Date: 2-29-11 Comm ARMI
Date. J=2/76 Crew: OK/16 Prepared By: 170w/24 ML WO# SL WO#
Address: 7377 Acynoles Mer Sub./Lot#:
Cust. Name 7 illet Sys. Name & No.: Bldg. Type Res Com Indus.
Company SL Info: New Repair Replace Customer SL Info: New Repair Replace
Size:/ Length: Sat DI CODP // SCT WIT
Installer of the SDR/1, SI WI Size/ Length: W PL USDR // SST WT
Mistaller:(Name or) Orw of Contractor I Installer:(Name or) C//(NG Contractor
Introduction         Billable: Y         N         Direct Observation
EFV Yes V No SL Valve Yes No
Tested By: A. A. Dreamer C.A. march D
Tested By nowing Pressure y O (PSIG) Duration / Omin Med Ar Acceptable Test: Y N
<u>rested By:</u> <u>Pressure</u> (PSIG) Duration Med <u>Acceptable Test</u> ; Y N
Main Line Information
Pipe Type Pipe Diameter: 1" Is the pipe able to be located? VII N
Cher (Specify:
Pipe Details: (MFG: Type: Wall Thickness/SDD: MEC Details)
Internal Inspection
Is the inside nine accessible: V Internal Condition (If accessible) Smarth D Bitter 18, Decut
Any Fluid: Y NuZ Type of Fluid:
External Inspection
Is the pipe under Cathedia Destantion X VI NICE Dia Continia Contractor and the Cathedia Destantion X
Is the pipe under Cathodic Protection: Y N Pipe Condition: Y Smooth Pitted& Depth:
Coating Condition (If Coated): [ Good ] Fair Poor Backfill Condition: [ Good Fair Poor
New Anodes Installed: Y N How Many: / Anode Size: 20
Use sketch area to list additional fitting information Sketch Indicate North
PPS Coordinates of Ten Longitude (V)
Latitude(Y): Louse Riser to nearest corner of structure $O/L$ by the EEV/ $V/L_{ex}$ $O/L = O/L = O/L$
Carm Tap Riser to nearest corner of structure C/L Dr to EFV/VIV. C/L OI SL TO EFV/VIV.
Fested and installed according to current O&M Procedures-Signature

	Data: 11 17 -16 0 02000 000								
	Date: 11-12 [] Crew: OF DG- USTRICHARD Prepared By: ML WO# L9-2015 SL WO# L9-2015								
	Address: 800 OAK ST. Puille Cty/Twp Puille Ohr? Sub./Lot#:								
	Cust. Name LAKE George A Recovery Confl Sys. Name & No. ORNG TI-001 Bldg. Type Res Com Indus								
	Company SL Info: New A Repair Replace Customer SL Info: New Repair Replace								
	Since 1 <sup>th</sup> and the property of the second s								
	Size: Z Length: PL VSDR ST WT Size: Length: /65_PL SDR ST WT								
	Installer: (Name or) VMPUG Contractor X Installer: (Name or) ORNG Contractor								
	Mtr Size/Tag# Reg/Orf Billable: Y N Direct Observation								
	EFV Yes No SL Valve Yes No								
Z	Tested By Strick Do Pressure OD (1910) Duration 12 to 214 1 Ala								
2	Tested By Server and Pressure 90 (PSIG) Duration 10 Mir/ Med A. Acceptable Test: YH N								
60	<u>I ested By: Shire Word Pressure (55 (PSIG)</u> Duration 22445 Med Nithoren Acceptable Test: Y N								
	Main Line Information								
	Pipe Type Pipe Diameter: $\mathcal{Y}'$ Is the pipe shift to be located? VIT N								
	Plastic								
	Steel (Fusion Bonded Epoxy V Extruded Polyethylene Tar & Wran Bare)								
	Other (Specify:								
	Pipe Details: (MEG: Type: NU-11 Think to a first provide the second seco								
	Internal Inspection								
	Is the inside pipe accessible: Y I Internal Condition (If accessible) Smooth Pitted& Depth:								
1	Any Fluid: Y N Y Type of Fluid:								
	External Inspection								
	Is the pipe under Cathodic Protection: YV N Pipe Condition: V Smooth Pitted& Depth:								
	Coating Condition (If Coated): V Good Fair Poor Backfill Condition: V Good Fair Poor								
	New Anodes Installed: V NV How Many:								
	New Anodes Instaned: Y How Many: Anode Size:								
L									
	Use sketch area to list additional fitting information Sketch Indicate North								
	E. 1095/014 FROM C/L OF ELMST-EAST								
	A E>1010.011 I FORT								
	25' FROM C/L to STATION								
	STATION ZI FROM E. P./L.								
1	Visit and its To BLO.								
	165 SERVICE LICE								
	WH 1073:614 OAK ST 4, 25' 4/2								
	5 21' FROM MI								
	PIN#								
	W - 154.00800050								
	100 DEKST								
	(V)767270.2362 " " WILE ON 44077								
	GPS Coordinates of Tary Landwide (N) 7317880 41777								
	House Riser to nearest corner of structure								
	Farm Tap Riser to nearest corner of structure C/L DF. to EFV/VIV. C/L of St. to EFV/VIV.								
,	Tested and installed according to ourrent O RM Programmer Structure Structur								
Ŀ	Date								

Date: 9-24-15 Crew: ORN/6					
Address: 13/14/ Lacov Agent	Prepared By:	ML WO# SL WO#			
Cust Name MUZIC	<u>Cly/Iwp Levey</u>	Sub./Lot#:			
Sys. Nat		Bldg. Type Res Com Indus.			
Company SL Info: <u>New Repair</u> Repla	ce Customer	SL Info: New Repair Replace			
Size: / Length: PL SDR // ST WT	<u>Size: / "Leng</u>	th: 76' PL SDR // ST WT			
Installer:(Name or) ORNC Contractor	Installer:(Nat	me or) ORNG Contractor			
Mtr Size/Tag# Reg/Orf	Billable: Y	N Direct Observation			
EFV Yes Nolv SL Valve Yes	10				
Tested By: ORN& Pressure 90 (PSIG)	_ Duration 10 Min Med A	Acceptable Test: VII N			
Tested By: Pressure (PSIG)	Duration Med	Acceptable Test: Y N			
I	Main Line Information				
Pipe Type Pipe Diameter:	Is the pipe able to be	e located? Y			
Plastic /	• •				
Steel ( Fusion Bonded Epoxy Extrud	led Polyethylene 🗌 Tar & Wra	ap 🗔 Bare)			
Pipe Details: (MFG:Type:	Wall Thickr	ness/SDR · MEG Date:			
Internal Inspection					
Is the inside pipe accessible: Y N Inte	rnal 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: 🗹 Smo	oth Pitted& Depth:			
Coating Condition (If Coated): 🗹 Good 🗌 Fair 🛄 Poor Backfill Condition: 🔽 Good 🗍 Fair 🗍 Poor					
New Anodes Installed: Y NV How Many: Anode Size:					
Use sketch area to list additional fitting information	Sketch	Indicate North			
	$\frown$	,			
		N			
	House	1			
	Ling birt				
~?»		V			
9270		¢.			
782		· )· · · · ·			
	A 11-2 1	gos 144.2			
	RODD				
		-			
GPS Coordinates of Tap: Longitude (X):	Latitude(Y):				
House Riser to nearest corner of structure	C/L Dr. to EFV/VIv				
Form Ton Diroc to moneyat comment of the st		<u>C/L of St. to EFV/Vlv.</u>			
Tested and installed and insta	C/L Dr. to EFV/VIV.	C/L of St. to EFV/Vlv. C/L of St. to EFV/Vlv.			

Deter (1-21) 15 Com	
Date: 4-27-75 Crew: Prepar	ed By: Seriking MIL WO# SL WO#
Address: 1232/ Colter Rel Cty/I	wp (me orde Sub./Lot#:
Cust. Name Douvd Sys. Name & No.:	Bldg. Type Rest Com Indus.
Company SL Info: <u>New Repair</u> Replace	Customer SL Info: New Repair Replace
Size: / Length: WI PL V SDR // ST WT	Size:/ Length: 130' PL SDR // ST WT
Installer:(Name or) ORNG Contractor	Installer:(Name or) ORNG Contractor
Mtr Size/Tag# Reg/Orf	Billable: V N Direct Observation
EFV Yes No V SL Valve Yes No	Direct Observation
Tested By: ORN/ Pressure 90 (PSIG) Duration Tested By: Micklam Pressure 750 (PSIG) Duration	IO nin     Med     I Acceptable Test:     Y     N       Med     Vit OgenAcceptable Test:     Y     N
Main Line I	pformation
Pipe TypePipe Diameter:2 "Is	the pipe able to be located? $Y$ N
Plastic	
Steel ( Fusion Bonded Epoxy Extruded Polyethy	lene V Tar & Wran Bare)
Other (Specify:	
Pine Details: (MEG: Tyme:	Wall Thiskness (SDD. MEC Data
Internal Ingraction	wan Thickness/SDR:MFG Date:)
Is the inside pipe accessible: Y N Internal Conditi	on(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): C Good C Fair C Poor	Backfill Condition: Good Fair Door
New Anodes Installed: V NV How Monve	Anoda Siza
	Alloue Size.
Use sketch area to list additional fitting information Sketc	h Indicate North
House	I ∕ IV
Milers	6 Drive
	NP D. C
905	
	L'STE DE
Linet ma	STEWE
Linet m	JEOP STE WEDT
Linet 12	FEDP + Gis Main
Linet Mark	For KGis Main
Linet Mark	TEOP KGis Milin
Linet Mark	FOP Cris redin
GPS Coordinates of Tap: Longitude (X):	TEOP KGis redin
GPS Coordinates of Tap: Longitude (X): House Riser to nearest corner of structure	$\frac{G}{G} = \frac{G}{G} = \frac{G}$
GPS Coordinates of Tap: Longitude (X):       Latitude         House Riser to nearest corner of structure       C/L Dr         Farm Tap Riser to nearest corner of structure       C/L Dr	(Y): $(Y):$
GPS Coordinates of Tap: Longitude (X):       Latitude         House Riser to nearest corner of structure       C/L Dr         Farm Tap Riser to nearest corner of structure       C/L Dr         Tested and installed according to current O&M Procedures-Signature	$(Y): \qquad (Y): \qquad C/L of St. to EFV/VIv. to EFV/VIv. C/L of St. to EFV/VIv. Date 9-2/-15$

Attachment DK-15

## **CATHODIC PROTECTION REPORT**

Company: ORNG

System Name: Dowd 12321 Carter Rd	System No:
Criteria Used:	Survey For Calendar Year: 20_6
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 □ No

Page \_\_\_\_\_ of \_\_\_\_\_

	Reading	Structure to So	il [-] Volts
ion	Read 1	Read 2	Read
	1.321		

Test Point #	Location/Description	Read 1	Read 2	Read 3
1	A	1221		
	Jam tap	1.321		
				1
	······································			

Company: ORNG

System Name:	Reynolds
Criteria Used:	-850mV
Total Test Points	
Total Points In Compliance	
Inspected By Dave	Stanish

Page\_\_\_\_\_\_ of \_\_\_\_\_

System No:
Survey For Calendar Year: 2016
Date(s) Of Survey <u>4/13/16</u>
Total Points Out Of Compliance
Remedial TP Numbers

Remedial Report(s) Completed? 

Ves 
No

		Reading S	ng Structure to Soil [-] Volts	
Test Point #	Location/Description	Read 1	Read 2	Read 3
	Farm Tap	Neg 1, 376		
				<u>.                                    </u>
·				
				·

Company: ORNG

System Name:	174k St			
Criteria Used:	-850mV			
Total Test Points	/			
Total Points In Compliance				
Inspected By Dav	c Stanish			

System No: 77 - 00/	
Survey For Calendar Year: 20_//	_
Date(s) Of Survey <u>4/13/16</u>	
Total Points Out Of Compliance	_
Remedial TP Numbers	
Remedial Report(s) Completed?   Ves  No	-

Reading Structure to Soil [-] Volts

Page \_\_\_\_\_ of \_\_\_\_

Test Point #	Location/Description	Read 1	Read 2	Read 3
/	Sarm tap inlet Biser	.646		
		<u> </u>		
		<u> </u>		

Company: ORNG

System Name: william	s Rd Barn
Criteria Used:	-850mV
Total Test Points	/
Total Points In Compliand	ce/
Inspected By Dire	Stanish

System No:
Survey For Calendar Year: 2016
Date(s) Of Survey <u>4/13/16</u>
Total Points Out Of Compliance
Remedial TP Numbers
Remedial Report(s) Completed?   Yes  No

Page \_\_\_\_\_ of \_\_\_\_\_

		Reading Structure to Soil [-] Volts		
Test Point #	Location/Description	Read 1	Read 2	Read 3
/	Faim tap	1.466	1,466	
			_	
	<u></u>			
	·····			
211 D1				

System Name:	Steelhee	ad	Williams	Rd
Criteria Used:		-850r	nV	
Total Test Points		1_		
Total Points In Co	mpliance _		0	
Inspected By	Dave	Stan	152	

Page\_\_\_\_\_\_of\_\_\_\_\_

System No: \_\_\_\_\_006

Survey For Calendar Year: 2016

Total Points Out Of Compliance

Remedial TP Numbers Remedial Report(s) Completed? 
Question Vestication Vesticatio Vestication Vestication Vestication Vestication Vestica

		Reading Structure to Soil [-] Volts		
Test Point #	Location/Description	Read 1	Read 2	DATE
	Farm Tap	+1.423	-1.427	4/13/16

Company: COBRA

System Name: <u><u></u><u><u></u><u><u></u><u><u></u><u><u></u><u></u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u></u></u></u></u>	System No: <u>CPC 101-V341</u>
Criteria Used:850mV	Survey For Calendar Year: 2015
Total Test Points l	Date(s) Of Survey
Total Points In Compliance	Total Points Out Of Compliance
Inspected By	Remedial TP Numbers

Page \_\_\_\_\_ of \_\_\_\_

tte(s) Of Survey	
tal Points Out Of Compliance	_
medial TP Numbers	
medial Report(s) Completed?  ☐ Yes  ☐ No	_

١,

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 "			
		· · · · · · · · · · · · · · · · · · ·		
			· · · · · · · · · · · · · · · · · · ·	

System Name: _/	Hallock -Young
Criteria Used:	-8 <u>50mV</u>
Total Test Points	/
Total Points In Co	ompliance/
Inspected By	Dave Stanish

Page \_\_\_\_\_ of \_\_\_\_

System No:	52-00/	
		_

Survey For Calendar Year: 20/6

Total Points Out Of Compliance \_\_\_\_\_

Remedial TP Numbers

Remedial Report(s) Completed? [] Yes [] No

		Reading Structure to Soil [-] Volts		
Test Point #	Location/Description	Read 1	Read 2	DATE
/	M+R Station	-1,253	- 1,772	8-16-16
				·

Company: ORNG

System Name:	Sugar hugh
Criteria Used:	-850mV
Total Test Points	
Total Points In Comp	pliance
Inspected By	c Stanish

System No:
Survey For Calendar Year: 20 16
Date(s) Of Survey 4/15/16
Total Points Out Of Compliance
Remedial TP Numbers
Keineman Keport(s) Completedr 🗆 165 🗆 140

Reading Structure to Soil [-] Volts

Page \_\_\_\_\_ of \_\_\_\_\_

Test Point #	Location	Description		Dond 1	Deed 2	D 12
/ / /			·	Keau I	Reau Z	Kead 3
_/	Sarm Tap	Outler	Riser	116.8	116.8	
				ļ		
	· · · · ·	·				
	<u> </u>					
			<u>.</u>			

Company: ORNG

System Name: 🗾	Muzic 13164 Lensy Center
Criteria Used:	-850mV
Total Test Points	/
Total Points In Co	mpliance/
Inspected By	Dure Stanish

System No:
Survey For Calendar Year: 20 16
Date(s) Of Survey <u>4/13/16</u>
Total Points Out Of Compliance
Remedial TP Numbers
Remedial Report(s) Completed? $\Box$ Yes $\Box$ No

Page \_\_\_\_\_ of \_\_\_\_

01		Readin	g Structure to Soil	[-] Volts
Test Point #	Location/Description	Read 1	Read 2	Read 3
1	Farm tap	1.321	1.198	
 11 R1				

System Name:       WILLAMS for Open System No: TI-005         Description of Area Inspected:       TAP. EXPOSED P.P.C., Mether Box +         Mether Indextry       Mether Box +         Mether Indextry       Mether Box +         Mether Indextry       Inspection         1. Was Atmospheric Corrosion discovered in the area inspected?       I yes Ino         2. If "yes" to Number 1 above, describe the extent and area effected:       a)         a)	ATMOSTPHERIC CORROSION INSPECTION REPORT (§19	92.481)
System No:       Imposes       System No:       Imposes         Description of Area Inspected:       TAP       EXPoseSO       P.Re.,       Meller Back +         Imspection       Imspection       Imspected:       TAP       Meller       Hereinstein         1. Was Atmospheric Corrosion discovered in the area inspected?       Imspected:       Imspected: <th>system Name: WILLIAME LIS POOL</th> <th>T1.005</th>	system Name: WILLIAME LIS POOL	T1.005
Inspection         1. Was Atmospheric Corrosion discovered in the area inspected?       yes         2. If "yes" to Number 1 above, describe the extent and area effected:         a)	Description of Area Inspected: TAP, EXPOSISO Pipe, W	No: 1 FOOS
Inspection   1. Was Atmospheric Corrosion discovered in the area inspected?   a)   a)   b)   c)   d)   e)   d)   e)   f)   g)   g)   B. Performed By:   Date:   Z-4-16	Meter Ingtosvi	
1. Was Atmospheric Corrosion discovered in the area inspected?       yes       yes       yes         2. If "yes" to Number 1 above, describe the extent and area effected:       a)	ispection	
2. If "yes" to Number 1 above, describe the extent and area effected:         a)	Was Atmospheric Corrosion discovered in the area inspected?	no
a)	If "yes" to Number 1 above, describe the extent and area effected:	
b)	a)	
c)	b)	
d)	c)	
e)	d)	
f)	e)	
g)	f)	
Performed By:       Date:       Z-4-16         Comments:	g)	
Comments:	Performed By: DAVE STANISH Date:	2-4-11.
orrective Action           Describe in detail the corrective action(s) taken in Number 2 above:           a)           a)           b)           b)           c)           d)           e)           f)           g)           Performed By:           Mathematical data           Date:           J-4-16	Comments:	
orrective Action           Describe in detail the corrective action(s) taken in Number 2 above:           a)           a)           b)           c)           d)           e)           f)           g)           Performed By:           Mathematical           Date:           2-4-16		
orrective Action           Describe in detail the corrective action(s) taken in Number 2 above:           a)           a)           b)           c)           d)           e)           f)           g)           Performed By:           f)           Comments:		
Describe in detail the corrective action(s) taken in Number 2 above:         a)         b)         b)         c)         d)         e)         f)         g)         Performed By:         full         Comments:	prrective Action	
a)	Describe in detail the corrective action(s) taken in Number 2 above:	
b)	a)	
c)	b)	
d)	c)	
e)	d)	
f) g) Performed By: Date: Comments:	e)	
g) Performed By: Date: Date:	f)	
Performed By:          Date:            Comments:	σ)	
Comments: Date: Date:	Performed By:	
	Commente: Date: Date:	-9-16
	WINDER WINDER	

