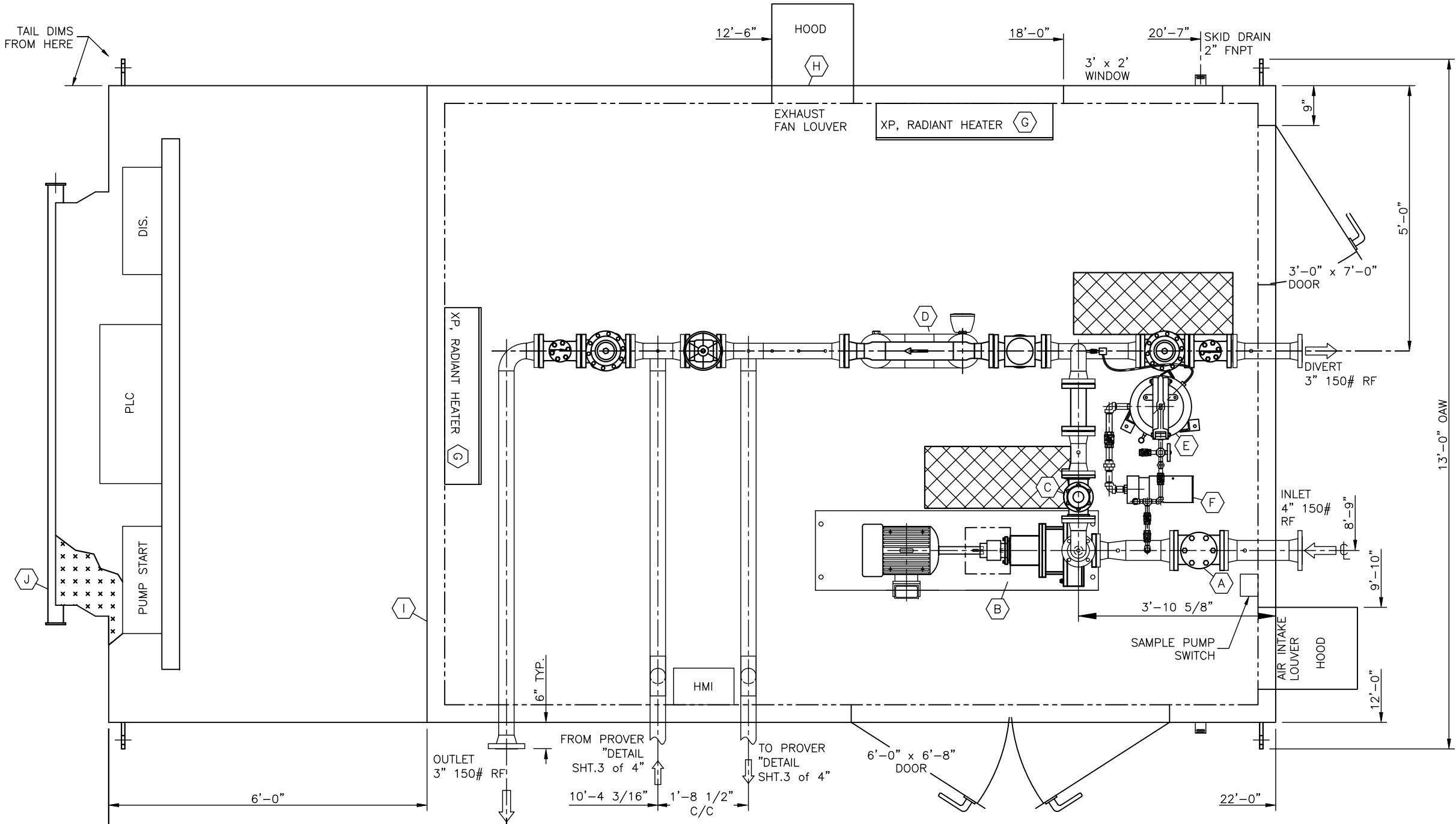


LEGEND												
EQUIPMENT	MK	TAG	QTY	DESCRIPTION	MFG.	MOD.	MK	TAG	QTY	DESCRIPTION	MFG.	MOD.
	A	F-1100	1	BASKET STRAINER: 4" 150# FF	VIKING	F1040-FIRN-021	F	P-1000	1	SAMPLE PUMP: 1 1/4" SUCTION, 1" DISCHARGE	FLOWSERVE	SMP-1000
	B	P-1100	1	CHARGE PUMP: 3" 150# FF SUCTION, 2" 150# FF DISCHARGE	FLOWSERVE	2K3x2-13RV-DCI	G	H-1000 H-1100		MOTOR: 1/2 HP, 1800 RPM, 120-230V/1/60, XP	-	-
			1	MOTOR: 15 HP, 1800 RPM, 480/3/60, CLASS I, DIV. I, GRP. D	-	184T FRAME			HEATER: 3.6kW 480/1	CCI THERMAL	RADIANT STYLE	
	C	F-1101	1	BASKET STRAINER: 3" 150# FF, W/ ARMSTRONG 11AV AIR ELIM.	VIKING	F1030-FIRN-021						
	D	LM-1100	1	LIQUID METER: MICRO MOTION, 3" 150# RF, w/	MICRO MOTION	CMF300M	H	B-1000	1	EXHAUST FAN: 12" W/ 1/4 HP, 1725 RPM, 115/1/60, XP MOTOR	DAYTON	3XK51
			1	FLOW & DENSITY TRANSMITTER	MICRO MOTION	MVD2700	I		1	FIBERGLASS BUILDING: 12' x 16' x 8'-9" PEAK, GABLE STYLE	-	-
	E	V-1000	1	SAMPLE TANK: 14" S/40 x 2'-0" S/S, WELD CAP, AND SEALED TANK LID,	PSI	14-2-VST-30-D	J		1	STRUCTURAL STEEL SKID: 12' x 23'-2 1/4" x 0'-8 3/8"	PSI	-
