

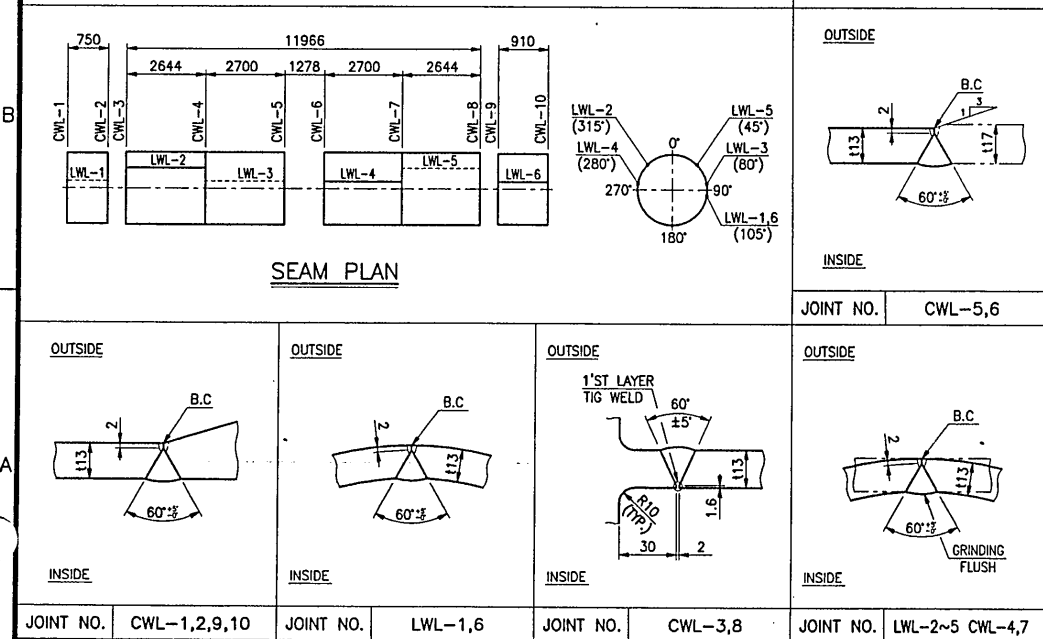
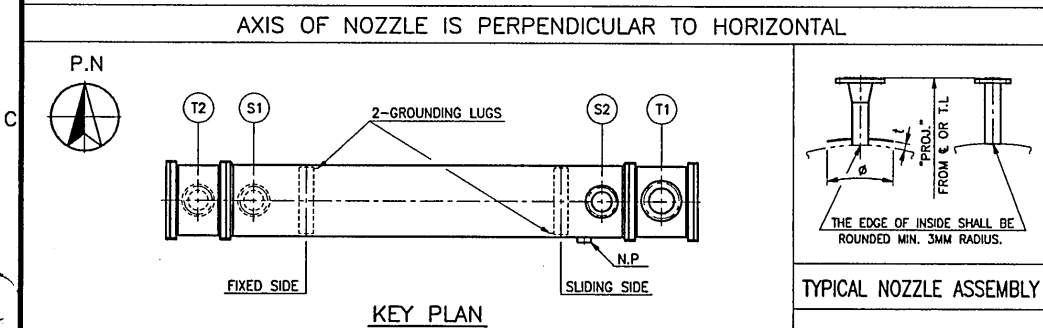
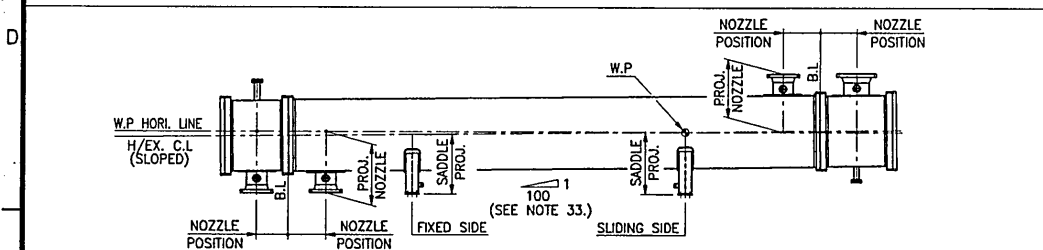
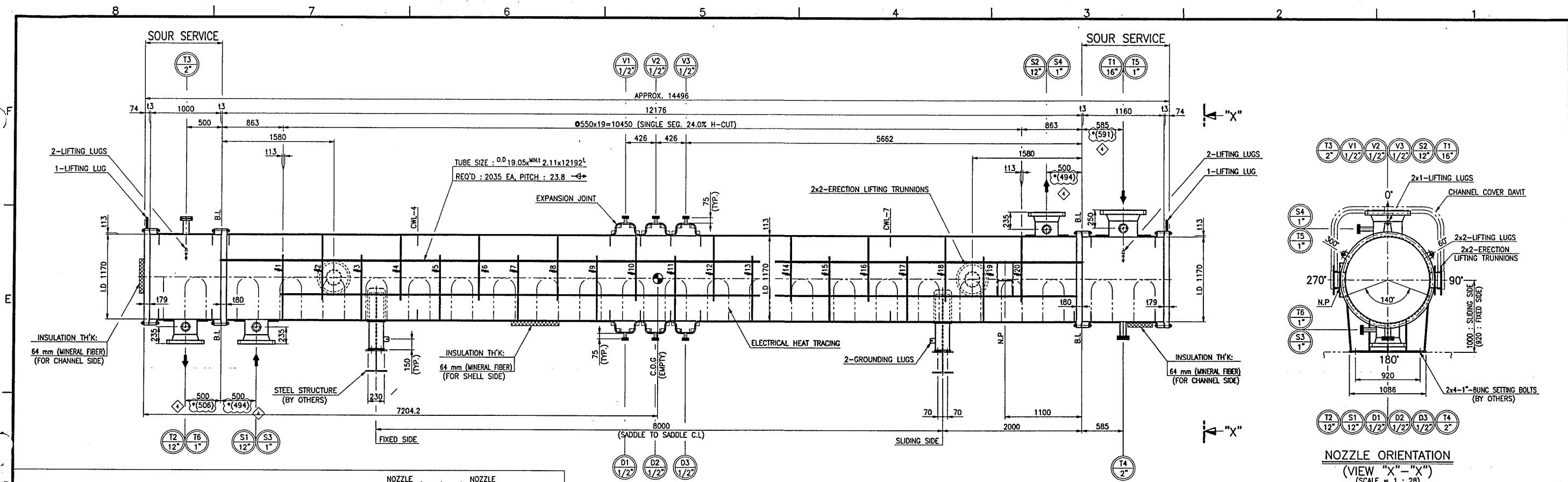
 MEG ENERGY		CHRISTINA LAKE REGIONAL PROJECT Phase 3A EPC for Central Plant Facilities SLI Project No. 511036		 SNC-LAVALIN	
 SNC-LAVALIN		<input type="checkbox"/> A1 Not suitable to initiate fabrication. modify as noted, resubmit for review <input type="checkbox"/> B1 Suitable to initiate fabrication as noted. modify as noted, resubmit for review <input type="checkbox"/> C1 Suitable to fabricate to completion as noted. submit final documents including as-builts as required <input checked="" type="checkbox"/> D1 Suitable to fabricate to completion. submit final documents including as-built documents as required <input type="checkbox"/> E1 Not suitable as final documents as noted. modify as noted and resubmit. <input type="checkbox"/> F1 Suitable as final documents. no further resubmittal required (unless revised by vendor) <input type="checkbox"/> VX Vendor document cancelled.			
Vendor's drawing review for conformity with specifications and design drawing.					
This review does not relieve the vendor of his responsibility for errors in design and detailing as detailed in his contract.					
Vendor: Sewon Cellontech Co. Ltd. - P00007		No.: E0351-3AE102-D-01		Rev: 4	
Doc. Title:	H00.01 - GENERAL ASSEMBLY (1/2) - Tag:3A-E-102A/B				
Client Code:		Project No: 511036		Date Rec'd: 2014/08/14	
Reviewed by: SS Date: 26-Aug-2014		Document No: P-5310-01-0003		Submittal: 05	



