

DRAWING NO.	DRAWING TITLE	ISSUED FOR DESIGN	ISSUED FOR HAZOP	ISSUED FOR CONSTRUCTION	AS BUILT	REV.	REMARKS
DRAWING INDEX							
LRD-W001-X-001-A	MECHANICAL DRAWING INDEX - LIARD WELLSITE c-66-1/94-N-9	2014-01-10	-	2014-03-03	-	0A1	-
PLOT PLAN							
LRD-W001-A-002-A	WELLSITE PLOT PLAN - LIARD WELLSITE c-66-1/94-N-9	2014-01-10	-	2014-03-03	-	0A1	-
LINE LIST							
LRD-W001-C-010-A	LINE LIST - LIARD WELLSITE c-66-1/94-N-9	2014-01-10	-	2014-01-31	-	0A0	-
PROCESS FLOW DIAGRAM							
LRD-W001-C-001-A	PFID - LIARD WELLSITE c-66-1/94-N-9	2014-01-10	-	2014-03-03	-	0A1	-
PIPING AND INSTRUMENTATION DIAGRAMS							
TYP-SYMB-C-001-A	NEXEN STANDARD - INSTRUMENT SYMBOLOLOGY CHART INSTRUMENTATION DIAGRAM	-	-	-	-	3	FOR INFORMATION ONLY
TYP-SYMB-C-002-A	NEXEN STANDARD - PROCESS SYMBOLOLOGY PROCESS DIAGRAM	-	-	-	-	0	FOR INFORMATION ONLY
LRD-W001-C-004-A	P&ID - c-66-1/94-N-9 WELLSITE	2014-01-10	-	2014-04-29	-	0A2	-
LRD-W001-C-005-A	P&ID - M-11 PUMP SKID & CHEMICAL TANKS	2014-01-10	-	2014-04-29	-	0A2	-
LRD-W001-C-006-A	P&ID - c-66-1 TO c-64-1 PRODUCED GAS & FUEL GAS PIPELINE	2014-01-10	-	2014-03-03	-	0B1	-
LRD-W001-C-007-A	P&ID - M-41 LINE HEATER	2014-01-10	-	2014-01-31	-	0A0	DEMOLITION
LRD-W001-C-007-A	P&ID - M-41 LINE HEATER	2014-01-10	-	2014-01-31	-	0A1	-
LRD-W001-C-008-A	P&ID - M-80 ELECTRICAL BUILDING	2014-01-10	-	2014-01-31	-	0A0	-
PIPING PLANS							
LRD-W001-J-005-A	PIPING PLAN - WELLHEAD/PIPERACK	-	-	2014-01-31	-	0A0	-
LRD-W001-J-006-A	PIPING PLAN - PIPERACK/PIG AREA	-	-	2014-01-31	-	0A0	-
LRD-W001-J-007-A	PIPING PLAN - M-11 PUMP BUILDING & T-101 METHANOL TANK	-	-	2014-03-03	-	0A0	-
LRD-W001-J-008-A	PIPING PLAN - M-41 LINE HEATER	-	-	2014-01-31	-	0A0	-
ISOMETRICS							
LRD-W001-P-001-A	ISOMETRIC - 114-FPS2-SG-1110	-	-	2014-01-31	-	0A0	-
LRD-W001-P-001-B	ISOMETRIC - 114-FPS2-SG-1110	-	-	2014-01-31	-	0A0	-
LRD-W001-P-002-A	ISOMETRIC - 114-FPS2-SG-1111	-	-	2014-01-31	-	0A0	-
LRD-W001-P-003-A	ISOMETRIC - 114-DPS2-SG-1112	-	-	2014-01-31	-	0A0	-
LRD-W001-P-004-A	ISOMETRIC - 114-DPS2-SG-1113	-	-	2014-01-31	-	0A0	-
LRD-W001-P-004-B	ISOMETRIC - 114-DPS2-SG-1113	-	-	2014-01-31	-	0A0	-
LRD-W001-P-004-C	ISOMETRIC - 114-DPS2-SG-1113	-	-	2014-01-31	-	0A0	-
LRD-W001-P-005-A	ISOMETRIC - 324-DPS2-SG-1114	-	-	2014-01-31	-	0A0	-
LRD-W001-P-006-A	ISOMETRIC - 89-CPS2-FG-1201	-	-	2014-01-31	-	0A0	-
LRD-W001-P-009-A	ISOMETRIC - 60-CPS2-FG-1202	-	-	2014-01-31	-	0A0	-
LRD-W001-P-009-B	ISOMETRIC - 60-CPS2-FG-1202	-	-	2014-01-31	-	0A0	-
LRD-W001-P-010-A	ISOMETRIC - 60-A-V-1400	-	-	2014-01-31	-	0A0	-
LRD-W001-P-011-A	ISOMETRIC - 60-A-V-1402	-	-	2014-03-03	-	0A0	-
LRD-W001-P-012-A	ISOMETRIC - 33-A-M-1401	-	-	2014-03-03	-	0A0	-
DRAWING STANDARDS							
SMC-TYP-PS-A17	CLAMPED-ON ANCHOR	-	-	-	-	0	FOR INFORMATION ONLY
SMC-TYP-PS-C3	PIPE STRAP	-	-	-	-	0	FOR INFORMATION ONLY
SMC-TYP-PS-G1	U-BOLT (GUIDE)	-	-	-	-	3	FOR INFORMATION ONLY
SMC-TYP-PS-G4	PIPE GUIDE	-	-	-	-	2	FOR INFORMATION ONLY
SMC-TYP-PS-S3	CLAMP PIPE SHOE	-	-	-	-	6	FOR INFORMATION ONLY