				INTERNAL COATING, & 5/8" x 20" SIGHT GLASS W/ 4-BAR PROTECTION								

SWO # LOG	
SWO#1	1088858 (REF. HSCP-LACT-7)
SWO#2	1088873 x8
SWO#3	
SWO#4	
SWO#5	

REVISED	
PREPARED BY:	CLC
DATE:	04/15/13
REVISION #	3
APPROVED BY:	ZR
SWO #	SEE LOG

SEE NOTE 6



PLAN

NOTES:

1. REF. SHT.4 "SAMPLE DIAGRAM" FOR PIPING REFERENCE.
2. TOTAL PKG. WEIGHT APPROX. 11,500 LBS.
3. INTERIOR BUILDING COLOR: WHITE
4. EXTERIOR BUILDING, SKID, AND DECKPLATE COLOR: CARLSBAD CANYON TAN
5. INSULATION TO BE: R-13 & 2" SPRAY FOAM UNDER SKID.
6. SO1088858 REDESIGN TO DWG# HSCP-LACT-7 SET OF DRAWINGS: P-1100 & LM-1100 CHANGE & NO DIVERT

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NO.	DATE	BY	DESCRIPTION	CHK'D	APPR.	DWG NO.	TITLE
3	04/15/13	CLC	AS-BUILT	ZR	SK		
2	09/05/12	JS	ADD 3070 DOOR, LOWERED PROVING LINES	ZR	SK		
1	08/20/12	JS	AS BUILT MARKUPS	ZR	SK		
0	06/18/12	JS	FOR CONSTRUCTION	ZR	SK		
A	05/25/12	JE	FOR APPROVAL	ZR	SK	HSCP-LACT-PID-6	P&ID
REVISIONS							
REFERENCE DRAWINGS							

