed by: D. Stunish.

Remarks:

Tested Corner of Ellsworth Rd / Weaver Rd TO S. Duck Creek Rd.



OHIO RURAL NATURAL GAS LEAK SURVEY REPORT (§192.723)

System Name: Williams Rd (DACA) System No: T1-005
Area Covered: From: TAP 80' WEST ALONG OTP 104 North 200' ALONG OTP 104
To: 102' ALONG SERVICE LINE 62' ALONG ORW 628

Is This Gas Odorized? (192.625): ☒ Yes ☐ No
Class Location: ☐ 1 ☐ 2 ☒ 3 ☐ 4
Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☒ 5 Year ☐ _____ Times Per Year
Type Of Detection Used: ☒ Flame Ionization ☐ CGI/Barhole ☐ Vegetation Survey ☐ Other _____
Were Any Leaks Discovered?: ☐ Yes ☒ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____
Was there any construction along or near the pipeline system?: ☐ yes ☒ no
Were there any of the following unusual conditions found during the survey?:
☐ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☒ Foreign Pipeline ☐ Buildings ☐ Other: _____
Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ no
Are there missing line markers in this system?: ☐ yes ☒ no
If yes to any of the questions above, to whom was it reported: _____

Additional Comments: FOREIGN P. P. LINES: OTP 104; ORW 628

Performed By: [Signature] Date: 2-4-16

Leak Survey Map

Flame Ionization Survey

Available Opening Survey

Vegetation Survey

System:

T1-005

Leak record #

0

Date:

2-4-16

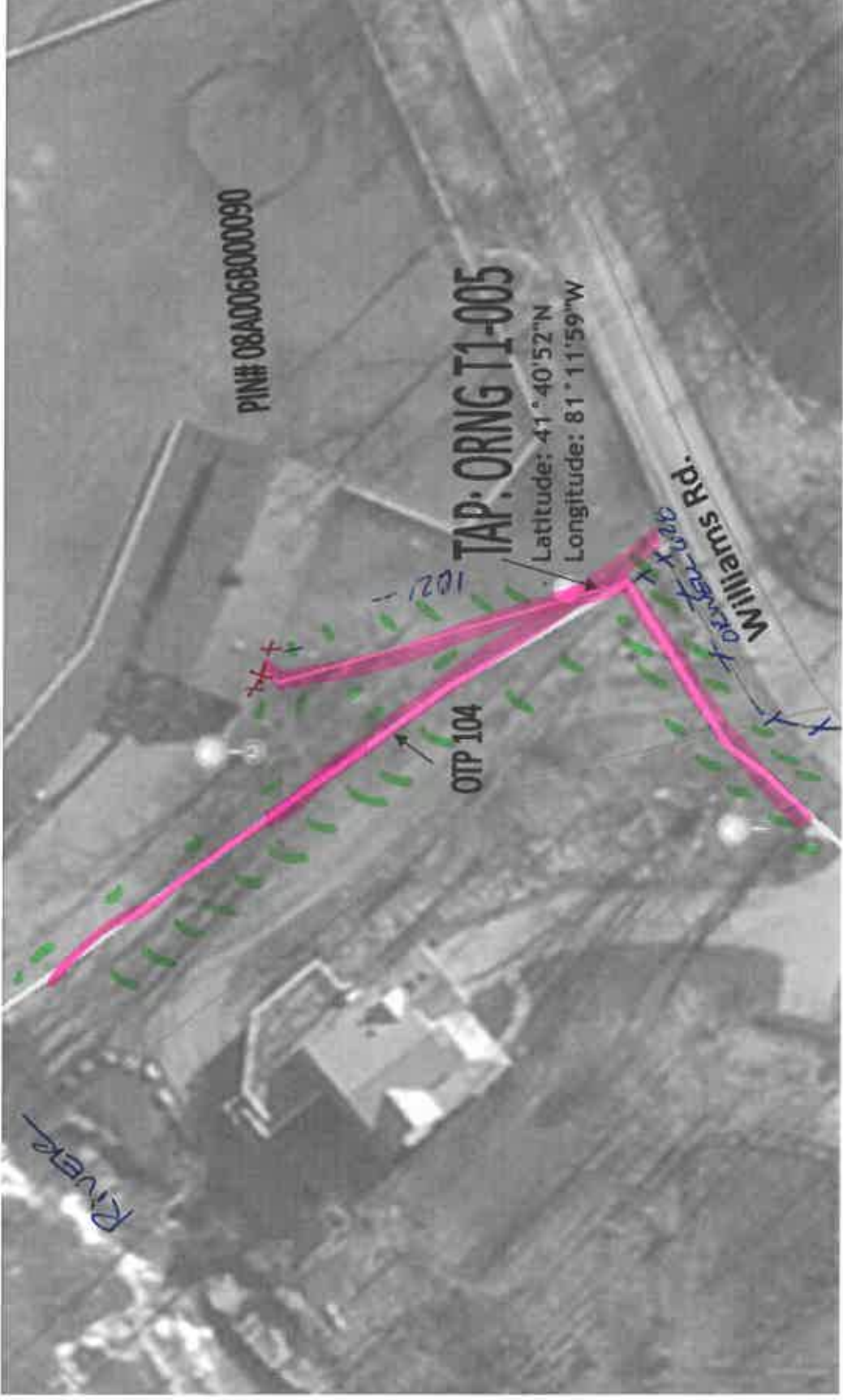
Time:

Performed by:

DAVE STANISH

Remarks:

ORWELL NATURAL GAS LINE (ORNG28) AND PE2406 CORNER: ++ ++



Location: 6970 Williams Rd. Concord Ohio County: Lake

OHIO RURAL NATURAL GAS LEAK SURVEY REPORT (§192.723)

System Name: ORNG T1-002 System No: T1-002

Area Covered: From: SEAST END of Property, Line 43' EAST +
To: 97' west : ALONG SERVICE LINE

Is This Gas Odorized? (192.625): ☒ Yes ☐ No

Class Location: ☐ 1 ☐ 2 ☒ 3 ☐ 4

Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☒ 5 Year ☐ _____ Times Per Year

Type Of Detection Used: ☒ Flame Ionization ☐ CGI/Barhole ☐ Vegetation Survey ☐ Other _____

Were Any Leaks Discovered?: ☐ Yes ☒ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____

Was there any construction along or near the pipeline system?: ☐ yes ☒ no

Were there any of the following unusual conditions found during the survey?:

☒ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☐ Foreign Pipeline ☐ Buildings ☐ Other: _____

Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ no

Are there missing line markers in this system?: ☐ yes ☒ no

If yes to any of the questions above, to whom was it reported: _____

Additional Comments: _____

Performed By: [Signature]

Date: 2-4-16

Leak Survey Map

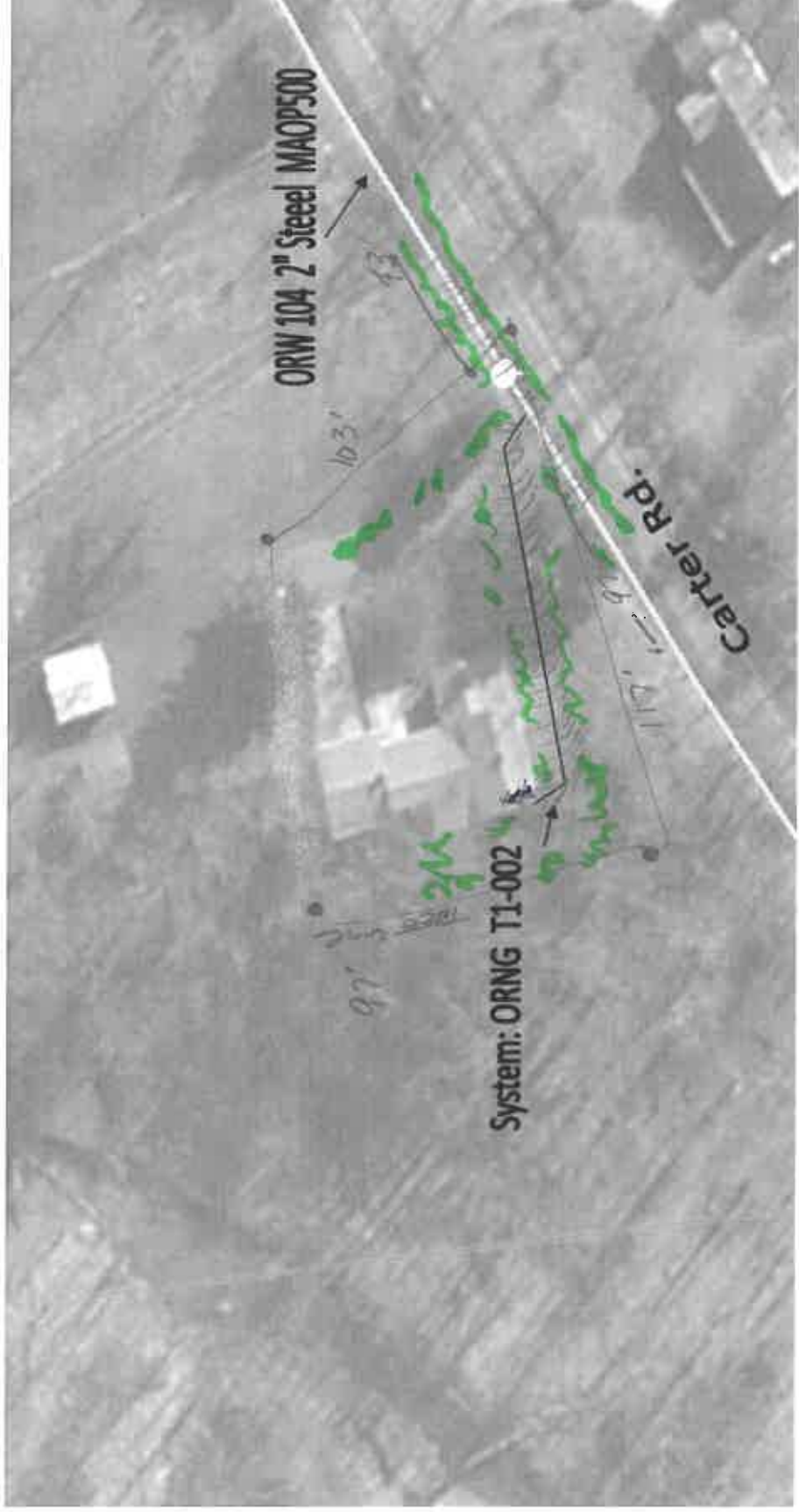
- Flame Ionization Survey 
- Available Opening Survey 
- Vegetation Survey 