DRAWING NO.	DRAWING TITLE	ISSUED FOR DESIGN	ISSUED FOR HAZOP	ISSUED FOR CONSTRUCTION	AS BUILT	REV.	REMARKS
VENDOR DRAWINGS							
015940-4-11 SHT 1	LINE HEATER PACKAGE GENERAL ARRANGEMENT (MALONEY INDUSTRIES)	-	-	-	-	1	FOR INFORMATION ONLY
015940-4-11 SHT 2	LINE HEATER PACKAGE GENERAL ARRANGEMENT (MALONEY INDUSTRIES)	-	-	-	-	1	FOR INFORMATION ONLY
015940-4-11 SHT 3	LINE HEATER PACKAGE GENERAL ARRANGEMENT (MALONEY INDUSTRIES)	-	-	-	-	0	FOR INFORMATION ONLY
015940-4-11 SHT 4	LINE HEATER PACKAGE GENERAL ARRANGEMENT (MALONEY INDUSTRIES)	-	-	-	-	0	FOR INFORMATION ONLY
015940-4-71 SHT 1	LINE HEATER PACKAGE STRUCTURAL SKID LAYOUT (MALONEY INDUSTRIES)	-	-	-	-	1	FOR INFORMATION ONLY
015940-4-71 SHT 2	LINE HEATER PACKAGE STRUCTURAL SKID LAYOUT (MALONEY INDUSTRIES)	-	-	-	-	1	FOR INFORMATION ONLY
ATA1080 SHT 1	T-101 TANK GENERAL ARRANGEMENT (CLEMMER LS)	-	-	-	-	2	FOR INFORMATION ONLY
ATA1080 SHT 2	T-101 TANK GENERAL ARRANGEMENT (CLEMMER LS)	-	-	-	-	2	FOR INFORMATION ONLY
ATA1080 SHT 3	T-101 TANK GENERAL ARRANGEMENT (CLEMMER LS)	-	-	-	-	2	FOR INFORMATION ONLY
ATA1080 SHT 4	T-101 TANK GENERAL ARRANGEMENT (CLEMMER LS)	-	-	-	-	2	FOR INFORMATION ONLY
ATA1080 SHT 5	T-101 TANK GENERAL ARRANGEMENT (CLEMMER LS)	-	-	-	-	2	FOR INFORMATION ONLY
ATA1080 SHT 6	T-101 TANK GENERAL ARRANGEMENT (CLEMMER LS)	-	-	-	-	2	FOR INFORMATION ONLY
ATA1080 SHT 7	T-101 TANK GENERAL ARRANGEMENT (CLEMMER LS)	-	-	-	-	2	FOR INFORMATION ONLY
ATA1080 SHT 8	T-101 TANK GENERAL ARRANGEMENT (CLEMMER LS)	-	-	-	-	2	FOR INFORMATION ONLY
WH-13686	GENERAL DIMENSIONAL LAYOUT (STEAM-FLO)	-	-	-	-	1	FOR INFORMATION ONLY
PD138-003 SHT 1	M-11 PUMP SKID CHEMICAL TANKS P&ID (ULTRAFAB)	-	-	-	-	2	FOR INFORMATION ONLY
PD138-003 SHT 2	M-11 PUMP SKID CHEMICAL TANKS P&ID (ULTRAFAB)	-	-	-	-	2	FOR INFORMATION ONLY
LA138-003-01	M-11 GENERAL ARRANGEMENT (ULTRAFAB)	-	-	-	-	0	FOR INFORMATION ONLY
LA138-003-02	M-11 GENERAL ARRANGEMENT (ULTRAFAB)	-	-	-	-	0	FOR INFORMATION ONLY
LA138-003-03	M-11 GENERAL ARRANGEMENT (ULTRAFAB)	-	-	-	-	0	FOR INFORMATION ONLY
LA138-003-04	M-11 GENERAL ARRANGEMENT (ULTRAFAB)	-	-	-	-	0	FOR INFORMATION ONLY
LA138-003-05	M-11 GENERAL ARRANGEMENT (ULTRAFAB)	-	-	-	-	0	FOR INFORMATION ONLY