**PS** POWER SERVICE, INC.  
CASPER, WYOMING USA  
(307) 472-7722

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CUSTOMER

EQUIPMENT GENERAL ARRANGEMENT  
SWEET CRUDE LACT/LINE PUMP PKG.  
C.O.S. 80°F, .82 SG, 8,400 BPD @ 45 PSI

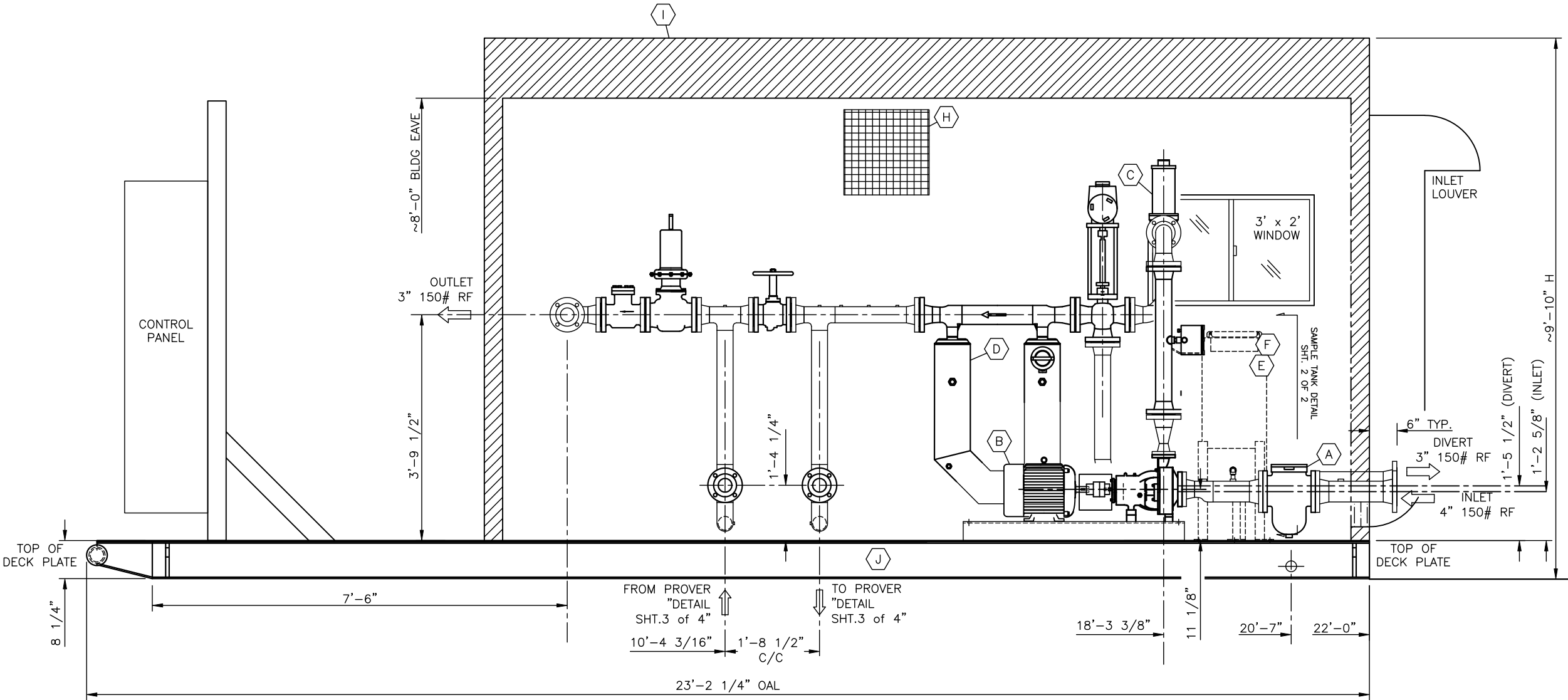
DWN BY	CHK'D BY	APP'D BY	ENGINEER	DATE DWN	SCALE	SHEET	PROJECT NO.	DWG. NO.	REV.
JE	ZR	SK	-	05/25/12	N.T.S.	1 OF 4	SEE-LOG	D-HSCP-LACT-L0-6	3