System: T1-002
Leak record # 0
Date: 02/04/16 Time:
Performed by: DAVE STANISH

Remarks:

LEAK SURVEY

12321 CARTER RD LEROY OHIO 44077



Location: Carter Road, Leroy, Lake County, Ohio

OHIO RURAL NATURAL GAS LEAK SURVEY REPORT (\$192.723)

System Name: MUZIL 13164 Leroy CENTER System No: T1-003
Area Covered: From: SEE MAP
To: _____

Is This Gas Odorized? (192.625): ☒ Yes ☐ No
Class Location: ☐ 1 ☐ 2 ☒ 3 ☐ 4
Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☒ 5 Year ☐ _____ Times Per Year
Type Of Detection Used: ☒ Flame Ionization ☐ CGI/Barhole ☐ Vegetation Survey ☐ Other _____
Were Any Leaks Discovered?: ☐ Yes ☐ No

Location	Grade	Gas Leak & Repair Report Number
UPA		

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____

Was there any construction along or near the pipeline system?: ☐ yes ☒ no

Were there any of the following unusual conditions found during the survey?:

☒ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☐ Foreign Pipeline ☐ Buildings ☐ Other: _____

Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ no

Are there missing line markers in this system?: ☐ yes ☒ no

If yes to any of the questions above, to whom was it reported: _____

Additional Comments: TAP 02W 104 4" steel Cobra Pipeline
255/1945

Performed By: [Signature]

Date: 2-4-16

Leak Survey Map

- Flame Ionization Survey
- Available Opening Survey
- Vegetation Survey

System: T1-003

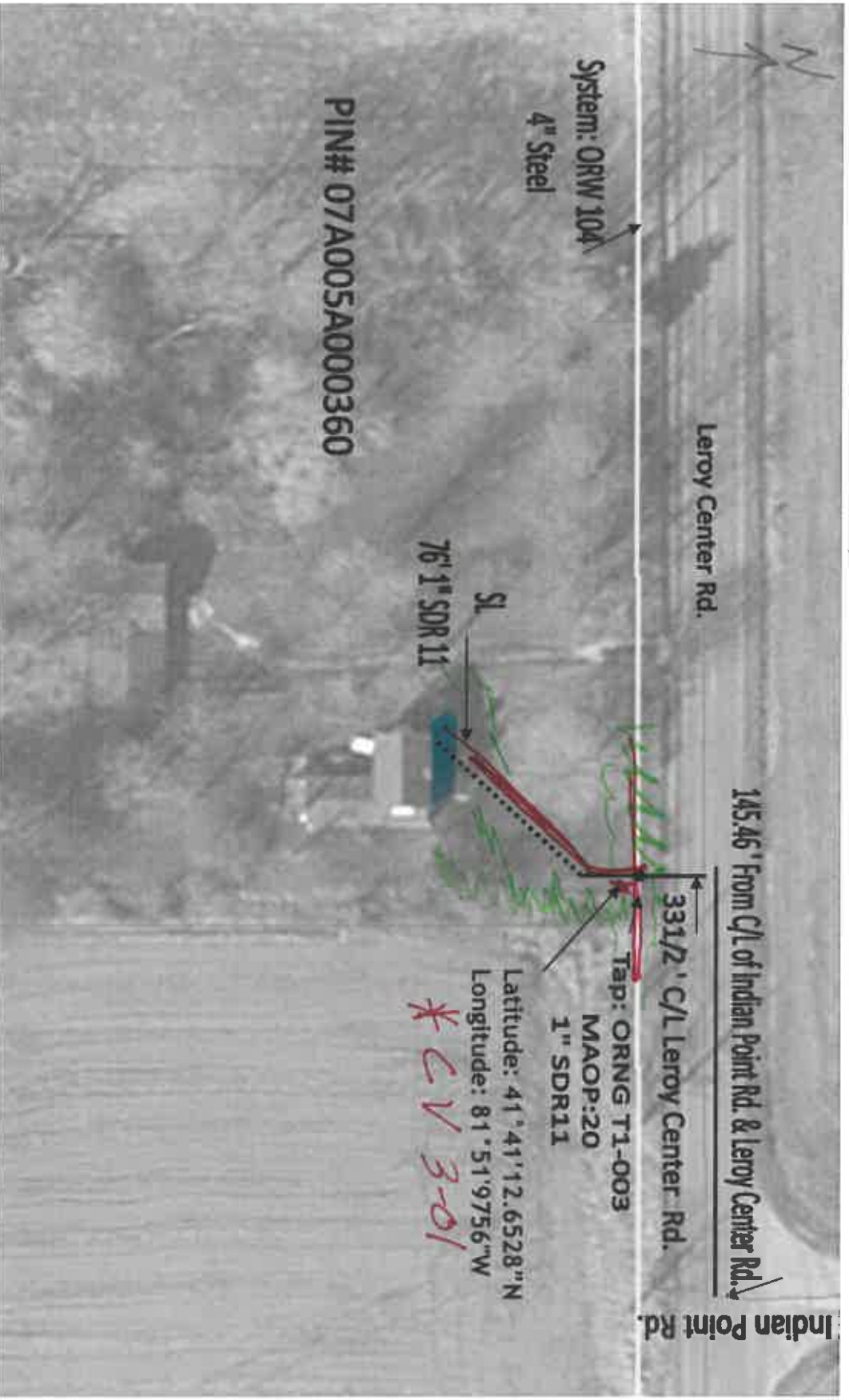
Leak record # 11A

Date: 02/04/2016

Performed by: DAVE STANISH

200' Along ORW 104

92' Along T1-003



PIN# 07A005A000360

Location: 13164 Leroy Center Rd. Lake County Ohio

OHIO RURAL NATURAL GAS LEAK SURVEY REPORT (§192.723)

System Name: MUZIL System No: TI-003

Area Covered: From: 145.46' c/L W INDIAN POINT RD + LEROY CENTER RD
To: 33 1/2' South c/L LEROY CENTER RD

9/24/2015

Is This Gas Odorized? (192.625): ☒ Yes ☐ No

Class Location: ☐ 1 ☐ 2 ☒ 3 ☐ 4

Turn on System

Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☐ 5 Year ☐ _____ Times Per Year

Type Of Detection Used: ☐ Flame Ionization ☐ CGI/Barhole ☐ Vegetation Survey ☐ Other _____

Were Any Leaks Discovered?: ☐ Yes ☒ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____

Was there any construction along or near the pipeline system?: ☐ yes ☒ no

Were there any of the following unusual conditions found during the survey?:

☐ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☐ Foreign Pipeline ☐ Buildings ☐ Other: _____

Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ no

Are there missing line markers in this system?: ☐ yes ☒ no

If yes to any of the questions above, to whom was it reported: _____

Additional Comments: FOREIGN PIPELINE COBRA DRW 104 4" STEEL

Performed By: DAVE STANISH

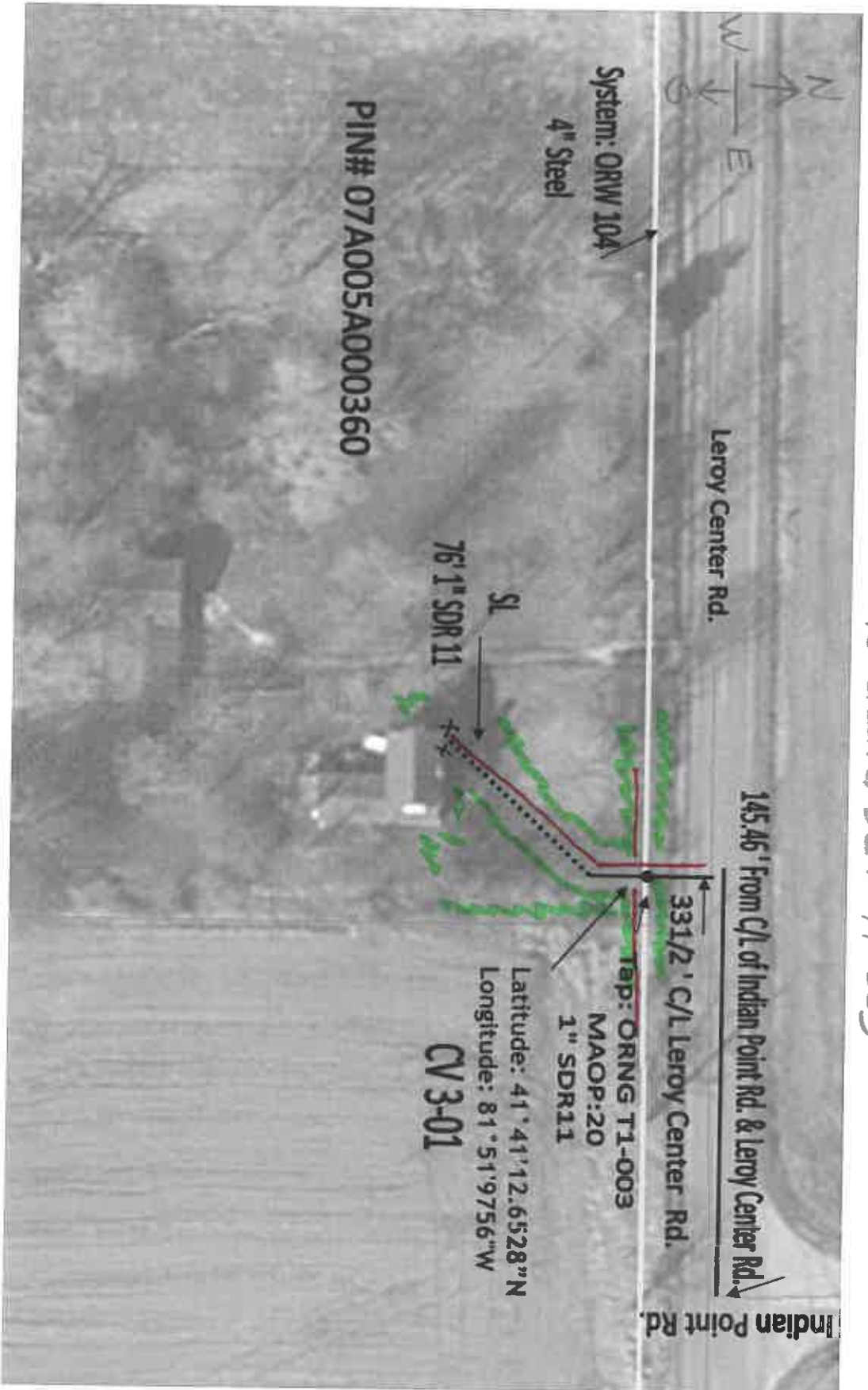
Date: 9/24/2015

Flame Ionization Survey
XX Available Opening Survey
Vegetation Survey

Leak Survey Map

System: T1-003
Leak record # - 114 -
Date: 9/24/15 Time:
Performed by: DAVE STANIS

162' Along ORW 104 90' Along SL + T1-003



Location: 13164 Leroy Center Rd. Lake County Ohio

OHIO RURAL NATURAL GAS LEAK SURVEY REPORT (§192.723)

System Name: FRACCI LT System No: SI-001

Area Covered: From: 7000 Fracchi Ct. along the service line down
To: the Regulator Station. and along the
Pipeline to CVI-001

Is This Gas Odorized? (192.625): ☒ Yes ☐ No

Class Location: ☐ 1 ☐ 2 ☐ 3 ☐ 4

Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☒ 5 Year ☐ _____ Times Per Year

Type Of Detection Used: ☒ Flame Ionization ☐ CGI/Barhole ☐ Vegetation Survey ☐ Other _____

Were Any Leaks Discovered?: ☐ Yes ☒ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____

Was there any construction along or near the pipeline system?: ☐ yes ☒ no

Were there any of the following unusual conditions found during the survey?:

☐ None Found ☐ Steams/Rivers ☒ Railroad ☐ Highway ☐ Foreign Pipeline ☐ Buildings ☐ Other: _____

Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ no

Are there missing line markers in this system?: ☐ yes ☒ no

If yes to any of the questions above, to whom was it reported: _____

Additional Comments: _____

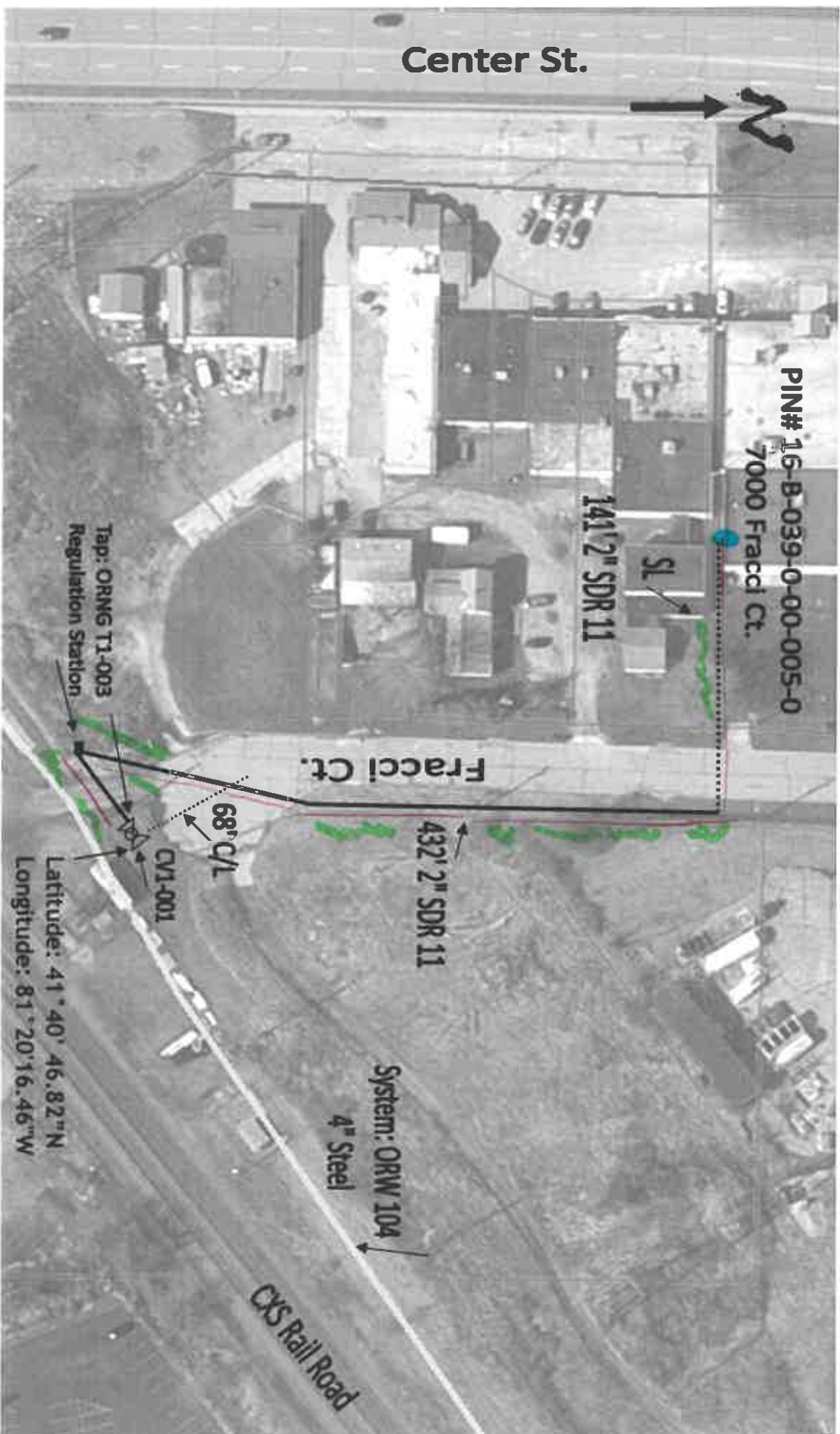
Performed By: Amelia Harris

Date: 2-5-16

Leak Survey Map

- Flame Ionization Survey
- Available Opening Survey
- Vegetation Survey

System: TL-001
Leak record #
Date: 2-5-10 Time:
Performed by: D. Stansh



Location: 7000 Fracci Ct. Mentor Lake County Ohio

**OHIO RURAL NATURAL GAS
LEAK SURVEY REPORT (§192.723)**

Turn on 11/13/2015

System Name: SUGAR Bush System No: SI-002

Area Covered: From: _____
To: Along 4" SDR11 850' Along

SUGAR Bush DR & METER LOCATION

Is This Gas Odorized? (192.625): ☒ Yes ☐ No

Class Location: ☐ 1 ☐ 2 ☐ 3 ☐ 4

Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☐ 5 Year ☐ _____ Times Per Year

Type Of Detection Used: ☐ Flame Ionization ☐ CGI/Barhole ☐ Vegetation Survey ☐ Other _____

Were Any Leaks Discovered?: ☐ Yes ☐ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____

Was there any construction along or near the pipeline system?: ☒ yes ☐ no

Were there any of the following unusual conditions found during the survey?:

☐ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☒ Foreign Pipeline ☐ Buildings ☐ Other: _____