**ISSUED FOR CONSTRUCTION**  
DATE: 2014-04-29

PROJECT REVISION			REFERENCE DRAWINGS			NEXEN REVISION			APPROVAL			PROFESSIONAL STAMP	PERMIT STAMP	
REV No	DATE (YYYY-MM-DD)	DESCRIPTION	DRAFTED BY	CHECKED BY	APPROVED BY	DRAWING No	TITLE	REV No	DATE (YYYY-MM-DD)	DESCRIPTION	DRAFTED BY	CHECKED BY	APPROVED BY	DATE
0A2	2014-04-29	RE-ISSUED FOR CONSTRUCTION (SMCI NE12-01811)	BGD	JBB	MJH									
0A1	2014-03-03	RE-ISSUED FOR CONSTRUCTION (SMCI NE12-01811)	AOC	JBB	MJH									
0A0	2014-01-31	ISSUED FOR CONSTRUCTION (SMCI NE12-01811)	BGD	JBB	MJH									
0AD	2014-01-10	RE-ISSUED FOR DESIGN (SMCI NE12-01811)	AOC	JBB	MJH									
0AC	2013-08-16	ISSUED FOR DESIGN (SMCI NE12-01811)	BGD	JBB	MJH									
0AB	2013-05-03	ISSUED FOR APPROVAL (SMCI NE12-01811)	PIR	JBB	DEU									
0AA	2013-03-26	ISSUED FOR DESIGN (SMCI NE12-01811)	AOC	TWJ	MJH			0		DRAFT TEMPLATE (NEXEN)				



LIARD - WELLSITE  
WELLSITE C-66-1/94-N-9  
DRAWING INDEX

PROJECT NUMBER: BC0019  
LOCATION: c-66-1/94-N-9  
SCALE: NTS

EPC NAME: SOLARIS - MCI  
NEXEN DWG No: LRD-W001-X-001-A  
EPC DRAWING No: NE12-01811  
SHEET No: 1 OF 1  
REV: 0A2

**T-101 METHANOL TANK**  
 SIZE: 2248mm ID x 5944mm LG  
 CAPACITY: 20,000 L  
 MAKE: CLEMMER LS  
 MODEL: C.A.G.S.T. - F  
 DOUBLE WALLED

**T-102 METHANOL TANK**  
 SIZE: 2200 L  
 DOUBLE WALLED

**T-103 CORROSION INHIBITOR TANK**  
 CHEMICAL: CRO 9178  
 SIZE: 2200 L  
 DOUBLE WALLED

**T-104A/B CORROSION INHIBITOR TANKS**  
 CHEMICAL: CRO 9815  
 SIZE: 6100 L  
 CAPACITY A: 3050 L  
 CAPACITY B: 3050 L  
 DOUBLE WALLED