LEGEND												
EQUIPMENT	MK	TAG	QTY	DESCRIPTION	MFG.	MOD.	MK	TAG	QTY	DESCRIPTION	MFG.	MOD.
	A	F-1100	1	BASKET STRAINER: 4" 150# FF	VIKING	F1040-FIRN-021	F	P-1000	1	SAMPLE PUMP: 1 1/4" SUCTION, 1" DISCHARGE	FLOWERVE	SMP-1000
	B	P-1100	1	CHARGE PUMP: 3" 150# FF SUCTION, 2" 150# FF DISCHARGE	FLOWERVE	2K3x2-13RV-DCI	F			MOTOR: 1/2 HP, 1800 RPM, 120-230V/1/60, XP	-	-
			1	MOTOR: 15 HP, 1800 RPM, 480/3/60, CLASS I, DIV. I, GRP. D	-	184T FRAME	G	H-1000	2	HEATER: 3.6kW 480/1	CCI THERMAL	RADIANT STYLE
	C	F-1101	1	BASKET STRAINER: 3" 150# FF, W/ ARMSTRONG 11AV AIR ELIM.	VIKING	F1030-FIRN-021	H	H-1100				
	D	LM-1100	1	LIQUID METER: MICRO MOTION, 3" 150# RF, w/	MICRO MOTION	CMF300M	H	B-1000	1	EXHAUST FAN: 12" W/ 1/4 HP, 1725 RPM, 115/1/60, XP MOTOR	DAYTON	3XK51
			1	FLOW & DENSITY TRANSMITTER	MICRO MOTION	MVD2700	I		1	FIBERGLASS BUILDING: 12' x 16' x 8'-9" PEAK, GABLE STYLE	-	-
	E	V-1000	1	SAMPLE TANK: 14" S/40 x 2'-0" S/S, WELD CAP, AND SEALED TANK LID,	PSI	14-2-VST-30-D	J		1	STRUCTURAL STEEL SKID: 12' x 23'-2 1/4" x 0'-8 3/8"	PSI	-
				INTERNAL COATING, & 5/8" x 20" SIGHT GLASS W/ 4-BAR PROTECTION								

SWO # LOG	
SWO#1	1088858 (REF. HSCP-LACT-7)
SWO#2	1088873 x8
SWO#3	
SWO#4	
SWO#5	

REVISED	
PREPARED BY:	CLC
DATE:	04/15/13
REVISION #	3
APPROVED BY:	ZR
SWO #	SEE LOG

SEE NOTE 6



ELEVATION

NOTES:

- REF. SHT.4 "SAMPLE DIAGRAM" FOR PIPING REFERENCE.
- TOTAL PKG. WEIGHT APPROX. 11,500 LBS.
- INTERIOR BUILDING COLOR: WHITE
- EXTERIOR BUILDING, SKID, AND DECKPLATE COLOR: CARLSBAD CANYON TAN
- INSULATION TO BE: R-13 & 2" SPRAY FOAM UNDER SKID.
- S01088858 REDESIGN TO DWG# HSCP-LACT-7 SET OF DRAWINGS: P-1100 & LM-1100 CHANGE & NO DIVERT

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NO.		DATE	BY	DESCRIPTION	CHK'D	APPR.	DWG NO.	TITLE
3	04/15/13	CLC		AS-BUILT	ZR	SK		
2	09/05/12	JS		ADDED 3070 DOOR, LOWERED PROVING LINES	ZR	SK		
1	08/20/12	JS		AS BUILT MARKUPS	ZR	SK		
0	06/18/12	JS		FOR CONSTRUCTION	ZR	SK		
A	05/25/12	JE		FOR APPROVAL	ZR	SK	HSCP-LACT-PID-6	P&ID
REVISIONS					REFERENCE DRAWINGS			

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CASPER, WYOMING USA  
(307) 472-7722

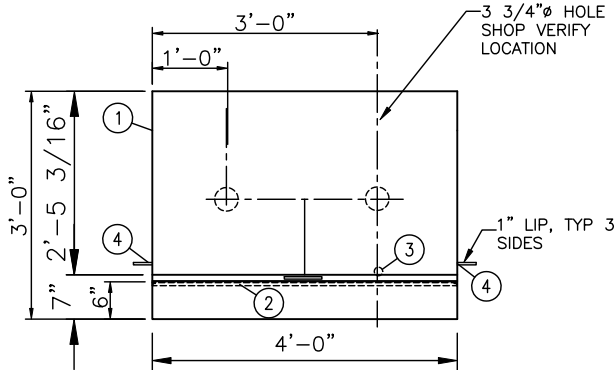
THIS DRAWING IS THE PROPERTY OF POWER SERVICE CASPER, WYOMING, USA.	
CUSTOMER	
EQUIPMENT GENERAL ARRANGEMENT	
SWEET CRUDE LACT/LINE PUMP PKG. C.O.S. 80°F, .82 SG, 8,400 BPD @ 45 PSI	
SHEET: 2 OF 4	PROJECT NO. SEE-LOG
DWG. NO. D-HSCP-LACT-LO-6	REV. 3