ORWELL GAS

Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☐ no

Are there missing line markers in this system?: ☐ yes ☒ no

If yes to any of the questions above, to whom was it reported: _____

Additional Comments: Home Construction / Yard work @
16306013 00020

Performed By: STANISH

Date: 11/13/15

Flame Ionization Survey
Available Opening Survey
Vegetation Survey

Leak Survey Map

Turn on

System: ORNGS1-002

MAOP: 60 System Length: 850'
4" SDR11

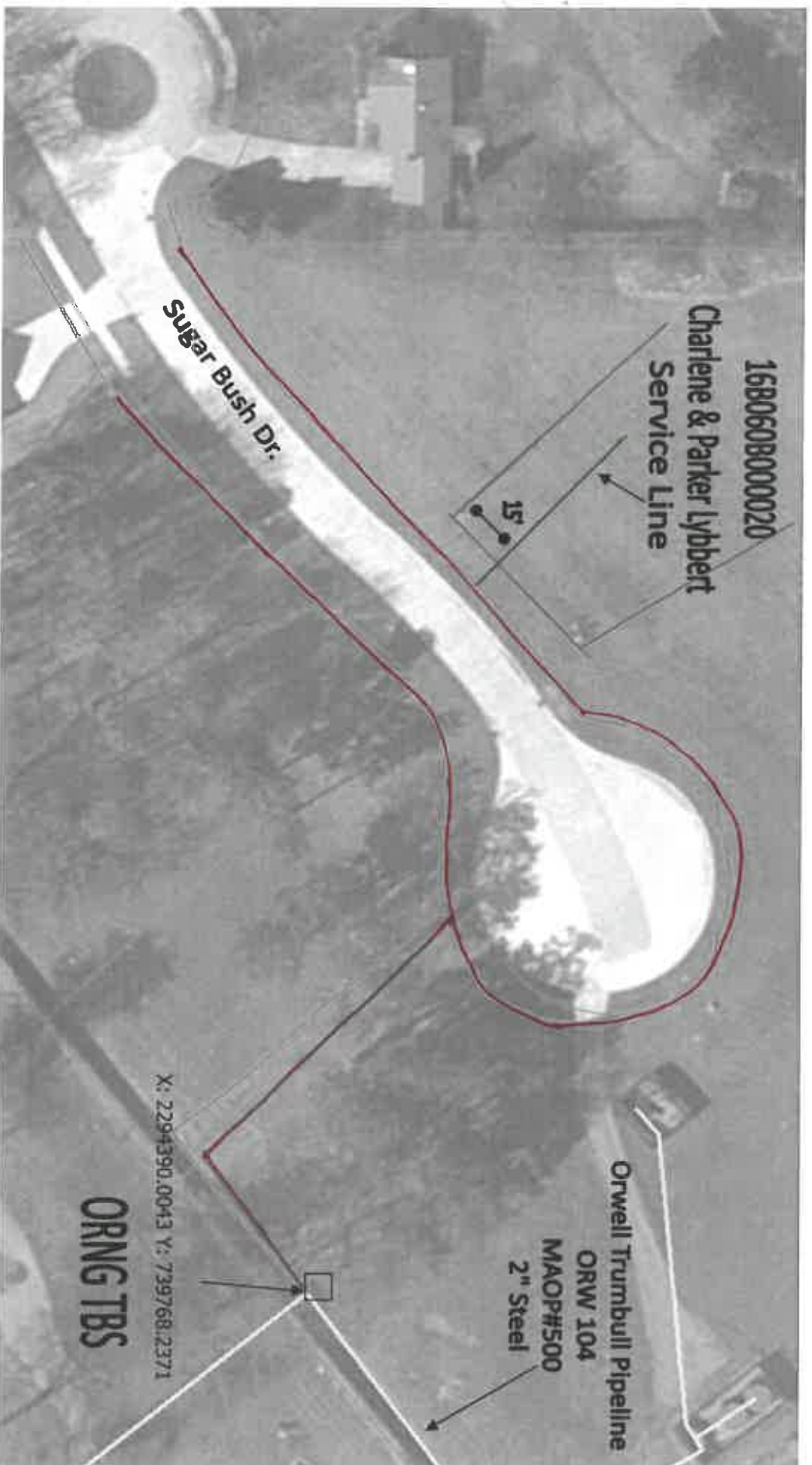
Remarks:

System: ORNG 51-002
61-002

Leak record # 0

Date: 11/13/2015 Time: 12:00

Performed by: Dave Stanish



Location: Sugar Bush Dr. City: Mentor County: Lake, Ohio 44060

OHIO RURAL NATURAL GAS LEAK SURVEY REPORT (§192.723)

System Name: SUGAR Bush System No: SI-002

Area Covered: From: 9221 SUGAR Bush ALONG DRAIN LINE ⇒ 9220 SUGAR Bush
To: ALONG SERVICE LINE 1613060800020 ALONG COMPANY LINE & Station

Is This Gas Odorized? (192.625): ☒ Yes ☐ No

Class Location: ☐ 1 ☐ 2 ☐ 3 ☐ 4

Survey Interval Required: ☐ Annual NTE 15 mo ☐ 3 Year ☒ 5 Year ☐ _____ Times Per Year

Type Of Detection Used: ☒ Flame Ionization ☐ CGI/Barhole ☒ Vegetation Survey ☐ Other _____

Were Any Leaks Discovered?: ☐ Yes ☒ No

Location	Grade	Gas Leak & Repair Report Number

Method used: ☐ Vehicle ☒ Walking ☐ Other: _____

Was there any construction along or near the pipeline system?: ☐ yes ☒ no

Were there any of the following unusual conditions found during the survey?:

☐ None Found ☐ Steams/Rivers ☐ Railroad ☐ Highway ☒ Foreign Pipeline ☐ Buildings ☐ Other: _____

Were there any conditions found that could affect the present or future safety of this system?: ☐ yes ☒ no

Are there missing line markers in this system?: ☐ yes ☒ no

If yes to any of the questions above, to whom was it reported: _____

Additional Comments: _____

Performed By: [Signature]

Date: 2-5-16

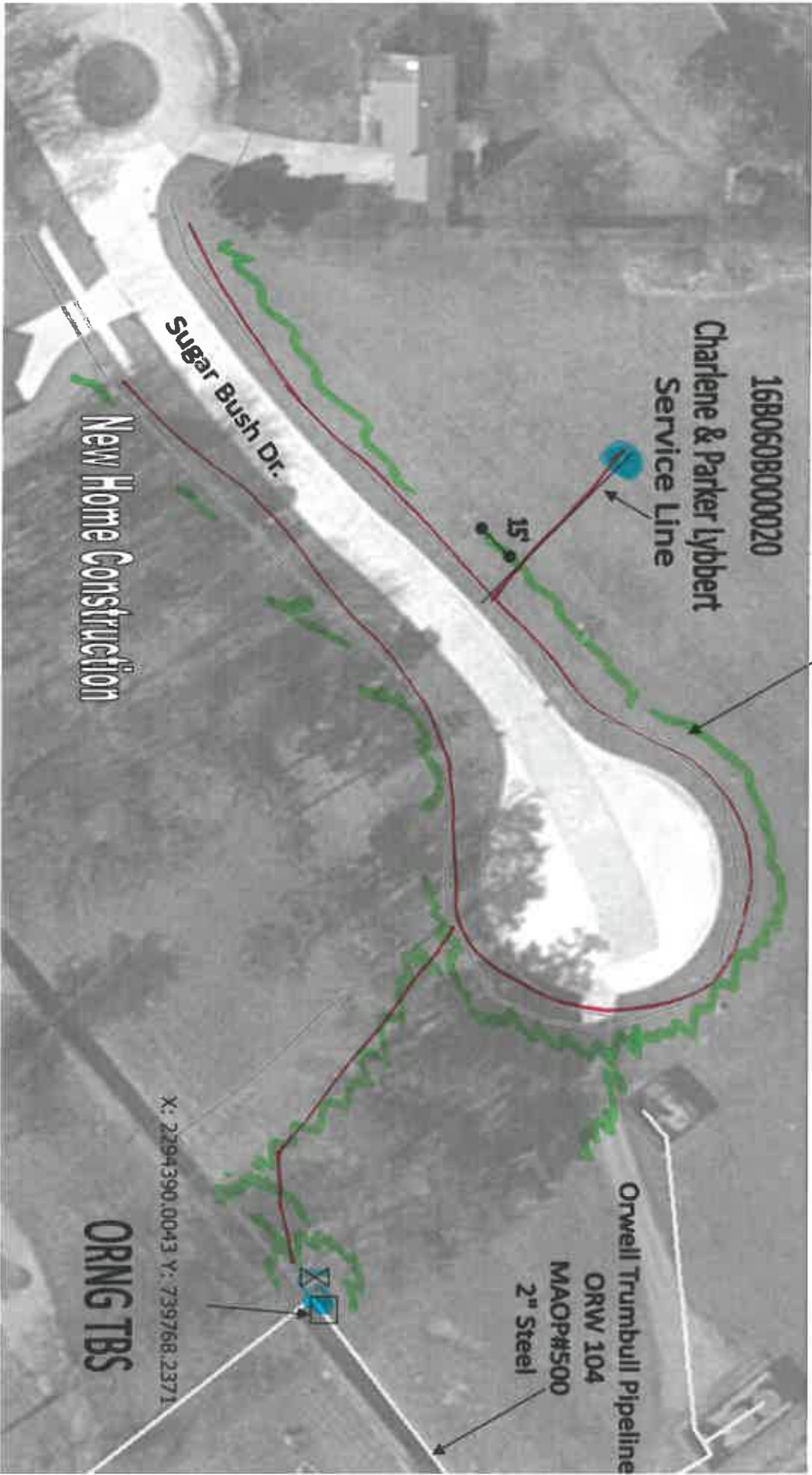
Leak Survey Map

- Flame Ionization Survey
- Available Opening Survey
- Vegetation Survey

Remarks:

System: ORNGS1-002
MAOP:60 System Length: 850'
4" SDR11

System: ORNG S1-002
Leak record # NYA
Date: 02/05/2016 Time:
Performed by: Dave Stanish



Location: Sugar Bush Dr. City: Mentor County: Lake, Ohio 44060



7001 Center Street. Mentor, OH 44060
Office:(440)255-5198 Emergency: (866)797-6286

August 6, 2016

Dear Business or Neighbor,

You are receiving this notice because **Ohio Rural Natural Gas Co-Op** operates natural gas pipelines in your area. The safety and education of the public is our company's top priority. Please take a moment to review the attached document which contains important information pertaining to these pipelines.

Sincerely,

Darryl Knight

Ohio Rural Natural Gas, Co-Op



7001 Center Street Mentor, OH 44060
Office: (440)255-5198 Emergency: (866)797-6286

PIPELINES IN OUR COMMUNITY

According to national Transportation Safety Board statistics; Pipelines are the safest and most efficient means of transporting natural gas and petroleum products; which are used to supply roughly two-thirds of the energy we use. These pipelines transport trillions of cubic feet of natural gas and hundreds of billions of tons/miles of liquid petroleum products in the United States each year.

HAZARDS OF NATURAL GAS

Natural gas is lighter than air. It will rise to the highest point, potentially collecting and producing a flammable or explosive gas/air mixture. Heat, electronics, sparks, and open flames are potential ignition sources. It is important to recognize the presence of natural gas and to eliminate any potential ignition sources should a leak occur.

SIGNS OF A NATURAL GAS PIPELINE LEAK

- Blowing or Hissing sound
- Dust blowing from a hole in the ground
- Continuous bubbling in wet or flooded areas
- "Rotten Egg" smell due to odorant added to gas
- Dead or discolored vegetation in a green area
- Flames, if a leak has ignited

WHAT SHOULD I DO IF I SUSPECT A PIPELINE LEAK?