### **OHIO RURAL NATURAL GAS ATMOSTPHERIC CORROSION INSPECTION REPORT (§192.481)** Inspection Frequency: Once every 3 calendar years, NTE 39 months System Name: \_\_\_\_\_OAK 5 \_\_\_\_\_ System No: 71-001 Description of Area Inspected: TAD at BOD OAK St. Meter BAK at BLD. Inspection 1. Was Atmospheric Corrosion discovered in the area inspected? □ yes 1 10 2. If "yes" to Number 1 above, describe the extent and area effected: a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_ d) \_\_\_\_\_ e) \_\_\_\_\_ f) \_\_\_\_\_ g) \_\_\_\_\_ 3. Performed By: DAVE STAVISH Date: 2-4-110 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: \_\_\_\_\_/6\_\_\_ 7. Comments: \_\_\_\_\_\_ DAVE Stanish

### OHIO RURAL NATURAL GAS ATMOSTPHERIC CORROSION INSPECTION REPORT (§192.481)

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

System Name:Steelhee;	System No: <u>71-006</u>
Description of Area Inspected: <u>Tap on Williams Rd</u>	- Meter par
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 Sadnigh	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)	
D	
g)	
6 Performed By:	Deter
7 Comments:	Date
/. Comments	

### OHIO RURAL NATURAL GAS ATMOSTPHERIC CORROSION INSPECTION REPORT (§192.481)

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

System Name: ELSWORTH RC	System No: 02,04 33-001
Description of Area Inspected: ELSworth + WOG were 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	ed:
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 abo	ove:
a)	
b)	
c)	
d)	
e)	
f)	
g)	
6. Performed By: 61mi GN	Date: 2-5-16
7. Comments:	
··· • • • • • • • • • • • • • • • • • •	
	· · · ·

## **OHIO RURAL NATURAL GAS ATMOSTPHERIC CORROSION INSPECTION REPORT (§192.481)**

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

System Name: <u>Sugar Bush</u>	System No: 51-002
Description of Area Inspected: <u>STATION Location:</u> 9	260 Sugar Bust
Instruction	
<u>Inspection</u>	
1. Was Atmospheric Corrosion discovered in the area inspected?	yes no
2. If "yes" to Number 1 above, describe the extent and area effected	ed:
a)	IONN
b)	
c)	271
d)	1200
e)	Q
f)	
g)	
3. Performed By:	Data: 1-06 110
4. Comments:	Date:
Corrective Action	
5 Describe in detail the correction active ( ) ( ) ( )	
a)	ve:
a)	
o)	
8)	
a)	
e)	
f)	
g)	
Performed By:	Date: $2^{-5^{-}}/6$

7. Comments:

Inspectio	on Frequency: Once every 3 calendar years, NTE 39	ORI (9192.481) months
System Na	ame: Muzic 13164 Lerow CENTRE	System No: 1-003
Descriptio	on of Area Inspected: METER SET 47 4	DHS for
	REG. STATISM TI-C	03
nspection	L	
. Was A	tmospheric Corrosion discovered in the area inspected?	🛛 yes 🖉 no
. If "yes	" to Number 1 above, describe the extent and area effected:	
a)		
b)		
c)		
d)		
e)		
f)	P	
g)	/	
Perform	ned By:	Date: 2/4/14
Comme	ents:	_//
	Dew = usem 2015	

### Corrective Action

a)	
b)	
c)	
d)	NA
e)	
f)	
g)	
Perf	formed By: Martin Date: J-4-16
Con	nments:

OHIO RURAL NATURAL GAS	
<b>ATMOSTPHERIC CORROSION INSPECTION REP</b>	ORT (§192.481)
Inspection Frequency: Once every 3 calendar years, NTE 39 r	months
System Name: CANLIK RD, DOWP	System No: <u>TI-002</u>
Description of Area Inspected:	
Station on 12321 Carter Rd. Leroy on.o 2	4677
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)	

a)	
o)	
e)	
3)	
e)	
)	
s)	
Performed By:	Date: 2-4-11
Comments:	
	a)

System Name: Flacci	Ce
Criteria Used:	-850mV
Total Test Points/	
Total Points In Compliance	0
Inspected By Dave S	tanish

Page \_\_\_\_\_ of \_\_\_\_\_

System No: <u>\$1-001</u>

Survey For Calendar Year: 20 16

Total Points Out Of Compliance

Remedial TP Numbers \_\_\_\_\_\_ Remedial Report(s) Completed? [] Yes [] No

		Readin	Reading Structure to Soil [-] Volts		
Test Point #	Location/Description	Read 1	Read 2	DATE	
1	Sarm tap	632	632	4/13/16	

OHIO RURAL NATURAL GAS ATMOSTPHERIC CORROSION INSPECTION REP Inspection Frequency: Once every 3 calendar years, NTE 39	<b>ORT (§192.481)</b>
System Name: FRACET CT	System No: Sland
Description of Area Inspected: Jarm tap forated. Anaca and in Mentop.	at the end ob
Inspection	
1. Was Atmospheric Corrosion discovered in the area inspected?	ves Ino
2. If "yes" to Number 1 above, describe the extent and area effected:	
a)	
b)	
c)	
d)	
e)	
f)	
g)	
3. Performed By: 0.5	Date: 2.5.14
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:	

Attachment DK-17

System Name: MU	21C System No: <u>TI-00'3</u> Job Name: <u>Lepoy C. food</u> W.O. #: <u>L6-2015</u>
Description of Area T	Tested:
145.46' W	IEST of C/L of INDIAN Point Rd + LeRoy CASTER Rd
33' South	of ele Lekoy (ENTER Rd.
LAT: 4100	11'12.6528"N Long. 81°51"9756" W
County: LAKE	Twp: LEROY Date Installed(Begin): (End):
Mainline Size(s)	Wall Thickness & Grade(Steel) 5/28 B
SDR(Plastic)	PE Total Feet
Services Tested With	Main (addresses)
Service Line Size(s)	11   Total Service Line Feet   151
Service Line Wall Thi	ickness & Grade(Steel) • 179 SDR(Plastic) PE
Appurtenances:	No. of valves Type of valves BALL Lowest Pressure Rating 740
	No. of flanges O Lowest Pressure Rating - NA
	No. of drips/filters Lowest Pressure Rating 500 PSIG
	No. of fittings Lowest Pressure Rating CIRADE B Schedule 80 2000 ~
	Gauge Chart Recorder 0 to 1500 Pressure Range Dead Weight
Instrumentation:	Other Gauge/Recorder S.N.& Calib.Date: 8402028 6-15
Test Medium:	X Nitrogen 🛛 Air 🗋 Natural Gas 🗌 Water 🔅 Other
Test Date/Time Starte	d: <u>9-22</u> Test Type: <u>4</u> Initial 🗌 Retest
Test Date/Time Stopp	Duration: <u>22115</u>
Test Pressure Start:	775PSTG Test Pressure Stop: 775PSTG
Reason for Line Loss:	Corrective Measures Taken:
	Was The Line Pigged ? 🛛 Y
Comments:	
Tested By: <u>STR.</u>	cklano_Test Witnessed By: Rdano
Test Approved:	□ Yes □ No By(manager or supervisor):
Required attachments	to Test Report:  Inventory List Copies As-Built/GPS note Copies

System Name: <u>Kee</u> Description of Area	No:     Image: Constraint of the second
County: <u>L2ke</u>	Twp:Mental Date Installed(Begin):3 - 7-16(End):3 - 8-16
Mainline Size(s)	2 " Wall Thickness & Grade(Steel)
SDR(Plastic)	PETotal Feet
Services Tested With	Main (addresses)
Service Line Size(s)_	Total Service Line Feet
Service Line Wall Th	ickness & 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 Ukater Other
Test Date/Time Starte	ed: <u>3-7-16 3100 PM</u> Test Type: I Initial I Retest
Test Date/Time Stop	Ded: <u>2-8-16 9:00 AM</u> Duration: <u>18:00h 15</u>
Test Pressure Start:	750 PSIG Test Pressure Stop: 750 PSIG
Reason for Line Loss	:Corrective Measures Taken:
	Was The Line Pigged ? 🛛 Y 🖄
Comments:	
Tested By: <u>7 Roc</u>	NandTest Witnessed By: D Serielaland
Test Approved:	Image: No     By(manager or supervisor):
Required attachments	to Test Report:  Inventory List Copies As-Built/GPS note Copies

Description of Area	a Tested:
	132.) Keyholds Kd
County: Lake	Twn: Date Installed (Pagin): (7 -2) (7 - (7 - 1) (7 - 2)
Mainline Size(s)	Wall Thickness & Grade(Steel)
SDR(Plastic)	PE Total Feet
Services Tested Wit	h Main (addresses)
ervice Line Size(s)_	Total Service Line Feet
Service Line Wall T	hickness & 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
In starses and at is a set	Gauge Chart Recorder 0 to 1500 ASIC Pressure Range Dead Weight
instrumentation:	□ Other Gauge/Recorder S.N.& Calib.Date: 8402028 6/2/2016
Test Medium:	Air 🛛 Natural Gas 🗍 Water 🗌 Other
Test Date/Time Start	ed: $2-28$ Test Type: I Initial I Retest
Test Date/Time Stop	ped: <u>2-29</u> Duration: <u>20615</u>
Test Pressure Start: _	750 PSTE Test Pressure Stop: 250 PSTE
Reason for Line Loss	:Corrective Measures Taken:
	Was The Line Pigged ? 🛛 Y 🔍 N
Comments:	
Tested By: 7 Ro	Test Witnessed By: 1) Serteleland
'est Approved:	Yes □ No By(manager or supervisor):
Required attachments	to Test Report:  Inventory List Copies As-Built/GPS note Copies

System Name:	Lynolds Rd         System No:         Job Name:         W.O. #:
County: Lake	Twp: <u>Mentor</u> Date Installed(Begin): <u>3-4-16</u> (End): <u>3-5-16</u>
Mainline Size(s)	2"Wall Thickness & Grade(Steel)
SDR(Plastic)	PETotal Feet
Services Tested Wit	h Main (addresses)
ervice Line Size(s)_	Total Service Line Feet
Service Line Wall T	hickness & 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
Francisco - 4 - 4 *	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.	
Fest Date/Time Start	ed: 3 - (//////////////////////////////////
Test Date/Time Start	$\frac{3-5-4}{6} = \frac{11+5}{6} = $
Test Pressure Start	$\frac{250 P(STG)}{TG} = Tort Browner Share - 250 P(STG)$
Reason for Line Loss	lest Pressure Stop:
	Was The Line Directly
Comments:	was the Line Pigged ?
Cested By: TR	ouland Test Witnessed By: D Scrickland
'est Approved:	Yes D No By(manager or supervisor):
equired attachments	to Test Report: 🛛 Inventory List Copies 🔅 As-Built/GPS note Copies

System Name: 2e	Unoths Rd System No: 11 Job Name: W.O. #:
Description of Area	Tested:
	7371 Reynolds Rd
County: 122kg	Twp: $Menter$ Date Installed(Begin): $3 - 8 - 16$ (End): $3 - 10 - 16$
Mainline Size(s)	Wall Thickness & Grade(Steel)
SDR(Plastic)	PE Total Feet
Services Tested Wit	h Main (addresses)
ervice Line Size(s)	Total Service Line Feet
Service Line Wall T	hickness & 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
T	Gauge Chart Recorder 0 to 1500 PSF 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 Start	ed: $3-9-1/2$ 9/00 AM Test Type: $\Box$ Initial $\Box$ Detest
Test Date/Time Stop	ped: $3 \sim 10 \sim 16$ $\%' 45 AM$ Duration: $23:45$
Test Pressure Start:	750 PSZG Test Pressure Stop: 750 PSZG
- Reason for Line Loss	Corrective Measures Taken:
	Was The Line Pigged ? U Y
Comments:	
Tested By: 77 Ro.	Test Witnessed By: D Scriekland
Test Approved:	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: DOWD Description Of Area Under Consideration: 12321 Ca 4104140.00 N, 8101142.15	System No urter Rd i W	ORNGT1-002
Class Location Design:	Design Fac	tor:
Pipe Used (describe)		Design Pressure (PSIG)
Test Pressure (lowest)	Valves (lowest rated) Fittings (lowest rated) Drip (lowest rated) Regulator (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:

System Name:	Dend	System No:	Jo	ob Name:		_W.O. #:
Description of Area	Tested:					
	1232/	Carta	<u> </u>	Lever		
		/				· · · · · · · · · · · · · · · · · · ·
County: <u>Lake</u>	Twp: (oncor	<u>d</u> Date	Installed(Be	gin):	(End)	
Mainline Size(s)		Wall 1	Thickness &	Grade(Steel)		
SDR(Plastic)	PE		To	otal Feet		
Services Tested Wit	h Main (addresses)_					
ervice Line Size(s)		Total Se	rvice Line F	eet		
Service Line Wall T	hickness & Grade(S	teel)	S	DR(Plastic)		PE
Appurtenances:	No. of valves	_ Type of va	alves	Lowe	st Pressure Rati	1g
	No. of flanges	Lowest P	ressure Rati	ng		
	No. of drips/filter	s Lowe	est Pressure	Rating		
	No. of fittings	Lowest Pr	ressure Ratio	ng		
	Gauge Cha	rt Recorder	0 to _ /	500 PSIG I	Pressure Range	Dead Weight
instrumentation:	Other	Gauge/Re	corder S.N.	& Calib.Date:	8306091 6	1212016
Test Medium:	Nitrogen	□ Air		Natural Gas	□ Water	C Other
Test Date/Time Start	ed: 7/7.6			Toot Tu	• water	
Test Date/Time Stop	ped: 7/2 7		 Durat	ion: $7/4\alpha$		
Cest Pressure Start:	250 PSTO	2	Test Pres	sure Stop: 0	TA RETL	
eason for Line Loss		Correcti	I Cat I I Ca	Takan:	JDTOL C	
			ve measure:	Wee The L	<b>D</b> ' 10	
comments:				was The Li	ne Pigged ?	⊔Y <mark>⊻n</mark>
ested By:	Те	st Witnessed	By:			
est Approved:	Yes No	 Bv(mana	per or sime	visor).		
equired attachmenta	to Test Report:		t Comion			

System Name:	OS A.r	_ System No:	Job Name:	W.O. #:
Description of Area	Tested:			
	8667	East Are	to 8649 Edst	Ave
County: 12k -	Turn M.	- Data In	tallad (Bagin)	(T-1) C 24
Mainline Size(s)	1 wp76	Wall Th	iolemana & Crado(Stool)	(End): <u>8 - 2 7</u>
SDP (Plastic)			Tetel Foot	10 64
Somioos Tosted With	FE		1 otal Feet	
Services Tested with	n Main (addresse	s)// <i>O</i>		
ervice Line Size(s)		Total Serv	ice Line Feet	
Service Line Wall T	hickness & Grade	(Steel)	SDR(Plastic)	// PE
Appurtenances:	No. of valves	/ Type of valv	ves ball Lowest	Pressure Rating So Pil
	No. of flanges	Lowest Pre	ssure Rating	11035410 144111 <u>6 607 376</u>
	No of drips/fil	ters Lowest	Pressure Rating	
	No of fittings	I owest Pre	ssure Rating	
		Lowest 110	O to TOO PSTE D	
Instrumentation:				essure Range 🗆 Deau weign
	Other	Gauge/Reco	order S.N.& Calib.Date: <u>/</u>	3270136 5-16
Test Medium:	D Nitrogen	E Air	Natural Gas	🛛 Water 🛛 Other
Test Date/Time Start	ed: <u>8-23-16</u>	2:15 PM	Test Type	: 🗆 Initial 🛛 🗍 Retest
Test Date/Time Stop	ped: <u>8 -24-/6</u>	8:00 AM	Duration: _/7:45	
Test Pressure Start: _	120PSTG		Test Pressure Stop:	ORSTE
Reason for Line Loss	å 	Corrective	e Measures Taken:	····
			Was The Lin	e Pigged ? 🛛 Y 🗆 N
Comments:			·	
Tested By:	pp	Test Witnessed E	By:	
Test Approved:	Yes 🗆 N	o By(manag	er or supervisor):	
Required attachments	to Test Report:	□ Inventory List	Copies 🛛 As-Built/G	PS note Copies

System Name: 🔬	- Mart	System 1	No: Jot	Name:		_W.O. #:
Description of Area	Tested:					
	8653 E	East Av	ic OS Air			_
County: Lake	Twp:	D	ate Installed(Beg	in): <u>8/16/16</u>	(End):	8/17/16
Mainline Size(s)	2"	W	all Thickness & (	Grade(Steel)		
SDR(Plastic)	PE	3	Tot	al Feet		
Services Tested With	h Main (addres	sses)				
ervice Line Size(s)		Tota	1 Service Line Fe	et		
Service Line Wall Th	nickness & Gr	ade(Steel)	<u>, 154</u> SI	OR(Plastic)	]	PE
Appurtenances:	No. of valves 2 Type of valves 63/ Lowest Pressure Rating					
	No. of flang	gesLowe	est Pressure Rating	<u> </u>		
	No. of drips	/filtersI	owest Pressure R	ating		
	No. of fitting	gs Lowe	st Pressure Rating	5		
[		A Chart Record	der 0 to <u>/5</u>	00 /376_Pr	essure Range	Dead Weight
instrumentation:	□ Other	Gauge	e/Recorder S N &	Calib Date:	2306091	1-2016
n				Cano.Date	00001	6 2010
est Medium:	A Nitrogen		Air 🛛 N	atural Gas	□ Water	Other
est Date/Time Starte	ed: <u>8~/6</u>	1:15PM		Test Type	: 🛛 Initial	C Retest
est Date/Time Stopp	ed: <u>8-17</u>	1:30 HM	Duratio	n: <u>18 hrs</u>		
est Pressure Start:	-750 PSI	. 6	Test Press	re Stop: <u>25</u>	OPSIG	
leason for Line Loss:		Con	rective Measures	Taken:		
			······	_Was The Line	e Pigged ?	□ Y ⊠ N
omments:						
ested By: <u>TRow</u>	ida	Test Witnes	ssed By:	Popp		
est Annroved		No Defe	nano <i>ger</i> es met-			
anting 1 - 4 1	പ		nanager or superv	ISOT):		

### **MAOP WORKSHEET**

8 99 a B

System Name: ELLSworth RD Phase I

Operator Name: ORNG

.

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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.	
CIASS 1.5 3 90	<ul> <li>b. The pressure obtained by dividing the pressure to which the segment was tested after construction as follows:</li> <li>A. For plastic pipe, the test pressure divided by a factor of 1.5.</li> <li>2. For steel pipe operated at 100 psig or more, the test pressure is divided by a factor determined in accordance with the following:</li> <li>Class Location Pre 11/12/70 Post 11/11/70 <ol> <li>1</li> <li>1.1</li> <li>1.1</li> <li>2</li> <li>1.25</li> <li>3</li> <li>1.4</li> <li>1.5</li> </ol> </li> <li>c. For systems installed before November 12, 1970, the highest</li> </ul>	
	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.	
f no records are	e 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>(psig)</u>	

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4.N.21

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. <u>Part 192.619(a)(4) and Part 192.621(a)(5)</u>: Additional Consideration for Transmission or High Pressure Distribution Lines.