BILL OF MATERIALS

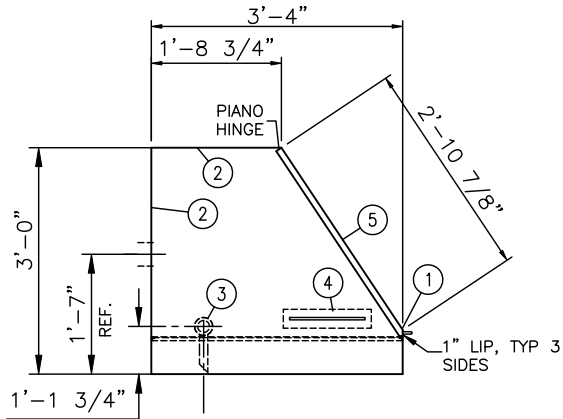
ITEM	QTY	DESCRIPTION	SPEC.	ITEM	QTY	DESCRIPTION	SPEC.	ITEM	QTY	DESCRIPTION	SPEC.
(1)	1	PL. 11ga., BOX MATERIAL	SA-36	(13)							
(2)	1	EXPANDED METAL SCREEN:	C.S.	(14)							
(3)	1	BOX DRAIN 1/2" FNPT	C.S.	(15)						ITEMS NOT SHOWN	
(4)	2	RB 1/2" X 1'-2" LG, LIFTING HANDLE	SA-36	(16)							
(5)	1	HINGED LID	SA-36	(17)							
(6)				(18)							
(7)				(19)							
(8)				(20)							
(9)				(21)							
(10)				-							
(11)				-							
(12)				-							

SWO # LOG	
SWO#1	1088858 x1
SWO#2	1088873 x8
SWO#3	
SWO#4	
SWO#5	

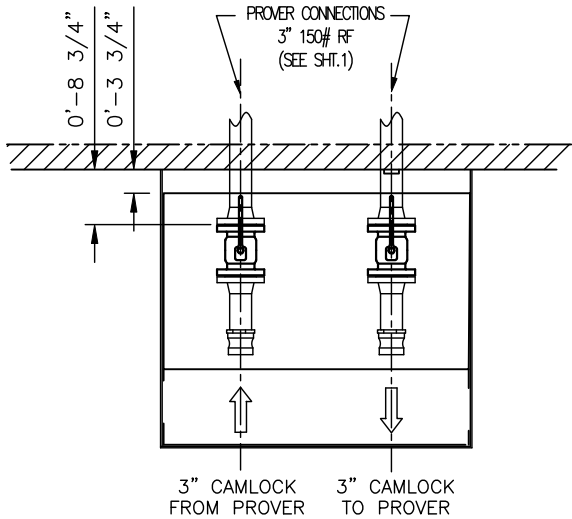
REVISED	
PREPARED BY:	JS
DATE:	08/20/13
REVISION #	3
APPROVED BY:	ZR
SWO #	SEE LOG