Your personal safety should be your first concern:

- Evacuate and prevent entrance
- Abandon any equipment being used in the area
- Avoid open flames
- Avoid introducing ignition sources including electronics (cell phones, etc.)
- Do not start/ turn off motor vehicles or electrical equipment
- Call 911 or contact local fire or law enforcement
- Notify the pipeline company
- Don't attempt to extinguish a natural gas fire
- Do not operate any pipeline valves

PIPELINE SAFETY

System failures occur infrequently along the nation's network of interstate natural gas pipeline facilities, and many of these are caused by damage from others digging near the pipeline. We watch for unauthorized digging, but we request your help too.

Ohio Rural Natural Gas Co-Op participates in the Ohio Utilities Protection Service (OUPS) which is our state's One-Call system. We strongly encourage those who are going to dig to call OUPS at 811 or 1-800-362-2764. This allows pipeline companies and various other utilities to mark their underground facilities prior to the dig.

PIPELINE LOCATION AND MARKERS

Pipeline markers are used to indicate the approximate location of a natural gas pipeline to provide contact information. Aerial patrol planes also use the markers to identify the pipeline route. Markers should never be removed or relocated by anyone other than a pipeline operator.

EMERGENCY RESPONSE PLAN

Emergency Response Plans are developed to contain, control, and mitigate the various types of emergency conditions/ situations that could occur. For more information regarding Ohio Rural Natural Gas Co-Op's emergency response plan and procedure visit: WWW.ORNCGCO-OP.COM or Contact our Office at 440-255-5198



PRODUCTS/DOT GUIDEBOOK ID#/GUIDE#
NATURAL GAS 1971 115

OHIO COUNTIES OF OPERATION:
MAHONING HOLMES
TRUMBULL LAKE
GEAUGA

*CHANGES MAY OCCUR. CONTACT THE OPERATOR TO DISCUSS THEIR PIPELINE SYSTEMS AND AREAS OF OPERATION

*** EMERGENCY CONTACT***

1-866-797-6286



7001 Center Street. Mentor, OH 44060
Office:(440)255-5198 Emergency: (866)797-6286

20 De Agosto De 2016

Excavadoras,

Ha recibido este aviso porque Ohio Rural Gas Natural Co-op opera tuberías de gas natural en su área. La seguridad y la educación del público es prioridad de nuestra empresa. Por favor tome un momento para revisar el documento adjunto que contiene información importante relacionada a estas tuberías.

Sinceramente,

Darryl Knight

Ohio Rural Gas Natural, Co-op



7001 Center Street Mentor, OH 44060
Office: (440)255-5198 Emergency: (866)797-6286

TUBERÍAS EN NUESTRA COMUNIDAD

Según estadísticas del Consejo de seguridad de transporte nacionales; Las tuberías son el medio más seguro y más eficiente de transporte de gas natural y productos derivados del petróleo; que se utilizan para suministrar aproximadamente dos tercios de la energía que utilizamos. Estas tuberías transportan trillones de pies cúbicos de gas natural y cientos de miles de millones de toneladas / millas de productos líquidos derivados del petróleo en los Estados Unidos cada año.

PELIGROS DEL GAS NATURAL

El Gas Natural es más ligero que el aire. Se elevará hasta el punto más alto, potencialmente recoger y producir una mezcla gas/aire inflamables o explosivos. Calor, electrónica, chispas y llamas abiertas son fuentes potenciales de ignición. Es importante reconocer la presencia de gas natural y para eliminar cualquier fuente de ignición potencial debe ocurrir una fuga.

SIGNOS DE UNA TUBERINA FUGA DE GAS NATURAL

- soplar o silbar sonido
- polvo que sopla desde un agujero en el suelo
- continuo burbujeo en olor
- "Huevo podrido" áreas mojadas o inundadas debido a olor añadido a gas
- Vegetación descolorida o muerta en una zona verde
- las llamas, si ha suscitado una pérdida de

¿QUÉ DEBO HACER SI SOSPECHO QUE HAY UNA FUGA DE PIPELINE?

Su seguridad personal debe ser su primera preocupación:

- Evacuar y evitar la entrada
- Abandonar cualquier equipo que se utiliza en el área
- Evite abrir las llamas
- Evite introducir fuentes de ignición, incluyendo electrónica (teléfonos celulares, etc..)
- No ponga en marcha / apagar vehículos de motor o equipo eléctrico
- llame al 911 o contacto fuego local o ley aplicación
- notifique a la compañía del oleoducto
- no intenta extinguir un gas natural fuego
- No funciona cualquier válvula de tubería

FIGURADO EN TRAMITE

Fallas en el sistema ocurren con poca frecuencia a lo largo de la red de instalaciones de tubería de gas natural interestatal, y muchos de estos son causados por daño a los demás de excavación cerca de la tubería. Vemos de excavación no autorizado, pero solicitamos tu ayuda también.

Ohio que rural cooperativa Gas Natural participa en el servicio de protección de utilidades de Ohio (OUPS) whis es sistema de una llamada de nuestro estado. Le recomendamos a aquellos que van a cavar para llamar OPU en 811 o 1-800-362-2764. Esto permite que las empresas pipeline y otras utilidades varias marcar sus instalaciones subterráneas antes de la excavación.

UBICACIÓN DE LA TUBERÍA Y MARCADORES

Los marcadores de tuberías se utilizan para indicar la ubicación aproximada de un gasoducto de gas natural para proporcionar información de contacto. Aviones de patrulla aérea también utilizan los marcadores para identificar la ruta del gasoducto. Marcadores nunca deben quitar o reubicados por alguien que no sea un operador del gasoducto.

PREPARACIONES DE EMERGENCIA

Planes de respuesta de emergencia están desarrollados para contener, controlar y mitigar los diferentes tipos de situaciones de emergencia / situaciones que podrían ocurrir. Para más información sobre el plan de respuesta a emergencias y procedimiento Ohio Rural Gas Natural Co-Op de visitar: WWW.ORGCO-OP.COM or Llama la Oficina a 440-255-5198



CONDADOS DE OHIO DE LA OPERACIÓN:

MAHONING	HOLMES
TRUMBULL	LAKE
GEAUGA	

*PUEDEN OCURRIR CAMBIOS. PÓNGASE EN CONTACTO CON EL OPERADOR PARA HABLAR DE SUS ÁREAS DE OPERACIÓN Y SISTEMAS DE TUBERÍAS

PRODUCTS/DOT GUIDEBOOK ID#/GUIDE#		
NATURAL GAS	1971	115

*****EMERGENCIA LLAMA*****
1-866-797-6286



Operator's Manual



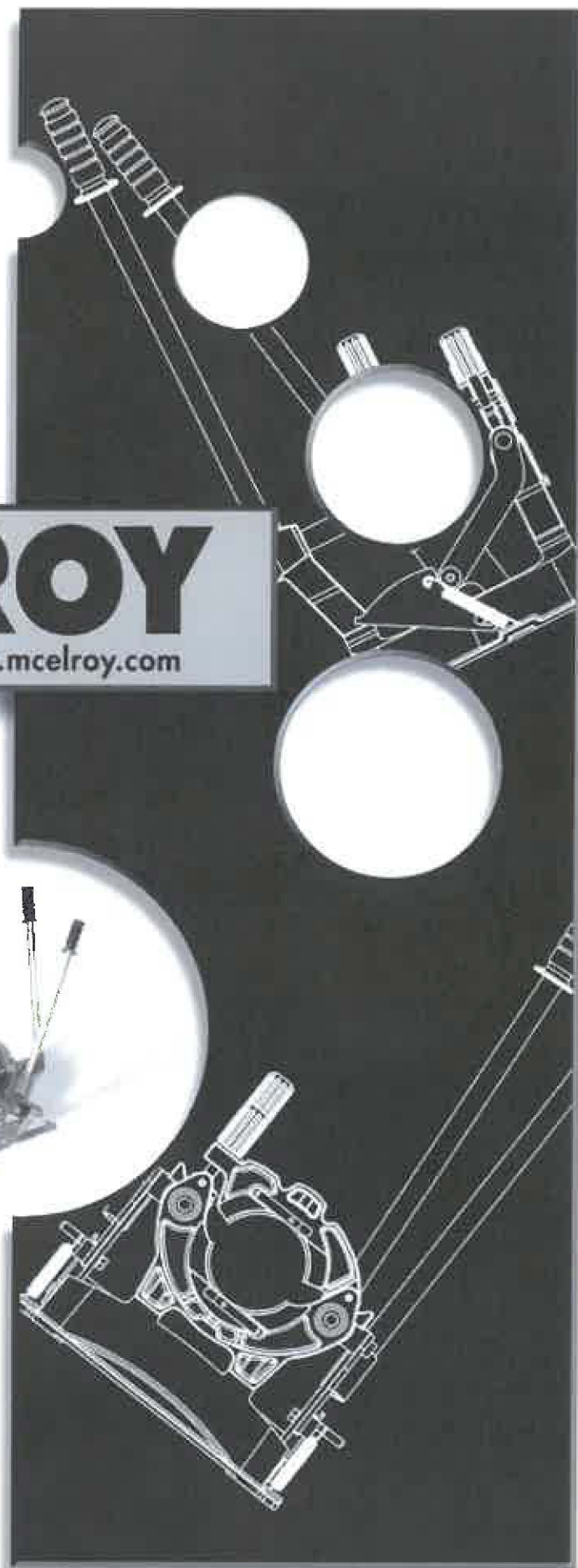
McELROY

www.mcelroy.com



2LC and Pit Bull® 14 Fusion Machines

Manual: 433901 Revision: 5 06/16
Original Language: English



This product and other products
could be protected by patents or
have patents pending. All the latest
patent information is available at
patent.mcelroy.com



Introduction



Thank You for choosing McElroy

The 2LC (Locking Cam) and Pit Bull® 14 model fusion machines are designed to butt fuse polyethylene pipe as well as tees, ells and other fittings.

If fusing other thermoplastic pipe materials, refer to the pipe manufacturer's fusion procedures or appropriate joining standard.

The 2LC fuses 1/2" CTS to 2" IPS (20mm to 60mm).

The Pit Bull 14 fuses 1" IPS through 4" DIPS (32mm through 122mm) A four-wheel cart is also available.

