

BILL OF MATERIALS			
CODE	DESCRIPTION/SIZE	FIELD	SHOP
237-2PI-32"-EKJD			
237-2PISIA	DISCHARGE SPOOL SEE DWG. RD-51-0-L-393-1	32"x30"	1
237-2PISIB	STRAIGHT SPOOL SEE DWG. SP-237-2-P-1-1A	32"	1
237-2PISIC	STRAIGHT SPOOL, W/4-3" BRANCHES SEE DWG. SP-237-2-P-1-1B	32"	1
237-2PISID	STRAIGHT SPOOL SEE DWG. RD-237-0-L-34-1	32"	1
237-2PISIE	SUCTION SPOOL SEE DWG. RD-51-0-L-X13-1	32"	1
LGBS1593	GASKET, SP WD, CL 300, 1/8", 304 SS/GRAPHITE, B16.47/A FLG.	32"	1
LMCC11442	COUPLING, GGMC, STYLE 275 FLEXIBLE.	32"	3
LMCC9975	GASKET, GGMC, STYLE 207/277/270/275, GR L, E-SHAPE.	32"	3
LGB31113	BOLT, STUD, A193 B7 W/2 A 194 2H NUTS, (30" PUMP DISCHARGE) 1 3/4"DIAx11 1/2"L G	28	
LGB31113	BOLT, STUD, A193 B7 W/2 A 194 2H NUTS, (32"-CL300 SO/SO) 1 3/4"DIAx12 3/4"L G	56	
LVBR1774	VALVE, BALL, CL300, RF, A216 WCB, PTFE SEATS, FULL PORT, WO. CAT. 2.(RE-USE)	3"	1
PIT-10	PRESSURE TRANSMITTER (RE-USE)	3"	1
-----	CLAMP ON PIPE SHOE 250x560 FOR 32" PIPE, SEE DWG. PS-237-0-PS-5-1	32"	1
-----	VARIABLE BASE SPRING SUPPORT SEE DWG. PS-237-2-PS-20-1	32"	1
237-2P2-32"-EKJD			
237-2P2SIA	DISCHARGE SPOOL SEE DWG. SP-237-2-P-2-1A	32"x30"	1
237-2P2SIB	90 DEG BEND 5D BEND SEE DWG. SP-237-2-P-2-1B	32"	1
LGB31113	BOLT, STUD, A193 B7 W/2 A 194 2H NUTS, (30" PUMP DISCHARGE) 1 3/4"DIAx11 1/2"L G	28	
-----	CLAMP ON PIPE SHOE 250x560 FOR 32" PIPE, SEE DWG. PS-237-0-PS-5-1	32"	1
237-2P2S2D	STRAIGHT SPOOL SEE DWG. SP-237-0-L-X6-1	32"	1
237-2P2SID	DRAIN OUT SPOOL, W/2-12" BRANCHES SEE DWG. SP-237-2-P-3-2D	32"x30"	1
237-2P2SIE	STRAIGHT SPOOL, W/8" BRANCH SEE DWG. SP-237-2-P-3-4A	32"	1
237-2P2SIF	STRAIGHT SPOOL SEE DWG. SP-237-2-P-3-L139-8A	32"	1
237-2P2SIH	2 x 30'L G HOSE (BY VENDOR)	32"	1
237-2P2S2B	DROP OUT SPOOL SEE DWG. RD-237-0-L-36-1	32"	1
237-2P2S2C	90 DEG BEND SEE DWG. RD-237-0-L-18-1	32"	1
237-2P2S2E	DROP OUT SPOOL SEE DWG. RD-237-0-L-36-1	32"	1
237-2P2S3A	STRAIGHT SPOOL SEE DWG. RD-51-0-L-1462-1	32"	1
237-2P2S3B	STRAIGHT SPOOL SEE DWG. RD-51-0-L-1462-1	32"	1
237-2P2S3C	STRAIGHT SPOOL SEE DWG. RD-51-0-L-1462-1	32"	1
237-2P2S3D	STRAIGHT SPOOL SEE DWG. RD-51-0-L-1462-1	32"	1
237-2P2S3E	STRAIGHT SPOOL SEE DWG. RD-51-0-L-1462-1	32"	1
237-2P2S4A	STRAIGHT SPOOL SEE DWG. SP-237-2-P-34-L139-8D	32"	1
237-2P2S4B	DRAIN OUT SPOOL, W/2-12" BRANCHES SEE DWG. RD-51-0-L-14-1	32"	1
237-2P2S4C	STRAIGHT SPOOL SEE DWG. RD-237-0-L-28-1	32"	1
237-2P2S4D	22.5 DEG BEND SEE DWG. RD-237-0-L-29-1	32"	1
237-2P2S4E	STRAIGHT SPOOL SEE DWG. SP-237-2-P-34-L139-8E	32"	1
237-2P2S5A	22.5 DEG BEND SEE DWG. RD-237-0-L-29-1	32"	1
237-2P2S5B	FLUSH SPOOL, W/4-4" BRANCHES SEE DWG. RD-237-0-L-31-1	32"	1
237-2P2S5C	ANCHOR SPOOL, W/2-3" BRANCHES SEE DWG. RD-237-0-L-XXI-1	32"	1
237-2P2S5D	DROP OUT SPOOL SEE DWG. RD-237-0-L-30-1	32"	1
237-2P2S5E	SUCTION SPOOL SEE DWG. RD-51-0-L-X13-1	32"	1
LMCC11442 O/C	COUPLING, GGMC, STYLE 275 FLEXIBLE.	32"	4
LMCC9975	GASKET, GGMC, STYLE 207/277/270/275, GR L, E-SHAPE.	32"	2