**EF-1108 EXHAUST FAN**  
 TBD BY VENDOR  
 MOTOR: 0.373 kW  
 120V/1Ø/60Hz

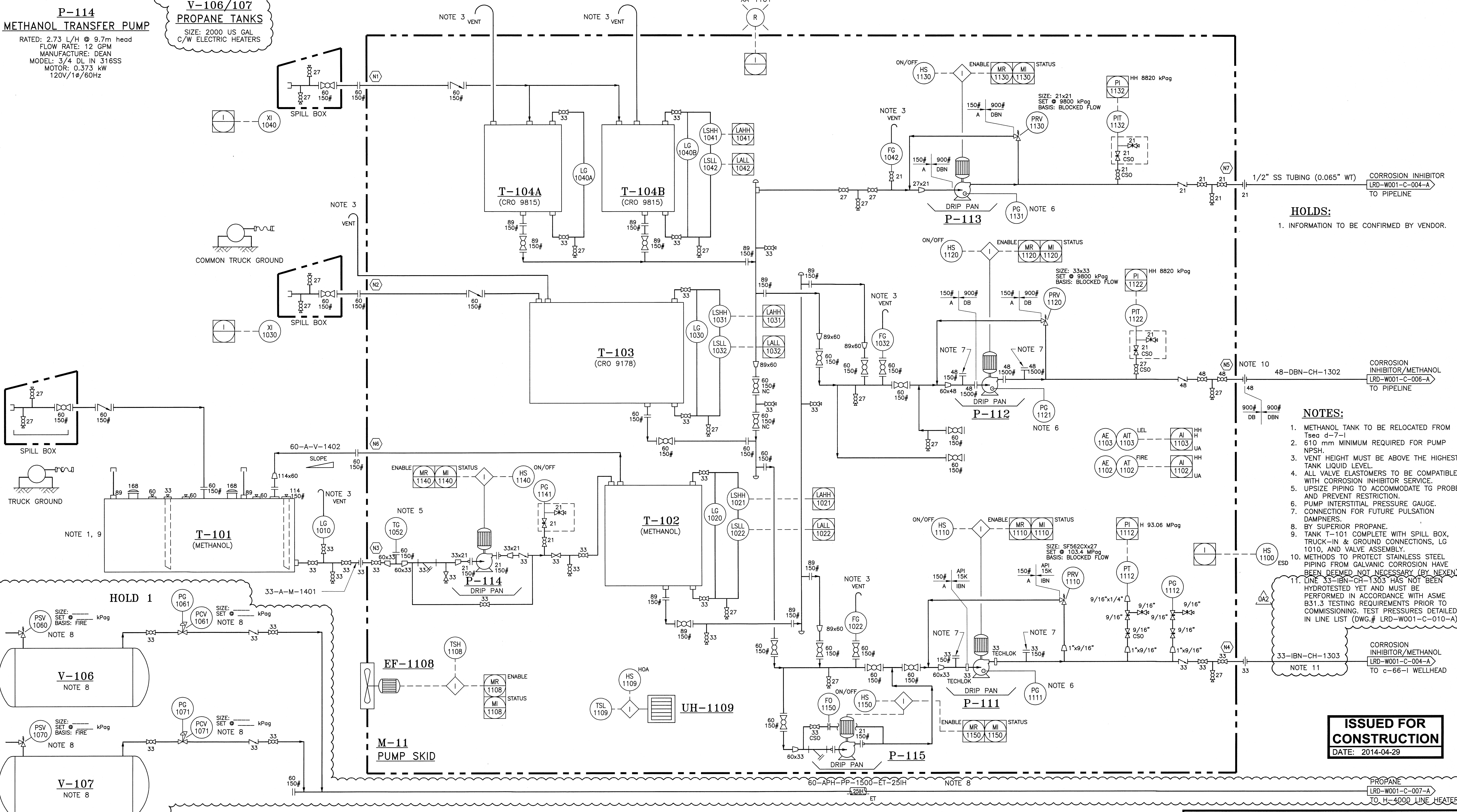
**P-111 WELLHEAD BATCH PUMP**  
 MAX DISCHARGE PRESSURE: 103.4 MPa  
 RATE: 466 L/H  
 MANUFACTURE: BRAN+LUEBBE  
 MODEL: B  
 MOTOR: 56 kW  
 480V/3Ø/60Hz

**P-112 PIPELINE BATCH PUMP**  
 MAX DISCHARGE PRESSURE: 9928 kPa  
 MAX FLOW RATE: 1900 L/H  
 MANUFACTURE: BRAN+LUEBBE  
 MODEL: H6  
 MOTOR: 15 kW  
 480V/3Ø/60Hz