Highest operating pressure considered safe based on operating history

D. <u>Part 192.623</u>: 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. <u>Part 192.619(a)(3:</u> 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	GO MADP
By	
Date	DEL 14,2015

4.N.19

	WORTH RD System No: 3-001 Job Name: W.O. #: 2015-301
Description of Area	Tested: START AT 91°03'16"N, 80°55'19"W END: 91°02'44"N. 80°54'22"
North Side of E	LISWORTH RD 94' FROM CIL of Weaver Rd HEUSWORLH PD (EDGT)
South/EAST	5473' ALONG Elisworth RD.
PARLEL#22-	005-0-034,00-0 STATION [ LVALVE: #PIN 22012-0-001.03-0]
County: Manoning	Twp: Beelin Date Installed (Begin): -2015 (End): 12-09-2015
Mainline Size(s) 4	" OD:4,5 Wall Thickness & Grade(Steel) - UA -
SDR(Plastic)	<u>PE 3408</u> Total Feet 5473
Services Tested With	Main (addresses) DA
	- NA -
Service Line Size(s)_	Total Service Line Feet
Service Line Wall Th	ickness & Grade(Steel) SDR(Plastic) PE
Appurtenances:	No. of valves Type of valves Lowest Pressure Rating
	No. of flanges 6 Lowest Pressure Rating 7 NA ~
	No. of drips/filters <i>D</i> Lowest Pressure Rating ~ NA ~
	No. of fittings Lowest Pressure Rating
Instrumentation:	Gauge Chart Recorder 0 to <u>500 PST</u> Pressure Range Dead Weight Other Gauge/Recorder S.N.& Calib.Date:
Instrumentation: Test Medium:	□ Gauge       ✓ Chart Recorder       0 to       500 PSTC       Pressure Range       □ Dead Weight         □ Other       Gauge/Recorder S.N.& Calib.Date:         □ Nitrogen       ✓ Air       □ Natural Gas       □ Water       □ Other
Instrumentation: Test Medium: Test Date/Time Starte	□ Gauge       ✓ Chart Recorder       0 to       500 PSUC Pressure Range       □ Dead Weight         □ Other       Gauge/Recorder S.N.& Calib.Date:         □ Nitrogen       ✓ Air       □ Natural Gas       □ Water       □ Other         □ Nitrogen       ✓ Air       □ Natural Gas       □ Water       □ Other         □ d: 12.09.2015       1.05       Test Type:       ✓ Initial       □ Retest
Instrumentation: Test Medium: Test Date/Time Starte Test Date/Time Stopp	□ Gauge       ✓ Chart Recorder       0 to       500 PSTC       Pressure Range       □ Dead Weight         □ Other       Gauge/Recorder S.N.& Calib.Date:         □ Nitrogen       ✓ Air       □ Natural Gas       □ Water       □ Other         □ Nitrogen       ✓ Air       □ Natural Gas       □ Water       □ Other         □ d:       12.09.2015       1.05 Pm       Test Type:       ✓ Initial       □ Retest         □ ed:       12-10.2015       1.15 Pm       Duration:24 HRS 10 MIN.
Instrumentation: Test Medium: Test Date/Time Starte Test Date/Time Stopp Test Pressure Start:	Gauge       ✓ Chart Recorder       0 to       500 PST/c       Pressure Range       Dead Weight         Other       Gauge/Recorder S.N.& Calib.Date:         Nitrogen       ✓ Air       Natural Gas       Water       Other         Air       Natural Gas       Water       Other         Air       Test Type:       ✓ Initial       Retest         Air       Duration:       24 HRS 10M/N.         12.0       15.15 PM       Duration:       23 PSTC
Instrumentation: Test Medium: Test Date/Time Starte Test Date/Time Stopp Test Pressure Start: Reason for Line Loss:	Gauge       ✓ Chart Recorder       0 to <u>500 PSE</u> Pressure Range       Dead Weight         Other       Gauge/Recorder S.N.& Calib.Date:
Instrumentation: Test Medium: Test Date/Time Starte Test Date/Time Stopp Test Pressure Start: Reason for Line Loss:	Gauge       ✓ Chart Recorder       0 to <u>500 PSU</u> Pressure Range       Dead Weight         Other      Gauge/Recorder S.N.& Calib.Date:
Instrumentation: Test Medium: Test Date/Time Starte Test Date/Time Stopp Test Pressure Start: Reason for Line Loss:  Comments:	Gauge       ✓ Chart Recorder       0 to       500 PST/2 Pressure Range       Dead Weight         Other       Gauge/Recorder S.N.& Calib.Date:
Instrumentation: Test Medium: Test Date/Time Starte Test Date/Time Stopp Test Pressure Start: Reason for Line Loss: Comments: Tested By:	Gauge       Chart Recorder       0 to       500 PSU/Pressure Range       Dead Weight         Other       Gauge/Recorder S.N.& Calib.Date:
Instrumentation: Test Medium: Test Date/Time Starte Test Date/Time Stopp Test Pressure Start: Reason for Line Loss: Comments: Tested By: Test Approved:	Gauge       X Chart Recorder       0 to 500 PSU Pressure Range       Dead Weight         Other       Gauge/Recorder S.N.& Calib.Date:         Nitrogen       X Air       Natural Gas       Water       Other         Nitrogen       X Air       Natural Gas       Water       Other         Air       Natural Gas       Water       Other         Air       Duration:X Initial       Retest         Med:       12:09:2015       1:05 PM       Duration: 24 HRS IOMIN.         13:0       15:526       Test Pressure Stop: (30PSZC

# TEST REPORT

Company: Cobra

System Name:	V34/	_ System No:	Job Name:	W.O. <i>#</i> :
Description of Area	Tested:			
		Floworth +	WANT	
County: M2 Honing	<u>g_</u> Twp: <u>β≺</u> /	Date Inst	talled(Begin):2-10-	-15 (End): 2-11-15
Mainline Size(s)		Wall Thi	ckness & Grade(Steel)	
SDR(Plastic)	PE		Total Feet	
Services Tested With	n Main (addresses	.)	<u> </u>	
Service Line Size(s)		Total Serv	vice Line Feet	
Service Line Wall Th	nickness & Grade	(Steel)	SDR(Plastic)	PE
Appurtenances:	No. of valves_	/ Type of valv	esLowest	t Pressure Rating
	No. of flanges_	Lowest Pres	sure Rating	
	No. of drips/fil	ters Lowest	Pressure Rating	
	No. of fittings_	Lowest Pres	sure Rating	
Instrumentation:	□ Gauge ■ C	hart Recorder Gauge/Record	0 to P.	ressure Range 🛛 Dead Weight
Test Medium:	Nitrogen	🗆 Air	Natural Gas	🛛 Water 🔹 Other
Test Date/Time Start	ed: <u>2-/0</u>	·	Test Typ	e: 🛛 Initial 🛛 Retest
Test Date/Time Stop	ped: <u>2~//</u>		Duration:6_h	15
Test Pressure Start:	825	PSI6	Test Pressure Stop:	825 PSI6
Reason for Line Loss	•	Corrective	Measures Taken:	
			Was The Li	ne Pigged ? 🛛 Y 🗹 N
Comments:				
Tested By:\$≁??	cleband	Test Witnessed B	y: Rowland	
Test Approved:	Yes IN	o By(manage	er or supervisor):	1 hit
Required attachments	to Test Report:	□ Inventory List (	Copies 🛛 As-Built/C	GPS note Copies
F15 R3				

in at

System Name: PLSNOPTN RD System No: 3-001 Job Name: PLSNOPIN RD W.O. #: 2016-301	
Description of Area Tested: START AT 91°03'16"N, 80°55'19"W FND: 41°02'44"N 80°55'19"W	3#.
North Side of Elsworth RD 94' From CIL of Worder Rd of Fishoell PO (En-	61
South/EAST 5473' ALONG Ellsworth RD.	
PARLEL#22-005-0-034,00-0 STATION [ VALVE: #PIN 22012.0-001.03-0]	
County: Manoning Twp: Beelin Date Installed (Begin): -2015 (End): 12-09-2015	-
Mainline Size(s) 4" OD:4,5 Wall Thickness & Grade(Steel) - 10,4 -	
SDR(Plastic) // PE 3408 Total Feet 5473	
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 D Lowest Pressure Rating - NA -	
No. of drips/filters D Lowest Pressure Rating ~ NA ~	
No. of fittings Lowest Pressure Rating	
Instrumentation:         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: X Initial Retest	
Test Date/Time Stopped: 12-10. 2015 1:15 PM Duration: 24 HRS IOMIN.	
Test Pressure Start: 130 PSTC Test Pressure Stop: 130 PSTC	
Reason for Line Loss:Corrective Measures Taken:A	
Was The Line Pigged ? 🕅 🛛 🕅	
Comments:	
Tested By: JACK McLORMickTest Witnessed By: DAVE STANISH	
Test Approved: XYes DNo By(manager or supervisor): John Cessna	
Required attachments to Test Report:  Inventory List Copies OP: 4.5	
## TEST REPORT Company: Cobra

Description of Area	
	1 Tested:
<u> </u>	Elsuorel + werver
County: M. Honin	$\frac{1}{2} \text{Twp:} \frac{\beta < r / 1_2}{2} \text{ Date Installed(Begin): } 2 - 10 - 15 \text{ (End): } 2 - 11 - 15$
Mainline Size(s)	Wall Thickness & Grade(Steel)
SDR(Plastic)	PE Total Feet
Services Tested Wit	h Main (addresses)
Service Line Size(s)	Total Service Line Feet
Service Line Wall T	hickness & Grade(Steel)
Appurtenances:	No of valves / Type of valves 75// Lowest Prossure Pating
. PP monthead.	No. of flanges Lowest Pressure Pating
	No of drips/filters Lowest Pressure Define
	No. of fittings
	rot of hungsLowest i ressure Rating
Γ	Gauge Chart Recorder 0 to <u>1500 PSIG</u> Pressure Range Dead Weig
Instrumentation:	□ Gauge Chart Recorder 0 to <u>/ 500 PST6</u> Pressure Range □ Dead Weig □ Other Gauge/Recorder S.N.& Calib.Date: <u>8402028</u>
Instrumentation: Γest Medium:	Gauge       Chart Recorder       0 toFOO PSTG       Pressure Range       Dead Weig         Other       Gauge/Recorder S.N.& Calib.Date:       9402028         Nitrogen       Air       Natural Gas       Water       Other
Instrumentation: Fest Medium: Fest Date/Time Start	Gauge       Chart Recorder       0 toFOO FSTF Pressure Range       Dead Weig         Other       Gauge/Recorder S.N.& Calib.Date:FOO 2.8         Nitrogen       Air       Natural Gas       Water       Other         ed:       2-10       Test Type:       Initial       Retest
Instrumentation: Fest Medium: Fest Date/Time Start Fest Date/Time Stop	□ Gauge       Image: Chart Recorder       0 to FOO PSTG Pressure Range       □ Dead Weige         □ Other Gauge/Recorder S.N.& Calib.Date: <u>9409028</u> Image: Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         Image: 2-10       Test Type: □ Initial       □ Retest         Image: 2-11       □ Duration:6 4/15
Instrumentation: Fest Medium: Fest Date/Time Start Fest Date/Time Stop fest Pressure Start: _	□ Gauge       Chart Recorder       0 to PSTE       Pressure Range       □ Dead Weig         □ Other Gauge/Recorder S.N.& Calib.Date:       940902.8         ☑ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         ed:       2-10       Test Type:       □ Initial       □ Retest         ped:       2-1/       Duration:      6 4/5         § 25 € 556       Test Pressure Stop:       § 25 € 556
Instrumentation: <b>Fest Medium:</b> Fest Date/Time Start Fest Date/Time Stopp <b>Fest Pressure Start:</b> <b>Reason for Line Loss</b>	□ Gauge       Chart Recorder       0 to Pressure Range       □ Dead Weige         □ Other Gauge/Recorder S.N.& Calib.Date:       940902.8         ☑ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         ed:       2-10       Test Type:       □ Initial       □ Retest         ped:       2-1/       Duration:      6 475
Instrumentation: Fest Medium: Fest Date/Time Start Fest Date/Time Stopp Fest Pressure Start: Reason for Line Loss	□ Gauge       Chart Recorder       0 toPOPSTPressure Range       □ Dead Weig         □ OtherGauge/Recorder S.N.& Calib.Date: <u>9409.0.28</u> ☑ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         ☑ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         ed:
Instrumentation: Fest Medium: Fest Date/Time Start Fest Date/Time Stopp Fest Pressure Start: Reason for Line Loss  Comments:	Gauge       Chart Recorder       0 toPST_G_Pressure Range       Dead Weig         OtherGauge/Recorder S.N.& Calib.Date:       9409.02.V         Nitrogen       Air       Natural Gas       Water       Other         ed:       2-10       Test Type:       Initial       Retest         ped:       2-1/1       Duration:       16 4.15         §25 PST6       Test Pressure Stop:       \$25 PST6         Corrective Measures Taken:
Instrumentation: Fest Medium: Fest Date/Time Start Fest Date/Time Stopp Fest Pressure Start: Reason for Line Loss  `omments: `ested By:	□ Gauge       Chart Recorder       0 toPST_€       Pressure Range       □ Dead Weig         □ OtherGauge/Recorder S.N.& Calib.Date: <u>9409.028</u> ☑ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         ☑ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         □ 2-70       Test Type:       □ Initial       □ Retest         ped:       2-70       Test Pressure Stop: <u>925 PST6</u> [ S25 PST6       Test Pressure Stop: <u>925 PST6</u>
Instrumentation: Fest Medium: Fest Date/Time Start Fest Date/Time Stopp Fest Pressure Start: Reason for Line Loss  Comments: Yested By:	□ Gauge       Chart Recorder       0 toPST_6_ Pressure Range       □ Dead Weig         □ Other Gauge/Recorder S.N.& Calib.Date: <u>9409.028</u> □ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         □ Air       □ Natural Gas       □ Water       □ Other         ed:       2/0       Test Type:       □ Initial       □ Retest         ped:       2/0       Test Type:       □ Initial       □ Retest         ped:       2/0       Test Pressure Stop: <u>\$25 PST6</u> §25 PST6       Test Pressure Stop: <u>\$25 PST6</u> Was The Line Pigged ?       □ Y       N           Was The Line Pigged ?       □ Y       N
Instrumentation: Fest Medium: Fest Date/Time Start Fest Date/Time Stopp Fest Pressure Start: Reason for Line Loss  Comments: rested By: rest Approved:	□ Gauge       Chart Recorder       0 toPSTPressure Range       □ Dead Weig         □ OtherGauge/Recorder S.N.& Calib.Date: <u>9402028</u> ☑ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         ed: <u>2-10</u> Test Type:       □ Initial       □ Retest         ped: <u>2-10</u> Test Type:       □ Initial       □ Retest         ped: <u>2-11</u> Duration: <u>16 41 5</u> §25 FST6       Test Pressure Stop: <u>925 FST6</u> …      Corrective Measures Taken:
Instrumentation: Fest Medium: Fest Date/Time Start Fest Date/Time Stopp Fest Pressure Start: Reason for Line Loss Comments: Fested By: Fest Approved: Lequired attachments	□ Gauge       Chart Recorder       0 toPSTE       Pressure Range       □ Dead Weige         □ OtherGauge/Recorder S.N.& Calib.Date: <u>9409028</u> ☑ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         ☑ Nitrogen       □ Air       □ Natural Gas       □ Water       □ Other         ed:       2.5/0       Test Type:       □ Initial       □ Retest         ped:       2.5 PSTE       Test Pressure Stop: <u>925 PSTE</u> :        Corrective Measures Taken:

System Name: Ellsworth Road Phase 1	System No: ORNG 53-001
Description Of Area Under Consideration: TARM TAR ON No	rth Side of Filsworth Rd
94' FROM SURVEY MONUMENT CI WEAVER + ELL	SWORTH Rd - 5500'
SE ALONG ELSWORTH Rd. to South	Dick Crock Rd.
Class Location Design:3	Design Factor:

Pipe Used (describe)	Design Pressure (PSIG)
4" PE SDR 11 3408/4710	100
2" STEEL PIPE SCH 40	650 #
4" PE SDR 13.5 2406/2708	64
4" STEEL PIPE SCH 40 Working Pressure	660#
SERVICE LINE   SDR 11.5 PE 2406	64
Test Pressure (lowest) 750 <sup>#</sup> (90 <sup>#</sup> PE) Valves (lowest rated)	00 <sup>±</sup>
Flanges (lowest rated) <u>3004</u> Fittings (lowest rated)	80#
Seperator (lowest rated) <u>5000</u> Drip (lowest rated)	5000#
Filter (lowest rated) Regulator (lowest rated)	500#
Relief Valve (lowest rated) _2500# Meter (lowest rated)	85#

Other Appurtenances (describe)	Design Pressure (PSIG)
REGULATOR 1027 M + 1027 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 #	<b>L</b>
1"Lacking VALUES 1050# MULLER	
A'XI' TAO TEE BOTH WITH EFY	
MAOP OF TRANSMISSION, SYSTEM, 500 #	
Approved MAOP: GOT By: John Cossoa I	Date: Dec 14, 2015

## MAOP WORKSHEET

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System Name: EUSworth RO 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.	
CIASS 1.5 3 90	<ul> <li>b. The pressure obtained by dividing the pressure to which the segment was tested after construction as follows: <ul> <li>I. For plastic pipe, the test pressure divided by a factor of 1.5.</li> <li>2. For steel pipe operated at 100 psig or more, the test pressure is divided by a factor determined in accordance with the following:</li> </ul> </li> <li>Class Location Pre 11/12/70 Post 11/11/70 <ul> <li>1</li> <li>1.1</li> <li>1.1</li> <li>2</li> <li>1.25</li> <li>1.25</li> <li>3</li> <li>1.4</li> <li>1.5</li> </ul> </li> </ul>	
	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 ar	e 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	(psig)	
Completed by:		Date: DEC 14, 2015

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DETERMINATION OF MAXIMUM ALLOWABLE OPERATING PRESSURE IN NATURAL GAS PIPELINES

Identity of Pipeline/Distribution Area ELLSWORTH RD. PHASE ( OPNG 5.3-001

Maximum Allowable operating Pressure: Steel or Plastic Pipelines (Part 192.619): and Α. 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 COLPLNG

## 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

## 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.

Part 192.621: High Pressure Distribution Systems Only. Β.

Part 192.621(a)(2)

60 psig unless all services

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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 Ccssna 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 contraction for the second second second 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 <u>500</u> Other (list) Fac. CLI 109406 -----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 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. Β. 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	·		
С.	Part 192.619(a)(4) and Part 192.621(a)(5): Additional Considera High Pressure Distribution Lines.	ation for Transmiss	sion or	· ·
	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.			
. Е.	<u>Part 192.619(a)(3:</u> 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.)	nii in the	-11	
F.	Determination of MAOP.			

