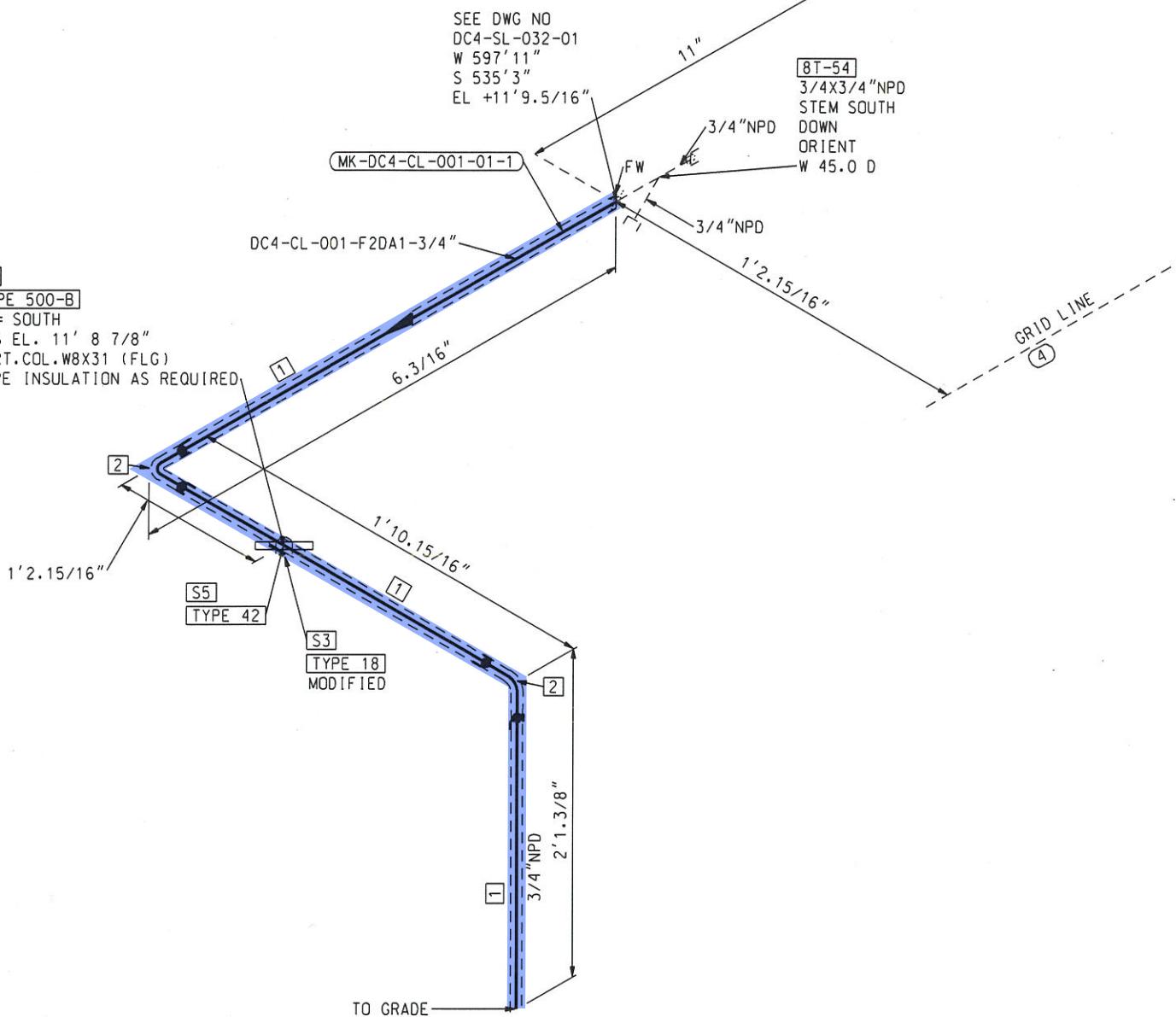


TP-006-003



* SHOP MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
1	PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	3/4	4.3'	PADJABCAAM
2	90 DEG ELBOW, CL3000, SWE, ASTM-A105, ASME-B16.11	3/4	2	SLAQZZAAA
3	T18-0.75#10-0.15-0-0-0-CS-M	3/4	1	TYPE 18

* FIELD MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
4	PIPE SUPPORTS	3/4	1	TYPE 500-B
5	T42-0.75#0-0-0-0.13-0-CS	3/4	1	TYPE 42

PIECE MARKS

MK-DC4-CL-001-01-1

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

CWA# 4B

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6-21-2018
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PIPELINE PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE	TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS TEMP °F PSIG	DESIGN CONDITIONS TEMP °F PSIG	TEST PRESS	TEST MEDIA	NDE	
PDS MODEL FILE :	PP803453	CONSTRUCTION STATUS	ECC00057-DC4-D-0002	N	N/A	GREY	5MM-14MC-PP	KI320I	212 0	366 150	SVC	SVC	V100
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.												
1.	ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.												
2.	± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.	0	20-SEP-2017	ISSUED FOR CONSTRUCTION				SGJ	VSP <i>M</i> <i>S</i> <i>Q</i>				
CAD DESIGN FILE :	070J80\ISOREF\MONSANTO.BDR	REV	DATE	REVISION DESCRIPTION				BY	CHECKED BY <i>S</i>	STRESS <i>Q</i>	APPROVED	DRAWING NO. DC4-CL-001-01	SHEET REV 01 0

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LULING PLANT
HIGHWAY 90
LULING, WASHINGTON 98251
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PROJECT NO. 070J81 XX

COMMODITY
CL

LINE NO.
DC4-CL-001-F2DA1-3/4"

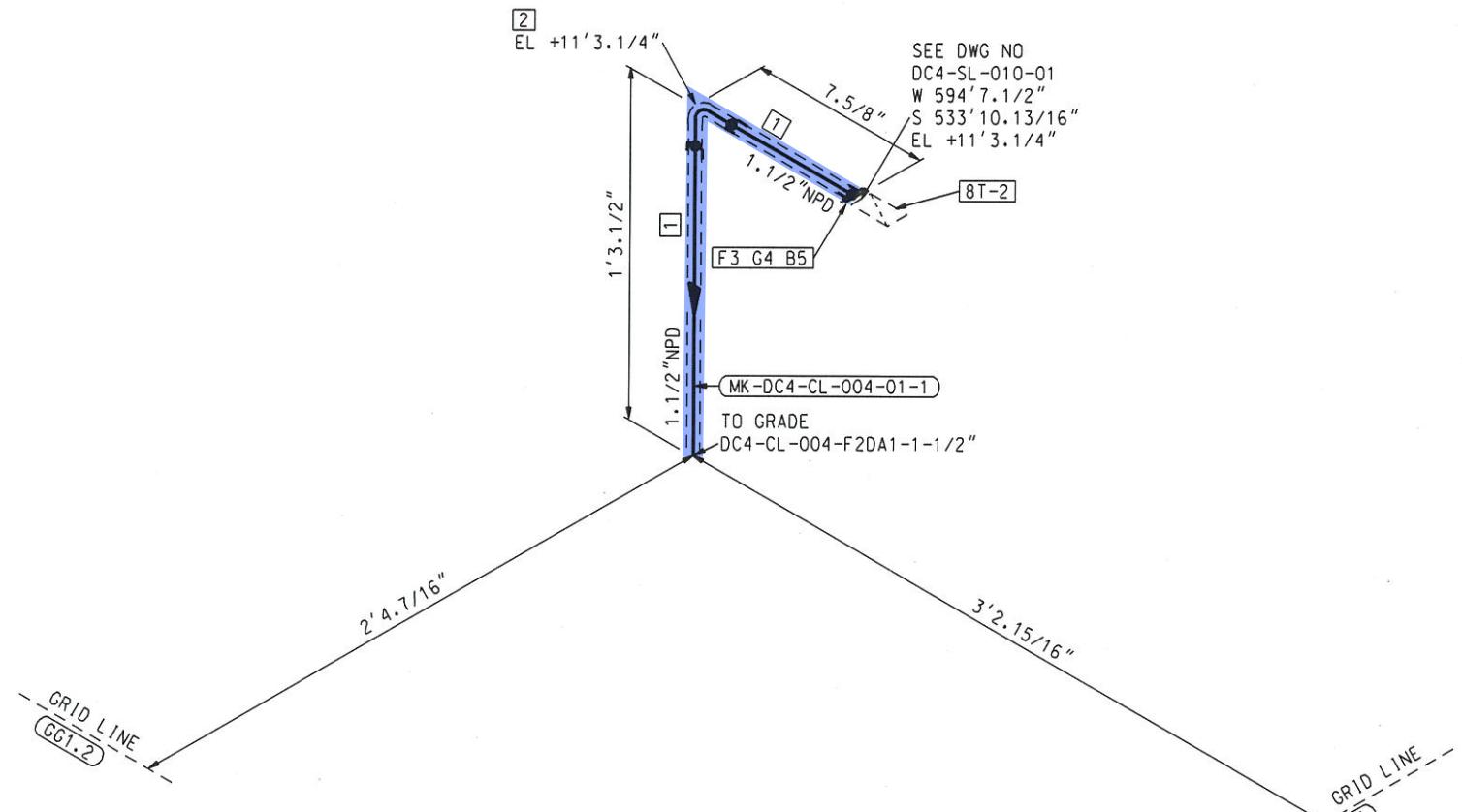
CLASS
F2DA1

CONTRACT NO. FAB/CONST. MODEL AREA

DRAWING NO.
DC4-CL-001-01

SHEET REV
01 0

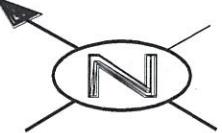
TP-006-003



NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

PIPING PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE		TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS		DESIGN CONDITIONS		TEST PRESS	TEST MEDIA	NDE		
POD MODEL FILE :	PP803453	CONSTRUCTION STATUS	ECC00057-DC4-D-6116		N	N/A	GREY	5MM-14MC-PP	KI320I	212	PSIG	366	150	SVC	SVC	V100	
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.																
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.																	
2. ± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.																	
CAD DESIGN FILE :	070J80\ISOREF\MONANTO.BDR																
REV	DATE		REVISION DESCRIPTION				BY	CHECKED BY	STRESS	APPROVED		MON11900	FAB/CONST.	MODEL AREA	DRAWING NO. DC4-CL-004-01	Sheet 01	Rev 0

CWA# 4B



* SHOP MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
1	PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	1.1/2	1.7'	PADJABCAM
2	90 DEG ELBOW, CL3000, SWE, ASTM-A105, ASME-B16.11	1.1/2	1	SLAQZZAAA
3	FLANGE, CL150, RFFE/SWE, ASTM-A105, ASME-B16.5, SW, S-XS BORE	1.1/2	1	FCAABBCAAA

* FIELD MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
4	SW METALLIC GSKT:ASME B16.20,CL150.316L MET. WINDING W/FLEX GRAPH FILLER AND IR/CR.304SS CR, 316L INNER RING	1.1/2	1	XDSAFZZOSI
5	ALLOY CONT THD FLUOROCARBON CTD STUDS: ASTM A193, GR. B7 HVY HEX,FLUOROCARBON CTD NUTS: ASTM A194, GR. 2H,MONSANTO STD P34101, 2.75" BOLT LENGTH	1/2	4	YZZZHZZFFE

PIECE MARKS

MK-DC4-CL-004-01-1

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6-21-2018
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PROJECT NO. 070J81 XX

COMMODITY

CL

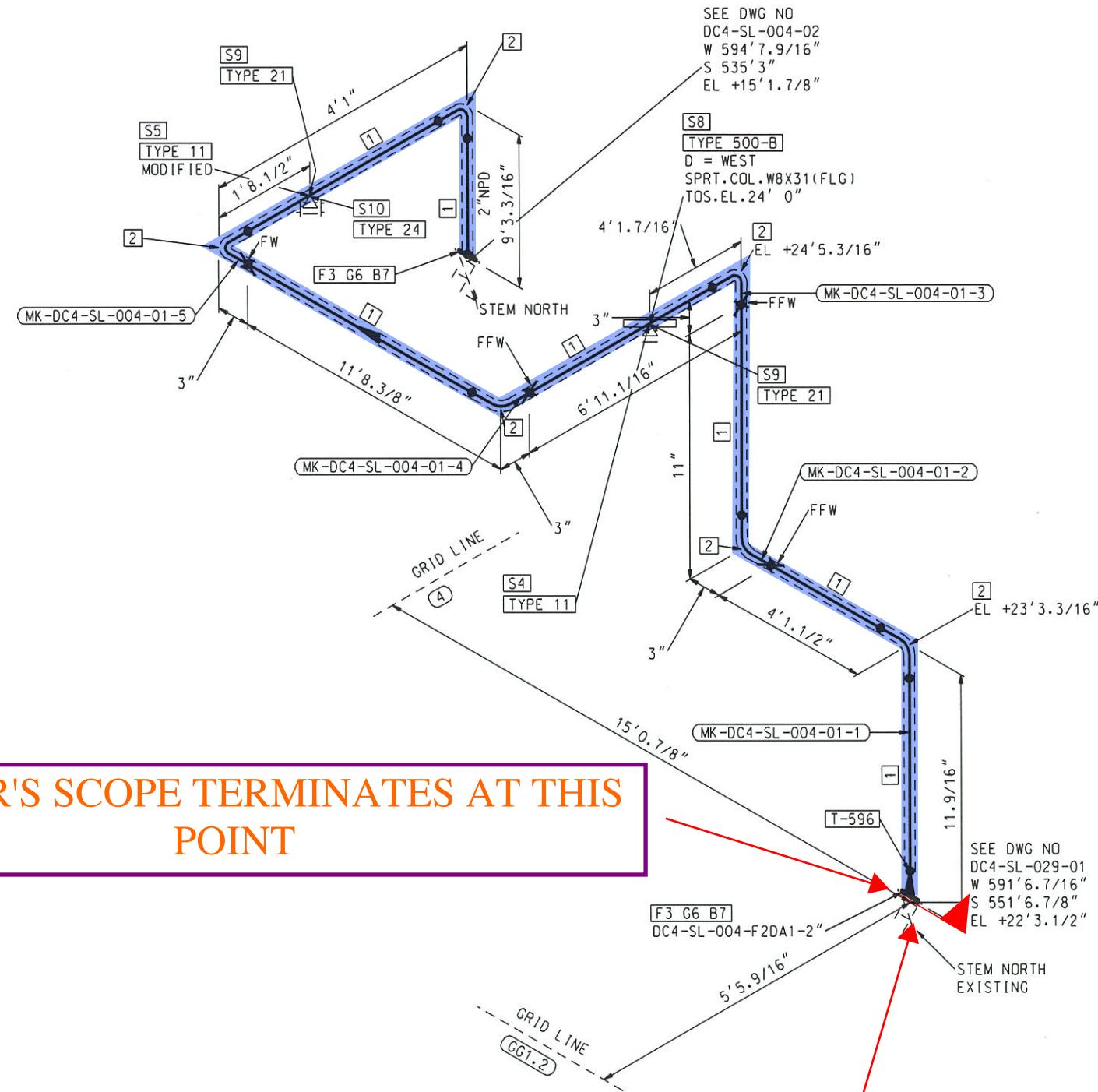
LINE NO.