SIDE ELEVATION
(SCALE = 1 : 28)
(*) IN SIZE FABRICATION DIMENSION

REFERENCE DRAWINGS

1. GENERAL ASSEMBLY (2/2)	E0351-3AE102-D-02
2. DETAIL OF BODY (1/2)	E0351-3AE102-D-03
3. DETAIL OF BODY (2/2)	E0351-3AE102-D-04
4. DETAIL OF TUBE BUNDLE (1/2)	E0351-3AE102-D-05
5. DETAIL OF TUBE BUNDLE (2/2)	E0351-3AE102-D-06
6. DETAIL OF SUP'T SADDLE	E0351-3AE102-D-07
7. DETAIL OF INSUL. SUP'T	E0351-3AE102-D-08
8. DETAIL OF CHANNEL COVER DAVIT	E0351-3AE102-D-09
9. NOZZLE DETAIL "S1,S2"	E0351-3AE102-D-10
10. NOZZLE DETAIL "T1"	E0351-3AE102-D-11
11. NOZZLE DETAIL "T2"	E0351-3AE102-D-12
12. NOZZLE DETAIL "T3,T4"	E0351-3AE102-D-13
13. NOZZLE DETAIL "S3,S4,T5,T6"	E0351-3AE102-D-14
14. NOZZLE DETAIL "V1~V3, D1~D3"	E0351-3AE102-D-15
15. DETAIL OF EHT GENERAL ASSEMBLY	E0351-3AE102-D-16
16. DETAIL OF NAME PLATE	E0351-3AE102-D-17
17. DETAIL OF WIRING(1/2)	E0351-3AE102-D-18
18. DETAIL OF WIRING(2/2)	E0351-3AE102-D-19

MARK	NOM SIZE	NO.	RATING	TYPE	FACING	THICK	PROJ.	EXORD	SERVICE & REMARKS
D1~3	1/2"	3	ASME 300	L.W.N	R.F	-	SEE DWG.	-	DRAIN (W/B.F)
V1~3	1/2"	3	ASME 300	L.W.N	R.F	-	SEE DWG.	-	VENT (W/B.F)
S3,S4,T6	1"	3	ASME 300	L.W.N	R.F	-	365	-	FIELD HYDROTEST (W/B.F)
T5	1"	1	ASME 300	L.W.N	R.F	-	410	-	FIELD HYDROTEST (W/B.F)
T4	2"	1	ASME 300	L.W.N	R.F	-	805	-	DRAIN (W/B.F)
T3	2"	1	ASME 300	L.W.N	R.F	-	805	-	VENT (W/B.F)
T2	12"	1	ASME 300	W.N	R.F	SCH. 80	1030	113x#610	TUBE SIDE OUTLET
T1	16"	1	ASME 300	W.N	R.F	SCH. 80	985	113x#780	TUBE SIDE INLET
S2	12"	1	ASME 300	W.N	R.F	SCH. 80	945	113x#610	SHELL SIDE OUTLET
S1	12"	1	ASME 300	W.N	R.F	SCH. 80	1020	113x#610	SHELL SIDE INLET
MARK	NOM SIZE	NO.	RATING	TYPE	FACING	THICK	PROJ.	EXORD	SERVICE & REMARKS
				FLANGE					
				NOZZLE					
				REIN.PAD					