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

-MAOP DY -By MAOP	John A. leson	
Date	OCT ////5-	

4.N.19

	Il & Van I a water the the for a little the
System Name: 1/2	Job Name: Job Name: Job Name:
Description of Area	a Tested: BEgins on IV Side Trafford -100mg approx. 711 E 25 C/L
Nouton -Tom li	Ason Rd. E along N Side at Malade lang Evens N dlong Intersection
W/ Lyntz Rd	· Continues N dlong W Side 25 LYDIZ Bad toniadter S. D. ISO
test als	so includis service Lihos
-County: My along	Twp: Lanstand Date Installed (Begin): 1-3/-15 (End): 2-16-15
Mainline Size(s)	Y" Wall Thickness & Grade(Steel)
SDR(Plastic) 13	<u>25 PE 2406 Total Feet 6, 714</u>
Services Tested Wi	th Main (addresses) 3100 Lyntz Townline Rd, 3120, 3136, 3165, 3170, 3187
3344, 3259, 3	249 (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 19-Type of valves E EV Lowest Pressure Rating 125*
	No. of flanges_OLowest Pressure RatingM
	No. of drips/filters O Lowest Pressure Rating N
	No. of fittings, 45 Lowest Pressure Rating 8077
	Gauge K Chart Recorder 0 to 600 Pressure Range Dead Weight
Instrumentation:	
	Gauge/Recorder S.N.& Calib.Date: <u>370,677,757</u> CKp 8-676
Test Medium:	🛛 Nitrogen 🛛 🖉 Air 🗋 Natural Gas 🔹 Water 🔹 Other
Test Date/Time Star	rted: <u>8/5/15 3:00 PM</u> Test Type: D Initial D Retest
Test Date/Time Stop	pped: <u>8/6/15 2:15 PM</u> Duration: <u>23:15</u>
Test Pressure Start:	60 P9F Test Pressure Stop: 60 PST
Reason for Line Los	ss:Corrective Measures Taken:
	Was The Line Pigged ? DY DN
Comments:	
Tested By: D/c	Strichlandest Witnessed By: Jack MC on mick
Test Approved:	Yes I No By(manager or supervisor): John Cessna
Required attachmen	ts to Test Report: 🛛 Inventory List Copies 🔅 As-Built/GPS note Copies

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System Name:	Job Name: Lynz Rd W.O. #:
Description of Area 7	Tested: Begins on Nside Hallach -Young approx. 911" E as C/2
Nowton -Tomlin.	son RJ. E along N side at Hallade Hang Evens N along Internetion
W/ Lyatz Rd. tost also	Confines N 2000 w side 25 Lyntz Bod toniater S. 25- ISO includes service Lines
County: n ) lo n in g	Twp: Larstown Date Installed (Begin): 1-31-15 (End): 2-16-15
Mainline Size(s)	Y" 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, 32	149 (X2), 3095, 3023, 3037, 3057
Service Line Size(s)_	/" Total Service Line Feet 2/83
Service Line Wall Th	ickness & Grade(Steel) SDR(Plastic) 13.5 PE 2406
Appurtenances:	No. of valves 14 Type of valves <u>EEV</u> Lowest Pressure Rating 125 <sup>#</sup>
	No. of flanges 0 Lowest Pressure Rating
	No. of drips/filters O Lowest Pressure Rating
	No. of fittings, 45 Lowest Pressure Rating 80 97
Instrumentation:	□ Gauge K Chart Recorder       0 to       Pressure Range       □ Dead Weight         □ Other       Gauge/Recorder S.N.& Calib.Dat
Test Medium:	□ Nitrogen 🛛 Air □ Natural Gas □ Water □ Other
Test Date/Time Starte	ed: <u>8/5/15</u> 3:00 PM Test Type:  I Initial  Retest
Test Date/Time Stopp	Duration: 23:15 PM Duration: 23:15
Test Pressure Start:	60 PST Test Pressure Stop: 60 PST
Reason for Line Loss:	Corrective Measures Taken:
	Was The Line Pigged ?
Comments:	2 . 11 /
Tested By:	<u>Jerichlenn</u> fest Witnessed By: <u>Jock Mconnick</u>
Test Approved:	Yes DNo By(manager or supervisor): John (esshu
Required attachments	to Test Report: 🛛 Inventory List Copies 🔅 As-Built/GPS note Copies

System Name: Hallock Young/Lyntz Rd.	System No:ORNG-04-100
Description Of Area Under Consideration:From tap on N side Halloc	k-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) <u>85#</u>

Comments: \_\_\_\_\_

Approved MAOP: <u>40#</u>	By: John Cessna	Date: 8/28/15
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System Name: SUGER Bush St	vstem No: 0204 - 004
Description Of Area Under Consideration: X2294423,4907	Y739828 8598
SUGER BUGH DR. MENTOR. Chip / T.	AP+POD
PIN # 110B000B000070	
Class Location Design: D	esign Factor:15
	3) + 2(00(2) + 2"are(2) = 7
Pipe Used (describe)	Design Pressure (PSIG)
2" SDR II Poly! Dura Line	600#
1" STEEL Sch 80	2601#
Test Pressure (lowest) CO-H Valves (lowest ra	ted) 100++-
Flanges (lowest rated) Fittings (lowest rated)	ited)
Seperator (lowest rated) Drin (lowest rated)	l)
Filter (lowest rated)	rated)
Relief Valve (lowest rated)	ed)
Other Appurtenances (describe)	Design Pressure (PSIG)
Steel Welding:  API 1104  Appendix C  Section	n IX 🗆 n/a
Comments:	
	<u> </u>
Δ	
Approved MAOP: 60 By: ACIN Later	Date:

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 SUGARBUSH DR MENTOR, ON: 0 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

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#### Part 192.621(a)(1)

Pipe (including service lines) Valves Flanges Fittings Mechanical Couplings EF 2 900 ~ Leak Clamps Instruments Odorizers Overpressure Protection Devices 2 89 Fisher Upstream Regulator(s)-Outlet Pressure Rating Downstream Regulators-Inlet Pressure Rating Other (list) Fisher Reg. 500#

#### 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

#### 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 <u>or</u> 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

200 H -NA-174 000 5*00*# 3754

54GAR BUSH FARM TAP X 2294423.4907

Gn#

#### 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 $\underline{MAOP}$ .
	i al

		and the set of the set
MAOP	60#	
By		
Date		

System Name:	System No: <u>DO4</u> Job Name: <u>Sugarbus</u> W.O. #:
Description of Area	Tested:
County: Lake	Twp: Date Installed(Begin): (End): (End
Mainline Size(s)	2" Wall Thickness & Grade(Steel)
SDR(Plastic)	/ PE 2406 Total Feet 780
Services Tested Wit	h Main (addresses)
Service Line Size(s)	Total Service Line Feet
Service Line Wall T	hickness & 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
nstrumentation:	□ Gauge <sup>*</sup> Chart Recorder 0 to <u>500</u> Pressure Range □ Dead Weigh
	Other Gauge/Recorder S.N.& Calib.Date: /3276/36 6-15
Test Medium:	🗆 Nitrogen 🕅 Air 🛛 Natural Gas 🛛 Water 🗌 Other
Test Date/Time Star	ted: <u>//-9_3'conf<sup>*</sup>/</u> Test Type: <u>Initial</u> Retest
Test Date/Time Stop	ped: <u>11/012;00</u> Duration: <u>21 h15</u>
Test Pressure Start:	100 PSTG Test Pressure Stop: 100 PSTG
Reason for Line Los	s:Corrective Measures Taken:
	Was The Line Pigged ? 🔀 Y 🛛 N
Comments:	
Tested By:	rickland Test Witnessed By: Roland
Test Approved:	Yes I No By(manager or supervisor): The Cast
± ±	

System Name: Succ	ur Bush System No. Si-OQJob Name: Sugarbusk W.O. #:
Description of Area	Tested:
	Sugarbust Drive Mento/
County: Lake	Twp: <u>Manhor</u> Date Installed(Begin): <u>10-15</u> (End): <u>10-16</u>
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 Th	ickness & 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 A Chart Recorder 0 to Pressure Range Dead Weight
Instrumentation:	
	Gauge/Recorder S.N.& Calib.Date: 8402028 6-73
Test Medium:	Vitrogen Air Natural Gas Water Other
Test Date/Time Starte	ed: $10 - 15$ Test Type: $\Box$ Initial $\Box$ Retest
Test Date/Time Stopp	Duration: 22 hrs
Test Pressure Start:	825 PSIG Test Pressure Stop: 825 PSIG
Reason for Line Loss	Corrective Measures Taken:
	Was The Line Pigged ? 🛛 Y 🐼 🕅
Comments:	
Tested By:	Test Witnessed By: Strickback
Test Approved:	Ves 🛛 No By(manager or supervisor):
Required attachments	to Test Report: 🛛 Inventory List Copies 🔅 As-Built/GPS note Copies

## MAOP WORKSHEET

System Name:

Fraeci Ct

Operator Name:

Opic Rucal Natural Gas CO-010.

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.	
90PSIG	<ul> <li>b. The pressure obtained by dividing the pressure to which the segment was tested after construction as follows: <ol> <li>For plastic pipe, the test pressure divided by a factor of 1.5.</li> <li>For steel pipe operated at 100 psig or more, the test pressure is divided by a factor determined in accordance with the following:</li> </ol> </li> <li>Class Location Pre 11/12/70 Post 11/11/70 <ol> <li>1.1</li> <li>1.2</li> <li>1.25</li> <li>2.5</li> <li>3.1.4</li> <li>1.5</li> </ol> </li> </ul>	
	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.	
It no records ar	e 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: Haund Other Stand Date: 8/3/2016

4.N.21

	No. 199
County: LI/R	Twp:Date Installed(Begin):(End):
Mainline Size(s)	2" PE Wall Thickness & Grade(Steel)
SDR(Plastic) //	PETotal Feet32
Services Tested With	h Main (addresses)
ervice Line Size(s)	Total Service Line Feet
Service Line Wall T	nickness & 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 A Chart Recorder 0 to <u>500</u> Pressure Range Dead Weight
misti unicitation.	Other Gauge/Recorder S.N.& Calib.Date:
Test Medium:	□ Nitrogen ⊠ Air □ Natural Gas □ Water □ Other
Fest Date/Time Starte	ed: <u><u>Y-4/-/6</u> Test Type: I Initial I Retest</u>
Test Date/Time Stopp	Duration: <u>17665</u>
Test Pressure Start:	90PSIC Test Pressure Stop: 70PSIG
Reason for Line Loss	Corrective Measures Taken:
·····	Was The Line Pigged ? 🛛 🛛 🖓
Comments:	
Tested By: TRom	Test Witnessed By: $(-P) \rho \rho$

System Name: <u>France</u>	CCI C: System No: <u>57-00</u> Job Name: <u>Fracci C+</u> W.O. #:	
Description of Area		
County: 67/re	Twp: Date Installed(Begin): 8 4 (End): 8 5	
Mainline Size(s)	8" Wall Thickness & Grade(Steel) , 250	
SDR(Plastic)	PETotal Feet	
Services Tested Wit	h Main (addresses)	
		5
ervice Line Size(s)_	Total Service Line Feet	
Service Line Wall T	hickness & 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 <u>1500 Pst</u> Pressure Range □ Dead W	'eight
Instrumentation:	Other Gauge/Recorder S.N.& Calib.Date: 7402028 6/2/20	-16
Test Medium:	🕅 Nitrogen 🛛 Air 🔅 Natural Gas 🗆 Water 🗆 Oth	ner
Test Date/Time Start	ed: $8 - 4$ Test Type: $\Box$ Initial $\Box$ Ret	est
Test Date/Time Stop	ped: 8-5 Duration: 21 hrs	
Test Pressure Start: _	750 Psic Test Pressure Stop:	
Reason for Line Loss	Corrective Measures Taken:	
<u> </u>	Was The Line Pigged ?	N
Comments:		
Tested By: <u>7 Ro</u>	VanTest Witnessed By: DSerickland	
Fest Approved:	□ Yes □ No By(manager or supervisor):	
Required attachments	to Test Report:  Inventory List Copies As-Built/GPS note Copies	

Description of Are	a Tested:
	willows RJ Barn
County: Loke	Twn: Concord Date Installed (Begin): 10 - 15 (End): 10 - 11
Mainline Size(s)	Wall Thickness & Grade(Steel)
SDR(Plastic)	PE Total Feet
Services Tested Wi	th 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 by // 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 P317       Pressure Range       Dead We         Other        Gauge/Recorder S.N.& Calib.Date:       8402028       6-15
Fest Medium:	Nitrogen 🛛 Air 🗌 Natural Gas 🗌 Water 🗍 Othe
Fest Date/Time Star	ted: <u>/0-15</u> Test Type: I Initial I Rete
Fest Date/Time Stop	pped: <u>10-16</u> Duration: <u>18 krs</u>
Test Pressure Start:	Test Pressure Stop:
Reason for Line Los	s:Corrective Measures Taken:
	Was The Line Pigged ? 🛛 Y
Comments:	
Cested By: Rowli	and Test Witnessed By: Strickbad
est Approved:	E Yes D No By(manager or supervisor): ////
equired attachment	s to Test Report: 🛛 Inventory List Copies 🔅 🗆 As-Built/GPS note Copies

DATE: 9/2/2014				<u> </u>					
REPORT No: 1			CITY STATE	Mont					
CLIENT PO No:		LOCALC-	GITT, STATE.	arent		V IOP No			
CLIENT W/O No:		····				Y PROCE		ET 4	<u> </u>
CLIENT JOB No: 3	05 90	6	737/ Raun	alde		FPTANCE		PI 1104 20th Ed	<u>.</u>
MAGNETIC	PARTICL	E TECHNIC	DUE - YOKÉ	0105	T ACC			RANT TECHNIO	
Yoke Mfg: Parke	ar	Voke Mode		20			Ma / Desduct	Poteb No.	Temperature
Serial No: 2137	2	Evoire Dat	a: 1/11/26	)17	Bon	strant	Mig. / Floduci	Datch NO.	enperature °
Lea Spacing: 4		Coveran	a: 1009	6		aloner -			「
		neina 90° E			Deve		<u> </u>		F
Contrast Paint M	fa & Produ	int N/A			T.em				F
		on Etiores		escent	1		Fluorocopt Dvo		
Wet Particle Suspensio		il Rase	Water Base	COUCHE	Evto	nt of Teet	nuorescent Dye		
Particle Mfg / Batch: C	ircle Syste	ms C		ad	Prec	leaning Me	athod:	anay Dia	
Particles Applied by					Pene	trant Annli		nay Dip	Drush
Blowing (Drv	only) with e	arcess rem	wed by gentle :	air	Deve	loner Anni		aray 🗌 Din	Direction Direction
stream whi	le maintain	ing the mag	gnetizing currer	ht	Free	ss Penetra	ant Removal	Water Wash	
Soraving	Spraying Flowing					ean Dry Ti	ime.	114GI 11031	
Procedure Demo	nstration N	of Required	t by Customer		Pene	trant Dwel	l Time <sup>.</sup>		minutes
Procedure Adecu	Procedure Adequacy Demonstrated by:					ime After	Penetrant Remo		minutes
Lift Test of:	Lift Test of: Ibs. Field Indicator						4 <sup>.</sup>		minutes
Other				Post	Cleaning:				
Post Test Dema	1	Demag N	lot Required		Notes	3:			
Item Temperature:	<b>75</b> °F	- Surf	ace Condition:	Clean			Surface	Prep: Brushe	d
Lighting Equipment St	Inlight								
Light Intensity: 2 >	100 fc Wh	ite Light	□ > uW/cm	2 Black	Light	Blac	k Light Warm-U	p Time: 7 > 5	mins.
ITEM ID (Note as MT or PT)	ПЕМ ТУРЕ	/ SIZE / THICK	NESS / MATERIAL	IN C Y	ODE N	DEFE	CT & LOCATIO	N REMARKS	S / WELDER ID
MT-1	1" Fillet W	eld Carbon	Steel	1				TR	
MT-2	1" Butt We	eld Carbon	Steel	1				TR	
MT-3	1" Butt We	eld Carbon	Steel	1			TR		
MT-4	2" Butt We	eld Carbon	Steel	1			TR		
MT-5	2" Butt We	eld Carbon	Steel	1				TR	
MT-6	1" Butt We	eld Carbon	Steel	1					
MT-7	1" Butt We	eld Carbon	Steel	1				TR	
MT-8	1" Butt We	eld Carbon	Steel	1				TR	
MT-9	1" Fillet W	eld Carbon	Steel	1				TR	
MT-10	1" Butt We	d Carbon	Steel	1				TR	
MT-11	1" Butt We	d Carbon	Steel	1				TR	
MT-12	2" Butt We	d Carbon	Steel	1				TR	
MT-13	2" Butt We	d Carbon	Steel	1				TR	
BILLING									
ADDRESS: 3511 Lost	Nation Rd	. Willough	by, OH 44094						
CLIENT SIGNATUR	Ε	JAN	X LEVEL II SIGNAT	URE		LEVEL II	TECHNICIAN	OTHER EMPLO	YEES & LEVEL
			Jan H	lip		Jon	Guhi		
CLIENT REP NAME & PHONE	NUMBER	TRAVEL	TOTAL HOURS			PER DIEM		Dakota He	minger - I
		MILEO	1 10442L 0 100KK	774	A	PLICABLE	28		
Form: CLUS	TOMER'S		CERTIFIES TH					ANX PO	Box 190
MTyk PT Report 16-03 COF	RRECT AND	MATERIAL	S AND INTERP	RETATIO	ON ARE	ACCEPT	ED. (517)	531-8210 Parm	a, MI 49269

Attachment DK-18

CLIENT PO No:		LUVALL UIT. SIAIE	and the second s				
CLIENT FOING.		,,	mentu	SF, UH			
CLIENT W/O No:				JANX	JOB NO: 209		
CLIENT IOB No: 30	5 - 7	06 0321 Re	india	JANX	PROCEDURE NO: R	T-1, Rev.1	
TEM ID (Note as MT or PT)			INC	DE I	TANCE CRITERIA: A	PI 1104 20th Ed	<u>.                                    </u>
			Y	N	DEFECT & LOCATIO	N REMAR	KS / WELDER I
Π-14	1" Butt W	eld Carbon Steel	/			TR	
Π-15	1" Butt W	eld Carbon Steel	/			TR	
IT-16	1" Butt W	eld Carbon Steel	1			TR	
П-17	1" Butt W	eld Carbon Steel	1			TR	
T-18	2" Butt W	eld Carbon Steel	1			TR	
<u>T-19</u>	2" Butt W	eld Carbon Steel	1			TR	
T-20	2" Butt W	eld Carbon Steel	1			TR	
T-21	1" Fillet V	/eld Carbon Steel	1			TR	
<u>T-22</u>	1" Fillet V	/eld Carbon Steel	1			TR	
T-23	1" Fillet V	eld Carbon Steel	1			TR	
T-24	2" Butt W	eld Carbon Steel	1			TR	
<u>I-25</u>	2 <sup>e</sup> Butt W	eld Carbon Steel	1			TR	
Г-26	1" Butt W	eld Carbon Steel	1			TR	
Г-27	1º Butt W	eld Carbon Steel	1			TR	
Г-28	1" Butt W	eld Carbon Steel	1			TR	
	_						
							· · · ·
						<u> </u>	·
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						+	
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				-+-			
						+	
e: Continuation Page Signa	ture Poor	ind See Proceeding Desc(-)	for Tk-	iou vo (a )	4 D90-1-6		
CUSTOMER SIGNATUR	E T	JANX LEVEL II SIGNATI	RF	ique(s) ar		OTUES ELS	
		Ann. MA	10	<u> </u>	Jon Guhl	Dakota I	feminger - I