DC4-CL-004-F2DA1-1-1/2'

CLASS

F2DA1

TP-006-003



TURNER'S SCOPE TERMINATES AT THIS POINT

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

* SHOP MATERIALS *

NO. DESCRIPTION

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
1	PIPE, S-STD, BE, ASTM-A53, TYPE E, GR.B; ASTM-A53, TYPE S, GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85 ASME-B16.9	2	6	WAAAABAAA
2	90 DEG LR ELBOW, S-STD, BE, ASTM-A234-WPB, WROUGHT,	2	2	FEABZZAA
3	FLANGE, CL150, RFFE/SO, ASTM-A105, ASME B16.5	2	1	TYPE 11

PIPE SUPPORTS

4	T11-2#18-4-0-0-0-CS	2	1	TYPE 11
5	T11-2#20-4-0-0-0-CS-M	2	1	TYPE 11

* FIELD MATERIALS *

NO. DESCRIPTION

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
6	SW METALLIC GSKT:ASME B16.20,CL150,316L MET. WINDING W/FLEX GRAPH FILLER & CR.304SS CR	2	2	XDSAFZZORG
7	ALLOY CONT THD FLUOROCARBON CTD STUDS: ASTM A193, GR. B7 HVY HEX,FLUOROCARBON CTD NUTS: ASTM A194, GR. 2H,MONSANTO STD P34101, 3.25" BOLT LENGTH	5/8	8	YZZHZZFFE

PIPE SUPPORTS

8	T500-B-2#8-0-2-7-0	2	1	TYPE 500-B
9	T21-2#0-0-0-0.13-0	2	2	TYPE 21
10	T24-2#0-4-0-0.13-0-CS	2	1	TYPE 24

PIECE MARKS

MK-DC4-SL-004-01-1 MK-DC4-SL-004-01-2 MK-DC4-SL-004-01-3 MK-DC4-SL-004-01-4 MK-DC4-SL-004-01-5

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PROJECT NO. 07QJ81 XX

COMMODITY

SL

LINE NO.

DC4-SL-004-F2DA1-2*

CLASS

F2DA1

EXTRACTION NO. : 20

EXTRACTION DATE. : 22-NOV-2017

ISOCEN DEFAULT IS FILE : VARTBLI.F:\070J80\ISREF\MONSANTO.DEF

ENG-1042

TP-006-003

SEE DWG NO
DC4-SL-004-01
W 594'7.9/16"
S 535'3"
EL +15'1.7/8"

[18] STEM NORTH

[3] 2X2"NPD
EL +13'9.7/8"

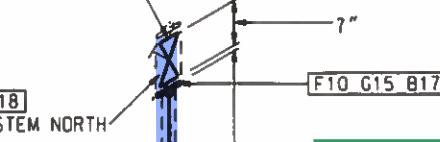
[S12] TYPE 11
MODIFIED

SEE DWG NO
DC4-SL-032-01
W 594'9.3/8"
S 535'3"
EL +13'1.13/16"

[4] 2X3/4"NPD
1.13/16"

2X3/4"NPD
5

[13] STEM EAST



USE JUMPER HOSE TO CONNECT TO SPOOL
ON ISO DC4-SL-010-01

[S20] TYPE 500-B
D = NORTH
TOS EL.13' 4 3/4"
SPRT. COL. W8X31(FLG)

[S21] TYPE 21

MK-DC4-SL-004-02-2

MK-DC4-SL-004-02-1

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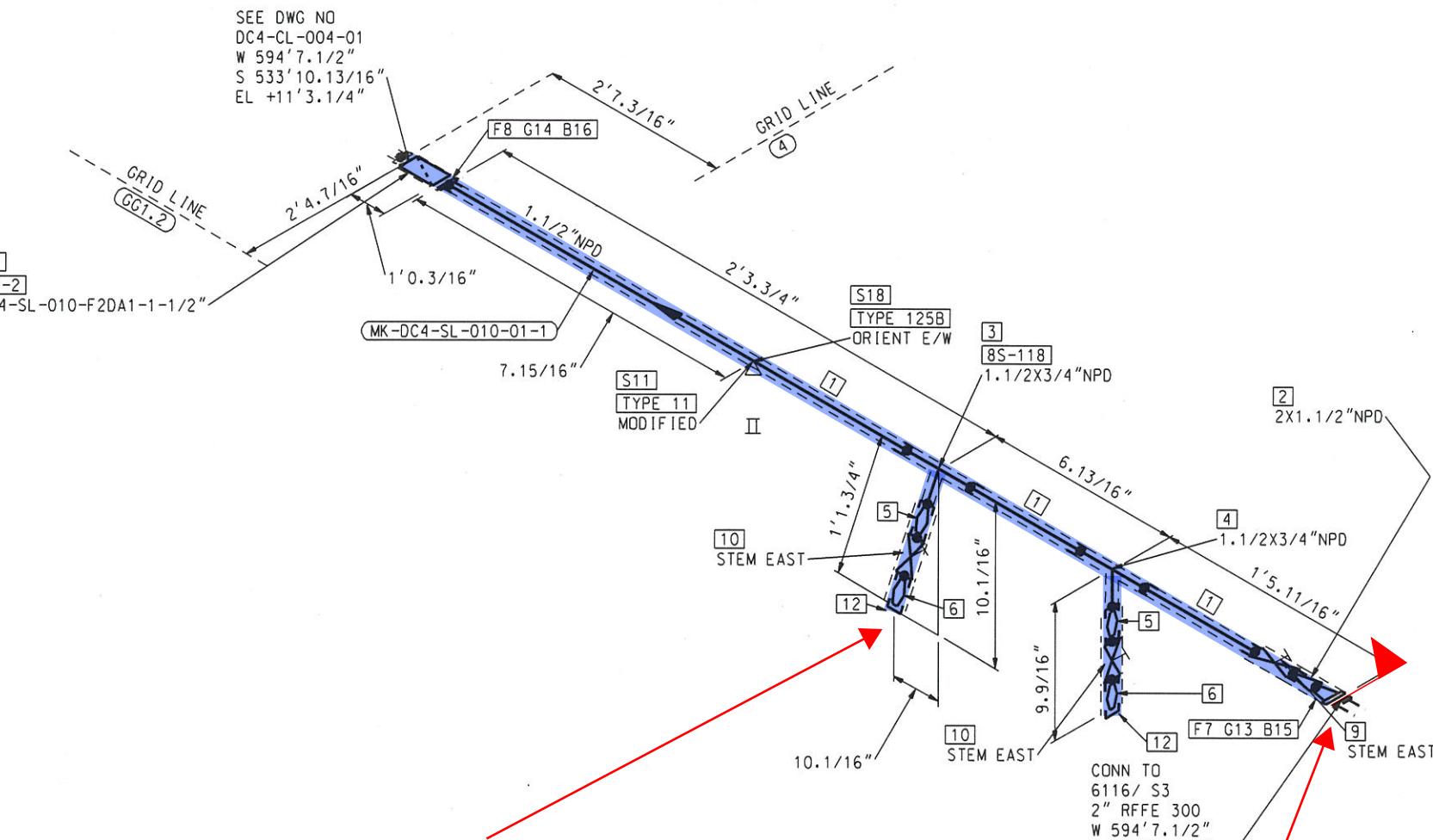
TP-006-003

EXTRACTION NO. : 8

EXTRACTION DATE. : 20-SEP-2017

VARIFI L01::F:\070J80\ISOREF\MONSANTO.BDR

ISOCEN DEFAULTS FILE : ENG-1042



USE JUMPER HOSE TO CONNECT TO SPOOL
ON ISO DC4-SL-004-02

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

* SHOP MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
1	PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	1.1/2	2.7'	PADJABCAM
2	CONCENTRIC SWAGE, S-STD X S-XS, BLE X PSE, ASTM-A234-WPB, WROUGHT, MSS SP-95	2X1.1/2	1	WSACGWBAAA
3	SPECIALTY ITEM 8S-118	1.1/2X3/4	1	8S-118
4	REDUCING BRANCH TEE, CL3000, SWE, ASTM-A105, ASME-B16.11	1.1/2X3/4	1	STBQZZAAA
5	NIPPLE, PE, S-XS, 3" LONG, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS	3/4	2	POCAABCAM
6	NIPPLE, PE X MTE, S-XS, 3" LONG, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS	3/4	2	POFAABCAM
7	FLANGE, CL300, RFFE/BE, ASTM-A105, ASME-B16.5, WN, S-STD BORE	2	1	FAABBBAAA
8	FLANGE, CL150, RFFE/SWE, ASTM-A105, ASME-B16.5, SW, S-XS BORE	1.1/2	1	FCAABBAAA
9	GATE VALVE, CS, CL800, SW, OS&Y, WELDED BONNET, HO, TAG: FA233-ECC00057	1.1/2	1	FA233-8
10	GATE VALVE, CS, CL800, SW, OS&Y, WELDED BONNET, HO, TAG: FA233-ECC00057	3/4	2	FA233-8

PIPE SUPPORTS

11	T11-1.5#8-4-0-0-0-CS-M	1.1/2	1	TYPE 11
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* FIELD MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
12	CAP, CL3000, FTE, ASTM-A105, ASME-B16.11	3/4	2	TCAQZZAAA
13	SW METALLIC GSKT:ASME B16.20,CL300,316L MET. WINDING W/FLEX GRAPH FILLER AND IR/CR.304SS CR, 316L INNER RING	2	1	XDSBFZZOSI
14	SW METALLIC GSKT:ASME B16.20,CL150,316L MET. WINDING W/FLEX GRAPH FILLER AND IR/CR.304SS CR, 316L INNER RING	1.1/2	1	XDSAFZZOSI
15	ALLOY CONT THD FLUOROCARBON CTD STUDS: ASTM A193, GR. B7 HVY HEX,FLUOROCARBON CTD NUTS: ASTM A194, GR. 2H,MONSANTO STD P34101, 3.5" BOLT LENGTH	5/8	8	YZZZHZZFFE
16	ALLOY CONT THD FLUOROCARBON CTD STUDS: ASTM A193, GR. B7 HVY HEX,FLUOROCARBON CTD NUTS: ASTM A194, GR. 2H,MONSANTO STD P34101, 2.75" BOLT LENGTH	1/2	4	YZZZHZZFFE
17	SPECIALTY ITEM 8T-2	1.1/2	1	8T-2

PIPE SUPPORTS

18	T125B-1.5#0-17-0-0-1	1.1/2	1	TYPE 125B
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PIECE MARKS

MK-DC4-SL-010-01-1

CWA# 4B

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6-21-2018

S. STILLWELL

PLOTTED ON : 9/21/2017

PIPING PLAN REFERENCE:
PDS MODEL FILE : PP803453 CONSTRUCTION STATUS

P&ID NO.
ECC00057-DC4-D-6116

STRESS RELIEVE	TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS TEMP °F	PSIG	DESIGN CONDITIONS TEMP °F	PSIG	TEST PRESS	TEST MEDIA	NOTE
N	N/A	N/A	1"-9MC-HC	NPR	302	45	366	150	SVC	SVC	V100

NOTES:
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH
AND/OR VERTICAL C'S UNLESS NOTED.
2. ± DENOTES AN APPROXIMATE DIMENSION,
FIELD CHECK BEFORE FABRICATION.

3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP.
FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.