NOTES

1. B.O.M. INCLUDES MATERIALS FOR NEW PIPING ONLY.

2. BOLTS AND NUTS TO BE SUPPLIED PER EXISTING BOLTING INFORMATION.

REFERENCE DRAWINGS									

ISSUED BY: J. PANLAQUI		REV.#
FEED REVIEW		3B1
NOT FOR CONSTRUCTION		DATE
EWP#601 PIF#E000324		19-04-30

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NO	DATE	REVISION	BY	CHK.	ENG.	APPD
3	14-11-16	AS BUILT PER PIF C00047.		LL	MA	
2	14-01-27	AS BUILT		RYU	ND	UK
1	12-04-16	RE-ISSUED FOR CONSTRUCTION		HY	WP	NP
0	12-02-08	ISSUED FOR CONSTRUCTION		JR	RJ	NP

SCALE:	DRAWN BY:	DATE	CHECKED:	DATE	ENGINEER:	DATE	APPROVED:	DATE
	J. ROY	12-02-08	R. JALOT/JOT	12-02-08	N. PARKH	12-02-08	D. RAYMOND	12-02-08

Syncrude
Securing Canada's Energy Future

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CONT. PROJ. NO. 168278	CONTRACTOR:
CL. CONTRACT NO. C00047	

DRAWING TITLE:

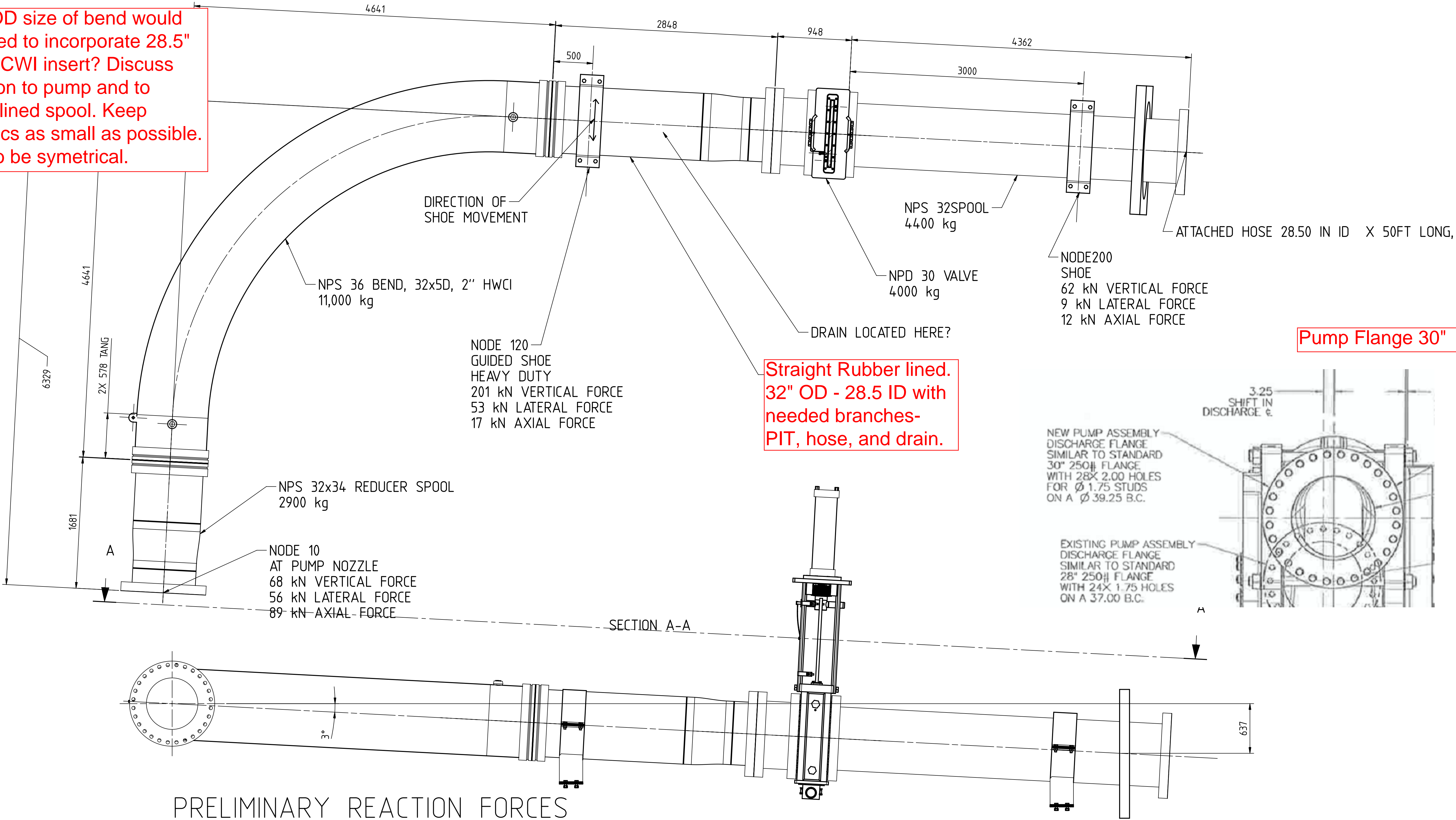
**PLANT 237 - HYDROTRANSPORT
TRAIN 2 LINES 237-2P003-30"-EK2D,
237-2P095-32"-EKJD, 237-2P034-30"-EK2D
COMPOSITE ISOMETRIC SHEET 1 OF 5**