								<u>г</u>
DATE: 8/2/201		ENT: Cobra Pipeline						MARY
REPORT NO: 1 C		BLOCALE- CITY, STATE:	Mento	T TANK				57/5° E1117
CLIENT PUNO:				JAN?	DDOOE	209		
CLIENT W/O NO:	05 20	L DRUDR	-11.	JAN/	PROCEL			<u>.</u>
MACNETIC	DADTICI	E TECHNIQUE VOKE	olds	ACCI		CRITERIA: A	PI 1104 20th Ed.	
Value Maria		Vala Madala DA 4	20	-		LIQUID FENET		
Yoke Mig: Parke	er	Yoke Model: DA 40	<i>.</i>			Mig. / Product	Batch No.	lemperature
Senal No: 2137	2	Expire Date: 1/11/20	/1/	Pene	trant:	<u></u>		°
Leg spacing: 4	-5"	Coverage: 100%	6	Deve	loper:			"
	Two Opp	osing 90° Fields: 🕘 Yes		Remo	ver:			°F
	Itg & Produ	uct: <u>N/A</u>				isible Dye		ent Removable
U Wet ⊡Dry		Ion-Fluorescent LI Fluor	escent		L F	luorescent Dye		er Washable
Wet Particle Suspension	n: LC	XI Base Water Base		Exten	t of Test:	····		
Particle Mfg / Batch: <u>C</u>	rcle Syste	ems Color: <u>R</u> e	d	Precle	eaning Me	thod: 🗌 E	spray L Dip	Brush
Particles Applied by:				Penel	irant Applia	cation:	Spray ∐Dip	📙 Brush
Blowing (Dry	only) with (	excess removed by gentle a	aír	Devel	oper Appli	cation:	ipray Li Dip	Brush
sream WN	ne ittan'itali 	any me magneuzing curren	R	Exces	s Penetra	nt Removal:	Water Wash	_ Damp Towel
		Flowing		Precle	ean Dry Tir	ne:		minutes
Procedure Demo	nstration N	lot Required by Customer	Í	Penet	rant Dweil	Time:		minutes
Procedure Adequ	nstrated by:		Dry Ti	me After F	enetrant Remo	val:	minutes	
Lift Test of:	lb	s. []] Field Indicator		Develo	oper Time:	:		minutes
Other:				Post C	<b>Cleaning:</b>	<del></del>		
Post Test Demag		Demag Not Required		Notes				
Item Temperature:	<b>75 °</b>	F Surface Condition:	Clean			Surface	Prep: Brushed	1
Lighting Equipment Su	nlight							
Light Intensity:	100 fc Wh	iite Light 🗌 > uW/cm	2 Black L	_ight	Black	Light Warm-U	p Time: 2 > 5	mins.
ITEM ID (Note as MT or PT)	ПЕМ ТУРЕ	/ SIZE / THICKNESS / MATERIAL	Y Y	DDE N	DEFEC	CT & LOCATIO	N REMARKS	/ WELDER ID
MT-1	1" Fillet W	/eld Carbon Steel	1				TR	
MT-2	1" Butt W	eld Carbon Steel	1				TR	
MT-3	1" Butt W	eld Carbon Steel	1				TR	
MT-4	2" Butt W	eld Carbon Steel	1				TR	
MT-5	2" Butt W	eld Carbon Steel	1	TR				
MT-6	1" Butt W	eid Carbon Steel	1				TR	
MT-7	1" Butt W	eld Carbon Steel	1				TR	,
MT-8	1" Butt We	eld Carbon Steel	1				TR	
MT-9	1" Fillet W	eld Carbon Steel	1				TR	
MT-10	1" Butt We	eld Carbon Steel	1		_		TR	
MT-11	1" Butt We	eld Carbon Steel	1				TR	
MT-12	2" Butt We	eld Carbon Steel	1				TR	
MT-13	2" Butt We	eld Carbon Steel	1				TR	
BILLING								
ADDRESS: 3511 Lost	Nation Rd	. Willoughby, OH 44094						
CLIENT SIGNATUR		JANX LEVEL II SIGNAT	URE		LEVEL II T	ECHNICIAN	OTHER EMPLO	YEES & LEVEL
		1 M.	10		Jon	Guhl		
	=	/tau/Hh	lif					
CLIENT REP NAME & PHONE	NUMBER	TRAVEL TOTAL HOURS		P		TOTAL ITEMS	Dakota He	minger - I
					FLIGADLE	AA		
			//4			28		
XIII: CUS	TOMER'S	SIGNATURE CERTIFIES TH					ANX P.O.	Box 190
Iyk P / Report 16-03 COP	AND I ANI		REIATIO		AUVENIE		551-6210 Parm	a, MI 49269

REPORT No: 2 of	2 JOB LOCALE- CITY, STATE:	Mento	or, OH	<u> </u>		JAM
CLIENT PO No:			JANX	JOB No: 209		
CLIENT W/O No:		_	JANX	PROCEDURE No: RT-1	, Rev.1	
CLIENT JOB No: 30	5 - 306 7347 Rain	KIS Rd.	ACCE	PTANCE CRITERIA: API 1	104 20th Ed	•
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE / THICKNESS / MATER		XODE N	DEFECT & LOCATION	REMARK	S / WELDER
MT-14	1* Butt Weld Carbon Steel	$\pm$				
MT-15	1" Butt Weld Carbon Steel	1		<u> </u>		
MT-16	1" Butt Weld Carbon Steel	1		······································	TR	
MT-17	1" Butt Weld Carbon Steel	1			TR	
MT-18	2" Butt Weld Carbon Steel	1			TR	
VIT-19	2" Butt Weld Carbon Steel	1			TR	
VIT-20	2" Butt Weld Carbon Steel	1			TR	
MT-21	1" Fillet Weid Carbon Steel	1			TR	
MT-22	1" Fillet Weld Sarboo Steel	1			TR	
AT-23	1" Fillet Weld Carbon Steel	1			TR	
АТ-24	2" Butt Weld Carbon Stee!	1			TR	
AT-25	2" Butt Weld Carbon Steel	1		······	TR	
ЛТ-26	1" Butt Weld Carbon Steel	1			TR	
AT-27	1" Butt Weld Carbon Steel	1			TR	
<u>IT-28</u>	1" Butt Weid Carbon Steel	1			TR	
		++				
	·····-					
				<u> </u>		
			$- \bot$			
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		<b>├ </b> .				<u> </u>
		┞──┠	<u> </u> _			
		┣───┨─				
to: Continuation Days Of						
CUSTOMER SIGNATI PR	INTES REQUIRED. See Preceeding Page(s	s) for Techn	ique(s) ai	nd Billing Information.	OTHER Press	VECAL
	Ann M	1 10	1	Jon Guhi	Dakota Heminger - I	

DATE 0100000								1		
DATE: 8/2/2016										
REPORT NO: 1 0	Z JOB	LOCALE- CITY, STATE:	Mento	r, OH				Could		
CLIENT PO No:	· · · · · ·			JANX	JUB NO:	209		l		
CLIENT W/O No:		(12) ( 0.	11-01	JANX	PROCED			<u>.</u>		
CLIENT JOB NO: 30		TECHNIQUE VOKE	DIGSIO	ACCE			PI 1104 ZUIN EC			
MAGNETIC	PARTICLE									
Yoke Mfg: Parke	r `	Yoke Model: DA 40	0			Mfg. / Product	Batch No.	Temperature		
Serial No: 21372	2	Expire Date: 1/11/20	17	Penel	rant:			"F		
Leg Spacing:4"	- 5"	Coverage:100%		Devel	oper:		<b>-</b>			
	Тwo Орро	sing 90° Fields: 🗹 Yes	No	Remo	ver:			°F		
Contrast Paint, M	fg & Produ	ct: <u>N/A</u>				sible Dye	Sol	vent Removable		
🔲 Wet 🗹 Dry		n-Fluorescent LI Fluore	scent		L. Fl	uorescent Dye	L Wa	ter Washable		
Wet Particle Suspension	r: 🗌 Oi	I Base 🗌 Water Base		Exten	t of Test:					
Particle Mfg / Batch: Ci	rcle Syste	ms Color: Re	d	Precle	eaning Met	nod: 🗌 S	pray 🗌 Dip	Brush		
Particles Applied by:				Penet	rant Applic	ation: 🗌 S	pray 🗌 Dip	Brush		
Blowing (Dry o	only) with e	xcess removed by gentle a	ur 🛛	Devel	oper Applic	ation: 🔲 S	pray 🗌 Dip	Brush		
stream whil	e maintaini	ng the magnetizing current	t I	Exces	s Penetran	t Removal:	Water Wash	Damp Towel		
Spraying		Flowing		Precle	an Dry Tim	ie:		minutes		
Procedure Demoi	nstration No	ot Required by Customer		Penet	rant Dwell	Time:		minutes		
Procedure Adequ	acy Demor	strated by:	I	Dry Ti	me After P	enetrant Remov	val:	minutes		
Lift Test of:	lbs	. 📋 Field Indicator		Develo	oper Time:			minutes		
Other:				Post Cleaning:						
Post Test Demag		Demag Not Required		Notes:						
Item Temperature:	75 °F	Surface Condition:	Clean			Surface	Prep: Brushe	ed		
Lighting Equipment St	nlight					27				
Light Intensity: 7 >	100 fc Whi	te Light 🔄 > uW/cm	2 Black L	.ight	Black	Light Warm-Up	) Time: 🔲 > 5	mins.		
ITEM ID (Note as MT or PT)	ПЕМ ТҮРЕ	SIZE / THICKNESS / MATERIAL	IN CO Y	N N	DEFEC	T & LOCATION	N REMARK	S / WELDER ID		
MT-1	1" Fillet W	eld Carbon Steel	1				TR			
MT-2	1" Butt We	eld Carbon Steel	1				TR			
MT-3	1" Butt We	d Carbon Steel	1				TR			
MT-4	2" Butt We	eld Carbon Steel	1				TR			
MT-5	2" Butt We	eld Carbon Steel	1				TR			
MT-6	1" Butt We	d Carbon Steel	1				TR			
MT-7	1" Butt We	ld Carbon Steel	1				TR			
MT-8	1" Butt We	d Carbon Steel	1				TR			
MT-9	1" Fillet W	eld Carbon Steel	1				TR			
MT-10	1" Butt We	d Carbon Steel	1				TR			
MT-11	1" Butt We	d Carbon Steel					TR			
MT-12	2" Butt We	ld Carbon Steel					TR			
MT-13	2" Butt We	ld Carbon Steel	1				TR			
BILLING					_					
ADDRESS: 3511 Lost	Nation Rd	Willoughby, OH 44094								
CLIENT SIGNATUR	E	JANX LEVEL II SIGNAT	URE		LEVEL II T	ECHNICIAN	OTHER EMPL	OYEES & LEVEL		
		Jones Ha	10	Jon Guhl						
CLIENT REP NAME & PHONE	NUMBER	TRAVEL TOTAL HOURS MILES TRAVEL & WORK		PER DIEM TOTAL ITEMS			Dakota H	eminger - I		
		1	774			28				
Form: CLIS	TOMER'S	LL SIGNATURE CERTIFIES TH	IAT TIME		/ILEAGE AI		ANX P.C	. Box 190		
MTyk PT Report 16-03 COI	RRECT AND	MATERIALS AND INTERP	RETATIO	N ARE	ACCEPTE	D. (517)	531-8210 Par	ma, MI 49269		

REPORT No: 2 o	f 2 .IOF	LOCALE- CITY STATE	Monte				
CLIENT PO No:	1000	LOOMEL ON , OMIL.	INVIIL		IOB No: 200	· · · · · ·	
CLIENT W/O No:				IANY		DT 1 Dov 4	
CLIENT JOB No: 30	15 ~ 3	06 732500	mHR	ACCE		ADI 1104 2016	Ed
TEM ID (Note as MT or PT)		E / SIZE / THICKNESS / MATERI	IN C	ODE	DEFECT & LOCAT		
ET 44	48.0.44.14		- Y	N			
///-/4	1" Butt V	Veid Carbon Steel		╞──┤	i		
IT-16	1 DULL VI	And Carbon Steel	- /	┦╌╌┨			
IT_17		Void Carbon Steel	+ ',	╞──┦	·		
IT_18	2" Butt M	(eld Carbon Steel	+	<b>├</b> ──┦			
IT-19	2" Butt W	eld Carbon Steel	<u>'</u>				
IT-20	2" Butt W	eld Carbon Steel					
T-21	1 <sup>#</sup> Eillet V	Veld Carbon Steel					
T-22	1" Fillet V	Veld Carbon Steel	1				
T-23	1" Fillet V	Veid Carbon Steel			· · · · · · · · · · · · · · · · · · ·		
T-24	2" Butt W	eld Carbon Steel	- ; ·				
T-25	2" Butt W	eld Carbon Steel	1				· ·
T-26	1" Butt W	eld Carbon Steel	1				
T-27	1" Butt W	eld Carbon Steel					·
T-28	1" Butt W	eld Carbon Steel				ТР	
		-					
		·					
		<u>.</u>			<u> </u>		
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							·
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e: Continuation Page Sign	atures Req	uired. See Preceeding Page(s	) for Tech	nique(s) a	nd Billing Information.		
CUSTOMER SIGNATUR	RE	JANX LEVEL II SIGNAT	URE		LEVEL II ON UNIT	OTHER EN	IPLOYEES & LEVEL
		Acres M	1.1.2		Jon Guhl	Dakota	Heminger - I
CUST	OMER'S S	IGNATURE CERTIFIES T	AT TIANE			IANY D/	D Pay 100

DATE: 0/2/2016			·					1	
DATE: 0/2/2010			Manta	011				JAN	
CUENT PO No:	2 100	LOCALE- CITT, STATE:	Mento			200			
CLIENT POINO:				JANY	DROCED		T 4	1	
CLIENT IOB No: 20	5 904	TRIQ Raving	de	JANA	PTANCE		1-1 21 1104 20th E	<u></u>	
MAGNETIC	PARTICIE	TECHNIQUE - YOKE	43	ACCL			ANT TECHNIC		
Voko Mari					<u> </u>		Potch No	Tomportum	
Fore May Parke		Toke Wodel. DA 40	47	Denet	mont-	wig. / Froduct	Datch NO	- remperature	
		Expire Date: 1/11/20	17	Peneu				Pr	
	- 5"	Coverage: 100%		Devek	oper:		-	f*	
		sing 90° Fleids: [V] Yes		Kemo	ver: $\overline{}$	alla Dura		T	
						sible Dye			
			scent	E-4	HI LJ FR	lorescent Dye		ater washable	
wet Particle Suspension			.	Extent	or lest:			["] p)	
Particle Mig / Batch: Cl	rcie Syste		a	Precie	aning Met		pray LiDi	D Brush	
Particles Applied by:			. [	Penetr	ant Applic	ation: 🛄 Si	pvray ∐Duj	b Li Brush	
E Elowing (Dry of Stream while	only) with e e maintaini	xcess removed by gentle a	aar t	Develo	oper Applic	ation: LISA	pray L_IDip	D LI Brush	
			. 1	Excess	s Penetran	it Kemoval:	water Wash		
Spraying		Howing		Precie	an Dry Tin	ne:	· · · · ·	minutes	
	istration No	x Required by Customer		renetr	ant Dwell	I IME:		minutes	
Procedure Adequ	istrated by:		Dry IIr	ne Atter P	enetrant Remov	/al:	minutes		
Lift Test of:	IDs	E. [] Field Indicator		Developer Lime:minutes					
				Post C	leaning:				
Post lest Demag		Demag Not Required		Notes:					
Item Temperature:	<b>75</b> °F	Surface Condition:	Clean			Surface	Prep: Brush	ed	
Lighting Equipment Su	nlight	· · · · · · · · · · · · · · · · · · ·		1. ht	Diast				
	100 IC AAU		Z BIACK L		Black	Light warm-Op		o mins.	
ITEM ID (Note as MT or PT)		SIZE / THICKNESS / MATERIAL	Y	N	DEFEC	T & LOCATION	I REMARI	KS / WELDER ID	
MT-1	1" Fillet W	eld Carbon Steel	//				TR		
MT-2	1" Butt We	eld Carbon Steel	1				TR		
MT-3	1" Butt We	eld Carbon Steel	_/				TR		
MT-4	2" Butt We	eld Carbon Steel	1				TR		
MT-5	2" Butt We	eld Carbon Steel	1				TR		
MT-6	1" Butt We	Id Carbon Steel	/				TR		
MT-7	1" Butt We	d Carbon Steel	1				TR		
MT-8	1" Butt We	ld Carbon Steel					TR		
MT-9	1" Fillet W	eld Carbon Steel					TR		
MT-10	1" Butt We	d Carbon Steel					TR		
MT-11	1" Butt We	Id Carbon Steel	1				TR		
MT-12	2" Butt We	ld Carbon Steel	/				TR		
MT-13	2" Butt We	ld Carbon Steel					TR		
BILLING									
ADDRESS: 3511 Lost	Nation Rd	Willoughby, OH 44094							
CLIENT SIGNATUR		JANX LEVEL II SIGNAT	URE		LEVEL II T	ECHNICIAN	OTHER EMP	OYEES & LEVEL	
		Jones MA	10		Jon	Guhl			
CLIENT REP NAME & PHONE	NUMBER	TRAVEL TOTAL HOURS	UNIT	PER DIEM   TOTAL ITEMS   Dako			Dakota ł	leminger - I	
		MILES TRAVEL & WORK	NUMBER		PLICABLE	INSPECTED		-	
		1	774			28			
om: CUS	TOMER'S	SIGNATURE CERTIFIES TH				RE J	ANX P.0	). Box 190	
Tyk PT Report 16-03 COF		INATENIALO AND INTERP	NEIAI IO	2/17/17/17	AUGEFIE	- (51/)	551-6210 Pa	ma, MI 49269	

REPORT No: 2	of 2 JOB	LOCALE- CITY, STATE:	Mento	or, OH			
CLIENT PO No:				JANX	JOB No: 209		
CLIENT W/O No:				JANX	PROCEDURE No: RT	-1, Rev.1	
CLIENT JOB No:	<u>305 ~ 30</u>	06 7319 Rei	molds	ACCE	PTANCE CRITERIA: AP	1 1104 20th E	d
ITEM ID (Note as MT or F	РТ) ПТЕМ ТҮРЕ	/ SIZE / THICKNESS / MATERI	AL Y	XODE	DEFECT & LOCATION	I REMAR	KS / WELDER
MT-14	1" Butt W	eld Carbon Steel	1			TR	
MT-15	1" Butt W	eld Carbon Steel	1			TR	
MT-16	1" Butt W	eld Carbon Steel	1			TR	
MT-17	1" Butt W	eld Carbon Steel	1			TR	· · ·
MT-18	2" Butt W	eld Carbon Steel	1			TR	
MT-19	2" Butt W	eld Carbon Steel	1			TR	
MT-20	2" Butt Wo	eld Carbon Steel	1		· · · · · ·	TR	
MT-21	1" Fillet W	eld Carbon Steel	1			TR	
VIT-22	1" Fillet W	eld Carbon Steel	1			TR	
MT-23	1" Fillet W	eld Carbon Steel	1			TR	
MT-24	2" Butt We	eld Carbon Steel	1			TR	
MT-25	2" Butt We	d Carbon Steel	1			TR	
MT-26	1" Butt We	ld Carbon Steel	1			TR	
MT-27	1* Butt We	d Carbon Steel	1			TR	
AT-28	1" Butt We	ld Carbon Steel	1			TR	
					*		
<del> </del>			$\downarrow$				
	·   · · · · · · · · · · · · · · · · · ·		↓				
			<b>↓</b> ↓				
	<b></b>		┣		<u> </u>		
	<u> </u>						
ote: Continuation Page S	ignatures Requ	ired. See Preceeding Page(	s) for Tech	nique(s)	and Billing Information.	0.000	
UUS TOMER SIGNA	IUNE I					OTHEREM	LOYEES & LEVEL
		Clera, IN	1 1.0	1	Jon Guhi	Dakota	Heminger - I