CAD DESIGN FILE : 070J80\ISOREF\MONSANTO.BDR

0 20-SEP-2017 ISSUED FOR CONSTRUCTION

SGJ VSP NT APPROVED

REV DATE

BY CHECKED BY STRESS APPROVED

JACOBS

PROJECT NO. 070J81 XX

COMMODITY

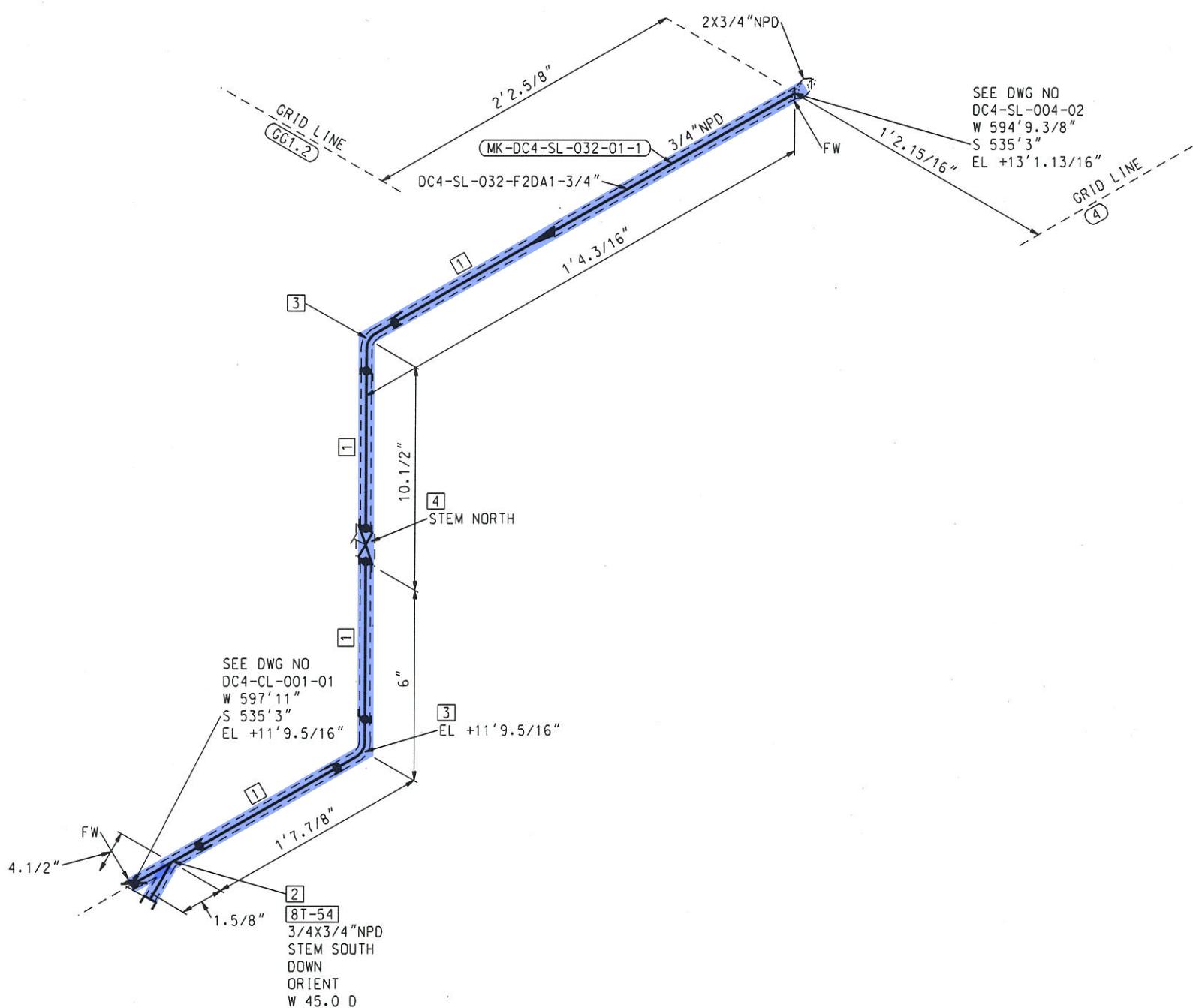
SL

LINE NO.
DC4-SL-010-F2DA1-1-1/2"CLASS
F2DA1CONTRACT NO.
MON1900DRAWING NO.
DC4-SL-010-01

MONSANTO COMPANY
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HIGHWAY 90
LILUNG, PHILIPPINES 7000
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TP-006-003



CWA# 4B

* SHOP MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
1	PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	3/4	3.9'	PADJABCAM
2	SPECIALTY ITEM 8T-54	3/4X3/4	1	8T-54
3	90 DEG ELBOW, CL3000, SWE, ASTM-A105, ASME-B16.11	3/4	2	SLAQZZAAA
4	GATE VALVE, CS, CL800, SW, OS&Y, WELDED BONNET, HO, TAG: FA233-ECC00057	3/4	1	FA233-8

PIECE MARKS

MK-DC4-SL-032-01-1

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6-21-2018
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NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

PIPING PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE		TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS		DESIGN CONDITIONS		TEST PRESS	TEST MEDIA	NDE	
POS MODEL FILE :	CONSTRUCTION STATUS	ECC00057-DC4-D-0002	N	N/A	N/A	1"-9MC-HC	NPR	TEMP °F	PSIG	TEMP °F	PSIG	SVC	SVC	V100		
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.															
1.	ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.															
2.	± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.															
REV	DATE		REVISION DESCRIPTION				BY	CHECKED BY	STRESS	APPROVED						
CAD DESIGN FILE : 070J80\ISOREF\MONSANTO.BDR																

EXTRACTION NO. : 5

EXTRACTION DATE : 21-NOV-2017

DEFUALTS FILE : VARFILE1: F:\070J80\ISOREF\MONSANTONR.DEF

ENG-1042

TP-006-004

NOTE: NORTH ARROW ROTATE
FOR CLARITY

38.6

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

CWA# 7E

PIPELINE DESIGN & FABRICATION DRAWINGS ADDRESSED IN THIS DRAWING																
PIPE PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE		TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS		DESIGN CONDITIONS	TEST PRESS	TEST MEDIA	NDE		
PDS MODEL FILE : PP803215		CONSTRUCTION STATUS	ECC00057-DC9-D-3817		N	N/A	GREY	5MM-14MC-PP	KI320I	212	96	366	150	SVC	SVC	V100
NOTES:		3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.														
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED. 2. ± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.				Ø	21-NOV-2017	ISSUED FOR CONSTRUCTION					HAJ	PHD				
				1	31-MAY-2018	ADDED COORDINATES					MCP	PAP		N/A	Dtd	
CAD DESIGN FILE : 070J80\ISOREF\MONSANTO.BDR			REV	DATE		REVISION DESCRIPTION					BY	CHECKED BY		STRESS	APPROVED	

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HIGHWAY 90
LULING, LOUISIANA 70070

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PROJECT NO. 070J81 XX

COMMODITY

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CONTRACT NO. FAB/CONST. MO

MONSANTO

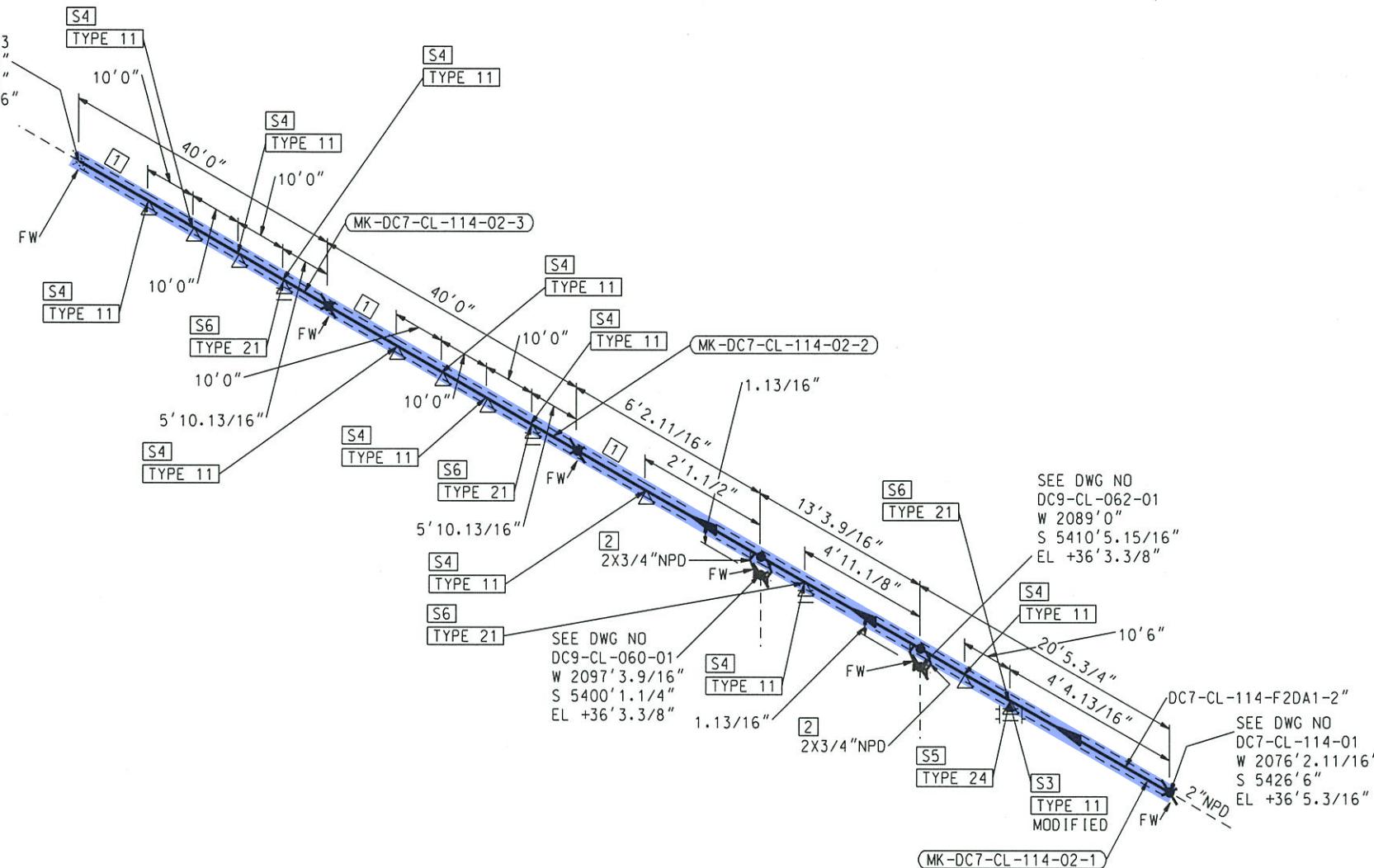
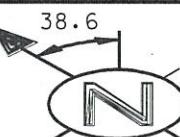
LINE NO.

DC7-CL-114-F2DAI-2

AREA DRAWING NO.

PLOTTED ON : 5/31/2018

TP-006-004

NOTE: NORTH ARROW ROTATED
FOR CLARITY

* SHOP MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
1	PIPE, S-STD, BE, ASTM-A53, TYPE E, GR.B; ASTM-A53, TYPE S, GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	2	120.1'	PAAJABBAAM
2	SOCKETWELD WELDING OUTLET, CL3000, BE/SWE, ASTM-A105, MSS SP-97	2X3/4	2	WOBSSABQAF A

PIPE SUPPORTS

3	T11-2#20-4-0-0-0-CS-M	2	1	TYPE 11
4	T11-2#18-4-0-0-0-CS	2	11	TYPE 11

* FIELD MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
5	PIPE SUPPORTS	2	1	TYPE 24
6	T24-2#0-4-0-0.13-0-CS	2	4	TYPE 21

PIECE MARKS

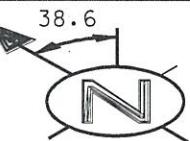
MK-DC7-CL-114-02-1 MK-DC7-CL-114-02-2 MK-DC7-CL-114-02-3

RECEIVED
TURNER-INDUSTRIES
6-20-2018
S. STILLWELL

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

CWA# 7B

TP-006-004

NOTE: NORTH ARROW ROTATED
FOR CLARITY

* SHOP MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
1	PIPE, S-STD, BE, ASTM-A53, TYPE E, GR.B; ASTM-A53, TYPE S, GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	2	108.4'	PAAJABBAAM
2	90 DEG LR ELBOW, S-STD, BE, ASTM-A234-WPB, WROUGHT, ASME-B16.9	2	5	WAAAABBAAA

PIPE SUPPORTS

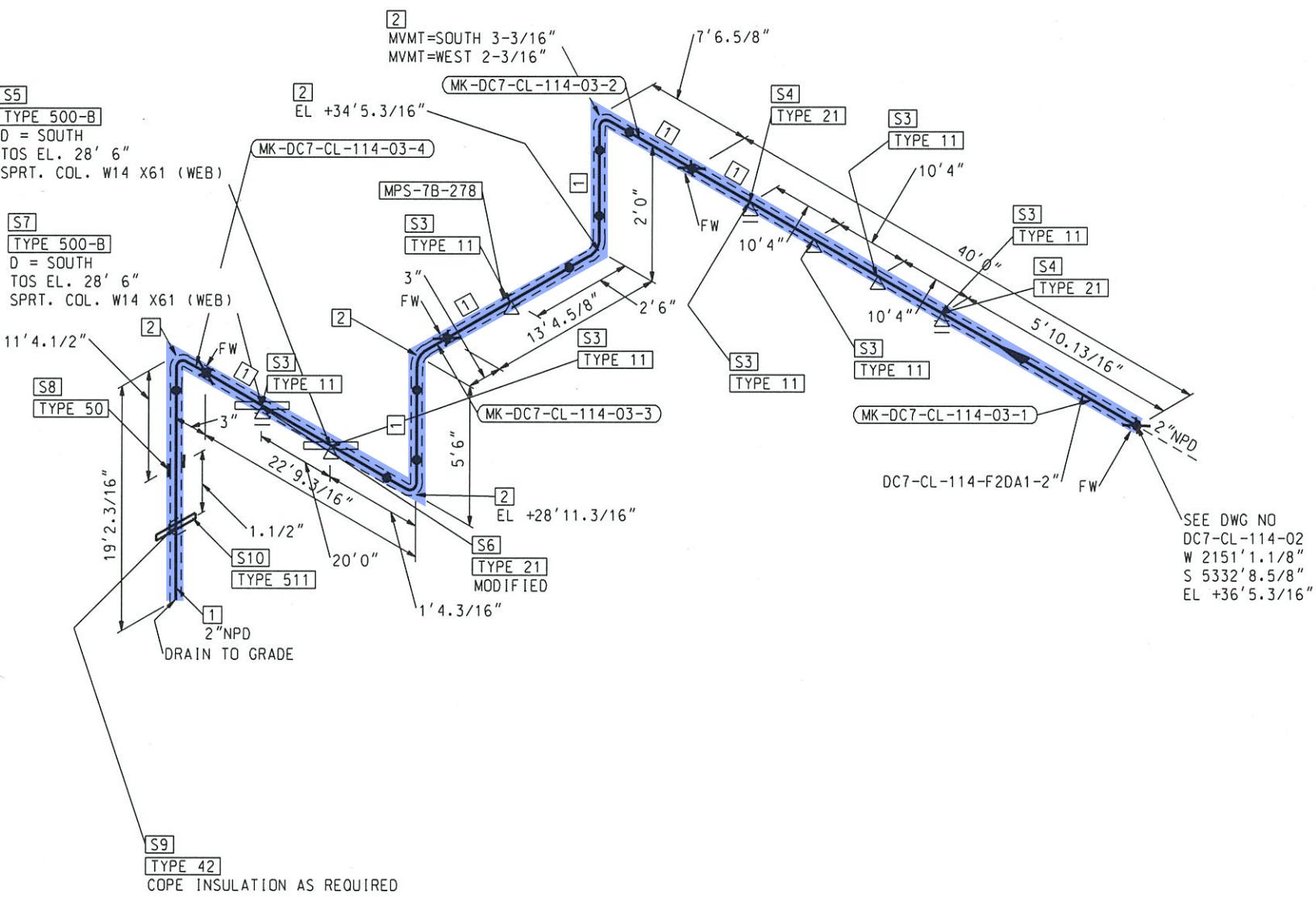
3	T11-2#18-4-0-0-0-CS	2	7	TYPE 11
---	---------------------	---	---	---------