**P-113 PIPELINE CONTINUOUS PUMP**  
 MAX DISCHARGE PRESSURE: 9928 kPa  
 MAX FLOW RATE: 2.8 L/H  
 MANUFACTURE: BRAN+LUEBBE  
 MODEL: H1  
 MOTOR: 0.746 kW  
 480V/3Ø/60Hz

**UH-1109 HEATER**  
 TBD BY VENDOR  
 480V/3Ø/60Hz  
 EXPLOSION PROOF

**P-115 CHARGE PUMP**  
 MANUFACTURER: DEAN  
 MODEL: 3/4 DL IN 316SS  
 MOTOR: 0.746 kW  
 120V/1Ø/60Hz



**HOLDS:**  
 1. INFORMATION TO BE CONFIRMED BY VENDOR.

- NOTES:**
- METHANOL TANK TO BE RELOCATED FROM T<sub>seq</sub> 4-7-1
  - 610 mm MINIMUM REQUIRED FOR PUMP NPSH.
  - VENT HEIGHT MUST BE ABOVE THE HIGHEST TANK LIQUID LEVEL.
  - ALL VALVE ELASTOMERS TO BE COMPATIBLE WITH CORROSION INHIBITOR SERVICE.
  - UPSIZE PIPING TO ACCOMMODATE TG PROBE AND PREVENT RESTRICTION.
  - PUMP INTERSTITIAL PRESSURE GAUGE.
  - CONNECTION FOR FUTURE PULSATION DAMPERS.
  - BY SUPERIOR PROPANE.
  - TANK T-101 COMPLETE WITH SPILL BOX, TRUCK-IN & GROUND CONNECTIONS, LG 1010, AND VALVE ASSEMBLY.
  - METHODS TO PROTECT STAINLESS STEEL PIPING FROM GALVANIC CORROSION HAVE BEEN DEEMED NOT NECESSARY (BY NEXEN).
  - LINE 33-IBN-CH-1303 HAS NOT BEEN HYDROTTESTED YET AND MUST BE PERFORMED IN ACCORDANCE WITH ASME B31.3 TESTING REQUIREMENTS PRIOR TO COMMISSIONING. TEST PRESSURES DETAILED IN LINE LIST (DWG# LRD-W001-C-010-A).

**ISSUED FOR CONSTRUCTION**  
 DATE: 2014-04-29

PROJECT REVISION				REFERENCE DRAWINGS		NEXEN REVISION		APPROVAL			PROFESSIONAL STAMP	PERMIT STAMP	
REV No	DATE (YYYY-MM-DD)	DESCRIPTION	DRAFTED BY	CHECKED BY	APPROVED BY	DRAWING No	TITLE	REV No	DATE (YYYY-MM-DD)	DESCRIPTION	DRAFTED BY	CHECKED BY	APPROVED BY
OA2	2014-04-29	RE-ISSUED FOR CONSTRUCTION (SMCI NE12-01811)	BGD	JBB	MJH								
OA1	2014-03-03	RE-ISSUED FOR CONSTRUCTION (SMCI NE12-01811)	AOC	JBB	TIP								
OA0	2014-01-31	ISSUED FOR CONSTRUCTION (SMCI NE12-01811)	AOC	JBB	TIP								
OAC	2014-01-10	RE-ISSUED FOR DESIGN (SMCI NE12-01811)	PIR	JBB	MJH								
OAB	2013-08-16	ISSUED FOR DESIGN (SMCI NE12-01811)	PIR	JBB	MJH								
OAA	2013-05-03	ISSUED FOR APPROVAL (SMCI NE12-01811)	AOC	TWJ	DEU								

**nexen**

LIARD - WELLSITE  
 M-11 PUMP SKID & CHEMICAL TANKS  
 PIPING AND INSTRUMENTATION DIAGRAM

PROJECT NUMBER: BC0019  
 LOCATION: c-66-1/94-N-9  
 SCALE: N.T.S.

EPC NAME: SOLARIS - MCI  
 EPC DRAWING No: NE12-01811

NEXEN DWG No: LRD-W001-C-005-A  
 SHEET No: 1 OF 1  
 REV: OA2