DATE: 8/9/2016	CLIENT: Co	bra Pipeline					JAN
REPORT No: of	JOB LOCALE	CITY, STATE: Ment	or, OH				
LIENT PO No:			JANX J	OB No: 02	<u>109</u>		
LIENT W/O No:			JANX P	ROCEDURE	NO: MITT-RE	20th	
LIENT JOB No: Oak			ACCEP	TANCE CRI	IERIA: APITIN	TECHNIC	
MAGNETIC P	ARTICLE TECHN	QUE - YOKE		LIQU	ID PENETRANT	TECHNIG	Tomorature
Are Mfg Parker	Yoke Mo	del: DA 400		Mfg	. / Product	Batch No.	. remperature
Seriel No: 13670	 Expire D	ate: 9/25/2016	Penetra	ant:			F
eg Spacing: 3"-	5" Covera	ge: Full	Develo	per:			r
	wo Opposing 90	Fields: 🗹 Yes 🗌 N	Remov	ег:			
Contrast Paint, Mfg	& Product:		_		e Dye		
Wet Drv	Non-Fluor	escent 🗌 Fluorescent		Fluor	escent Dye		
Net Particle Suspension:	Oil Base	Water Base	Extent	of Test:			Deuch
Particle Mfg / Batch: Circ	lesafe 850A	Color: Red	Preclea	aning Method	I: Spray		
Particles Applied by:		T	Penetra	ant Application	on: 🛄 Spray		pBrush
Blowing (Drv of	nly) with excess n	emoved by gentle air	Develo	per Applicati	on: Spray		
stream while	maintaining the	magnetizing current	Excess	s Penetrant F	temoval: 🛄 Wa	ter Wash	
Spraving	Flowi	ng	Precle	an Dry Time:			minutes
	stration Not Requ	ired by Customer	Penetr	ant Dwell Tin	ne:		minutes
	cv Demonstrated	by:	Dry Tir	ne After Pen	etrant Removal:		minutes
Procedure Adequa	lbs.	Field Indicator	Develo	per Time:			minutes
			Post C	leaning:			
Dost Test Deman	Dem	ag Not Required	Notes:				
Here Tomparature	77 °F	Surface Condition: clea	in		Surface Pre	p: as w	elded
Lighting Equipment SU	nlight						
Light intensity: $\boxed{\checkmark}$ >	100 fc White Lig	nt 🗌 > uW/cm2 Bla	ick Light	Black L	ight Warm-Up Til	me: [] >	5 mins.
Light meanary.			N CODE	DEFECT	& LOCATION	REMA	RKS / WELDER IC
ITEM ID (Note as MT or PT)	TIEM TYPE / SIZE /	Y				+	
Oak st				<u></u>			
MT 1	1"	>	<		· ···		
MT 2	1"	>	<u> </u>	<u> </u>			· · · · · · · · · · · · · · · · · · ·
MT 3	1"	>	<h< td=""><td><u> </u></td><td></td><td>+</td><td></td></h<>	<u> </u>		+	
				<u> </u>			
<u></u>					<u>,</u>	+	
						+	
							<u> </u>
١						+	
					<u></u>		
						+	
				<u> </u>			
BILLING 3511 Los	t Nation Rd # 5	Willoughby, OH 44094					
ADDRESS:					ECHNICIAN	OTHER	MPLOYEES & LEVEL
CLIENT SIGNATU	RE	JANX LEVEL II SIGNATUR	<u> </u>	LEVEL N		<u></u>	
Dole etrickian	nd I	1/1/		Jake S	Sautter		
Dale strokial		NAT-		PERDIEM	TOTAL ITEMS		
CLIENT REP NAME & PHO	NE NUMBER TH	NLES / TRAVEL AND W	ORK	APPLICABLE	INSPECTED		
216-406-700	5	11			3		
			TIME ANT	) MILEAGE A	RE JA	NX	P.O. Box 190
Form: CI	USTOMER'S SIGN	TERIALS AND INTERPRE	TATION A	RE ACCEPTE	ED. (517) 5	531-8210	Parma, MI 49269
MTyk PT Report 14-03 C	UKRECT AND M			<u>,</u>			

		204									
DATE: 1120/2010 CLI			40004	0403							
CLIENT PO No: 1" TAP	SLUCALE-	CITT, STATE:	12321								
CLIENT W/O No: farm tan C/		·									
CLIENT JOB No: DOWD				ACC	FROCE						
MAGNETIC PARTICL	E TECHNK	QUE - YOKE		1		LIQUID PENE	IRANT TECHNIO				
Yoke Mfg: PARKER	Yoke Mod	el: PA 4	00			Mfg / Produce	Botob No.	Tomporture			
Serial No: 41256	Expire Dat	e: 9/15/20	016	Pene	atrant <sup>.</sup>	Mag. / Froduc	batch NO.	remperature			
Leg Spacing: 6"	Coverag	e: 360DE	EG	Deve	eloner –	· · · -		F			
	osina 90° F	ields: Yes		Rem	over:			r			
Contrast Paint, Mfg & Produ	uct:	Second 4 4 -	L_1.10		7 []	/isible Dve	Solv	ent Removable			
☑ Wet ☐ Dry ☑ N	Ion-Fluores	cent 🗌 Fluor	escent	1		Tuorescent Dve		er Washable			
Wet Particle Suspension:	il Base	Water Base		Exter	nt of Test:						
Particle Mfg / Batch: MAGNAFLi	JX (	Color: WH	ITE	Precl	eaning Me	thod:	Soray Dip	Brush			
Particles Applied by:				Pene	trant Appli	cation:	Sprav Dip				
Blowing (Dry only) with a	excess rem	oved by gentie	air	Deve	loper Appl	ication:	Spray Dip				
stream while maintain	ing the ma	gnetizing curren	nt	Exces	ss Penetra	nt Removal:	Water Wash				
Spraying	Flowing			Preck	ean Dry Ti	me:	•	minutes			
Procedure Demonstration N	Procedure Demonstration Not Required by Customer				trant Dwell	Time:					
Procedure Adequacy Demonstrated by:				Dry Ti	ime After F	Penetrant Remo	ovai:	minutes			
Lift Test of: lbs. Tield Indicator				Devel	oper Time	5		minutes			
Other:					Post Cleaning:						
Post Test Demag	Demag M	Not Required		Notes							
Item Temperature: 68 DEG °f	- Surf	ace Condition:	AS WE	LDED		Surface	Prep: BRUSH	Đ			
Lighting Equipment: N/A											
Light Intensity: 2 > 100 fc Wh	ite Light	vW/cm	12 Black I	Light	Blac	c Light Warm-U	pTime: 🔲 > 5 m	nins.			
ITEM ID (Note as MT or PT)	/ SIZE / THICH	(NESS / MATERIAL	IN CO	DDE N	DEFE	CT & LOCATIO	N REMARKS	/ WELDER ID			
/TT 1 1" BUTT \	NELD		X								
/T 2 1" BUTT \	VELD		X								
/T 3 1" BUTT V	VELD		X								
/T 4 2" BUTT V	VELD		X								
<u>11 5</u> 2" BUTT V	VELD		X								
1" BUTT V	VELD		X								
1" TAP			X								
			┝──┼	$ \rightarrow $							
ADDRESS:											
CLIENT SIGNATURE	JAN		URF			FCHNICIAN	OTLED DADLON				
				+				CCO & LEVEL			
	$\backslash$	5		J	OSHUA SI	HUEMAKER					
CLIENT REP NAME & PHONE NUMBER	TRAVEL	TOTAL HOURS I	NCLUDING	P	ERDIEM	TOTAL ITEMS	TIM CLY	MER			
MILES TRAVEL AND WORK				APPLICABLE INSPECTED							
DALE STRICKLAND 2464067005	MILÉS	TRAVEL AND	WORK		PLICABLE	INSPECTED					
DALE STRICKLAND 2164067005	MILËS 75	TRAVEL AND	WORK		n/a	INSPECTED 7					

CLIENT PO No:       1 of 2       JOB LOCALE- CITY, STATE:       MENTOR OHIO         CLIENT PO No:       N/A       JANX JOB No:       DEPT 0209         CLIENT V/O No:       N/A       JANX PROCEDURE No:       RT-1 REV. 1         CLIENT JOB No:       OSAIR       ACCEPTANCE CRITERIA:       API-1104 20TH	Density Min. Max.
CLIENT PO No:     N/A     JANX JOB No:     DEPT 0209       CLIENT W/O No:     N/A     JANX PROCEDURE No:     RT-1 REV. 1       CLIENT JOB No:     OSAIR     ACCEPTANCE CRITERIA:     API-1104 20TH       Proc. #     V/S     Number & V/S     Number & Number & V/S     Number & V/S     Shim     Heat Shield     Film       Proc. #     V/S     Number & V/S     Size or Set     Vie S/F     Thickness     Used     Time (min)	Density Min. Max.
CLIENT W/O No:     N/A     JANX PROCEDURE No:     RT-1 REV. 1       CLIENT JOB No:     OSAIR     ACCEPTANCE CRITERIA:     API-1104 20TH	Density Min. Max.
CLIENT JOB No:       OSAIR       ACCEPTANCE CRITERIA:       API-1104 20TH <sup>1</sup> / <sub>5</sub> <sup>1</sup> / <sub>9</sub> Proc. # <sup>1</sup> / <sub>9</sub> Proc. # <sup>1</sup> / <sub>9</sub> Material or Other + Reinf.          Object to Object to Film IQI Number & Hole or IQI Side Material & Shield Brand Time Film IQI Number & S/F Thickness Used & Type (min)	Density Min. Max.
Proc. # 20 Material or Other + Reinf. (SOD) (OFD) Note** Size or Set Wire S / F Thickness Used & Type (min)	Density Min. Max.
Proc. # 7 Material or Other + Reinf. (SOD) (OFD) Note** Size or Set Wire S/F Thickness Used & Type (min)	Vin. Max.
1 F CS 2.375 .279 3.1 .279 A SET B #6 F 1"SOD N/A AGFA D-3 9S	2.4 2.7
**IQI A-1 IQI, In center of Readable Area (Area) *SKETCHES SWE/SWV DWE/SWV	DWV 😿
Note: B-2 IQIs, 1 within 1" of Area and & 1 at center C-4 IQIs, equally spaced around circumference A B C D E F F G	н∦
	$\nabla$
Heat Shield Detail:	
Source Screen Material: Processing:  Manual Automatic Densitometer	
✓ Ir 192     Focal Spot:     .149     Films per     LEAD     Drying:     ✓     Manual     Automatic     Serial No.:	33032
Co 60 Curies / kV: 69 Cassette: Front Thick005 Develop Stop Fixing Rinse Expire Date:	2/4/2017
X-ray milliamps: N/A 1 Back Thick.: 010 Time (min.): 5M 1M 5M 10M Verification Checks:	
Temp. °F.: 68 68 68 68 Z Daily & Period	c Completed
ITEM ID VIEW EXP. FILM DIA. THICK. Y N DEFECT EVALUATION KEY REMARKS	Proc. #
XR-1 ABCDA 4 1 2.375 154 / UP.BT IN CODE WID TR	1
XR-2 ABCDA 4 1 2.375 .154 / POR,HB,BT IN CODE WID TR	1
XR-3 ABCDA 4 1 2.375 .154 / BT IN CODE WID TR	1
XR-4 ABC-DA 4 1 2.375 .154 / BT,HB IN CODE WID TR	1
XR-5 ABC-DA 4 1 2.375 .154 X IPD (ALL) WID TR	1
ХR-6CO АВ-С-D-А 4 1 2.375 .154 X IPD (А-В,В-С) WID TR	1
XR-COR         AB-CDA         4         1         2.375         .154         /         HB,SLAG IN CODE         WID TR	1
	_
1 - INADEQUATE PENETRATION     4 - SLAG INCLUSION     8 - POROSITY     12 - CRACK     16 - HOLLOW E       2 - INADEQUATE PENETRATION     5 - INTERNAL UNDERCUT     9 - SCATTERED POROSITY     13 - LINEAR INDICATION     17 - ACCUMUL       DUE TO HIGH-LOW     6 - EXTERNAL UNDERCUT     10 - CLUSTER POROSITY     14 - ROUNDED INDICATION     18 - BURN THE       1 - INDEDWAL CONCOUNDED CONCOUNDED CONT     14 - ROUNDED INDICATION     18 - BURN THE	iead Ation Ough
BILLING ADDRESS	
N/A 35"x10" 45"x10" 5" x 7" 7"	:17*
3.5"x17" 4.5"x17" 8" x 10" 14"	x 17"
CLIENT SIGNATURE JANX LEVEL II SIGNATURE LEVEL II TECHNICIAN OTHER EMPLOYEES	& LEVEL
Pal Cur Ede TIM A COSS	
CLIENT REP NAME & PHONE NUMBER TRAVEL TOTAL HOURS INCLUDING PER DIEM TOTAL ITEMS MATT COLLI	NS
DALE 216-406-7005 MILES TRAVEL AND WORK APPLICABLE INSPECTED 150 10 N/A 7	:
CLIENT'S SIGNATURE CERTIFIES THAT TIME AND MILEAGE ARE CORRECT AND MATERIALS JANX P.O. Box 1 AND INTERPRETATION ARE ACCEPTED. (517) 524 8240 Down 141	90

REPORT No: 2 of 2 LOS		CITY STATE	MEN			<u> </u>			MAN
CLIENT PO No: N/A	LOCALE-	UIT, STATE:	MEN			DEDT 020			69/2 <b>-1</b> /14
CLIENT W/O No: N/A					X PROCE		MT_1 (	PEV 0	
CLIENT JOB No: OSAIR	***	· · · · · · · · · · · · · · · · · · ·		ACC	EPTANCE	CRITERIA	API-11	04 20TH (9	4 2)
MAGNETIC PARTICL	ETECHNI	QUE - YOKE				LIQUID PEN	ETRAN	TECHNIQ	UE
Yoke Mfg: PARKER	Yoke Mod	el: DA-4(	00		· · · · · ·	Mfa / Produ	ct	Batch No	Temperature
Serial No: 16709	Expire Dat	te: 7/7/20	17	Pene	etrant:	mig. / Toda		paton no.	or
Leg Spacing: 4-6"	Coverag	e: 100% FINA	L PASS	Deve	eloper:	- <u> </u>			
AC DC Two Opp	osing 90° F	ields: 🔽 Yes	No	Rem	over:				 °F
Contrast Paint, Mfg & Produ	ct: WCF	P-2 MAGNAVIS	12E08K			isible Dve	·	Solv	/ent Removable
🗹 Wet 🗌 Dry 🛛 N	on-Fluores	cent 🗌 Fluor	escent	1	🗌 F	luorescent D	/e	U Wat	er Washable
Wet Particle Suspension: 🛛 🔽 O	il Base	Water Base		Exte	nt of Test:		-		
Particle Mfg / Batch: 7HF MAGN	AVIS (	Color: BLK 12	2C13K	Prec	eaning Me	thod:	Spray	Dip	Brush
Particles Applied by:				Pene	trant Appli	cation:	Spray	Dip	Brush
Blowing (Dry only) with e	xcess rem	oved by gentle a	air	Deve	loper Appli	cation:	Spray	Díp	Brush
stream while maintain	ing the ma	gnetizing curren	it	Exce	ss Penetra	nt Removal:	] Wat	ter Wash	Damp Towel
Spraying	Flowing			Precl	ean Dry Ti	me:			minutes
Procedure Demonstration N	ot Required	d by Customer		Pene	trant Dwell	Time:			minutes
Procedure Adequacy Demo	nstrated by	:		Dry T	ime After F	Penetrant Ren	noval:		minutes
Lift Test of: lb	s. 🗍 Fi	ield Indicator		Developer Time: minutes					minutes
Other:				Post	Cleaning:				
Post Test Demag	Demag I	Not Required		Notes	5:				
Item Temperature: 55 °F	Surl	face Condition:	UNIFO	RM, C	LEAN	Surfa	ce Prep:	WIRE W	HEEL
Lighting Equipment: FLASHLIGH	IT 300LU	MENS							
Light Intensity: 2 > 100 fc Wh	ite Light	> uW/cm	2 Black	Light	Black	Light Warm-	Up Time	e: 🗌 > 5 i	mins.
ITEM ID (Note as MT or PT)	/ SIZE / THICI	KNESS / MATERIAL	IN C Y	ODE N	DEFE	CT & LOCATI	ON	REMARKS	/ WELDER ID
MT-1 2" FILLET			1				V	VID TR	
				÷					
								·	
			I						
			<b></b>						
ADDRESS:									
CLIENT SIGNATURE	JAN	X LEVEL II SIGNAT	URE		LEVEL II T	ECHNICIAN	Ö	THER EMPLO	YEES & LEVEL
On / MA	-		/			COSS			
INN JUN									
DALE OTDIOKIAND	MILES	TOTAL HOURS I TRAVEL AND	NCLUDING WORK	G F	PER DIEM	TOTAL ITEMS		MATT C	DLLINS
216-406-7005	N/A	SEE PAGE	1 OF 2		N/A	1	1		
CLISTOMER'S	GNATI							PO	Box 100
yk PT Report 14-03 CORRECT AND	MATERIA	S AND INTERP	RETATIO	N ARE	ACCEPTE	D. (51)	7) <u>531-8</u>	210 Parm	a, MI 49269

DATE: 7/28/201	6 CLI	ENT: COE	BRA						
REPORT No: 3 0	f 5 JOE		CITY STATE	6070 V			ONCORDITON		JAN
CLIENT PO No: 1	" TAP	LOUALL	OIT, OIAIL.	USICE	JAN	X JOB No:	0204		Carlin
CLIENT W/O No: fa	rm tap Wi	LLIAMS R	D		JAN	X PROCE	DURE No:	WT 1 REV 0	· · · · · · · · · · · · · · · · · · ·
CLIENT JOB No: S	TEEL HEA	D	· ·		ACC	EPTANCE	CRITERIA:	API 1104 20TH E	 D
MAGNETIC	PARTICL	E TECHNI	QUE - YOKE				LIQUID PENET	RANT TECHNIC	UE
Yoke Mfg: PARKE	 R	Yoke Mod	el: PA 40	20			Mfg / Product	Batch No	Temperatura
Serial No: 4125	6	Expire Dat	e: 9/15/20	)16	Реле	trant.	mg. r roudo	Balon NO.	°C
Leg Spacing:	6 <b>*</b>	Coverad	e: 360DF	G	Deve	loner -			
	Two Opp	osina 90° F	ields: 🗌 Yes		Rem				r
Contrast Paint, M	lfa & Produ	ict:			1 (13)111		isihle Dvo		
✓ Wet □ Drv	ע ד <u>ו</u>	on-Fluores	cent Eluore	escent			luorescent Dve		ter Washable
Wet Particle Suspension	$r \square c$	il Base	Water Base		Exter	t of Test-	idorescent Dye		
Particle Mfg / Batch: M		iX (			Dreck	eaning Me	thed:		Druch
Particles Applied by:		<u> </u>			Dono	trant Annlie	antion:	Spray 🛄 Dip	
Blowing (Dry )	niv) with e	VCOCS FOR	oved by gentle :	air	Deve	ioner Annli		spiay 🗋 Dip	
stream while	e maintain	ing the ma	anetizina curren	t I	Evon	oper Appri	ot Romoveli	piay Li Dip	
Spraving		Elouring	0		Drook			VValer vvasn	
Procedure Demor	internation N	nt Require	hy Customer		Donoi	boot Dwoll	Time:		minutes
	acy Domo	actrated by				imo Aftor E	And and a second Barry		minutes
lift Test of:	iloy Derrio ilo		iold Indicator		Dava				
Other:		». Шп			Deve:		•		minutes
Post Test Demag	Г	Demag	lot Required						
Item Temperature: 8		Sur			DED		Durafa aa		<b>FD</b>
Lighting Equipment	<u>A 1</u>	Sun	ace condition.	AGTIEL	UED		Sunace	e Prep: BRUSH	
Light Intensity:	- 100 fc Wh	ite Liaht		2 Black I	iaht	Black	Light Warm LI		mine
		in Light		IN CO	DE				
I EM ID (Note as MT or PT)		/ SIZE / THICH	KNESS / MATERIAL	Y	N	DEFEC	CT & LOCATIO	N REMARK	S / WELDER ID
MT 1	1" BUTT \	VELD		X					
MT 2	1" BUTT V	VELD		X					
MT 3	<u>1' TAP</u>			x					
			<u> </u>						
		-							i
BILLING COBRA									
ADDRESS;									
CLIENT SIGNATURE		JAN	X LEVEL II SIGNATI	URE		LEVEL II T	ECHNICIAN	OTHER EMPLO	YEES & LEVEL
		1	1		J	OSHUA SI	UEMAKER		
			$\leq $						
CLIENT REP NAME & PHONE	NUMBER	TRAVEL MILES	TOTAL HOURS I	NCLUDING WORK	P AP	ER DIEM	TOTAL ITEMS	TIM CL	YMER
DALE STRICKLAND 216	4067005	75	3		+	n/a	2		
									Dev. 400
Vit PT Report 14-03 COR	RECT AND	MATERIAL	S AND INTERPR	RETATION	ARE	ACCEPTE	κ⊨ J D. (517)	ANA P.O. 531-8210 Parm	DUX 190