With reasonable care and maintenance, these machines will give years of satisfactory service.

Before operating this machine, please read this manual thoroughly, and keep a copy with the machine for future reference. This manual is to be considered part of your machine.

TX01083-9-22-09



PH013443725-00

McElroy University

For more than 30 years, McElroy has been the only pipe fusion machine manufacturer to continuously offer advanced training. Course offerings are meant to enhance your efficiency, productivity and safety in the proper use of McElroy machines. McElroy University classes are structured so that the skills learned and the machines used in each class closely match the machines found on pipelining jobsites. We offer training at our facility or yours. Our uniquely qualified McElroy University course instructors offer years of industry experience.

Tuition for each course includes lunches, course materials and a certificate of completion. Online registration, as well as up-to-date course offerings and dates, is available at www.mcelroy.com/university

This manual is intended as a guide only and does not take the place of proper training by qualified instructors. The information in this manual is not all inclusive and can not encompass all possible situations that can be encountered during various operations.



ML02-03-13-14



LIMITED WARRANTY

McElroy Manufacturing, Inc. (McElroy) warrants all products manufactured, sold and repaired by it to be free from defects in materials and workmanship, its obligation under this warranty being limited to repairing or replacing at its factory and new products, within **5 years** after shipment, with the exception of purchased items (such as electronic devices, pumps, switches, etc.), in which case that manufacturer's warranty applies. Warranty applies when returned freight is prepaid and which, upon examination, shall disclose to have been defective. This warranty does not apply to any product or component which has been repaired or altered by anyone other than McElroy or has become damaged due to misuse, negligence or casualty, or has not been operated or maintained according to McElroy's printed instructions and warnings. This warranty is expressly in lieu of all other warranties expressed or implied. The remedies of the Buyer are the exclusive and sole remedies available and Buyer shall not be entitled to receive any incidental or consequential damages. Buyer waives the benefit of any rule that disclaimer of warranty shall be construed against McElroy and agrees that such disclaimers herein shall be construed liberally in favor of McElroy.

RETURN OF GOODS

Buyer agrees not to return goods for any reason except upon the written consent of McElroy obtained in advance of such return, which consent, if given, shall specify the terms and conditions and charges upon which any such return may be made. Materials returned to McElroy, for warranty work, repair, etc., **must have a Return Material Authorization (RMA) number**, and be so noted on the package at time of shipment. For assistance, inquiry shall be directed to:

McElroy Manufacturing, Inc.
P.O. Box 580550
833 North Fulton Street Tulsa, Oklahoma 74158-0550
PHONE: (918) 836-8611, FAX: (918) 831-9285.
EMAIL: fusion@McElroy.com

Note: Certain repairs, warranty work, and inquiries may be directed, at McElroy's discretion, to an authorized service center or distributor.

DISCLAIMER OF LIABILITY

McElroy accepts no responsibility of liability for fusion joints. Operation and maintenance of the product is the responsibility of others. We recommend qualified joining procedures be followed when using McElroy fusion equipment.

McElroy makes no other warranty of any kind whatever, express or implied; and all implied warranties of merchantability and fitness for a particular purpose which exceed the aforesaid obligation are hereby disclaimed by McElroy.

PRODUCT IMPROVEMENT

McElroy reserves the right to make any changes in or improvements on its products without incurring any liability or obligation to update or change previously sold machines and/or the accessories thereto.

INFORMATION DISCLOSED

No information of knowledge heretofore or hereafter disclosed to McElroy in the performance of or in connection with the terms hereof, shall be deemed to be confidential or proprietary, unless otherwise expressly agreed to in writing by McElroy and any such information or knowledge shall be free from restrictions, other than a claim for patent infringement, is part of the consideration hereof.

PROPRIETARY RIGHTS

All proprietary rights pertaining to the equipment or the components of the equipment to be delivered by McElroy hereunder, and all patent rights therein, arising prior to, or in the course of, or as a result of the design or fabrication of the said product, are exclusively the property of McElroy.

LAW APPLICABLE

All sales shall be governed by the Uniform Commercial Code of Oklahoma, U.S.A.

Register your product online to activate your warranty: www.McElroy.com/fusion

(Copy information listed on the machine nameplate here for your records).

Model No. _____

Serial No. _____

Date Received _____

Distributor _____



Table of Contents



Safety

Safety Alerts	1-1
Read and Understand	1-1
General Safety	1-2
Wear Safety Equipment	1-2
Heater is Not Explosion Proof	1-2
Electric Motors are Not Explosion Proof	1-3
Electrical Safety	1-3
Facer Blades are Sharp	1-3
Heater is Hot	1-4
Do Not Tow Fusion Machine at Speeds Greater than 5 MPH	1-4
Positioning Fusion Machine	1-4
Transporting 2LC and 2CU Units	1-5
Fusion Procedures	1-5

Overview

Theory of Heat Fusion	2-1
Pit Bull 14 Cart	2-2
Reversible Jaws & Levers	2-3
Outrigger Pipe Supports	2-3
Electric Facer	2-4
Manual Facer	2-4
Cam Lock	2-4
Heater	2-5
Insulated Heater Stand	2-5

Operation

Read Before Operating	3-1
Prepare Heater	3-1
Install Clamping Inserts	3-2
Loading Pipe into Machine	3-2
Inserting Facer	3-2
Positioning Pipe in Machine	3-3
Facing the Pipe Manually	3-3
Electric Facer	3-3
Check Alignment of Pipe	3-4
Check Heater Temperature	3-4
Inserting Heater	3-5
Heating the Pipe	3-5
Fusing the Pipe	3-5
Optional Use of Torque Wrench	3-6
Removing Pipe	3-6

COPYRIGHT © 2016, 2014, 2013, 2009

McELROY MANUFACTURING, INC.

Tulsa, Oklahoma, USA

All rights reserved

All product names or trademarks are property of their respective owners. All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.



Table of Contents



Maintenance

Preventative Maintenance	4-1
Cleaning the Machine	4-1
Clean and Lubricate Guide Rods	4-1
Pivot Pins and Shafts.	4-1
Remove Dirt	4-2
Clean and Lubricate Bearings	4-2
Clean Eyebolt Threads	4-2
Fasteners Must be Tight.	4-2
Installing Butt Fusion Heater Plates	4-3
Clean Heater Surfaces	4-3
Adjusting Heater Temperature	4-3
Heater Indicator Light	4-4
Facer and Blades.	4-4
Facer Guides.	4-4
Removable Cam Locks	4-5

Maintenance Checklist

Maintenance Checklist	5-1
---------------------------------	-----

Determine Fusion Force

Determine Fusion Force.	6-1
---------------------------------	-----

Specifications

2LC, Pit Bull 14 and Pit Bull 14 Cart	7-1
---	-----



Safety



Safety Alerts

This hazard alert sign  appears in this manual. When you see this sign, carefully read what it says. **YOUR SAFETY IS AT STAKE.**

You will see the hazard alert sign with these words: **DANGER**, **WARNING**, and **CAUTION**.

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

In this manual you should look for two other words: **NOTICE** and **IMPORTANT**.

NOTICE: can keep you from doing something that might damage the machine or someone's property. It may also be used to alert against unsafe practices.

IMPORTANT: can help you do a better job or make your job easier in some way.



TX00030-12-1-92

WR00051-11-30-92

Read and Understand

Do not operate this equipment until you have carefully read, and understand all the sections of this manual, and all other equipment manuals that will be used with it.

Your safety and the safety of others depends upon care and judgment in the operation of this equipment.

Follow all applicable federal, state, local, and industry specific regulations.

McElroy Manufacturing, Inc. cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and on the machine are therefore not all inclusive. You must satisfy yourself that a procedure, tool, work method, or operating technique is safe for you and others. You should also ensure that the machine will not be damaged or made unsafe by the method of operation or maintenance you choose.



TXD2946-4-15-09

WR00052-12-1-92



Safety



General Safety

Safety is important. Report anything unusual that you notice during set up or operation.

LISTEN for thumps, bumps, rattles, squeals, air leaks, or unusual sounds.

SMELL odors like burning insulation, hot metal, burning rubber, hot oil, or natural gas.

FEEL any changes in the way the equipment operates.

SEE problems with wiring and cables, hydraulic connections, or other equipment.

REPORT anything you see, feel, smell, or hear that is different from what you expect, or that you think may be unsafe.



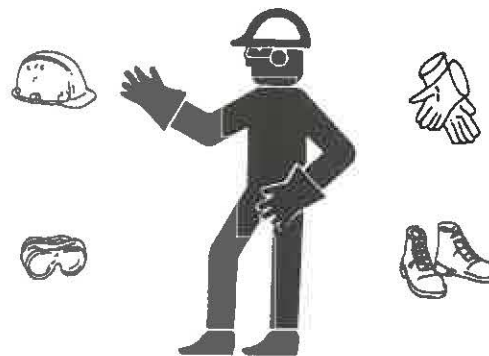
SAFE1ST-122292

TX00114-4-22-93

Wear Safety Equipment

Wear a hard hat, safety shoes, safety glasses, and other applicable personal protective equipment.

Remove jewelry and rings, and do not wear loose-fitting clothing or long hair that could catch on controls or moving machinery.



WR00053-122-92

TX00032-4-7-93

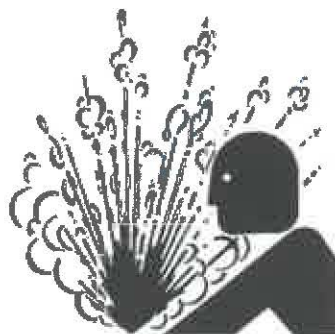
Heater Is Not Explosion Proof



DANGER

This heater is not explosion proof. Operation of heater in an explosive atmosphere without necessary safety precautions will result in serious injury or death.

When operating in an explosive atmosphere, the heater should be brought up to temperature in a safe environment, then unplugged before entering the explosive atmosphere for fusion.