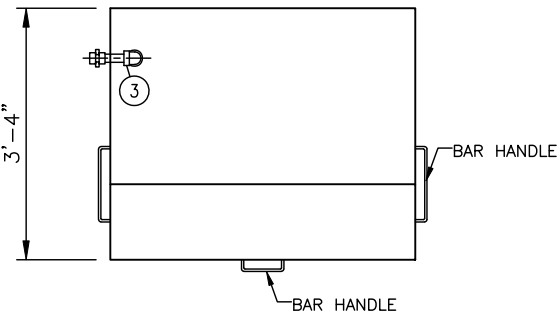
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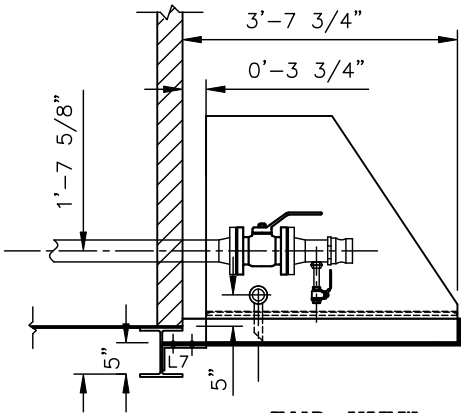
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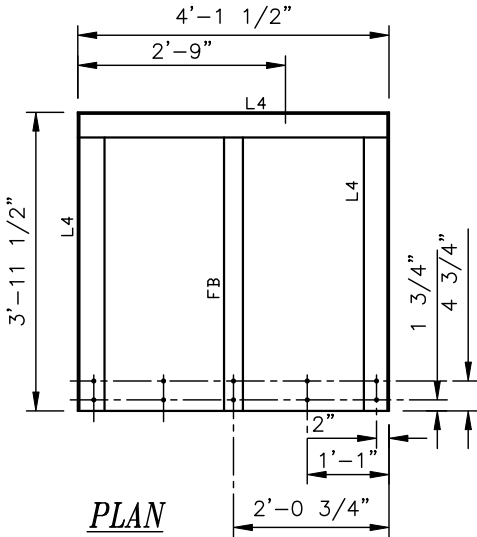
DETAIL A-A



PLAN  
GETTY BOX DETAILS



END VIEW



GETTY BOX PLATFORM DETAILS

NOTES:

1. TOTAL GETTY BOX WT APPROX. 350 LBS. PER BOX, 175 LBS. PER PLATFORM.

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NO.	DATE	BY	DESCRIPTION	CHK'D	APPR.	DWG NO.	TITLE
3	08/20/12	JS	UPDATED DESIGN	ZR	SK		
2	08/15/12	CC	UPDATED LENGTHS PER CUST. REVISIONS	ZR	SK		
1	07/30/12	CC	CHANGED LENGTH TO 4'-0"	ZR	SK		
0	06/18/12	JS	FOR CONSTRUCTION	ZR	SK		
A	05/25/12	JE	FOR APPROVAL	ZR	SK	HSCP-LACT-PID-6	P&ID
REVISIONS				REFERENCE DRAWINGS			

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(307)472-7722

DWN BY	CHK'D BY	APP'D BY	ENGINEER	DATE DWN	SCALE
JE	ZR	SK	-	05/25/12	N.T.S.

THIS DRAWING IS THE PROPERTY OF POWER SERVICE CASPER, WYOMING, USA.	
CUSTOMER	
EQUIPMENT GENERAL ARRANGEMENT SWEET CRUDE LACT/LINE PUMP PKG. C.O.S. 80°F, .82 SG, 8,400 BPD @ 45 PSI	
SHEET: 3 OF 4	PROJECT NO. SEE-LOG
DWG. NO. D-HSCP-LACT-L0-6	REV. 3