DWG TYPE	PLANT	TRAIN	SUBJECT	SEQUENCE	SHEET	REV.
RD	237-	2	-L-	144	-1	

SYNCRUDE USE ONLY

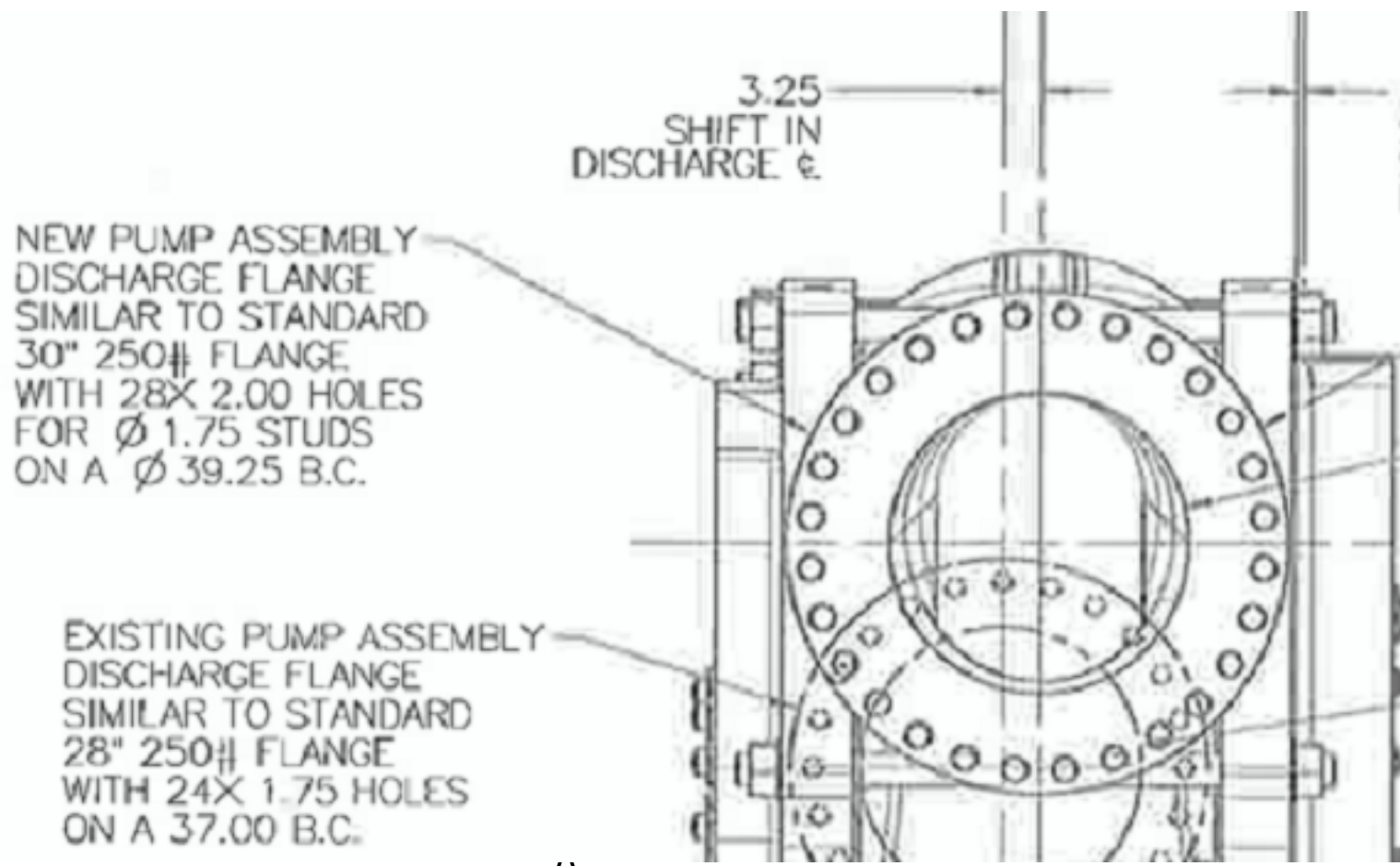
12-Jun-2019 13:22 victor.fano@devro

What OD size of bend would you need to incorporate 28.5" ID and CWI insert? Discuss transition to pump and to rubber lined spool. Keep Victaulics as small as possible. Bend to be symetrical.