DATE: 7/28/2	016 CI		RRA			· · · ·	· · · · · · · · · · · · · · · · · · ·				
REPORT No: 1	of 5 .10	BLOCALE	CITY STATE	6070							
CLIENT PO No:	1" TAP		Unit, Unit.	0310	JANY IOP N	0204	WNAMP UHIU				
CLIENT W/O No:	farm tap W		D								
CLIENT JOB No:											
MAGNET	IC PARTICI	LE TECHNI	QUE - YOKE	· · · · ·	NOOLI MATE		TRANT TECHNI				
Yoke Mfg: PAR	KER	Yoke Mod	el: PA 4	 nn		Mfg / Produce	A Detab N				
Serial No: 412	256	Exoire Dat	e: 9/15/20	<u></u>	Penetrant	Mig. / Produc	a Datch No	J. I emperature			
Leg Spacing:	6"	Coveran	e: 360DF		Developer		·····	<del></del>			
	Two Opr	oosina 90° F	ields: Ves		Remover			······			
Contrast Paint.	Mfa & Prod	uct:				Visible Duo		*			
Vet Drv		Non-Fiuores	cent Eluon	escent		Fluorescent Du	່ 🗌 ນ				
Wet Particle Suspensi	ion: 🗌 C	Dil Base	Water Base	booon	Extent of Test	· · · · · · · · · · · · · · · · · · ·		aler washadle			
Particle Mfg / Batch:	MAGNAFL	UX (	Color WH	ITE	Precleaning M	lethod:					
Particles Applied by:					Penetrant Ann	lication:	Spray [] Di				
Blowing (Dr	v only) with	excess rem	oved by gentle :	air	Developer App		Spray []Di	p L Brusn			
stream w	hile maintair	ning the ma	gnetizing curren	it .	Excess Panet	ant Removal	opray [_]Dĭ  ] Mator Mast				
Spraving		Flowing			Preciean Doy 1	Gine -	J WALEI WASN				
Procedure Dem	onstration N	lot Required	i by Customer		Penetrant Dwg	ill Time:		minutes			
Procedure Adec	uacy Demo	instrated by			Dry Time After	Penetrant Dom		minutes			
Lift Test of:	، – ,، ال	xs. ∏Fi	eld Indicator		Developer Tim	a.	Uvei.	minutes			
Other:					Post Cleaning:						
Post Test Dem	ag [	Demag	lot Required		Notes						
Item Temperature:	68 DEG °	F Sur	ace Condition	AS WE		Surface		UED			
Lighting Equipment	114										
	I/A						e riep. <u>bruj</u>				
Light Intensity:	> 100 fc Wh	nite Light	> uW/cm	2 Black	Light Blac	k Light Warm-U		i mins			
Light Intensity:	> 100 fc Wh	nite Light	>uW/cm	2 Black	Light Blac	k Light Warm-U		5 mins.			
Light Intensity:	> 100 fc Wr ) ITEM TYPE	nite Light	> uW/cm	2 Black IN C Y	Light Blac ODE DEFI	k Light Warm-U	Dp Time: > S	5 mins.			
Light Intensity:	100 fc Wh 100 fc Wh 11 EM TYPE 1" BUTT 1	hite Light / SIZE / THICH WELD	VNESS / MATERIAL	2 Black IN C Y X	Light Blac ODE N DEFI	k Light Warm-U	Dy Time: > !	5 mins. (S / WELDER ID			
Light Intensity:	> 100 fc Wr ) пем туре 1" ВUTT 1 1" BUTT 1	hite Light : / SIZE / THICH WELD WELD	vW/cm     NESS / MATERIAL	2 Black IN C Y X X	Light Blac ODE DEFI	ck Light Warm-U	DP Time: >	5 mins.			
Light Intensity:	27 100 fc Wr ) пем туре 1" ВUTT 1 1" BUTT 1 2" BUTT 1	hite Light / SIZE / THICH WELD WELD WELD	VNESS / MATERIAL	2 Black IN C Y X X X	Light Blac ODE N DEFI	k Light Warm-U	DN REMARK	5 mins. (S / WELDER ID			
Light Intensity:	<ul> <li>&gt; 100 fc Wr</li> <li>&gt; πEM TYPE</li> <li>1" BUTT 1</li> <li>1" BUTT 1</li> <li>2" BUTT 1</li> <li>2" BUTT 1</li> </ul>	hite Light / SIZE / THICH WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X	Light Blac ODE DEFI	ECT & LOCATIO	DN REMARK	5 mins.			
Light Intensity:	<ul> <li>&gt; 100 fc Wr</li> <li>&gt; ITEM TYPE</li> <li>1" BUTT \</li> <li>1" BUTT \</li> <li>2" BUTT \</li> <li>2" BUTT \</li> <li>1" BUTT \</li> </ul>	hite Light / Size / THICH WELD WELD WELD WELD WELD	NESS / MATERIAL	2 Black IN C Y X X X X X X	Light Blac ODE DEFI	k Light Warm-U	Dp Time: > 5	5 mins.			
Light Intensity:	<ul> <li>&gt; 100 fc Wh</li> <li>&gt; 100 fc Wh</li> <li>1" BUTT N</li> <li>1" BUTT N</li> <li>2" BUTT N</li> <li>2" BUTT N</li> <li>1" BUTT N</li> <li>1" BUTT N</li> <li>1" BUTT N</li> </ul>	hite Light / SIZE / THICH WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	k Light Warm-U	DN REMARK	5 mins. (S / WELDER ID			
Light Intensity:	<ul> <li>&gt; 100 fc Wr</li> <li>&gt; 100 fc Wr</li> <li>) ITEM TYPE</li> <li>1" BUTT V</li> <li>1" BUTT V</li> <li>2" BUTT V</li> <li>2" BUTT V</li> <li>1" BUTT V</li> <li>1" BUTT V</li> </ul>	hite Light / SIZE / THICH WELD WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	k Light Warm-U		5 mins.			
Light Intensity:	> 100 fc Wr         )       ΠΕΜ ΤΥΡΕ         1" BUTT V         1" BUTT V         2" BUTT V         2" BUTT V         1" BUTT V	hite Light / Size / THICH WELD WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	k Light Warm-U		5 mins. (S / WELDER ID			
Light Intensity:	2100 fc Wr 100 fc Wr 1" BUTT V 1" BUTT V 2" BUTT V 2" BUTT V 1" BUTT V 1" BUTT V 1" TAP	hite Light / SIZE / THICH WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	k Light Warm-U		5 mins. (S / WELDER ID			
Light Intensity:	> 100 fc Wr         )       ΠΕΜ ΤΥΡΕ         1" BUTT V         1" BUTT V         2" BUTT V         2" BUTT V         1" BUTT V         1" BUTT V         2" BUTT V         1" BUTT V         1" BUTT V	hite Light / SIZE / THICH WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	k Light Warm-U		5 mins. (S / WELDER ID			
Light Intensity:	//А > 100 fc Wr ) ПЕМ ТУРЕ 1" BUTT V 1" BUTT V 2" BUTT V 2" BUTT V 1" BUTT V 1" TAP	hite Light / SIZE / THICH WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	k Light Warm-U		5 mins. (S / WELDER ID			
Light Intensity:	2 100 fc Wr          > 100 fc Wr         1 TEM TYPE         1" BUTT V         1" BUTT V         2" BUTT V         2" BUTT V         1" BUTT V         1" BUTT V         2" BUTT V         1" TAP	hite Light / SIZE / THICH WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	k Light Warm-U		5 mins. (S / WELDER ID			
Light Intensity:	//A > 100 fc Wr ) ПЕМ ТУРЕ 1" BUTT V 1" BUTT V 2" BUTT V 2" BUTT V 1" BUTT V 1" BUTT V 1" TAP	hite Light / Size / THICH WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	k Light Warm-U		5 mins. (S / WELDER ID			
Light Intensity:	//A > 100 fc Wr ) ПЕМ ТУРЕ 1" ВUTT V 1" BUTT V 2" BUTT V 2" BUTT V 1" BUTT V 1" BUTT V 1" TAP	hite Light / SIZE / THICH WELD WELD WELD WELD WELD	CNESS / MATERIAL	2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	k Light Warm-U		5 mins. (S / WELDER ID			
Light Intensity:	2" BUTT \ 2" BUTT \ 2" BUTT \ 2" BUTT \ 1" BUTT \ 2" BUTT \ 1" BUTT \ 1" TAP	hite Light  / SIZE / THICH WELD WELD WELD WELD WELD		2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	ECT & LOCATIO		5 mins. (S / WELDER ID			
Light Intensity:	2" BUTT \ 2" BUTT \ 2" BUTT \ 2" BUTT \ 1" BUTT \ 2" BUTT \ 1" BUTT \ 1" BUTT \ 1" BUTT \ 1" BUTT \	hite Light		2 Black IN C Y X X X X X X X J RE	Light Blac ODE DEFI	ECT & LOCATIO		5 mins. (S / WELDER ID			
Light Intensity:	2" BUTT V 1" BUTT V 1" BUTT V 2" BUTT V 2" BUTT V 1" BUTT V 1" BUTT V 1" BUTT V 1" BUTT V 1" TAP	hite Light  / SIZE / THICH WELD WELD WELD WELD WELD JAN		2 Black IN C Y X X X X X X X	Light Blac ODE DEFI	TECHNICIAN		5 mins. (S / WELDER ID			
Light Intensity:	2" BUTT \ 2" BUTT \ 2" BUTT \ 2" BUTT \ 1" BUTT \ 2" BUTT \ 1" BUTT \ 1" BUTT \ 1" TAP	INTRAVEL		2 Black IN C Y X X X X X X X X	Light Blac ODE DEFI	TECHNICIAN		5 mins. (S / WELDER ID			
Light Intensity:	2       100 fc Wr         1       TEM TYPE         1       BUTT V         1       BUTT V         2       BUTT V         2       BUTT V         1       TAP	TRAVEL MILES		2 Black IN C Y X X X X X X X X X I X	Light Blac ODE DEFI	TECHNICIAN		5 mins. (S / WELDER ID			

DATE: 8/9/2016	CLIENT: C	obra Pi	ipeline		011				JAN
REPORT No: of	JOB LOCAL		<u>r, state: M</u>	entor,	UH		209		
CLIENT PO No:					JANK J			EVO	
CLIENT W/O No:					JANX I	TANCE OP		04 20th	
CLIENT JOB No:	vyar bu	sh			ACCEP	TANGE CRI	ID DENETRAN	TECHNIC	UE
MAGNETIC P	ARTICLE TECH	NIQUE	- YOKE					Poten No	Temperature
Yoke Mfg: Parker	Yoke N	lodel: _	DA 400			Mitg	3. / Product	Daton NO.	°F
Serial No: 13670	Expire	Date:	9/25/2016	[	Penetra	ant:			,
Leg Spacing: 3"-	5" Cove	rage: _	Full		Develo	per:			
	Two Opposing 9	D <sup>o</sup> Field	s: 🗹 Yes 🗌	No	Remov	er:			
Contrast Paint, Mfg	g & Product:						le Dye		Werk Kernovabie
Wet Dry	🔽 Non-Flue	orescen	t 🗌 Fluoresc	ent			rescent Dye		stel vydshabie
Wet Particle Suspension:	Oil Base		Vater Base		Extent	of Test:			Druch
Particle Mfg / Batch: Circ	clesafe 850A		or: <u>Red</u>		Preclea	aning Metho	d: 🗌 Spray		
Particles Applied by:				1	Penetr	ant Applicati	on: 🗌 Spray	니며	Diusi
Blowing (Dry o	nly) with excess	remove	d by gentle air		Develo	per Applicat	ion: ∐ Spray		
stream while	e maintaining the	magne	etizing current		Excess	s Penetrant F		BIGL AASU	
Spraying	Flow	ing			Precle	an Dry Time:			minutes
Procedure Demon	stration Not Rec	uired b	y Customer		Penetr	ant Dwell Til	ne:	<u> </u>	minutes
Procedure Adequa	acy Demonstrate	d by:			Dry Ti	me After Pen	etrant Removal:		minutes
Lift Test of:	lbs.	Field	1 Indicator		Develo	oper Time:			
Other:					Post C	leaning:			
Post Test Demag	Der	nag No	t Required		Notes		Curfore Dr		idad
Item Temperature:	77°F	Surfac	e Condition:	lean		<u></u>		μ. <u>as we</u>	
Lighting Equipment: Su	nlight	+			a tula		ight Warm-Up Ti	me: []>	5 mins.
Light Intensity: 🛛 >	100 fc White Lig	iht	> uW/cm2	Black	LIGIT	DIAUKL	ight Wanti-Op II		
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE		IESS / MATERIAL	Y	N	DEFECT	& LOCATION	REMAR	
Sugarbush									
MT 1	1"			X			· · · · · · · · · · · · · · · · · · ·	+	
MT 2	1"			<u> </u>		<u> </u>			
MT 3	2"			<u></u>					
MT 4	2"	<u> </u>		X					
MT 5	1"			<u>X</u>	+	<u> </u>			·
МТ 6	1"	<u> </u>		<u>X</u>	<u> </u>				<u> </u>
		ļ			+		<u>`</u>		
		<u> </u>		<u> </u>					
1		<u> </u>							
		<u> </u>			+	+		-	
					+			-	
	1 A1 A1	18/11	John OH MAD	14		<u></u>			
BILLING 3511 Los	it Nation Rd # 5	AAIIIO	ININY, OT 440:	~					
ADDRESS:	00	IAN	X LEVEL II SIGNAT	URE		LEVEL II T	ECHNICIAN	OTHER E	MPLOYEES & LEVEL
CLIENT SIGNATU		4.71	11						
Dale stricklan	Id		E/L	1		Jake S			
CLIENT REP NAME & PHO	NE NUMBER T	RAVEL/	TOTAL HOURS	INCLUD D WORI	K	APPLICABLE	INSPECTED		
216-406-700	5	hsh	8						
							RE JA	NX	P.O. Box 190
Form: Cl	USTOMER'S SIG	NATUR	LS AND INTERF	RETA	TION A	RE ACCEPTI	ED. (517) 5	531-8210	Parma, MI 49269
MTyk PT Report 14-03									

)ATE: 8/9/2016	CLIENT: C	obra Pipeline		<u></u>				JAN
EPORT No: of	JOB LOCAL	E-CITY, STATE: M	lentor, C	JH LNY H	DB Not 0	000		
LIENT PO No:			J/			No: MT1_R	EV0	
LIENT W/O No:			J/		RUCEDUR		04 20th	
LIENT JOB No: Fra	cci			CUEP		IID PENETRANT	TECHNIC	UE
MAGNETIC	PARTICLE TECH	NIQUE - YOKE	+			Desduct	Batch No	Temperature
oke Mfg: Parker	Yoke M	odel: DA 400			Muð	1 Ploquet	Dator No.	op
Serial No: 13670	Expire	Date: <u>9/25/2016</u>	P	'enetra	nt:			°
eg Spacing: 3"	-5" Cove	rage: Full	D	)eveloj	)er.			
AC DC	Two Opposing 9	) <sup>°</sup> Fields: 🔽 Yes	No R	lemove	er: 	· ·		lucot Removable
Contrast Paint, Mf	g & Product:					le Dye		stor Washahla
🗹 Wet 🗌 Dry	🗹 Non-Flue	rescent 🛄 Fluoresc	ent			escent Dye		ale: washable
Net Particle Suspension	: 🔽 Oil Base	Water Base	E	Extent	of Test:			Druch
Particle Mfg / Batch: Cir	clesafe 850A	Color: Red	P	Preclea	ning Method	d: ∐ Spray		
Particles Applied by:			P	Penetra	int Applicati	on: 🗋 Spray	니며	
Blowing (Dry c	only) with excess	removed by gentle air		)evelo	per Applicati	ion: L Spray		
stream while	e maintaining the	magnetizing current	E	Excess	Penetrant F	Removal: 🛄 🛛 Vva	ner vvasn	
Spraying	Flow	ing	F	Precies	in Dry Time:	e.		minutes
Procedure Demor	stration Not Req	uired by Customer	F	Penetra	ant Dwell Tir	ne:		minutes
Procedure Adequ	acy Demonstrate	d by:		Dry Tin	ne After Pen	etrant Removal:		minutes
Lift Test of:	lbs.	Field Indicator		Develo	per Time:	·		nanutes
Other:			F	Post C	eaning:			
Post Test Demag	g 🗌 Der	nag Not Required		Notes:				
tem Temperature:	77 °F	Surface Condition:	clean			Surface Pre	ep: <u>as we</u>	
Lighting Equipment Su	inlight							Emine
Light Intensity: 2	100 fc White Lig	ht 🗌 > uVV/cm2	Black Li	ight	Black L	ight Warm-Up Ti		o mins.
ITEM ID (Note as MT or PT)	ITEM TYPE / SIZE	THICKNESS / MATERIAL	Y Y	N	DEFECT	& LOCATION	REMAR	KS / WELDER ID
Franci								
MT 1	2"		X		<u>.v. k</u>			
MT 2	2"		X					
VIT 3	2"		X					
MT 4	2 <sup>tr</sup>		_x					
MT 5	2"		X				+	
· · · · · · · · · · · · · · · · · · ·							<b></b>	
							+	
·								
					- 10 - 10 - M		+	<u></u>
BILLING 3511 Los	st Nation Rd # 5,	Willoughby, OH 440	94					
ADDRESS:		A Mar and a star and			4 mm 2mm 1 to 1000	CUNICIAN		PLOYEES & LEVEL
CLIENT SIGNATU	JRE	JANX LEVEL II SIGNAT	TURE		LEVELNT			the law r with the up links which
the second s		1/1/		-	Jake S	lautter		
Dale stricklar		y - 1 / / / / / / / / / / / / / / / / / /			in such in states a	TOTAL (TEMS		
Dale strickla	NE NUMBER T	AVEL TOTAL HOURS	INCLUDIN	IG .	PER DIEM	INSPECTED		
Dale stricklan CLIENT REP NAME & PHO 216-406-700	NE NUMBER T	AVEL TOTAL HOURS	INCLUDIN D WORK	IGA	PER DIEM PPLICABLE	INSPECTED 5		
Dale stricklan CLIENT REP NAME & PHC 216-406-700		AVEL TOTAL HOURS	NCLUDIN D WORK		PER DIEM PPLICABLE MILEAGE A	INSPECTED 5 RE JA	NX	P.O. Box 190