NOZZLE SCHEDULE

FOR APPROVAL ASME
ASME STAMP

DESIGN & TEST DATA

QTY TO BE MANUFACTURED	2 (TWO)
CODE	ASME SEC. VIII DIV.1 2010 ED.+2011 ADD. & TEMA CLASS "R" 9TH ED.-2007 + API 650 8TH ED.
ASME CODE STAMP	YES
CRN. NO.	TBD
NATIONAL BOARD REGISTRATION	YES
TYPE	H-AEL
EFFECTIVE SURFACE AREA (PER SHELL)	1465.0
SPECIAL SERVICE	NO
FLUID CIRCULATED	PRODUCED GAS
DENSITY (LIQ./VAP.)	1078/- / 1013/-
NO. OF PASS	1 (ONE)
PRESSURE (Kpa/g)	DESIGN 1500/F.V. OPERATING 900
TEMPERATURE (°C)	DESIGN 210 OPERATING 40/120
TEST PRESS. (Kpa/g)	HYDRO. 2499 PNEUM. (SHOP/FIELD) -
M.A.W.P. (HOT&CORRODED) (Kpa/g)	1922
M.A.W.P. LIMITING COMPONENT	SHELL
M.A.P. (NEW&COLD) (Kpa/g)	2571
M.A.E.W.P. (Kpa/g)	F.V.
P.W.H.T.	NO
STRESS RELIEVE AFTER FORMING (SEE NOTE 31.)	YES
RADIOGRAPHY (SEE NOTE 19.)	SPOT/ - FULL/ -
JOINT EFFICIENCY	SHELL 0.85 HEAD -
CORR. ALLOW. (MM)	3.2
M.D.M.T. (°C)	-29
IMPACT TEST	SEE NOTE 14.
INSULATION (MM)	64
FIRE PROOFING (MM)	NONE
PAINTING SPECIFICATION	SEE NOTE 26.
TOLERANCE	SEE NOTE 13.
TUBE TO TUBE SHEET JOINT	ROLLED (TWO GROOVES) AND EXPANDED
WIND CODE	NBC 2005, IMPORTANCE FACTOR = 1.15
SEISMIC CODE	NBC 2005, IMPORTANCE FACTOR = 1.3
FABRICATION	35030
ERECTION	35790
EMPTY OPERATING	35750
TEST (SHOP/FIELD)	44190
BUNDLE	47620/47110
WEIGHT (KG)	-

MATERIAL SPECIFICATION

	SHELL	STUD BOLTS AND NUTS	
COVER FLANGE	SA516-70N	-SHELL COVER	-
CHANNEL FLANGE	SA266-2N	-CHANNEL COVER	SA193-B7M/SA194-2HM
TUBE SHEET	SA266-2N	-FLOATING	-
FLOATING HEAD COVER	-	-SHELL SIDE NOZZ	SA193-B7M/SA194-2HM
FLOATING HEAD FLANGE	-	-TUBE SIDE NOZZ	SA193-B7M/SA194-2HM
BACKING DEVICE	-	GASKETS	-
TUBES	SA179 (SEAMLESS)	-SHELL COVER	-
BAFFLES or SUPPORT	SA516-70	-SHELL CHANNEL END	-
IMPINGEMENT BAFFLE	-	-CHANNEL SHELL END	SEE *1)
TIE ROD / SPACER	SA36 / SA53-B	-CHANNEL COVER	SEE *1)
PASS PARTITION PLATE	-	-FLOATING	-
SHELL NOZZLE -NECK	SA106-B	-SHELL SIDE NOZZ	SEE *2)
-FLANGE	SA105N	-TUBE SIDE NOZZ	SEE *2)
CHANNEL NOZZLE -NECK	SA106-B	SUPPORT SADDLES / PAD	SA516-70N/SA516-70N
-FLANGE	SA105N	EARTH LUG & NAME PLATE	SA240-304
EXPANSION JOINT	SA516-70N	SETTING BOLT/NUT	SA325 (BY OTHERS)

*1) GASKET MATERIAL : DOUBLE METAL JACKET GASKET
- FILLER : GRAPHITE
- JACKET : C.S
*2) SPIRAL WOUND (14.5) :
- FILLER : GRAPHITE
- HOOP : 316 S.S
- INNER RING : 316 S.S
- OUTER RING : C.S

REV.	DATE	DESCRIPTIONS FOR REVISION	DRWN	CHK'D	REV'D	APP'D
2014	07.30	REVISED AS MARKED	B.C.CHIN			H.U.KOO
2013	11.30	REVISED AS MARKED	B.C.CHIN			H.U.KOO
2013	10.17	REVISED AS MARKED	B.C.CHIN			H.U.KOO
2013	08.21	REVISED AS MARKED	B.C.CHIN			H.U.KOO
2013	07.08	FOR APPROVAL	B.C.CHIN			H.U.KOO

CLRP PHASE 3A CENTRAL PLANT FACILITY: EPC

MEG ENERGY CORP.

SNC • LAVALIN

SNC • LAVALIN INC.

PRODUCED GAS/GLYCOL EXCHANGER

3A-E-102A/B

GENERAL ASSEMBLY (1/2)

SEWON CELLONTECH CO.,LTD.
CHANGWON, KOREA

OWNER JOB NO. 511036
P/O NO. P-5310-01
SEWON JOB NO. E-0351
SEWON DWG. NO. E0351-3AE102-D-01

THIRD ANGLE PROJECTION
SCALE SEE DWG.

WORKS