* FIELD MATERIALS *

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
4	PIPE SUPPORTS	2	2	TYPE 21
5	T21-2#0-0-0-0.13-0	2	1	TYPE 500-B
6	T21-2#0-0-0-0.25-0-M	2	1	TYPE 21
7	T500-B-2#17.81-0-2-6-0	2	1	TYPE 500-B
8	T50-2#0-0-0-0-0.25-CS	2	1	TYPE 50
9	T42-2#0-0-0-0.13-0-CS	2	1	TYPE 42
10	T511-2#18-22-0-0-0	2	1	TYPE 511

PIECE MARKS

MK-DC7-CL-114-03-1 MK-DC7-CL-114-03-2 MK-DC7-CL-114-03-3 MK-DC7-CL-114-03-4



NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

CWA# 7B

RECEIVED
TURNER-INDUSTRIES

6-20-2018

S. STILLWELL

PIPING PLAN REFERENCE:	P&ID NO.	STRESS RELIEVE	TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS	DESIGN CONDITIONS	TEST PRESS	TEST MEDIA	NDE
PDS MODEL FILE : PP803215	CONSTRUCTION STATUS	ECC00057-DC9-D-3817	N	N/A	GREY	5MM-14MC-PP	KI320I	212	96	366	150
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.										
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.	0	21-NOV-2017	ISSUED FOR CONSTRUCTION					HAJ	PHD		
2. ± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.	1	31-MAY-2018	ADDED COORDINATES					MCP	PAP	N/A	DAD
CAD DESIGN FILE : 070J80\ISOREF\MONSANTO.BDR	REV	DATE	REVISION DESCRIPTION	BY	CHECKED BY	STRESS	APPROVED				

JACOBS

PROJECT NO. 070J81 XX

COMMODITY

CL

LINE NO. DC7-CL-114-F2DA1-2*

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LULING PLANT
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CLASS

F2DA1

CONTRACT NO.

FAB/CONST.

MODEL AREA

DRAWING NO.

MONI1900

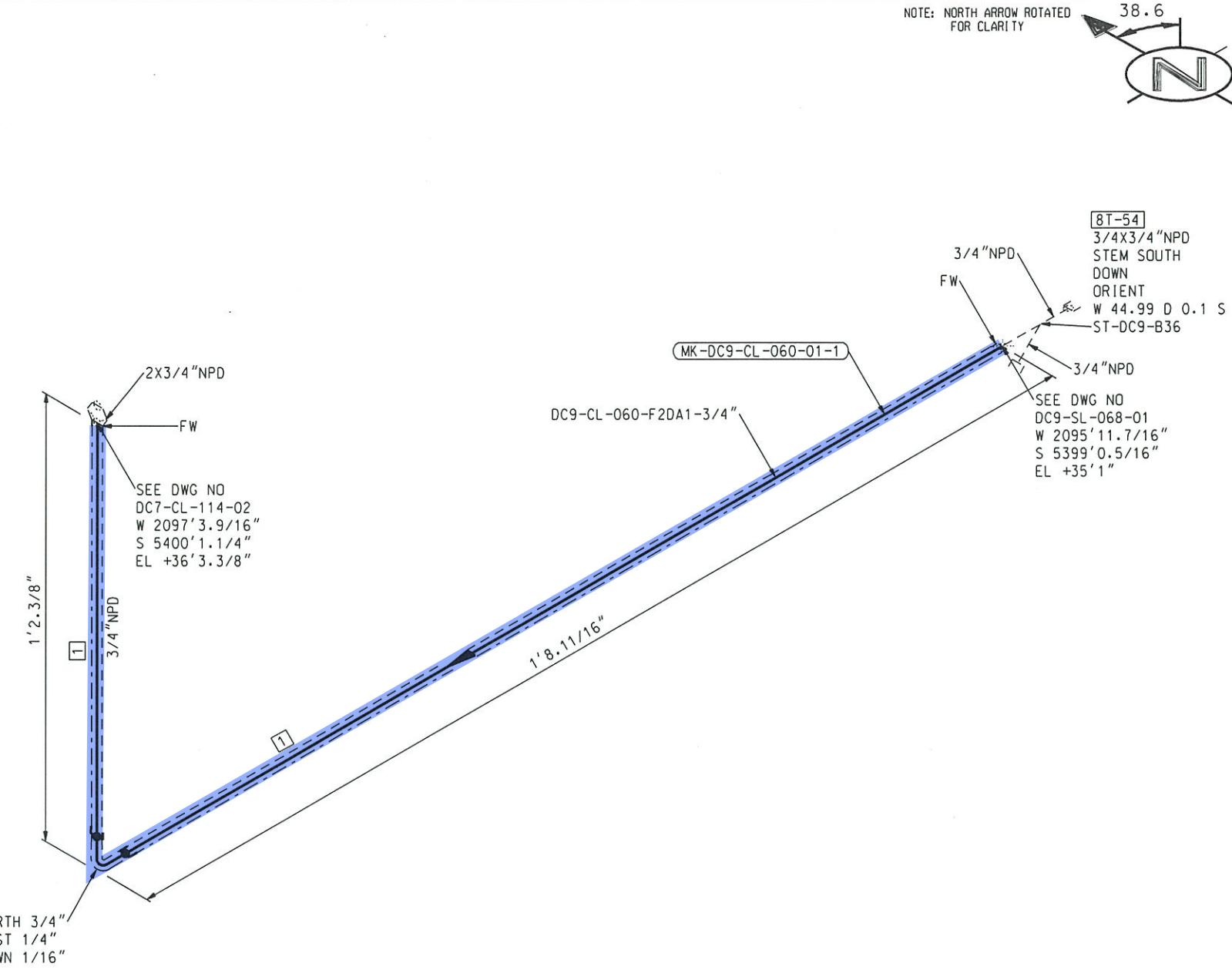
SHEET

03

REV

1

TP-006-004



* SHOP MATERIALS *

NO. DESCRIPTION

1	PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	3/4	2.8'	PADJABCAAM
2	90 DEG ELBOW, CL3000, SWE, ASTM-A105, ASME-B16.11	3/4	1	SLAQZZAAA

PIECE MARKS

MK-DC9-CL-060-01-1

PIPING PLAN REFERENCE:

POS MODEL FILE : PP803205

NOTES:

3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP.
FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.

CONSTRUCTION STATUS

ECC00057-DC9-D-3213

1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH
AND/OR VERTICAL C'S UNLESS NOTED.2. ± DENOTES AN APPROXIMATE DIMENSION,
FIELD CHECK BEFORE FABRICATION.

CAD DESIGN FILE : 070J80\ISOREF\MONSANTO.BDR

P&ID NO.

N

0

31-MAY-2018

STRESS RELIEVE

ET

02-NOV-2017

ISSUED FOR CONSTRUCTION

TRACING

GREY

1'-9MC-HC

ADDED COORDINATES

FINISH COLOR

K1320I

DAP

REV

INSULATION

212

PAP

DATE

COATING SYSTEM

96

N/A

REVISION DESCRIPTION

OPERATING CONDITIONS

366

N/A

BY

DESIGN CONDITIONS

150

MB

CHECKED BY

TEST PRESS

SVC

STRESS

TEST MEDIA

SVC

APPROVED

CWA# 7B

JACOBS**MONSANTO**MONSANTO COMPANY
LULING PLANT
HIGHWAY 90
LULING, LOUISIANA 70070
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PROJECT NO. 070J81 XX

COMMODITY

CL

MON11900

LINE NO.

DC9-CL-060-F2DA1-3/4'

F2DA1

DRAWING NO.

DC9-CL-060-01

01

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TURNER-INDUSTRIES
6-20-2018
S. STILLWELL

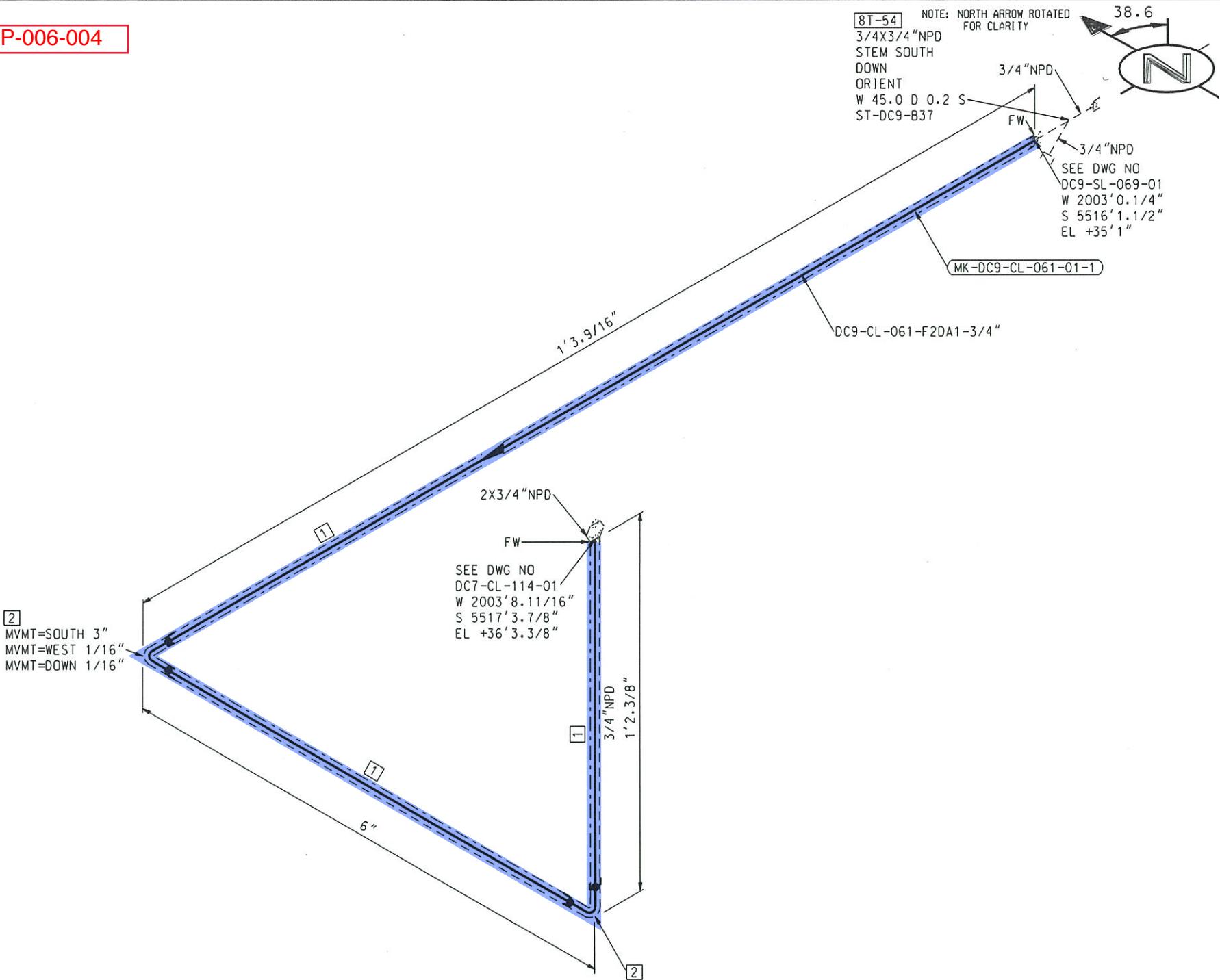
EXTRACTION NO. : 4

EXTRACTION DATE. : 06-NOV-2017

ISogen Defaults File : VARFL01:F:\070J80\ISOREF\MONSANTO.R.0DF

ENG-1042

TP-006-004



NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

CWA# 7B

* SHOP MATERIALS *	
NO.	DESCRIPTION
1	PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85
2	90 DEG ELBOW, CL3000, SWE, ASTM-A105, ASME-B16.11

SIZE	QTY.	COMMODITY
3/4	2.8'	PADJABCAAM
3/4	2	SLAOZZAAA

PIECE MARKS
MK-DC9-CL-061-01-1

RECEIVED
TURNER-INDUSTRIES
6-20-2018
S. STILLWELL

PLOTTED ON 6/6/2018

PIPING PLAN REFERENCE:	P&ID NO.	STRESS RELIEVE	TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS TEMP °F	CONDITIONS PSIG	DESIGN CONDITIONS TEMP °F	PSIG	TEST PRESS	TEST MEDIA	NDE
PDS MODEL FILE : PP803205	CONSTRUCTION STATUS	ECC00057-DC9-D-3213	N	ET	GREY	I*-9MC-HC	KI320I	212	96	366	150	SVC	SVC
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.												
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.		0	02-NOV-2017		ISSUED FOR CONSTRUCTION			NMP	PCB				
2. ± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.		1	31-MAY-2018		ADDED COORDINATES			DAP	PAP	N/A	NTB		
CAD DESIGN FILE : 070J80\ISOREF\MONSANTO.BDR		REV	DATE		REVISION DESCRIPTION			BY	CHECKED BY	STRESS	APPROVED		

JACOBS

MONSANTO

PROJECT NO. 070J81 XX

COMMODITY

CL

CONTRACT NO.