WR00034-1-30-92

TX04467-03-24-14



Safety



Electric Motors are Not Explosion Proof



DANGER Electric motors are not explosion proof. Operation of these components in an explosive atmosphere without necessary safety precautions will result in serious injury or death.

The armature brushes must be removed from the electric motor when manually operating in an explosive atmosphere. Unscrew the brushes from both sides of the motor. (Both brushes must be removed). A 7/8" hex shaft allows for manual operation in explosive atmospheres.

TX00873-03-25-14



WR00063-4-1-073

Electrical Safety



WARNING Always ensure equipment is properly grounded. It is important to remember that you are working in a wet environment with electrical devices. Proper ground connections help to minimize the chances of an electric shock.

Frequently inspect electrical cords and unit for damage. Have damaged components replaced and service performed by a qualified electrician.

Do not carry electrical devices by the cord

NOTICE: Always connect units to the proper power source as listed on the unit, or in the owner's manual.

NOTICE: Disconnect the battery before attempting any maintenance or adjustment.

TX00105-6-12-13



WR00055-4-7-93



WR00025-1-1-30-02

Facer Blades Are Sharp

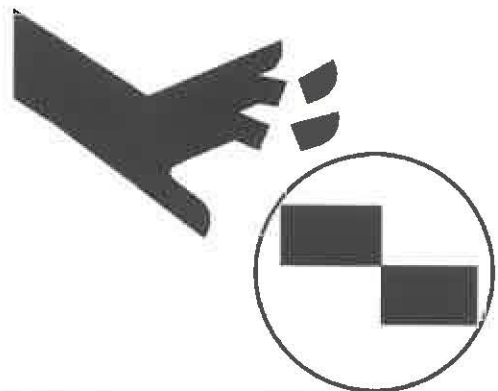


WARNING Facer blades are sharp and can cut. Never attempt to remove shavings while the facer is running, or is in the facing position between the jaws. Use care when operating the facer, and when handling the unit.

NOTICE: Disconnect power from the facer, and remove the facer blades before attempting any maintenance or adjustment.

NOTICE: Never extend the facer blades beyond the inner or outer circumference of the facer.

TX05045-06-03-16



WR00073-4-6-93



Safety



Heater is Hot

CAUTION

The heater is hot and will burn clothing and skin. Keep the heater in its insulated heater frame or stand when not in use, and use care when heating the pipe.

NOTICE: Use only a clean dry lint free non-synthetic cloth to clean the heater butt plates.

TX04244-04-18-16

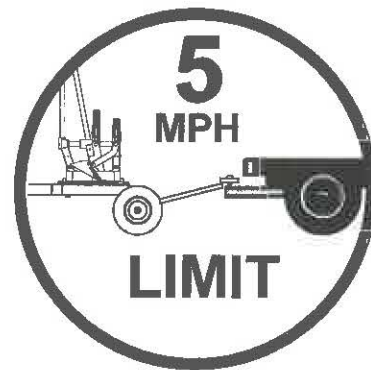


WR000302-10-93

Do Not Tow Fusion Machine at Speeds Greater than 5 MPH

NOTICE: The chassis is not designed for over-road towing. Towing at speeds greater than five miles per hour can result in machine damage as well as injury. Always transport the machine by flatbed truck or similar means, and make sure that unit is properly secured.

TX00101-6-12-13

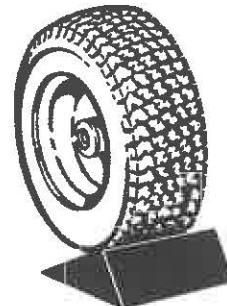


CD006327-25-00

Positioning Fusion Machine

Place fusion machine on as level ground as possible, and set the brake on the rear wheel. If it is necessary to operate machine on unlevel grade, chock the wheels and block the unit to make it as stable as possible.

TX00112-9-15-94



WR00076-4-7-93



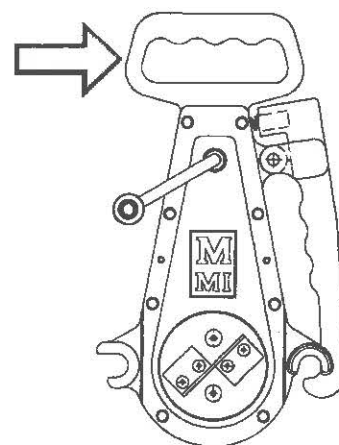
Safety



Transporting 2LC and 2CU Units

On smaller machines it is easiest to carry the unit if the facer is securely installed and locked on the fusion unit. The facer has a handle that allows the unit to be firmly grasped and carried.

NOTICE: Do not carry unit by the lever handles because they can release or bend. Care must be used if the unit is grasped elsewhere because numerous pinch points exist.



TX00111-4-22-93

WR00081-4-22-93

Fusion Procedures

Obtain a copy of the pipe manufacturer's procedures or appropriate joining standard for the pipe being fused. Follow the procedure carefully, and adhere to all specified parameters.

NOTICE: Failure to follow pipe manufacturer's procedure could result in a bad joint. Always follow pipe manufacturer's procedures.



TX04469-10-24-12

WR00079-1-24-96

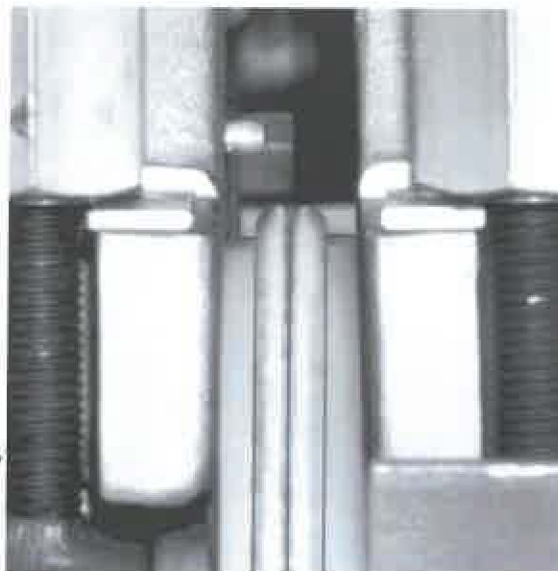


Theory of Heat Fusion

The principle of heat fusion is to heat two pipe surfaces to a designated temperature, and then fuse them together by application of force. This develops pressure which causes flow of the melted materials, which causes mixing and thus fusion. When the thermoplastic material is heated, the molecular structure is transformed into an amorphous condition. When fusion pressure is applied, the molecules from each thermoplastic part mix. As the joint cools, the molecules return to their form, the original interfaces are gone, and the fitting and pipe have become one monolithic unit. A strong, fully leak tight connection is the result.

The principal operations include:

- Clamping** The pipe pieces are held axially and radially to allow all subsequent operations to take place.
- Facing** The pipe ends are faced to establish clean, parallel mating surfaces perpendicular to the centerline of the pipes.
- Aligning** The pipe ends are aligned with each other to minimize mismatch of the pipe walls.
- Heating** A melt pattern that penetrates into the pipe is formed around both pipe ends.
- Fusing** The melt patterns are joined with a specified force, which is constant around the pipe interfacial area.
- Cooling** The fusion joint is held immobile with a specified force until adequately cooled.
- Inspecting** Visually examine the entire circumference of the joint for compliance with the standard or fusion procedure used.



PH00363B-1-4-96



Overview



Pit Bull 14 Cart

The Pit Bull 14 fusion machine can be mounted on a 14 four wheel cart for mobility and movement along the pipe line.

There is a clamping wheel lock on the left rear wheel to prevent rolling.

The cart is not designed for over-road towing.

NOTICE: Towing at speeds greater than 5 mph can result in machine damage. Always transport the machine by flatbed truck or similar means.

The tongue on the tow bar has a ring to slip over a ball hitch so the machine can be conveniently maneuvered at the job site.

The cart has outrigger pipe supports that conveniently stow under the cart when not in use.

The Pit Bull 14 Fusion Machine can be mounted on the cart in any one of three orientations. Older 14 Fusion Machines can be mounted in one orientation. The machine is secured by two mounting posts and a sliding clamp block with an adjustable clamping lever.

To mount the fusion machine on the cart slide the mounting block toward the tow bar. Insert one edge of the fusion machine base under the mounting posts. Slide the clamp block up against the other edge and secure it with the adjustable clamping lever. To disengage and swivel the adjustable clamping lever handle pull up on it by pressing the button with a thumb.

Please note the mounting position for older style 14 Fusion Machine. Use the two inboard mounting posts.

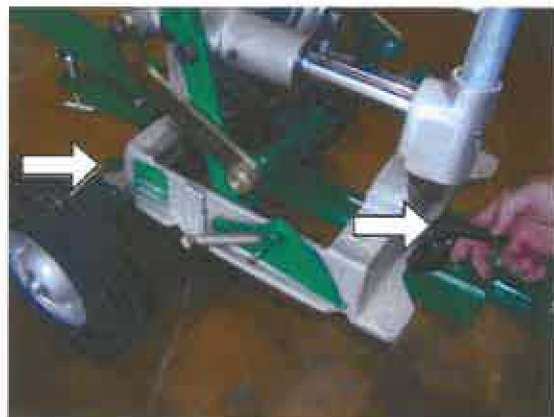
Please note mounting position for newer style Pit Bull 14 Fusion Machine. Use the two outboard mounting posts.