## LEGEND

EQUIPMENT / CONNECTION LIST	MK	TAG	QTY	DESCRIPTION	MFG.	MOD.	CONTROL / VALVE LIST	MK & TAG	QTY	DESCRIPTION	FITTING / PIPE LIST	QTY	SIZE	DESCRIPTION	CLASS/SCH	SPEC/GR.	
	A	V-1000	1	SAMPLE TANK: 14" S/40 x 2'-0" S/S, WELD CAP, AND SEALED TANK LID,	PSI	14-2-VST-30-D			1	BALL VALVE: 1/4" 2000# FNPT		1	1 1/4" NPT x 1" FNPT	REDUCER BUSHING	3000#	SA-105	
					-				5	BALL VALVE: 1/2" 2000# FNPT		1	1" NPT x 1/2" FNPT	REDUCER BUSHING	3000#	SA-105	
	B	P-1000	1	SAMPLE PUMP: 1 1/4" SUCTION, 1" DISCHARGE	FLOWSERVE	SMP-1000			1	BALL VALVE: 1" 2000# FNPT		2	1/2" NPT x 1/4" FNPT	REDUCER BUSHING	3000#	SA-105	
				MOTOR: 1/2 HP, 1800 RPM, 230/1/60, XP	-	-			1	CHECK VALVE: 1/2" 200# FNPT		1	1" FNPT	UNION, THREADED	3000#	SA-105	
								LG-1000	1	LEVEL GAUGE: 5/8" x 20" SIGHT GLASS, 4-BAR PROTECTION, W/ SET VALVES: 1/2" 500# NPT, PENBERTHY MOD. N7A, #64251-030		3	1/2" FNPT	UNION, THREADED	3000#	SA-105	
								PI-1000	1	PRESSURE INDICATOR: 1/4" NPT x 2.5", 0-15, W/ 1/4" NPT x FNPT 6000# NEEDLE VALVE		3	1" FNPT	ELBOW 90°, THREADED	3000#	SA-105	
				CONNECTION SCHEDULE								5	1/2" FNPT	ELBOW 90°, THREADED	3000#	SA-105	
	C1		1	DRAIN: 1" 3000# HALF CPLG					1	VACUUM BREAKER: 1/4" NPT, STEEL PETCOCK, 1/4 TURN TYPE		2	1/2" FNPT	TEE, THREADED	3000#	SA-105	
	C2		1	INLET-CIRCULATING: 1/2" 3000# FULL CPLG								1	1/4" FNPT	CROSS, THREADED	3000#	SA-105	
	C3		1	PSV: 1/2" 3000# HALF CPLG				PSV-1000	1	PRESSURE RELIEF VALVE: 1/4" FNPT, FISHER #289A		4	1/4" x 2" LG.	PIPE NIPPLE	S/80	SA-106B	
	C4		1	INLET-SAMPLE: 1/2" 3000# HALF CPLG								9	1/2" x 2" LG.	PIPE NIPPLE	S/80	SA-106B	
	C5A,B	LG-1000	2	LEVEL GAUGE UPPER/LOWER: 1/2" 3000# HALF COUPLING								2	1" x 2" LG.	PIPE NIPPLE	S/80	SA-106B	
												1	1/2" NPT x 1/2" T	ELBOW 90°, SWAGELOK#SS-810-2-8 (MAN. SAMPLE BV)			
												1	1/4" NPT x 1/4" T	ELBOW 90°, SWAGELOK#SS-400-2-4 (FCV-101 CONNECTION)			
												1	1/2" NPT x 1/2" T	MALE ADAPTER, SWAGELOK#SS-810-1-8 (C2 CONNECTION)			
												1	1/2" T	TEE, SWAGELOK#SS-810-3 (C2 CONNECTION)			
												4'	1"	PIPE	S/80	SA-106B	
												6'	1/2"	PIPE	S/80	SA-106B	

FOR CONSTRUCTION

DATE: 06/25/12

APPROVED BY: SK

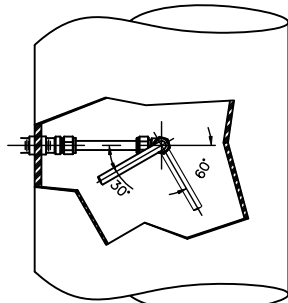
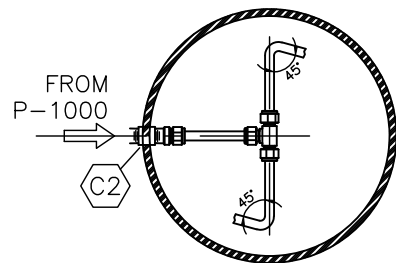
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SWO#2 1088873 x8

SWO#4

SWO#5



INTERNAL VIEW OF  
CONNECTION C2

1.