MON11900

LINE NO.

DC9-CL-061-F2DA1-3/4*

CLASS

F2DA1

FAB/CONST.

MODEL AREA

DRAWING NO.

DC9-CL-061-01

SHEET

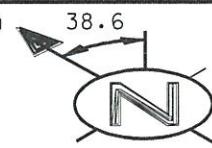
01

REV

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LULING PLANT
HIGHWAY 90
LULING, LOUISIANA 70070
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dilede

TP-006-004

NOTE: NORTH ARROW ROTATED
FOR CLARITY

* SHOP MATERIALS *

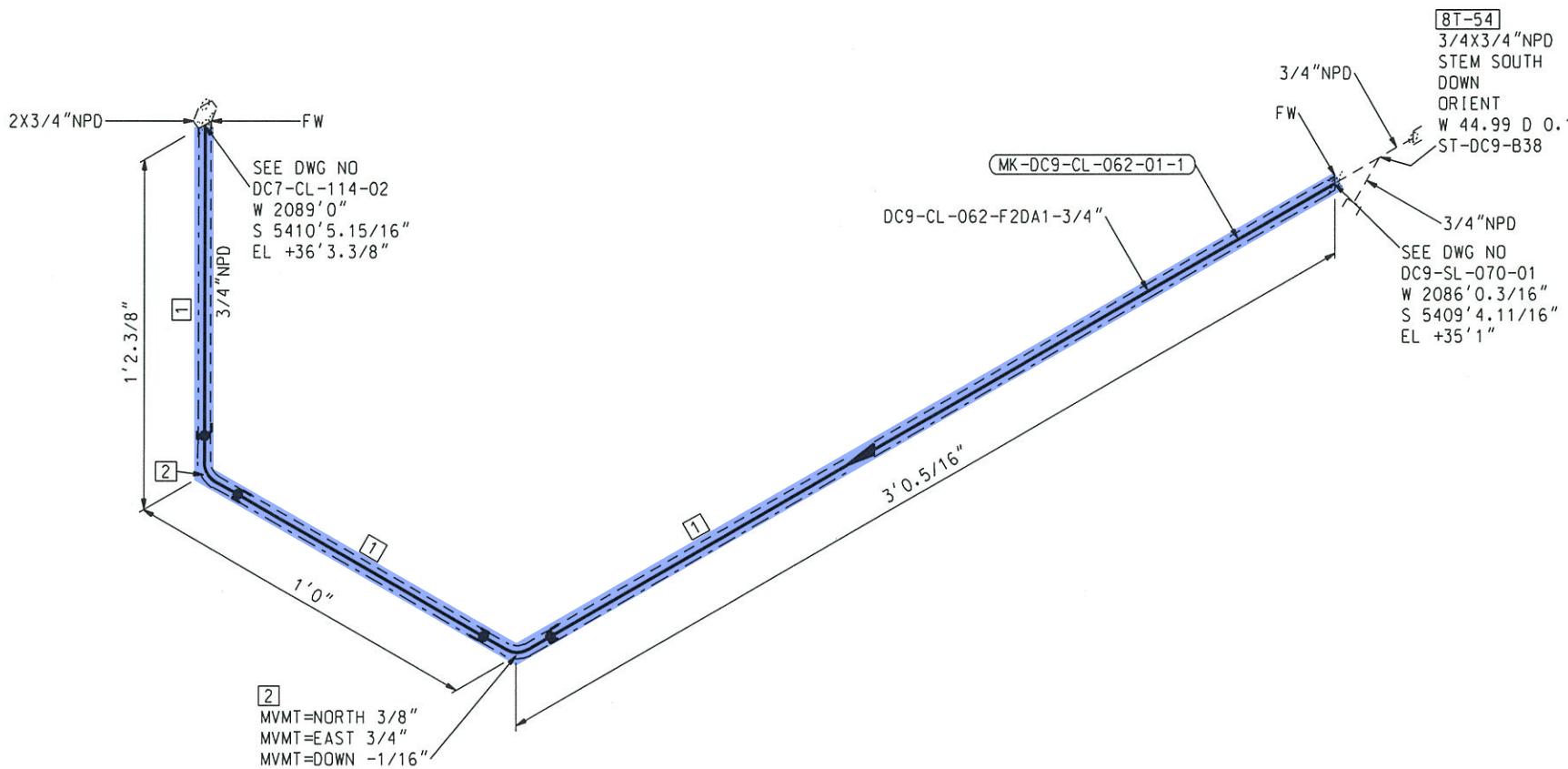
NO. DESCRIPTION

1	PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	3/4	5.0'	PADJABCAAM
2	90 DEG ELBOW, CL3000, SWE, ASTM-A105, ASME-B16.11	3/4	2	SLAQZZAA

SIZE QTY. COMMODITY

PIECE MARKS

MK-DC9-CL-062-01-1



NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

CWA# 7B

RECEIVED
TURNER-INDUSTRIES

6-20-2018

S. STILLWELL

PIPING PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE	TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS	DESIGN CONDITIONS	TEST PRESS	TEST MEDIA	NDE
PDS MODEL FILE : PP803215		ECC00057-DC9-D-3213	N	ET	GREY	1"-9MC-HC	KI3201	TEMP °F 212	PSIG 96	TEMP °F 366	PSIG 150	SVC
NOTES: 3. FFW = SHOT TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.												
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED. 2. ± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.			0	02-NOV-2017	ISSUED FOR CONSTRUCTION				NMP	PCB		
			1	31-MAY-2018	ADDED COORDINATES				DAP	PAP	N/A	MB
CAD DESIGN FILE : 070J80\ISOREF\MONSANTO.BDR			REV	DATE	REVISION DESCRIPTION				BY	CHECKED BY	STRESS	APPROVED

JACOBS**MONSANTO**

PROJECT NO. 070J81XX

COMMODITY

CL

CONTRACT NO.

MON11900

LINE NO.

DC9-CL-062-F2DA1-3/4"

CLASS

F2DA1

FAB/CONST.

MODEL AREA

DRAWING NO.

DC9-CL-062-01

SHEET

01

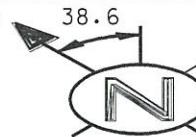
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EXTRACTION DATE. : 06-NOV-2017

EXTRACTION NO. : 4

TP-006-004

NOTE: NORTH ARROW ROTATED
FOR CLARITY

* SHOP MATERIALS *

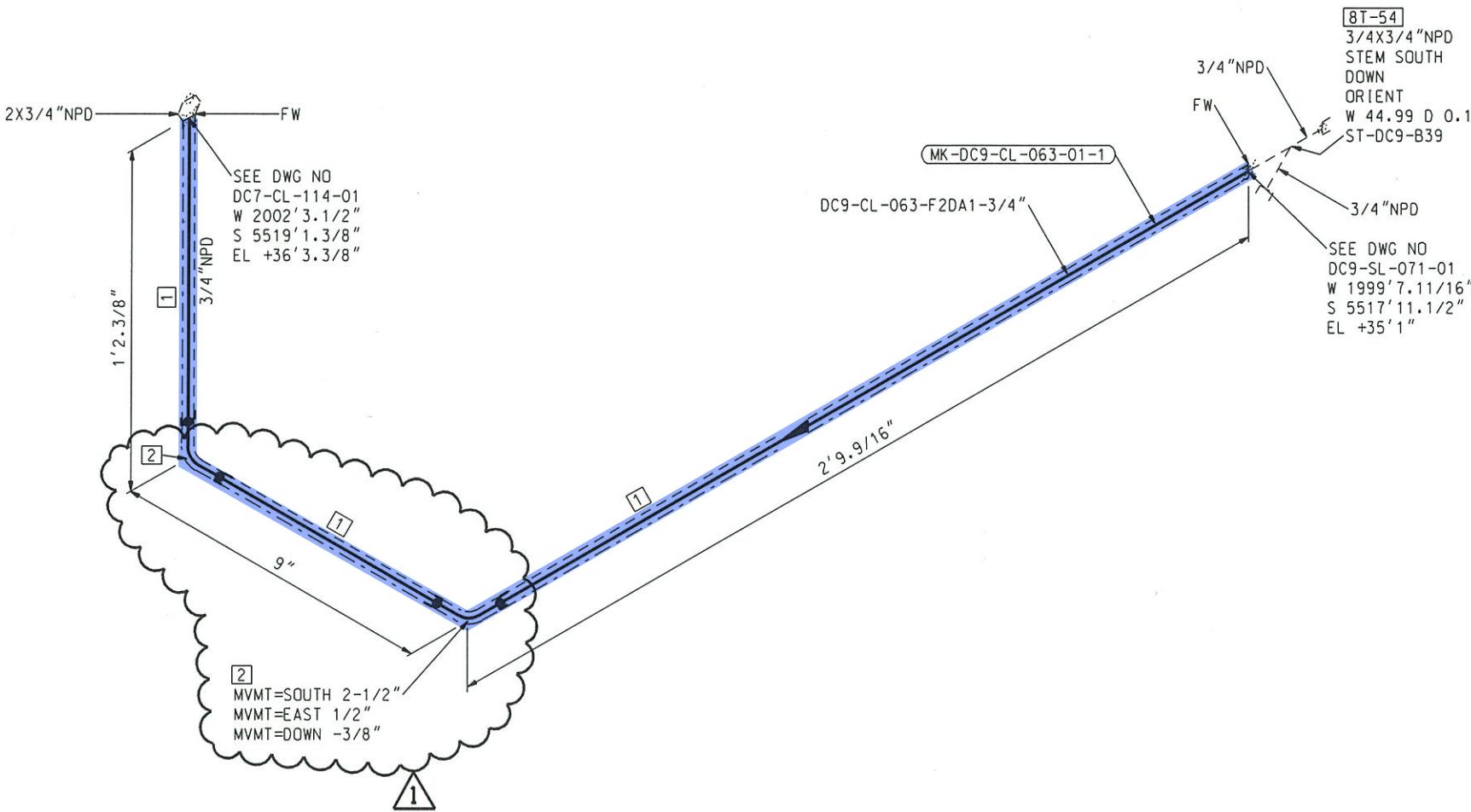
NO. DESCRIPTION

- 1 PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85
2 90 DEG ELBOW, CL3000, SWE, ASTM-A105, ASME-B16.11

SIZE	QTY.	COMMODITY
3/4	4.5'	PADJABCAAM
3/4	2	SLAOZZZAAA

PIECE MARKS

MK-DC9-CL-063-01-1



CWA# 7B

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

RECEIVED
TURNER-INDUSTRIES
6-20-2018
S. STILLWELL

PIPELINE PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE	TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS	DESIGN CONDITIONS	TEST PRESS	TEST MEDIA	NDE
POS MODEL FILE : PP083215	CONSTRUCTION STATUS	ECC00057-DC9-D-3213	N	ET	GREY	1'-9MC-HC	KI320I	212 96	366 150	SVC	SVC	V100
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.											
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.												
2. ± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.												
CAD DESIGN FILE : 070J80\ISOREF\MONSANTO.BDR			REV	DATE		REVISION DESCRIPTION		BY	CHECKED BY	STRESS	APPROVED	

JACOBS**MONSANTO**

PROJECT NO. 070J81 XX

COMMODITY

CL

LINE NO.

DC9-CL-063-F2DA1-3/4"

CLASS

F2DA1

CONTRACT NO.

MON11900

FAB/CONST.

MODEL AREA

DRAWING NO.

DC9-CL-063-01

SHEET

01

REV

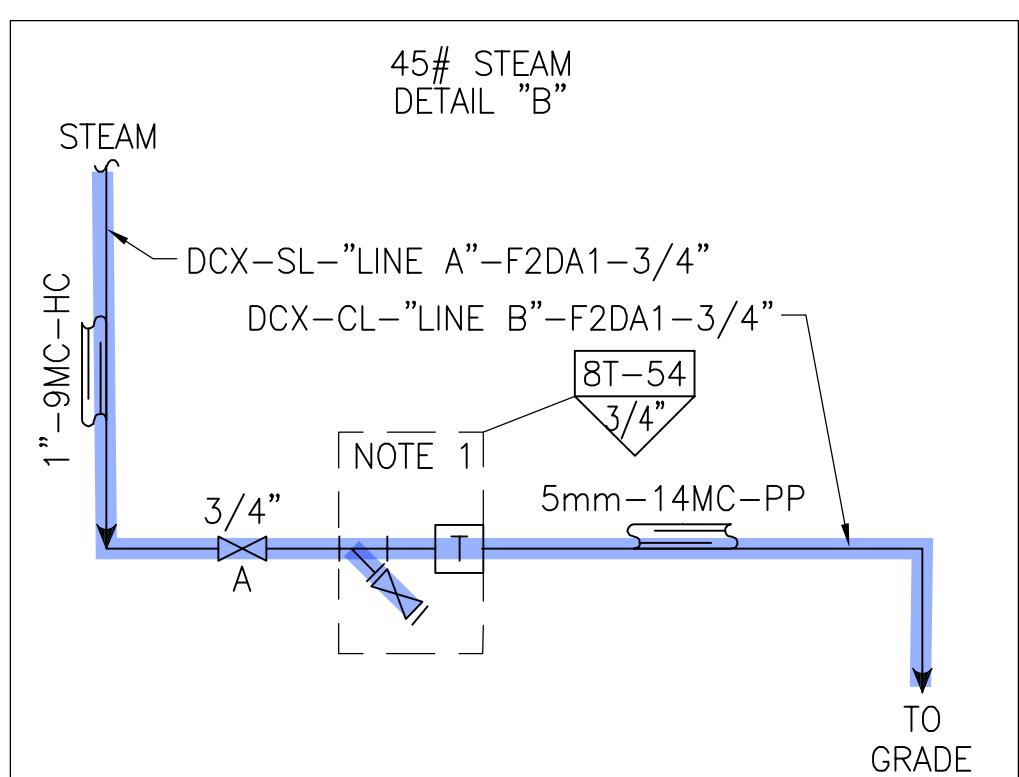
MONSANTO COMPANY
LULING PLANT
HIGHWAY 90
LULING, WASHINGTON 98636
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PLOTTED ON : 6/11/2018