PH01876725-00



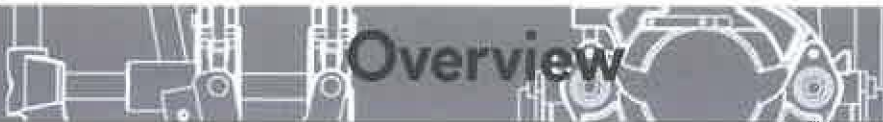
PH01891725-00



PH01867725-00



PH01872725-00



Overview



Reversible Jaws & Levers

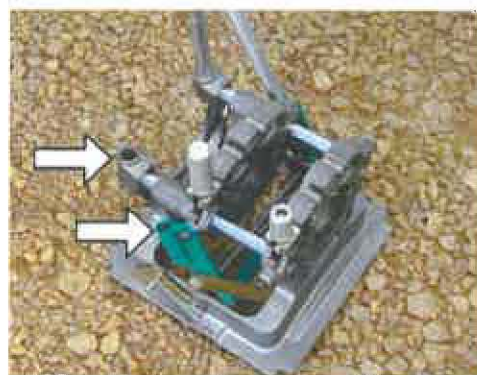
The Pit Bull 14 upper jaws and control levers are reversible from one side to the other. This allow the machine to be operated from either side. The jaws and clamp knobs can be removed by using a pair of snap ring pliers to release the hinge pins.

The lever handles can be moved from one side to the other by depressing their spring pins and pulling them out. Put the lever in the desired socket and make sure its pin engages the hole. The levers should be on the side opposite the clamp knobs.

NOTICE: When the top jaws are reversed they should be switched between lower jaws so that the spring pins are both on the outboard sides away from the facer blades.



PH01881-025-00



PH01880-725-00

TX02060-6-12-13

Outrigger Pipe Supports

The Pit Bull 14 cart comes equipped with two outrigger pipe supports that can be used to help line up the pipe in the machine. When not in use they are fastened with pins under the cart.

To use the outriggers, simply remove attaching pins, pull outriggers out and reinstall on the top front and back of the cart with attaching pins.

The outriggers rest on adjusting screws that can be adjusted up or down for proper pipe alignment. A wing nut on each adjusting screw locks the screw setting in place.



PH01860-725-00



PH01847-25-00



PH01871-025-00

TX01844-6-12-13



Overview



Electric Facer

The facer is a McElroy rotating planer block design. The blade holders each contain two cutter blades. The block rotates on ball bearings and is chain driven (enclosed in lubricant) by a heavy duty electric motor. When operating in a explosive atmosphere, operate the facer manually.



DANGER Electric motors are not explosion proof. Operation of these components in an explosive atmosphere will result in serious injury or death.

The armature brushes must be removed from the electric motor when manually operating in a hazardous condition. Unscrew the brushes from both sides of the motor. (Both brushes must be removed). A 7/8" hex shaft allows for manual operation in explosive atmospheres.

The facer has a handle that latches into place on a guide bar. The handle must be pulled out to unlatch and remove facer.

The electric facer is symmetrical and can be inserted from either side.

The facer should be stored in the stand when not in use.

NOTICE: Never extend the blade beyond the inner or outer circumference of the facer.



PH02310-4-29-02

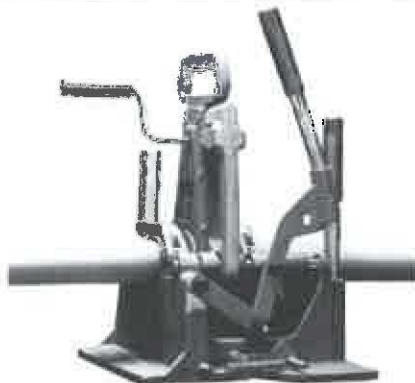


PH01847-7-25-00

TX02472-04-16-14

Manual Facer

The manually operated facer has a hand powered crank. Turn the crank counterclockwise for facing.

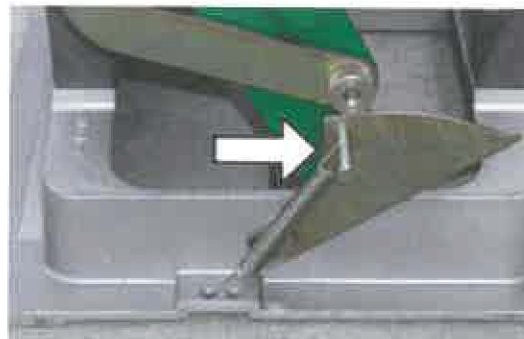


PH00557-1-4-96

TX00836-1-5-96

Cam Lock

A semi-automatic cam locking system locks the movable jaw during the cooling cycle.



PH01846-7-25-00

TX00837-1-5-96



Overview



Heater

⚠ DANGER

Heater is not explosion proof. Operation of heater in an explosive atmosphere without necessary safety precautions will result in serious injury or death.

If operating in an explosive atmosphere, heater should be brought up to temperature in a safe environment, then unplugged before entering the explosive atmosphere for fusion.

The heater has a green indicator light which will flash on and off. This indicates that the controller is operating normally. If the green indicator is not flashing then the controller may not be operating properly. If this occurs, disconnect power and have the heater repaired by a McElroy Authorized Service Center.

The heater temperature is controlled by a microprocessor. It has a red indicator light on the handle at the bottom of the temperature scale. When the heater is plugged in and preheating the light glows steadily until the set temperature is reached. The light then goes off and on slowly as the heater maintains temperature.

The heater body is not coated. Coated fusion heater adapters are available for all fusion applications.

NOTICE: The heater should never be used without fusion heater adapters installed.

To prevent a build-up of plastic pipe residue from accumulating on the heater plates (loss of surface temperature and pipe sticking may result), the heater plates should be cleaned with a clean dry lint free non-synthetic cloth before every fusion joint.



PH02331-4-29-02



PH02322-4-29-02

TX02216-06-03-16

Insulated Heater Stand

The heater should always be stored in the insulated heater stand or blanket for protection of the operator and to minimize heat loss and risk of mechanical damage.



PH02330-4-29-02

TX00363-9-15-94



Operation



Read before Operating

Before operating this machine, please read this manual thoroughly and keep a copy with the machine for future reference.

The fusion procedures in this manual are for use with the polyethylene pipe. If fusing other thermoplastic pipe materials, refer to the pipe manufacturer's suggested procedures or appropriate joining standard.



TX00838-9-28-09

PH01054-9-20-07

Prepare Heater



DANGER Heater is not explosion proof. Operation of heater in an explosive atmosphere without necessary safety precautions will result in serious injury or death.

If operating in an explosive atmosphere, heater should be brought up to temperature in a safe environment, then unplugged before entering the explosive atmosphere for fusion.

Install butt fusion heater plates.

NOTICE: The heater should never be used without butt fusion heater plates installed. Refer to the "Maintenance" section of this manual for installation procedure.

Place heater in insulated heater stand.

Plug heater into a proper power source.

Allow heater to warm-up to operating temperature.

Refer to the "Maintenance" section of this manual for instructions on how to adjust heater temperature.



TX00366-04-16-14

PH02330-4-29-02

PH02330-4-29-02



Operation



Install Clamping Inserts

Select and install appropriate clamping inserts for the pipe that is being fused.

For use with 4" DIPS pipe the 4" IPS masters inserts must be removed. Pull the spring pins out of their hole and rotate them outward putting the pin in the jaw pockets. Loosen the insert attachment screw with the furnished 5/32" hex screwdriver then rotate the insert in the jaw so the keyhole lines up with the screw head and pull out the insert.

X01846-725-00



PH01856-725-00



PH01883-725-00

Loading Pipe Into Machine

Clean the inside and outside of pipe ends that are to be fused. Open the upper jaws and insert pipe in each pair of jaws with applicable inserts installed. Let the ends of the pipe protrude about 1" past the face of the jaws. Close upper jaws but do not clamp tight.

TX01847-725-00



PH01871-725-00

Inserting Facer

Place the end opposite the handle onto the far guide rod, then lower the facer handle end down onto the near guide rod and latch.

TX01851-725-00



PH01885-725-00



Operation



Positioning Pipe in Machine

Position the facer on the guide rods and lock into position. Using lever handle, bring pipe ends together against the facer, watching the gap between the facer stops and the pipe clamping jaws. Leave enough gap so that proper face-off will be achieved when the facer stops are bottomed out against the clamps. Tighten the pipe clamp knobs by hand until firm resistance is felt. Do not over-tighten.

NOTICE: Thoroughly clean all dirt and debris from pipe ends before facing.

TX00839-1-5-96



PH01870-725-00

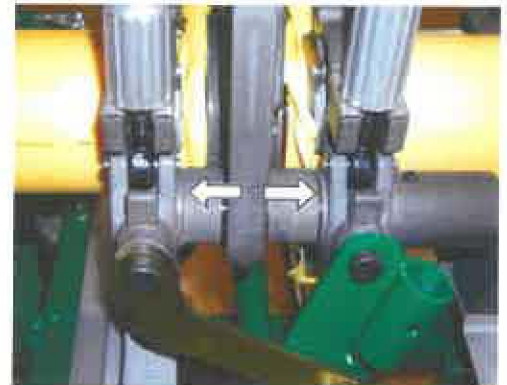
Facing the Pipe Manually

Turn facer handle counterclockwise and apply firm pressure on lever handle. Continue facing until facer stops have bottomed out against the clamping jaws. Stop rotation of facer. Move jaws apart.

Unlatch and remove facer. Remove shavings from pipe ends and machine. Do not touch faced pipe ends.

Inspect both pipe ends for complete face off. If the face off is incomplete, return to **Loading Pipe Into Machine**.

TX01848-725-00



PH001869-725-00

Electric Facer

The electric facer should be started before the pipe is pushed into contact with the blades. Continue facing until the facer stops are against the jaws then turn off the facer while continuing to hold pressure closed on the lever until the facer stops completely.

Reverse direction to the lever handle to move the pipe ends away from the facer. Unlatch and remove the facer taking care not to touch the pipe ends. Remove shavings from pipe ends and machine. Do not touch faced pipe ends as this may contaminate them.

If after facing any imperfections are visible on the ends of the pipe move the pipe inward and reface.

Any time clamp knobs are tightened pipe ends should be refaced.

TX01851-06-03-16



PH01886-725-00

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

8/30/2016 5:28:00 PM

in

Case No(s). 16-1578-GA-COI

Summary: Testimony of Darryl Knight on behalf of Ohio Rural Natural Gas Co-op (Part 9-Exhibits Continued) electronically filed by Mr. Richard R Parsons on behalf of Ohio Rural Natural Gas Co-op