



BILL OF MATERIAL							
Pipe							
Num	Length	Size	Sch.	Description	Material	S/F	
1	1.7m	26"	19mm	PIPE EFW ASME B36.10	API 5L Gr. B (PSL2)	S	
2	4.5m	26"	XS	PIPE EFW ASME B36.10	API 5L Gr. B (PSL2)	S	
Flanges							
Num	Qty	Size	Rating	Sch.	Description	Material	S/F
3	1	26"	CL 150	XS	WN RF ASME B16.47 SERIES A	A105N	S
Fittings							
Num	Qty	Size	Sch.	Description	Material	S/F	
4	1	26"	XS	FORGED 90° 3D ELBOW ASME B16.9	A234 GR. WPB-W	S	
Supports							
Num	Qty	Size	Description	Material	S/F		
5	1	26"	SHOE S4 100 HIGH (CS) AS PER 074-0000-220-000-026 01	S4-A-2-26	S		
6	1	24"	U1-L-24 AS PER 074-0000-220-000-290 01		S		
7	2	25mm PLATE	LIFTING LUGS SEE DETAIL 2	SEE LIFTING LUGS NOTE 2	S		
8	1	24"	DUMMY LEG SUPPORT SEE ADDITIONAL MATERIALS BELOW	API 5L Gr. B (PSL2)	S		
Pipe							
Num	Length	Size	Sch.	Description	Material	S/F	
9A	5.5m	24"	XS	BE SCH XS EFW ASME B36.10	API 5L Gr. B (PSL2)	S	
Flanges							
Num	Qty	Size	Rating	Sch.	Description	Material	S/F
10B	2	24"	CL 150	XS	WN RF ASME B16.5	A105N	S
Fittings							
Num	Qty	Size	Rating	Sch.	Description	Material	S/F
10C	1	24"	CL 150	XS	ROUND END CAP PLATE, 6mm THICK	CSA G40.21 TYPE 260W	S
Gaskets							
Num	Qty	Size	Rating	Description	Material	S/F	
10D	1	24"	CL 150	RF SP/WND ASME B16.5, SS/GRAPHITE CSOR 1/8" THK	316LSS GRAPHITE FILLED	S	
Bolts							
Num	Qty	Size	Description	Material	S/F		
10E	1 SETS	1 1/4" X 6 3/4"	STUB BOLT, THREADED FULL LENGTH, C/W 2 HEAVY HEX NUTS A194 G2H	A193 GRB7	S		

SERVICE: BITUMEN FROTH	
PIPE SPEC: A61K	
CODE: ASME B31.3 ADDENDUM 2016 EDITION	
DESIGN PRESSURE: 1580 kPag	DESIGN TEMPERATURE: 93°C
PRESSURE TEST: 3000 kPag	MDMT: -29°C
PAINT: NONE	STRESS RELIEVE: NONE

SPECIALTY ITEM NUMBER	IORL ITEM NUMBER
SP-K3493	141-3015-66

P&ID: 074-1300-020-141-101 01
LINE #: 26-JF-141-3547-A61K-38H

NOTES:

1. ALL WELDING AND NDT SHALL BE IN ACCORDANCE WITH ASME B31.3 AND SPECIFICATIONS GP-29-03-02 & GP-29-03-02 SKP, KP03-74-050
2. ALL SHARP EDGES ARE TO BE REMOVED.
3. BOLT HOLES TO STRADDLE CENTERLINE, UNLESS OTHERWISE NOTED.
4. CWI LINERS ON PIPING SHALL HAVE A 304.8mm LONG NON-CEMENTED FIELD REPLACEABLE INSERT AT LEADING EDGE OF THE SPOOL.
5. PIPE I.D. TOLERANCE AT INSERT SHALL BE $\pm 1.5\text{mm}$.
6. SPOOL LINEAR DIMENSION TOLERANCE SHALL BE -3mm TO 0mm .
7. SUPPLIER TO CONFIRM I.D. AND GAP DIMENSIONS.
8. CWI LINER AS PER SPEC KP 03-74-180.
9. PERMANENTLY TAGGED IDENTIFICATION WITH A STAINLESS STEEL NAME PLATE WITH FOLLOWING INFORMATION:
 - CWI THICKNESS
 - DIRECTION OF FLOW ARROW
 - PIPE MATERIAL TYPE AND GRADE
 - PIPE MATERIAL HEAT NUMBER
 - PURCHASE ORDER NUMBER
 - SPOOL SPECIALITY ITEM NUMBER
 - VENDOR REQUESTED IOR DRAWING NUMBER
 - MANUFACTURE'S NAME
10. PWHT AS REQUIRED. DUMMY WELD TO BE FULL PENETRATION WELD AND WELD SIZE (1) TO BE THE SAME AS DUMMY PIPE THICKNESS.
11. CWI LINER AT PIPE END SHALL HAVE PROTECTION.
12. ALL COORDINATES AND ELEVATIONS ARE KEARL PLANT 2.
K1E = K2E + 210500
K1N = K2N + 400000
K1EL = K2EL + 3700

STRESS ANALYZED
 NO FIELD CHANGES PERMITTED WITHOUT
 APPROVAL FROM STRESS ENGINEER

Signature: _____
 Date: _____



IMPERIAL OIL RESOURCES

[illegible]