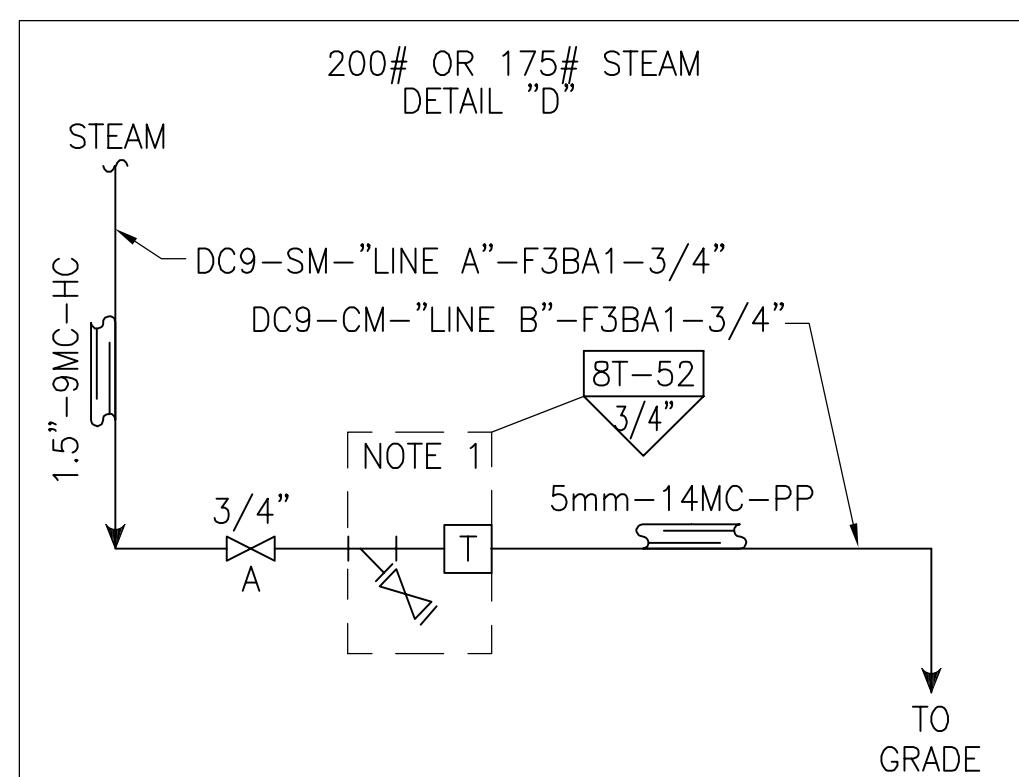
diluted

16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

NOTES:
 1. THE STEAM TRAP ASSEMBLY CONTAINS AN INTEGRAL STRAINER AND BLOWDOWN.
 2. THIS DRAWING INDICATES THE LOCATION OF STEAM TRAPS.
 3. THE CONDENSATE FROM TRAPS ST-DC9-36/37/38/39 IS COLLECTED IN COMMON 2" HEADER BEFORE GOING TO GRADE. OUTLET PIPE (3/4") DOWNSTREAM OF TRAP IS ELECTRICAL TRACED DUE TO POCKET.



STEAM TRAP NO	STM LINE "A"	COND LINE "B"	EFD NO.
ST-DC8-B01	DC8-017	DC8-013	DC8-D-2130
ST-DC8-B02	DC8-018	DC8-014	DC9-D-3816
ST-DC9-B02	DC9-036	DC9-027	DC9-D-3211
ST-DC9-B03	DC9-037	DC9-028	DC9-D-3211
ST-DC9-B04	DC9-038	DC9-029	DC9-D-3816
ST-DC9-B05	DC9-039	DC9-030	DC9-D-3816
ST-DC9-B06	DC9-040	DC9-031	DC9-D-3816
ST-DC9-B07	DC9-041	DC9-032	DC9-D-3816
ST-DC9-B08	DC9-042	DC9-033	DC9-D-3816
ST-DC9-B09	DC9-043	DC9-034	DC9-D-3816
ST-DC9-B10	DC9-044	DC9-035	DC9-D-3816
ST-DC9-B11	DC9-045	DC9-036	DC9-D-3816
ST-DC9-B12	DC9-046	DC9-037	DC9-D-3816
ST-DC9-B13	DC9-047	DC9-038	DC9-D-3816
ST-DC9-B16	DC9-050	DC9-041	DC9-D-3816
ST-DC9-B17	DC9-051	DC9-042	DC9-D-3816
ST-DC9-B18	DC9-052	DC9-043	DC9-D-3816
ST-DC9-B19	DC9-053	DC9-044	DC9-D-3817
ST-DC9-B20	DC9-054	DC9-045	DC9-D-3817
ST-DC9-B21	DC9-055	DC9-046	DC9-D-3817
ST-DC9-B22	DC9-056	DC9-047	DC9-D-3817
ST-DC9-B23	DC9-057	DC9-048	DC9-D-3817
ST-DC9-B24	DC9-058	DC9-049	DC9-D-3817
ST-DC9-B25	DC9-059	DC9-050	DC9-D-3817
ST-DC9-B26	DC9-060	DC9-051	DC9-D-3817
ST-DC9-B27	DC9-061	DC9-052	DC9-D-3817
ST-DC9-B28	DC9-062	DC9-053	DC9-D-3818
ST-DC9-B29	DC9-063	DC9-054	DC9-D-3818
ST-DC9-B30	DC9-064	DC9-055	DC9-D-3818
ST-DC9-B31	DC9-065	DC9-056	DC9-D-3818
ST-DC9-B32	DC9-066	DC9-057	DC9-D-3817
ST-DC9-B33	DC7-062	DC7-086	DC7-D-0520
ST-DC9-B34	DC9-067	DC9-059	DC9-D-3816
ST-DC9-B35	DC9-026	DC9-021	DC7-D-0243
ST-DC9-B36	DC9-068	DC9-060	DC9-D-3817
ST-DC9-B37	DC9-069	DC9-061	DC9-D-3817
ST-DC9-B38	DC9-070	DC9-062	DC9-D-3817
ST-DC9-B39	DC9-071	DC9-063	DC9-D-3817
ST-DC9-B40	DC9-072	DC9-064	DC9-D-3816
ST-DC9-B41	DC9-073	DC9-065	DC9-D-3817
ST-DC9-B42	DC9-074	DC9-066	DC9-D-3817



STEAM TRAP NO	STM LINE "A"	COND LINE "B"	EFD NO.
ST-DC9-D01	DC9-014	DC9-006	DC9-D-3212
ST-DC9-D02	DC9-015	DC9-007	DC9-D-3212
ST-DC9-D03	DC9-016	DC9-008	DC9-D-3212
ST-DC9-D04	DC9-017	DC9-009	DC9-D-3212
ST-DC9-D05	DC9-018	DC9-010	DC9-D-3212
ST-DC9-D06	DC9-019	DC9-011	DC9-D-3212
ST-DC9-D07	DC9-020	DC9-012	DC9-D-3212
ST-DC9-D08	DC9-021	DC9-013	DC9-D-3212
ST-DC9-D09	DC9-022	DC9-014	DC9-D-3212
ST-DC9-D10	DC9-023	DC9-015	DC9-D-3212
ST-DC9-D11	DC9-024	DC9-016	DC9-D-3212
ST-DC9-D12	DC9-025	DC9-017	DC9-D-3212
ST-DC9-D13	DC9-026	DC9-018	DC9-D-3212
ST-DC9-D14	DC9-027	DC9-019	DC9-D-3212
ST-DC9-D15	DC9-028	DC9-020	DC9-D-3212
ST-DC9-D16	DC9-029	DC9-021	DC9-D-3212
ST-DC9-D17	DC9-030	DC9-022	DC9-D-3212
ST-DC9-D18	DC9-031	DC9-023	DC9-D-3211
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ST-DC9-D23	DC9-036	DC9-028	DC9-D-3212
ST-DC9-D24	DC9-037	DC9-029	DC9-D-3212
ST-DC9-D25	DC9-038	DC9-030	DC9-D-3212
ST-DC9-D26	DC9-039	DC9-031	DC9-D-3212
ST-DC9-D27	DC9-040	DC9-032	DC9-D-3212

ALL PIPING, INSTRUMENTATION AND EQUIPMENT ON THIS DRAWING IS NEW UNLESS NOTED OTHERWISE.

CONTRACTOR COPY

2	ECC LSR 00057	04/16/2018	ISSUED FOR CONSTRUCTION	AVK
1	ECC LSR 00057	11/13/2017	ISSUED FOR CONSTRUCTION	AVK
0	ECC GKG 00057	04/13/2017	ISSUED FOR CONSTRUCTION	AVK