			DDA							
REPORT No: 4								·		
CLIENT PO No: 1	" <b>TAP</b>	DLOCALE	UIT, SIAIE:	0910		AMS RD C	ONCORD TO	WNSHIP OHIO		
	USIZC					Y PROCE				
CLIENT JOB No:					ACC	FPTANCE	CRITERIA			
MAGNETIC	PARTICL	E TECHNI	QUE - YOKE				LIQUID PENE	TRANT TECHNIO		
Yoke Mfg: PARKE	ER	Yoke Mod	el: PA 4	00	1		Mfa / Produc	t Botoh No	Tomoortuur	
Serial No: 4125	6	Expire Da	te: 9/15/2	016	Pen	otrant:	mg. / i toduc	Datch NO.		
Leg Spacing:	6"	Coverad	ie: 360DI	=G	Dev	eloner -				
AC DC	Two Opp	osina 90° l	Fields: Yes		Rem	nver -			r	
Contrast Paint, M	lfg & Produ	uct:				7 []	/isible Dve			
Wet Dry	 	Ion-Fluores		escent			luorescent Dva			
Wet Particle Suspension	r. Πα	Dil Base	Water Base		Exte	nt of Test	indereddonic Dyc			
Particle Mfg / Batch: M/		UX i	Color: WH	ITE	Prec	leaning Me	thod:	Spray Din	Baish	
Particles Applied by:					Pene	etrant Apoli	cation:	Spray Dip		
Blowing (Dry o	only) with e	excess rem	noved by gentle	air	Deve	loper Appl	ication:		Brush	
stream whil	e maintair	ing the ma	gnetizing currer	nt	Exce	ss Penetra	nt Removal-	Water Wash		
Spraying		Flowing			Prec	ean Drv Ti	me:			
Procedure Demor	stration N	ot Require	d by Customer		Pene	trant Dwell	Time:		minutes	
Procedure Adequ	acy Demo	Instrated by	r.		Dry T	îme After I	Penetrant Rem		minutes	
Lift Test of:	łb	s. ∏F	ield Indicator		Deve	loper Time			minutes	
Other:					Post Cleaning:					
Post Test Demag	Ę	Demagi	Not Required		Notes	s:				
Item Temperature: 6	B DEG °	- Sur	face Condition:	AS WE	LDED		Surface	Pren: BRUSH	ΞD	
Lighting Equipment: N/	A									
Light Intensity: >	100 fc Wh	ite Light	🔲 > uW/cm	2 Black	Light	Black	k Light Warm-U	 lp Time: □ > 5 ı	nins.	
ITEM ID (Note as MT or PT)	ITEM TYPE	/ SIZE / THIC	KNESS / MATERIAL	IN C	DDE N	DEFE	CT & LOCATIO	N REMARKS	/ WELDER ID	
MT 1	1" BUTT \	WELD		X						
MT 2	1" BUTT \	VELD		X						
MT 3	1" BUTT V	VELD		X					———	
MT 4	2" BUTT V	VELD		X						
MT 5	2" BUTT V	VELD		X			·			
MT 6	1" BUTT V	VELD		X						
MT 7	1" TAP			X						
									i	
BILLING COBRA ADDRESS:										
CLIENT SIGNATURE		JAN	X LEVEL II SIGNATI	URE			ECHNICIAN	OTHER EMPLOY	FES & I EVEL	
					1				LU WLEVEL	
		1	$i \sim$		J	OSHUA SI	HUEMAKER			
CLIENT REP NAME & PHONE	NUMBER	TRAVEL	TOTAL HOURST	NCLUDING		ËRDIEM	TOTAL ITEMS	TIM CL	MER	
DALE STRICKLAND 216	4067005	MILES	TRAVEL AND	WORK		PLICABLE	INSPECTED			
		75	3			n/a	7			
m: CUST yk PT Report 14-03 COR	OMER'S S		CERTIFIES TH	AT TIME RETATIO	AND M	ILEAGE AN	RE J D. (517)	ANX P.O. E 531-8210 Parma	Box 190 a, 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









#### **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



Additional information please contact 517-531-8210 ask for Operations Department or visit our website @ www.janxndt.com

System Name: _	OAK	St	e4	Syster	n No: ORNG TI	-001
Area Covered:	From: North W	bst eno of	ProParty	Z67'EAST	ALONG COBRES	P. peline
	To: 200' Sou	In Along	Service	line		
		C	)			
Is This Gas Odor	ized? (192.625):	XYes	🛛 No			
Class Location:	□ 1	<u> </u>	X 3	□ 4		
Survey Interval R	Required: 🛛 Annua	l NTE 15 mo	□ 3 Year		Times Per Year	
Type Of Detection	n Used: Flame	Ionization 🛛	CGI/Barhol	e 🛛 Vegetation Surv	vey 🛛 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?:  Uyes Ino	
If yes to any of the questions above, to whom was it reported:	

Additional Comments:	
Performed By: And Stanish	Date: 7-4-16

System Name:	Stolla				System No: _ 7/- 006
Area Covered:	From:	ions Rd			
	To: hos	155			
Is This Gas Odor	ized? (192.625):	X Yes	🗋 No		
Class Location:	□ 1	□ 2	⊠ 3	□ 4	
Survey Interval R	equired: 🛛 Annual	NTE 15 mo	□ 3 Year □	5 Year	Times Per Year
Type Of Detection	n Used: 🛛 Flame Id	onization 🛛 🛛	CGI/Barhole	🛛 Vegetat	ion 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?: $\Box$ yes $\blacksquare$ 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?: U yes Z no
Are there missing line markers in this system?:
If yes to any of the questions above, to whom was it reported:
Additional Comments:
Performed By: Hove Stanish Date: 2-4-16

Aug 29 16 03:11p	Cobra Pipeline NTrumbull	1-330-538-3340	p.1
	CAL NATURAL GAS		
LEAN SUR	<b>EVEY REPORT (§192.723)</b>	F1	
Suctan Nama	Name Share Sh		
Area Coverad:	Hallort Yought 12 yette K.J.	System No:	
Thea Covered,	From: <u>Fraillact Goung</u>		
	10: <u>Lyste III I: 76</u>		
Is This Gas Odor	tized? (192,625) d Vec D No		
Class Location:			
Survey Interval R	Required Annual NTE 15 ma D 2 Very D 5 1	+	
Type Of Detectio	u Used: / Flame Ionization D. CCUPartela Det	ur 🛛 Tim	les Per Year
Were Any Leaks	Discovered?	tation Survey [] (	Other
			Contration
	Location	Grada	Gas Leak & Repair
		Glabe	Keport Number
L			
Method pool.	W.1.1.		
Was there any con	venicle 1 Walking D Other:		
Were there any con	struction along or near the pipeline system?:	s Tno	
None Found	Steerer Dia and the sur	vey?:	
Were there any cor	Steams/Rivers 🗆 Railroad 🗆 Highway 🗋 Foreign Pi	peline 🛙 Building	s 🛛 Other:
Are there missing 1	introns found that could affect the present or future sa	fety of this system	?: 🛛 yes 🚽 no
If yes to any of the	inte markers in this system?: I yes I no		
in yes to any or me	questions above, to whom was it reported:		
Additional Comme	nte-		
			······································
	A shi s s	<u> </u>	
Performed By:	Jul W	Datas 8-20	2011
		Date. 107	UVB

Aug 29 16 03:11p	Cobra Pipeline NTrumbull	1-330-538-3340	p.2
OHIO RUR LEAK SUR	AL NATURAL GAS VEY REPORT (§192.723)		
System Name: Area Covered:	Ellsweeth Rd From: Corare of Ellsworth / Weaver	System No:	

To: 5. 1	uche ('	rele	_
Is This Gas Odorized? (192.625):	∕ Yes	🛛 No	

as This Cus Outfilled.	(1 <del>5</del> 2.025):	∧⊥ ies	U NO				
Class Location:	01	N/2	□ 3	04			
Survey Interval Requi	red: 🛛 Annu	al NTE 15 mo	3 Year	🛛 5 Year		Times Per Year	
Type Of Detection Us	ed: I Flame	Ionization	CGI/Barhole	e 🛛 Vegetat	tion Survey	Other	
Were Any Leaks Disc	overed?:	C Yes	2 No		÷		

Location	Grade	Gas Leak & Repair Report Number

Method used:  Vehicle - Walking  Other:					
Was there any construction along or near the pipeline system?: Uyes					
Were there any of the following unusual conditions found during the survey?:					
V 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?:					
Are there missing line markers in this system?:  Question yes and a statement of the system?					
If yes to any of the questions above, to whom was it reported:					

Additional Comments:



System Name:	WILLAM	a la p	HER)		System No:	1-005	
Area Covered:	From: TAP	BO'WEST	ALONXY (	STP 104	North Zo	o' Alonka	07/104
	To: 102' 4	ALONG SER	VILE LEN	JE	62' Along	0RW 628	
					0		
Is This Gas Odor	ized? (192.625):	Yes	🗆 No				
Class Location:	□ 1	<b>2</b>	¥-3	□ 4			
Survey Interval R	equired: 🛛 Annua	l NTE 15 mo	3 Year	5 Year	🛛 Tin	nes 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?: $\Box$ yes $d$ 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?: U yes						
Are there missing line markers in this system?:  Uyes no						
If yes to any of the questions above, to whom was it reported:						

Additional Comments: FOREIGN P:PELINES: OTP 104; ORW 628

Performed By: Jul And

Date: 2-4-16



System Name: _	ORNG T1-002 System No: T1-002
Area Covered:	From EAST END of Property, Live 43' EAST +
	To: 1971 west: ALONG SERVICE Line
In This Cas Oda	

Is This Gas Odorized?	(192.625):	🛛 Yes	🗆 No			
Class Location:	01	□ 2	3	□ 4		
Survey Interval Requir	ed: 🛛 Annual	NTE 15 mo	3 Year	🛛 🎝 Year	□	Times Per Year
Type Of Detection Used: Flame Ionization CGI/Barhole Vegetation Survey OOther						
Were Any Leaks Disco	vered?:	🛛 Yes	No			

Location	Grade	Gas Leak & Repair Report Number
		· · · · · · · · · · · · · · · · · · ·

Method used:  Vehicle  Walking  Other:	
Was there any construction along or near the pipeline system?:  ves	
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?: Uses	
Are there missing line markers in this system?: I yes I no	·
If yes to any of the questions above, to whom was it reported:	

Additional Comments: Performed By: And And Date: 2-4/-/6



System Name: MUZIC 13164	ero CENTER System No: TI-003	
Area Covered: From:	120	
То:	0	
Is This Gas Odorized? (192.625): ✓ Yes Class Location: □ 1 □ 2	$\square$ No	
Survey Interval Required:  Annual NTE 15 Type Of Detection Lized:  C <sup>*</sup> Time Lized:  C <sup>*</sup> Tim	no 3 Year 5 Year D Times Per Year	
Were Any Leaks Discovered?:	CGI/Barhole Vegetation Survey D Other  No	

		Gas Leak & Repair
Location	Grade	Report Number
	/	
A		
/		

Method used:  U Vehicle  Walking  Other:	
Was there any construction along or near the pipeline system?:  yes	
Were there any of the following unusual conditions found during the survey?:	
Vone 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?: U yes	0
Are there missing line markers in this system?:	-
If yes to any of the questions above, to whom was it reported:	
Additional Comments: TAP ORWIDY A"Steel CoBra P. Reline 255/1945	
Performed By: And All Date: 2-4-16	_





System Name: MUZIC	System No:	T1-003
Area Covered: From: 145.46' C/L W INDIAN POINT RD 4	+ LEROY CEN	Terrd
To: 3312'South 4 Leray CENTER RD		
9/	24/2015	
Is This Gas Odorized? (192.625): Yes 🛛 No	•	
Class Location: $\Box$ 1 $\Box$ 2 $\checkmark$ 3 $\Box$ 4	Turr	non System
Survey Interval Required: Annual NTE 15 mo 0 3 Year 5 Year 1	Tim	es Per Year
Type Of Detection Used:  Flame Ionization  CGI/Barhole  Vegetation	on Survey 🗌 🛛	Other
Were Any Leaks Discovered?:  ☐ Yes  ☐ No		
		Gas Leak & Repair
Location	Grade	Report Number

Method used: 🗆 Vehicle 📈 Walking 🗆 Other:	
Was there any construction along or near the pipeline system?: $\Box$ yes X 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?: $\Box$ yes	] no
Are there missing line markers in this system?: $\Box$ yes $\checkmark$ no	
If yes to any of the questions above, to whom was it reported:	

Additional Comments:	FOREIGN PIPELine	LoBea	DRW	104 4"
				STEEL

Performed By: DAVE STANISH

Date: 9/24/2015





К.

System Name:	FRACEI	CT.			System No:	51-00	
Area Covered:	From: 7000 -	Fracci	G.ala	sng the	service	Rine	drown
tral	To: the Re	queato	n Sta	rion. a	ncl mo	ma the	,
Ľ	Pipelane 10	CV1-00	) (			~~	
Is This Gas Odor	rized? (192.625):	Yes	🛛 No				
Class Location:	01	2	□ 3	□ 4			
Survey Interval H	Required: 🛛 Annual	NTE 15 mo	3 Year	₽ 5 Year	] <b>T</b> i	mes Per Year	
Type Of Detection	on Used; Z Flame Id	onization 🛛	CGI/Barhol	e 🛛 Vegetatio	on 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?: $\Box$ yes	
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?: $\Box$ yes	no l
Are there missing line markers in this system?:  Uyes	
If yes to any of the questions above, to whom was it reported:	

Additional Comments:	
Performed By: Automation By:	Date: 2-5-16



Location: 7000 Fracci Ct. Mentor Lake County Ohio

Flame Ionization Survey
 Available Opening Survey
 Vegetation Survey

Leak Survey Map

System: <u>1-00</u> Leak record # Date: <u>2-5-16</u> Time: Performed by: <u>0. Stanis h</u>

LEAK SURVEY REPORT (§192.723)						
System Name:	SUGAR	Bush	<b>`</b>		System	No: <u>51-002</u>
Area Covered:	From:					
	To: ALON	Ka 4"	SORI	1 8	150'	Along
		•		Ť	SUGA	IR Bash DR+
Is This Gas Odori	zed? (192.625):	Yes	🗆 No		ME	TER LOCATION
Class Location:	□ 1	2	□ 3	□ 4		
Survey Interval R	equired: 🛛 Annua	NTE 15 mo	3 Year	🛛 5 Year		Times Per Year
Type Of Detection	n Used: 🛛 Flame I	onization 🛛 (	CGI/Barhole	e 🛛 Vegetat	ion Surve	ey 🛛 Other
Were Any Leaks	Discovered?:	□ Yes	🛛 No			

Tiro on 11/13/2015

		Gas Leak & Repair
Location	Grade	Report Number

Method used:  Vehicle Walking  Other:	
Was there any construction along or near the pipeline system?: $\bigvee$ yes $\Box$ 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?: $\Box$ yes	no
Are there missing line markers in this system?: $\Box$ yes $\swarrow$ no	
If yes to any of the questions above, to whom was it reported:	

Additional Comments: Home Construction Vard Work @\_\_\_\_\_

Performed By: STAWISH

**OHIO RURAL NATURAL GAS** 

Date: 11/13/15





Leak Survey Map

System:ORNG §1-002

Leak record #\_

Flame Ionization Survey Available Opening Survey

Turn on

System: ORNGS1-002

Date:11/13/2015 Time:12:00 Performed by: Dave Stanish

System Name:	Suc	Here for	sh		System No:	51-002
Area Covered:	From: <u>9221 5</u>	GAR Bush	ALONG	onver L	Ne =7 9220	SUGARBUSH
	To: ALons	Sérviee L	NE 16BO	x0B0002	O ALONG	Company Line
					4 Station	
Is This Gas Odor	ized? (192.625):	Yes	🗆 No			
Class Location:	0 1	□ 2	□ 3	□ 4		
Survey Interval R	lequired: 🛛 Annua	l NTE 15 mo	🛛 3 Year	5 Year	Time	s Per Year
Type Of Detectio	n Used: 🖉 Flame I	Ionization 🛛	CGI/Barhole	Vegetati	on Survey 🛛 Of	her
Were Any Leaks	Discovered?:	🛛 Yes	No No		Ť	

Location	Grade	Gas Leak & Repair Report Number

Method used:  Vehicle  Walking  Other:	
Was there any construction along or near the pipeline system?: Uyes	
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?: $\Box$ yes	<b>no</b>
Are there missing line markers in this system?: $\Box$ yes $\varnothing$ no	
If yes to any of the questions above, to whom was it reported:	

Additional Comments:	
	14
Performed By: Jul And	Date:



Ohio Rural Natural Gas, Co-Op

Attachment DK-20

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 PIPLINE 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
- Don 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) whis 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 pipline 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: <u>WWW.ORNGCO-OP.COM</u> or Contact our Office at 440-255-5198



PRODUCTS/DOT	GUIDEBOOK ID#/0	<u>SUIDE#</u>
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

#### 2QUÉ DEBO HACER SI SOSPECHO QUE HAY UNA FUGA DE PIPLINE?

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
- Ilame 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. Vernos 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 pipline y otras utilidades varias marcar sus instalaciones subterráneas antes de la excavación.

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

#### 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: <u>WWW.ORNGCO-</u> <u>OP.COM</u> or Llama la Officina a 440-255-5198



#### CONDADOS DE OHIO DE LA OPERACIÓN:

MAHONING TRUMBULL GEAUGA HOLMES LAKE

\*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

#### **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 DEI 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 explosivas. 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





# M 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



## 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. TX01083-92209

## **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.





TX04659-03-24-14



## 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 aforestated 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\_\_\_\_

TX02486-12-20-13



# Safety

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	COPYRIGHT © 2016, 2014, 2013, 2009
	McELROY MANUFACTURING, INC.
	Tulsa, Oklahoma, USA
	All file 1

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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.



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Maintenance			
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## 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.

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

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

**ACAUTION** 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.



WR00051-11-30-92



WARNING



TX00030-12-1-92

## **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



## **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.



#### 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.



WR00034-11-30-92

TX00032-4-7-93

## **Heater Is Not Explosion Proof**

**A** 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.





## **Electric Motors are Not Explosion Proof**

**A 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



## **Electrical Safety**

#### AWARNING

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

## **Facer Blades Are Sharp**

AWARNING

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.





#### Heater is Hot

**ACAUTION** 

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

# 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.



CD00632-7-25-00



#### TX00101-6-12-13

### **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



## 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

#### **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




# **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







# 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 cartslide 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.







PH01872-7-25-00

PH01867-7-25-00

TX01843-6-12-13



# **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.





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.





TX01844-6-12-13



### **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.

#### **A 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.





TX02472-04-16-14

# **Manual Facer**

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



TX00836-1-5-96

### Cam Lock

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



TX00837-1-5-96



#### Heater

A DANGER Heater

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 nonsynthetic cloth before every fusion joint.





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.



TX00363-9-15-94



# **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



## **Prepare Heater**

#### **A** 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





# **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.

X01846-7-25-00

# 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.

TX01847-7-25-00

## **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.

TX01851-7-25-00



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FH01883-7/25-00





# **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 overtighten.

**NOTICE:** Thoroughly clean all dirt and debris from pipe ends before facing. TX00839-1-5-96



# 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**.



TX01848-7-25-00

## **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

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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