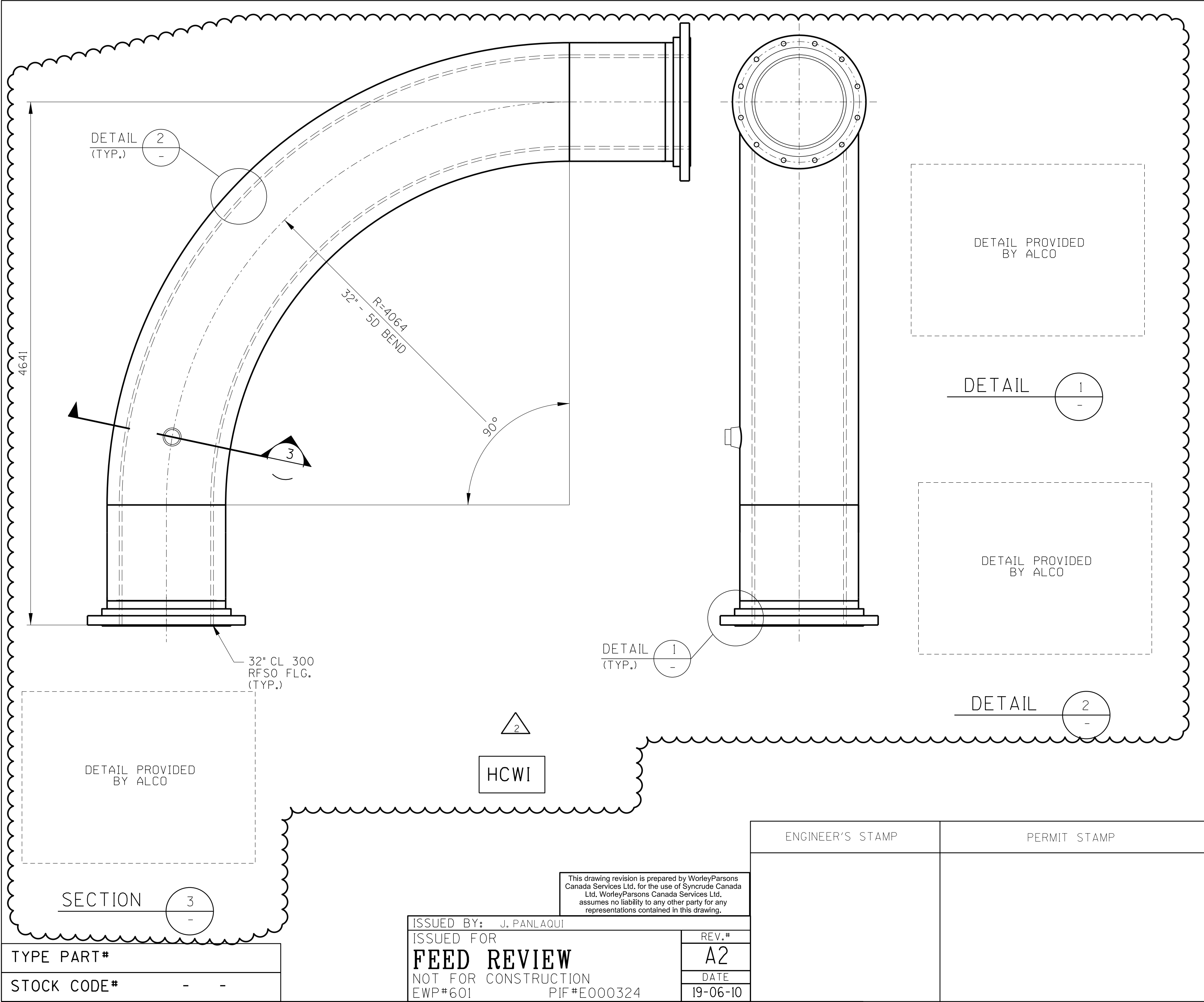


Straight Rubber lined.
32" OD - 28.5 ID with
needed branches-
PIT, hose, and drain.

Pump Flange 30"



OFFICE OF ORIGIN : PLEASE NOTE ! To set the Design Center of Origin Select the "Resource Bar" "Part Navigator" "Groups"				PLEASE NOTE ! To set the Product Select the "Resource Bar" "Part Navigator" "Groups"				WEHR Minerals			
SCALE: 1:2				APP: -				TITLE ISO LAYOUT,PUMP 237-2-G-1,CONVERSION, 1100017246, STRESS ISO 4/4			
CHK: -				DRN: R.HAIGHT				SHEET SIZE DRAWING No A1 1100017246			
REV 1				DATE: DDMMYYYY				REVISION 1			
DESCRIPTION				DATE				SHEET 1 OF 1			
REV				REF NO				BY			
1				13JUN2019				MB			
REVISED REACTION FORCES											



BILL OF MATERIALS									
CODE		DESCRIPTION/SIZE						SHOP	
LINE No.: 237-2P002-32" CLASS: EKJD									
SERVICE: HYDROTRANSPORT SLURRY									
CODE: ASME B31.4 ADDENDUM 2016 EDITION									
DESIGN PRESSURE: PSIG 4125 kPag					DESIGN TEMPERATURE: °F 100 °C				
PRESSURE TEST SERVICE									
PAINTING:									
REF. P&ID: 237-02-A-0001-01 237-02-A-0001-04									
REF. EQUIP.: 237-2-G-001									
REF. DWGS:									
NOTES:									
1) SPOOL TO BE HARD STAMPED WITH SPOOL NUMBER RD-51-L-585-1, ELBOW ANGLE AND TANGENT LENGTHS.									
2) DESIGN PRESSURE BASED ON 20,000 PSI ALLOWABLE STRESS AND 0.85 JOINT EFFICIENCY.									
3) FOR INSTALLATION LOCATION SEE DWG. PI-235-2PI3-1 AND PI-235-2PI3-3.									
4) HCWI (HIGH CHROME WHITE IRON).									
5) ALL DIMENSIONS SHOWN IN mm UNLESS OTHERWISE STATED.									