REV PROJ. BY DATE DESCRIPTION APPD

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MONSANTO

GLOBAL ENGINEERING DEPARTMENT

800 NORTH LINDBERGH BOULEVARD

SAINT LOUIS, MISSOURI 63167

PLANT LULING

ENGINEERING FLOW DIAGRAM

200# OR 175# & 45#

STEAM TRAP DETAILS MON11900

RECEIVED	TURNER-INDUSTRIES
6-4-2018	S. STILLWELL

PROJECT NO.	PLANT	ZONE	TYPE	NUMBER
ECC00057	42	DC9	D	3213

SIZE PLANT DRAWING NO. REV
D ECC00057-DC9-D-3213 2

JACOBS®

PROJECT NO. 07QJ81XX

holdenkf

4:55:35 PM 4/11/18

1/2

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1/2

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

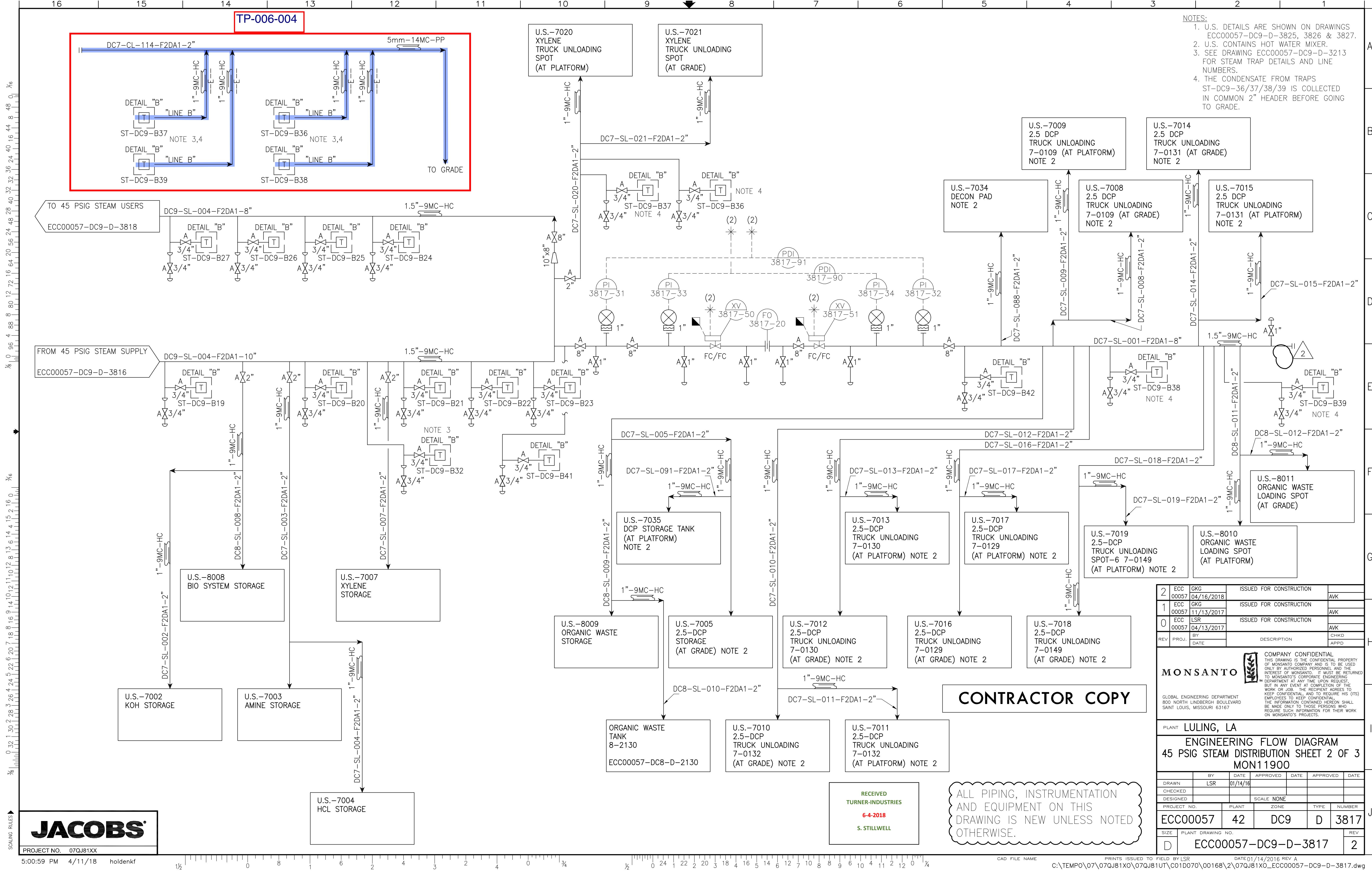
1/2

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1/2

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 6

TP-006-004



EXTRACTION NO. : 4

EXTRACTION DATE. : 30-JAN-2018

EE : YAREH1101; F: \070\380\1300E\MONSANTONB.QEF

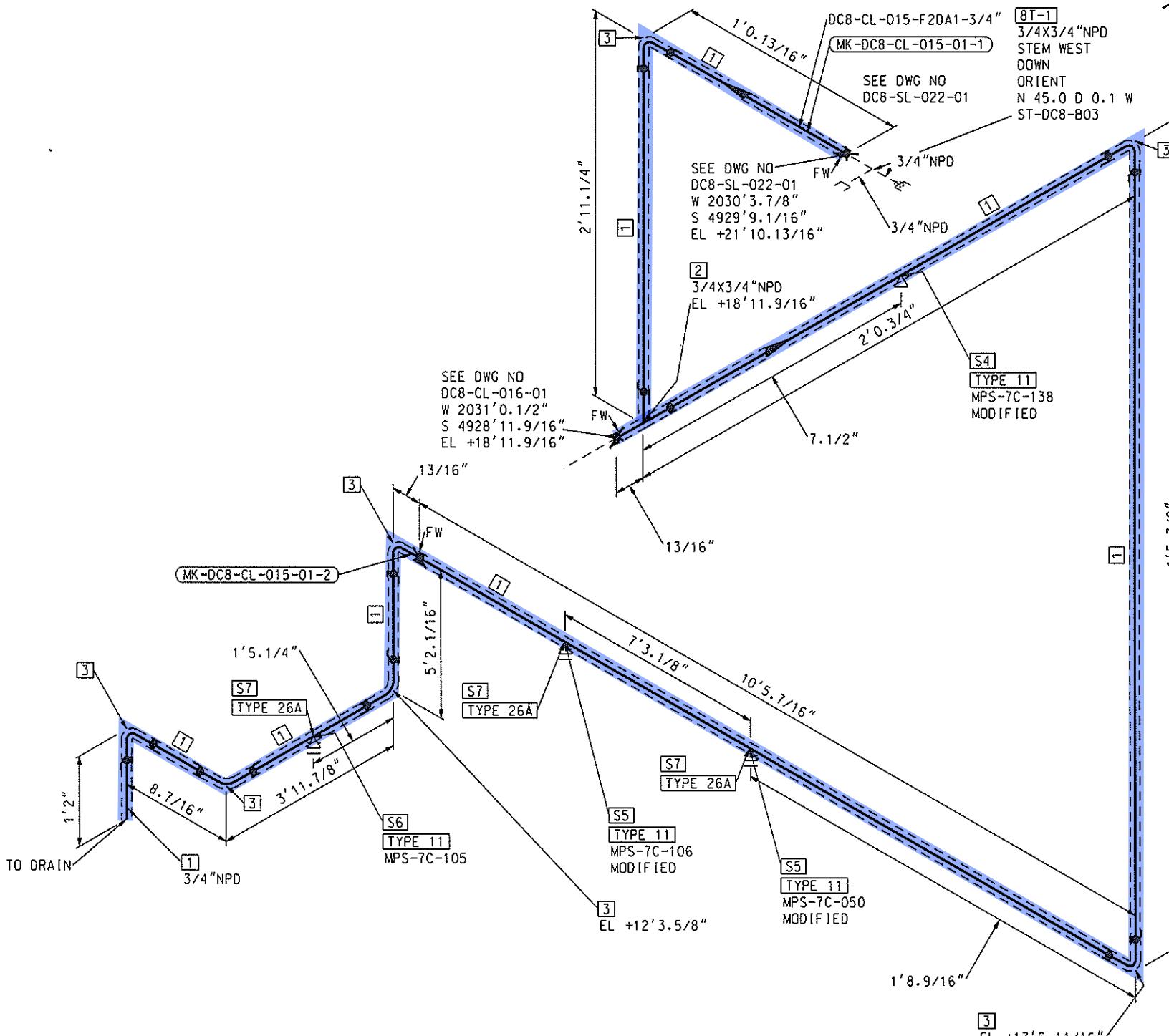
ENG-1047

TP-006-007

NOTE: NORTH ARROW
FOR CLARITY

ROTATED 38.6

* SHOP MATERIALS *



CWA # 70

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

PIPING PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE	TRACING	FINISH COLOR	INSULATION	COATING SYSTEM
POS MODEL FILE : PP803126	CONSTRUCTION STATUS	ECC00057-DC8-D-2130	N	N/A	GREY	1'-9MC-HC	KI 328I
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.		0	01-NOV-2017	ISSUED FOR CONSTRUCTION		
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.			1	30-JAN-2018	ISSUED FOR CONSTRUCTION		
2. ± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.			2	21-JUNE-2018	ADDED COORDINATES		
CAD DESIGN FILE : 07DJ80\ISOREF\MONSANTO.BDR			REV	DATE			REVISION DESCRIPTION

RECEIVED
TURNER-INDUSTRIES
7-5-2018
S. STILLWELL

JACOBS

MONSANTO

 MONSANTO COMPANY
LONG PLANT
HOHOKAM RD.
LULU, LOUISIANA 70570

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PROJECT NO. 07QJ81 XX

COMMODITY

LINE NO.

CLASS

CL

DC8-CL-015-F2DA1 - 3/4

F2DA1

CONTRACT NO.	FAB/CONST.	MO
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DRAWING NO.

SHEET REV

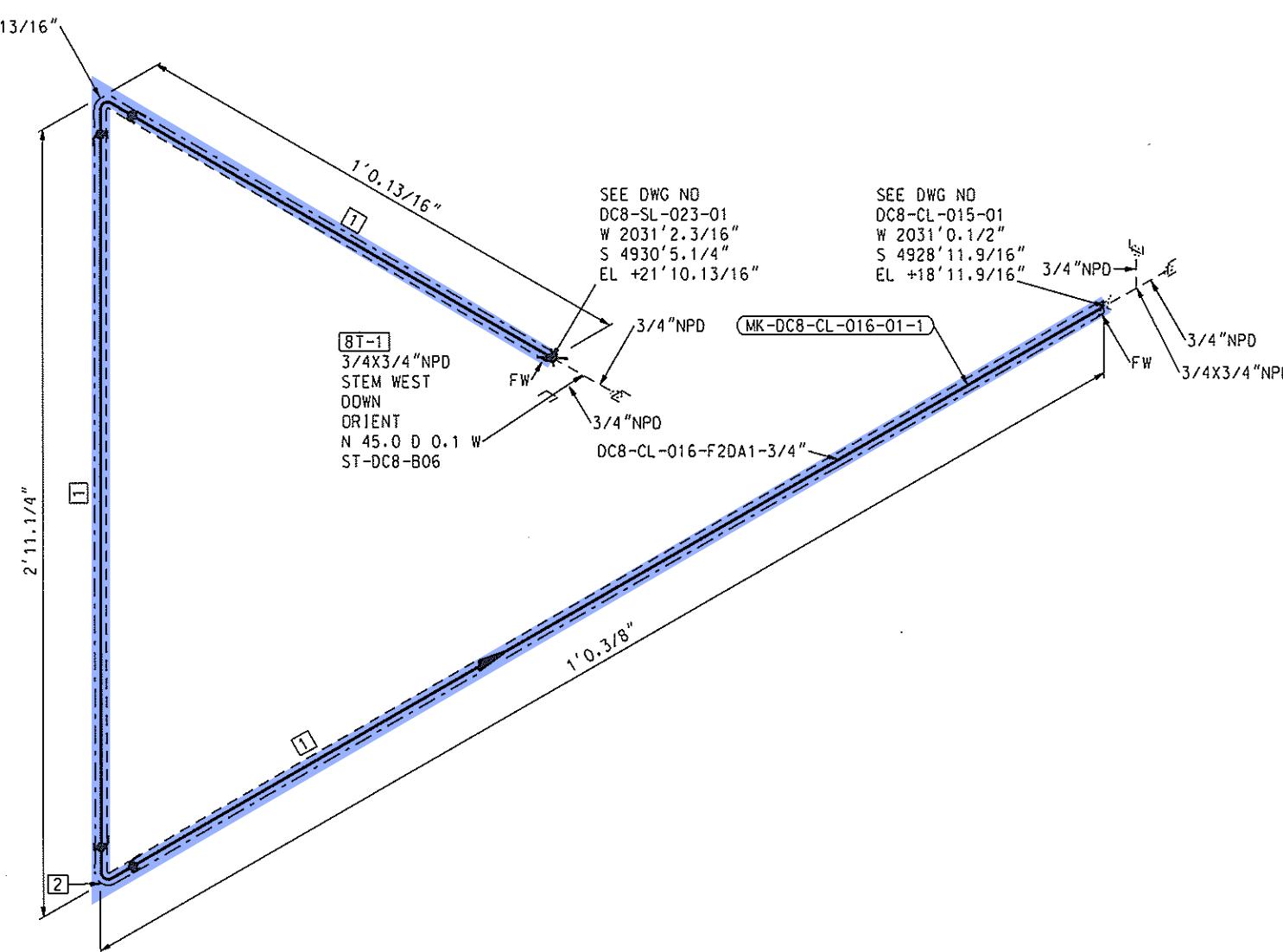
TP-006-007

EXTRACTION NO. : 4

EXTRACTION DATE. : 30-JAN-2018

ISOPEN DETAILS FILE : VARFILE1.F: \070J80\ISREF\MONSANTOR.DEF

ENG-1042

NOTE: NORTH ARROW ROTATED
FOR CLARITY

* SHOP MATERIALS *

NO. DESCRIPTION

		SIZE	QTY.	COMMODITY
1	PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	3/4	4.8'	PADJBCAAM
2	90 DEG ELBOW, CL3000, SWE, ASTM-A105, ASME-B16.11	3/4	2	SLAQZZAAA

PIECE MARKS

MK-DC8-CL-016-01-1

RECEIVED
TURNER-INDUSTRIES

7-5-2018

S. STILLWELL

PLOTTED ON: 6/26/2018

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

CWA# 7C

PIPING PLAN REFERENCE:

PDS MODEL FILE : PP803126

CONSTRUCTION STATUS

ECC00057-DC8-D-2130

P&ID NO.

STRESS RELIEVE

TRACING

FINISH COLOR

INSULATION

COATING SYSTEM

OPERATING CONDITIONS

DESIGN CONDITIONS

TEST PRESS

TEST MEDIA

NOE

SVC

SVC

V100

NOTES:
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH
AND/OR VERTICAL Q'S UNLESS NOTED.
2. ± DENOTES AN APPROXIMATE DIMENSION,
FIELD CHECK BEFORE FABRICATION.

3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP.
FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.

0

26-OCT-2017

ISSUED FOR CONSTRUCTION

MPA

PCB

1

30-JAN-2018

ISSUED FOR CONSTRUCTION

NMP

PCB

2

21-JUNE-2018

ADDED COORDINATES

DAP

PAP

N/A

MB

REV

DATE

REVISION DESCRIPTION

BY

CHECKED BY

STRESS

APPROVED

JACOBS**MONSANTO**

PROJECT NO. 07QJ81 XX

COMMODITY

CL

LINE NO.

DC8-CL-016-F2DA1-3/4"

CLASS

F2DA1

CONTRACT NO.

FAB/CONST.

MODEL AREA

DRAWING NO.

DC8-CL-016-01

SHEET

01

REV

MONSANTO COMPANY
LIVING PLANT
MONSANTO
LIVING LOUISIANA, PORTO
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CAD DESIGN FILE : 07QJ80\ISREF\MONSANTO.BDR

dileido

EXTRACTION NO. : 4

EXTRACTION DATE. : 01 - NOV - 2017

FILE : VARFILE1:F:\070J80\ISOREF\MONSANTONR.DEF

GEN DEFUALTS F1

ENG-1042

TP-006-007

NOTE: NORTH ARROW ROTATED
FOR CLARITY

38.6

*** SHOP MATERIALS ***

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
1	PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS, JE GRTR THAN = 0.85	3/4	28.7'	PADJABCAAM
2	TEE, CL3000, SWE, ASTM-A105, ASME-B16.11	3/4X3/4	2	STA0ZZZAAA
3	NIPPLE, PE X MTE, S-XS, 3" LONG, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS	3/4	1	POFAABCAAM
4	NIPPLE, PE, S-XS, 3" LONG, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS	3/4	1	POCAABCAAM
5	90 DEG ELBOW, CL3000, SWE, ASTM-A105, ASME-B16.11	3/4	5	SLA0ZZZAAA
6	GATE VALVE, CS, CL800, SW, OS&Y, WELDED BONNET, HO, TAG: FA233-ECC00057	3/4	1	FA233-8

PIPE SUPPORTS

7	T11-0.75#12-4-0-0-0-CS-M	3/4	4	TYPE 11
8	T11-0.75#18-4-0-0-0-CS	3/4	1	TYPE 11

* FIELD MATERIALS

NO.	DESCRIPTION	SIZE	QTY.	COMMODITY
9	CAP, CL3000, FTE, ASTM-A105, ASME-B16.11	3/4	1	TCA0ZZZAAA

PIPE SUPPORTS

10	T125A-0.75#0-64.5-0-0-3	3/4	1	TYPE 125A
11	T21-0.75#0-0-0-0.75-0-M	3/4	1	TYPE 21
12	T26A-0.75#0-3-0-0.13-0	3/4	3	TYPE 26A

PIECE MARKS

MK-DC8-CL-017-01-1 MK-DC8-CL-017-01-2

8T-1
3/4X3 1/4"NPD
STEM SOUTH
DOWN
ORIENT
W 45.0 D
ST-DC8-B04

S7
TYPE 11
MPS-7C-050
MODIFIED

S7
TYPE 11
MPS-7C-106
MODIFIED

S8
TYPE 11
MPS-7C-105

S12
TYPE 26A

S12
TYPE 26A

S7
TYPE 11
MODIFIED

MK-DC8-CL-017-01-2

1
3/4"NPD

1
1,2"