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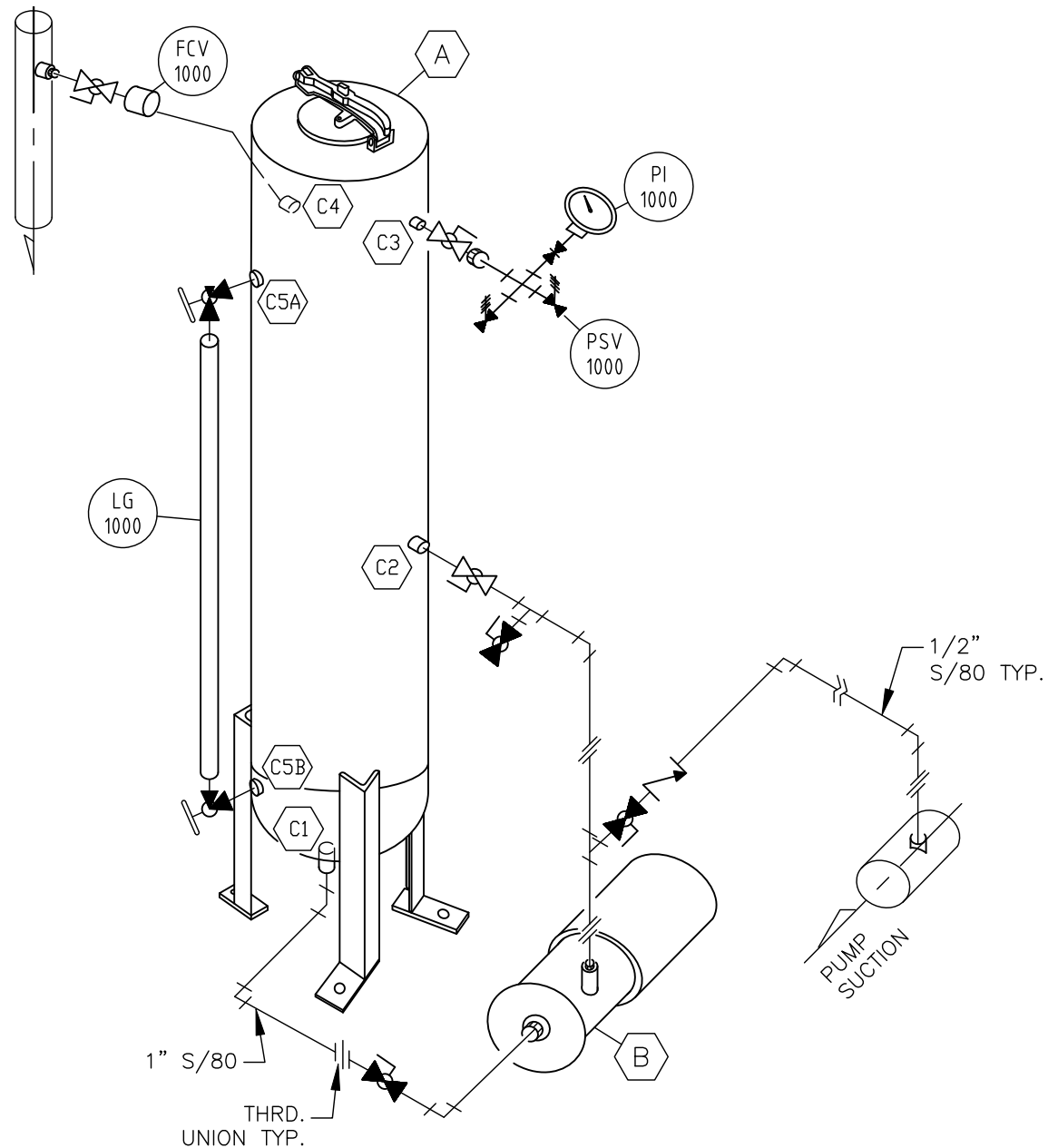
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A	05/25/12	JE	FOR APPROVAL	ZR	SK	HSCP-LACT-PID-6	P&ID
NO.	DATE	BY	DESCRIPTION	CHK'D	APPR.	DWG NO.	TITLE
REVISIONS						REFERENCE DRAWINGS	



CUSTOMER \_\_\_\_\_

15 GAL. SAMPLE SYSTEM DETAIL  
3" LACT PACKAGE

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PIPING DIAGRAM -PIPING TO BE FITTED IN SHOP