5
EL +12' 3.1/2"

7
1' 3.1/8"

1
1' 2.1/16"

5
EL +17' 5.9/16"

7
1' 7.1/4"

1
7.1/4"

1
13/16"

4
3/4" NPD
EL +15' 6.1/2"

2
3/4X3 1/4"NPD
EL +15' 6.1/2"

MK-DC8-CL-017-01-1

1
1' 11.1/16"

7
3/4" NPD
13/16"

4
7.5/8"

FW

**SEE DWG NO
DC8-CL-018-01
W 2026' 2.9/16"
S 4930' 5.13/16"
EL +15' 6.1/2"**

S11
TYPE 21
MODIFIED

S7
TYPE 11
MODIFIED

1
1' 1.1/4"

2
3/4X3 1/4"NPD

1
1' 6.1/4"

9.1/8"

3
3/4" NPD

1
3/4" NPD

**SEE DWG NO
DC8-SL-024-01
W 2024' 5.7/16"
S 4931' 0.3/8"
EL +15' 6.1/2"**

9
DC8-CL-017-F2DA1-3/4"

6
STEM EAST

S10
TYPE 125A

II

5
ORIENT N/S

CWA# 70

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

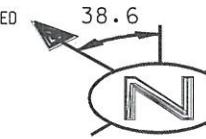
RECEIVED
TURNER INDUSTRIES

7-2-2018

S. STUHLWELL

PIPING PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE		TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS		DESIGN CONDITIONS		TEST PRESS	TEST MEDIA	NDE
PDS MODEL FILE : PP803126		ECC00057-DC8-D-2130	N	N/A		GREY	1"-9MC-HC	KI 320I	292	0	366	150	SVC	SVC	V100
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.														
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.		0	01-NOV-2017		ISSUED FOR CONSTRUCTION				NMP	PCB					
2. ± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.		1	20-JUN-2018		ADDED COORDINATES				DAP	PAP	N/A	MB			
CAD DESIGN FILE :	070J80\ISOREF\MONSANTO.BDR		REV	DATE	REVISION DESCRIPTION				BY	CHECKED BY	STRESS	APPROVED	CONTRACT NO.	FAB/CONST.	MODEL AREA
													MON11900		
													DRAWING NO.	SHEET	REV
													DC8-CL-017-F2DAI-3/4"	01	1

TP-006-007

NOTE: NORTH ARROW ROTATED
FOR CLARITY

* SHOP MATERIALS *

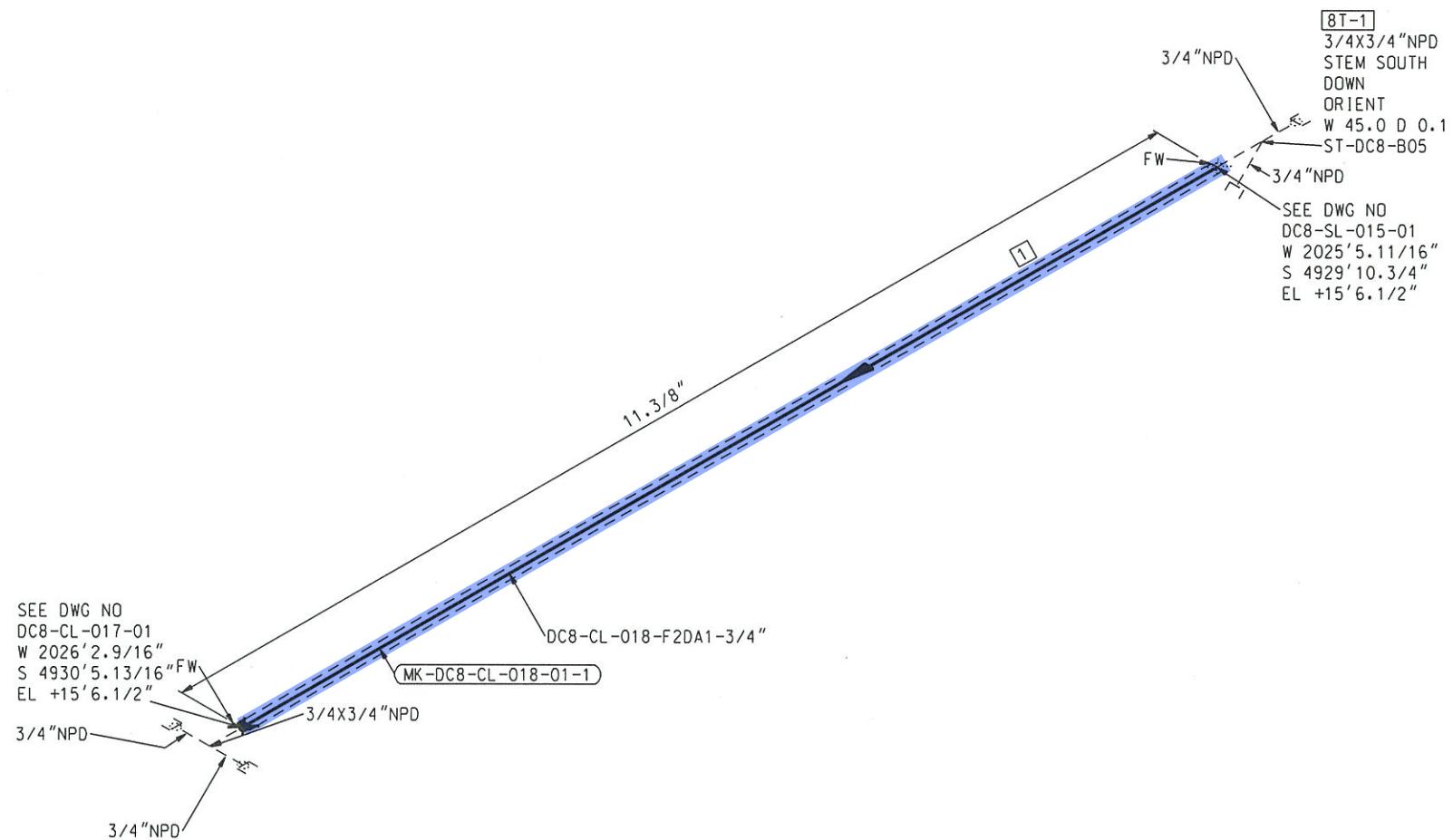
NO. DESCRIPTION

1 PIPE, S-XS, PE, ASTM: A53, TYPE E GR. B, OR A53, TYPE S GR. B OR A106 GR. B, ERW OR SMLS. JE GRTR THAN = 0.85

SIZE 3/4 QTY. 1.0' COMMODITY PADJABCAAM

PIECE MARKS

MK-DC8-CL-018-01-1



CWA# 7C

NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUCHNESS PROBLEMS WITNESSED IN INDUSTRY.

PIPE PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE	TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS	DESIGN CONDITIONS	TEST PRESS	TEST MEDIA	NDE	
PDS MODEL FILE :	PP003126	CONSTRUCTION STATUS	ECC00057-DC8-D-2130	N	N/A	GREY	1"-9MC-HC	KI320I	292 0	366 150	SVC	SVC	V100
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.												
1.	ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.												
2.	± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.												
CAD DESIGN FILE :	070J80\\ISOREF\\MONSANTO.BDR												
ENG-1042	REV	DATE	REVISION DESCRIPTION				BY	CHECKED BY	STRESS	APPROVED			

JACOBS**MONSANTO**

PROJECT NO. 07QJ81XX

COMMODITY

CL

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HOUMA, LOUISIANA 70320
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LINE NO.
DC8-CL-018-F2DA1-3/4"
CLASS
F2DA1

CONTRACT NO. FAB/CONST. MODEL AREA
DRAWING NO.
MON11900 DC8-CL-018-01

RECEIVED
TURNER-INDUSTRIES

7-2-2018

S. STILLWELL

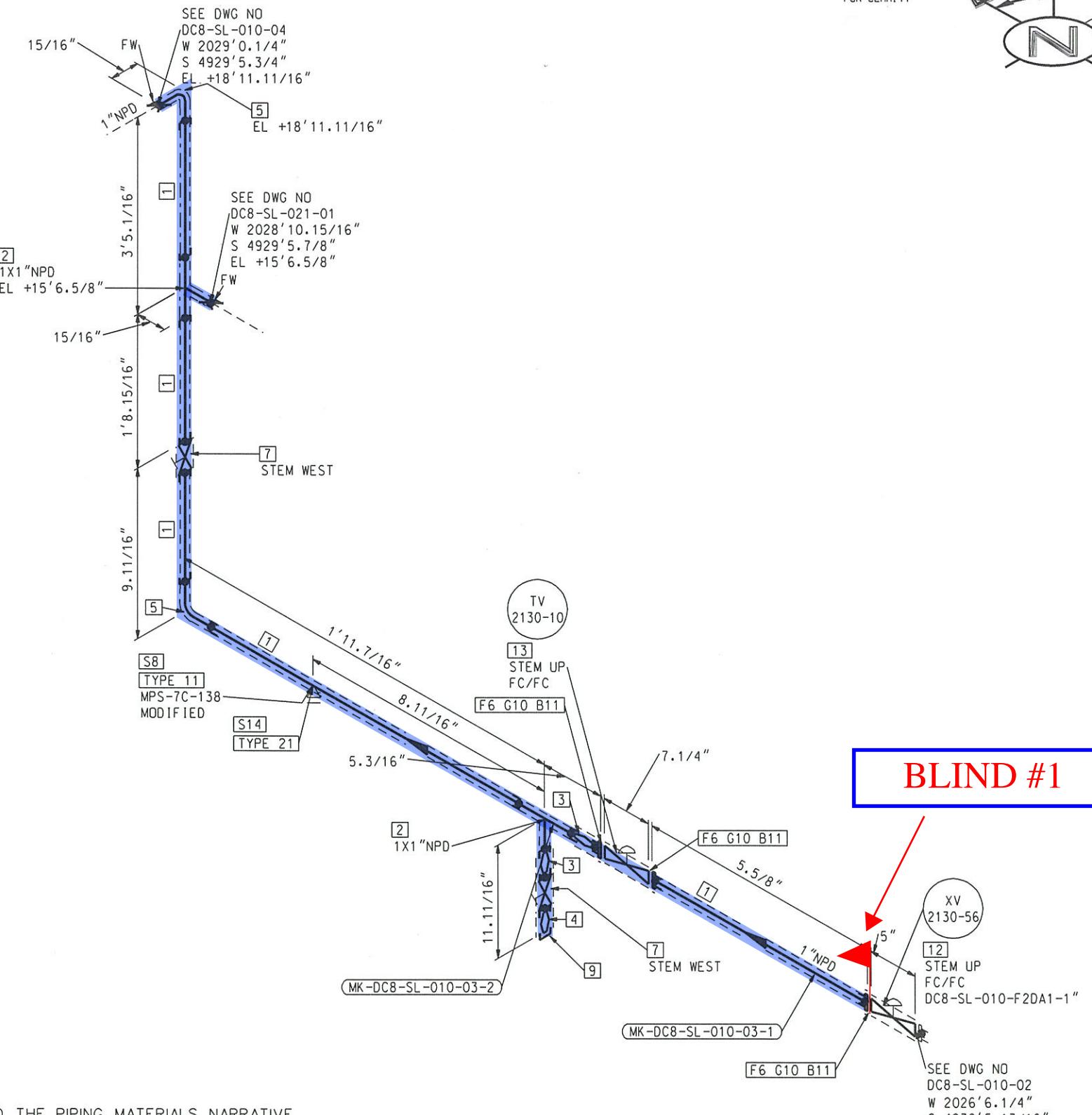
TP-006-007

EXTRACTION NO. : 12

EXTRACTION DATE : 26-OCT-2017

11101 : F:\070J80\ISOREF\MONSANTONR.DEF

ENG-1042 ISOGEN DEFAULTS FILE : VAR



NOTE: REFER TO THE PIPING MATERIALS NARRATIVE
(JACOBS STANDARD 07QJ81XX-E02-D030-00002)
, PARA 4.1 AND 5.1 FOR ADDITIONAL MATERIAL REQUIREMENTS
FOR ASTM A53, A105, A106 AND A234 CARBON STEEL MATERIALS
DUE TO LOW TOUGHNESS PROBLEMS WITNESSED IN INDUSTRY.

PIPING PLAN REFERENCE:		P&ID NO.	STRESS RELIEVE		TRACING	FINISH COLOR	INSULATION	COATING SYSTEM	OPERATING CONDITIONS	DESIGN CONDITIONS	TEST PRESS	TEST MEDIA	NDE			
PDS MODEL FILE : PP803126		CONSTRUCTION STATUS	ECC00057-DC9-D-3817		N	N/A	N/A	1"-9MC-HC	NPR	TEMP °F 302	PSIG 45	TEMP °F 366	PSIG 150	SVC	SVC	V100
NOTES:	3. FFW = SHOP TO ADD 6" TO DIMENSION FOR FIELD FIT UP. FIELD TO VERIFY DIMENSION BEFORE INSTALLATION.															
1. ALL BOLT HOLES TO STRADDLE NORTH-SOUTH AND/OR VERTICAL C'S UNLESS NOTED.		0	26-OCT-2017		ISSUED FOR CONSTRUCTION					MPA	PCB					
2. ± DENOTES AN APPROXIMATE DIMENSION, FIELD CHECK BEFORE FABRICATION.		1	20-JUNE-2018		ADDED COORDINATES					DAP	PAP	N/A	M3			
CAD DESIGN FILE :	070J80\ISOREF\MONSANTO.BDR	REV	DATE			REVISION DESCRIPTION				BY	CHECKED BY	STRESS	APP			

JACOBS

150-00000

PROJECT NO. 070181XX

COMMODITY

— 1 —

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HIGHWAY 90
LULING, LOUISIANA 70070

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PLIUED UN : 6/20/2018

PLIUED UN : 6/20/2018