



## GAS PLANT UPGRADES

c-32-H/94-H-8

AFE\_No. -

SOLARIS JOB NO. P06-0007/0013

ELECTRICAL DRAWING INDEX					
DWG. NUMBER	DWG. DESCRIPTION	ISSUE DATE	REV.	SOLARIS JOB No.	REMARKS
778-00-9010	ELECTRICAL PLOT PLAN	06.11.15	4	P06-0007	ISSUED FOR REVIEW
778-00-9020	ELECTRICAL GROUNDING PLAN	06.11.15	2	P06-0007	ISSUED FOR REVIEW
778-00-9030	ELECTRICAL AREA CLASSIFICATION	06.11.15	3	P06-0007	ISSUED FOR REVIEW
P06-0007-604	GLYCOL HEAT MEDIUM BUILDING Z-900	06.11.15	A	P06-0007	ISSUED FOR REVIEW
778-00-9520	TREATER BUILDING LAYOUT	06.11.15	2	P06-0013	ISSUED FOR REVIEW
P06-0007-603	JUNCTION BOXES	06.11.15	A	P06-0007	ISSUED FOR REVIEW
A1-2262-S-514	JUNCTION BOX DETAILS	06.11.15	9	P06-0013	ISSUED FOR REVIEW
A1-2262-S-515	JUNCTION BOX DETAILS	06.11.15	7	P06-0013	ISSUED FOR REVIEW
P06-0013-601	JUNCTION BOX DETAILS	06.11.15	A	P06-0013	ISSUED FOR REVIEW
01-778-9305	24VDC POWER DISTRIBUTION - LINE 1154-1193	06.11.15	2	P06-0013	ISSUED FOR REVIEW
778-00-9305	24VDC POWER DISTRIBUTION - LINE 11194-11233	06.11.15	2	P06-0007	ISSUED FOR REVIEW
A1-2262-T-100	CONTROL SCHEMATICS	06.11.15	14	P06-0007	ISSUED FOR REVIEW
778-00-9313	DCS DISCRETE INPUTS - LINE 13300-13339	06.11.15	2	P06-0007	ISSUED FOR REVIEW
778-00-9340	DCS DISCRETE OUTPUTS - LINE 14500-14579	06.11.15	3	P06-0007	ISSUED FOR REVIEW
778-00-9341	DCS DISCRETE OUTPUTS - LINE 14600-14679	06.11.15	2	P06-0007	ISSUED FOR REVIEW
778-00-9373	DCS ANALOG INPUTS - LINE 15300-15319	06.11.15	2	P06-0007	ISSUED FOR REVIEW
778-00-9401	RS485 WIRING DIAGRAM	06.11.15	3	P06-0013	ISSUED FOR REVIEW
P06-0007-602	480VAC MOTOR CONTROL SCHEMATICS LINE 600-639	06.11.15	A	P06-0007	ISSUED FOR REVIEW
A1-2262-S-104	480 VOLT SINGLE LINE DIAGRAM	06.11.15	4	P06-0007	ISSUED FOR REVIEW
A1-2262-S-200	480 VOLT MCC LAYOUT	06.11.15	10	P06-0007	ISSUED FOR REVIEW
A1-2262-S-601	DISTRIBUTION PANEL SCHEDULES	06.11.15	14	P06-0007	ISSUED FOR REVIEW
778-00-9820	LIGHTING PANEL & FIXTURE SCHEDULE	06.11.15	2	P06-0007	ISSUED FOR REVIEW
A1-2262-S-804	INTERCONNECTION DIAGRAM	06.11.15	2	P06-0007	ISSUED FOR REVIEW

ELECTRICAL DRAWING INDEX					
DWG. NUMBER	DWG. DESCRIPTION	ISSUE DATE	REV.	SOLARIS JOB No.	REMARKS
A1-2262-S-403	CABLE SCHEDULE	06.11.15	9	P06-0007	ISSUED FOR REVIEW
778-00-9901	ELECTRICAL STANDARD INSTALLATION DETAILS	06.11.15	B	P06-0007	ISSUED FOR REVIEW
778-00-9902	ELECTRICAL STANDARD INSTALLATION DETAILS	06.11.15	B	P06-0007	ISSUED FOR REVIEW
778-00-9903	ELECTRICAL STANDARD INSTALLATION DETAILS	06.11.15	B	P06-0007	ISSUED FOR REVIEW
778-00-9904	ELECTRICAL STANDARD INSTALLATION DETAILS	06.11.15	B	P06-0007	ISSUED FOR REVIEW
778-00-9905	ELECTRICAL STANDARD INSTALLATION DETAILS	06.11.15	B	P06-0007	ISSUED FOR REVIEW



Prepared By **SOLARIS** MANAGEMENT CONSULTANTS INC.

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NOTE:  
 1. TRANSITION TO EXISTING TRAY.  
 2. PULL 4PR. #18 TO MICROMOTION.  
 3. PULL 4C#18 BELDEN FROM MVS110 TO ROC407 CONTROL UNIT.

900mm TRAY

V1200	LP650	AS600
V200FG	LP600	AS400
V200D	COMM480	AS102
V200A	COMM460	AS601
P481PC	COMM201	ANL652
P120C	AS653	ANL650
P120C	AS652	ANL601
P100PC	AS651	ANL600
LTG106	AS650	ANL400
LP651	AS602	SF102
ANL651		#2/O GND

900mm TRAY

V1200	COMM201	AS102
P481PC	COMM110	AS601
P481PC	AS653	ANL652
LP651	AS652	ANL650
LP650	AS651	ANL602
LP600	AS650	ANL601
COMM480	AS602	ANL600
COMM460	AS600	SF102
ANL651		#2/O GND

900mm TRAY

V1200	COMM201	AS102
P481PC	COMM110	AS601
P481PC	AS653	ANL652
LP651	AS652	ANL651
LP650	AS651	ANL650
LP600	AS650	ANL602
COMM480	AS602	ANL601
COMM460	AS600	ANL600
		#2/O GND

600mm TRAY

P481PC	ANL652	
AS650	LP650	
AS651	COMM201	
AS652	COMM480	
ANL651	LP651	
ANL650		#2/O GND

600mm TRAY

P481PC		
AS601		
AS602		
ANL601		
ANL602		
COMM460		#2/O GND

900mm TRAY (LOW LEVEL)

SF102	AS600	ANL650
P100PC	AS601	ANL651
P120C	AS650	ANL652
P120C	AS651	LP103
P481PC	ANL400	COMM201
P481PC	ANL600	COMM110
AS102	ANL601	COMM460
LP600	ANL602	COMM480
AS400	ANL602	COMM480
COMM1018		#2/O GND

300mm TRAY

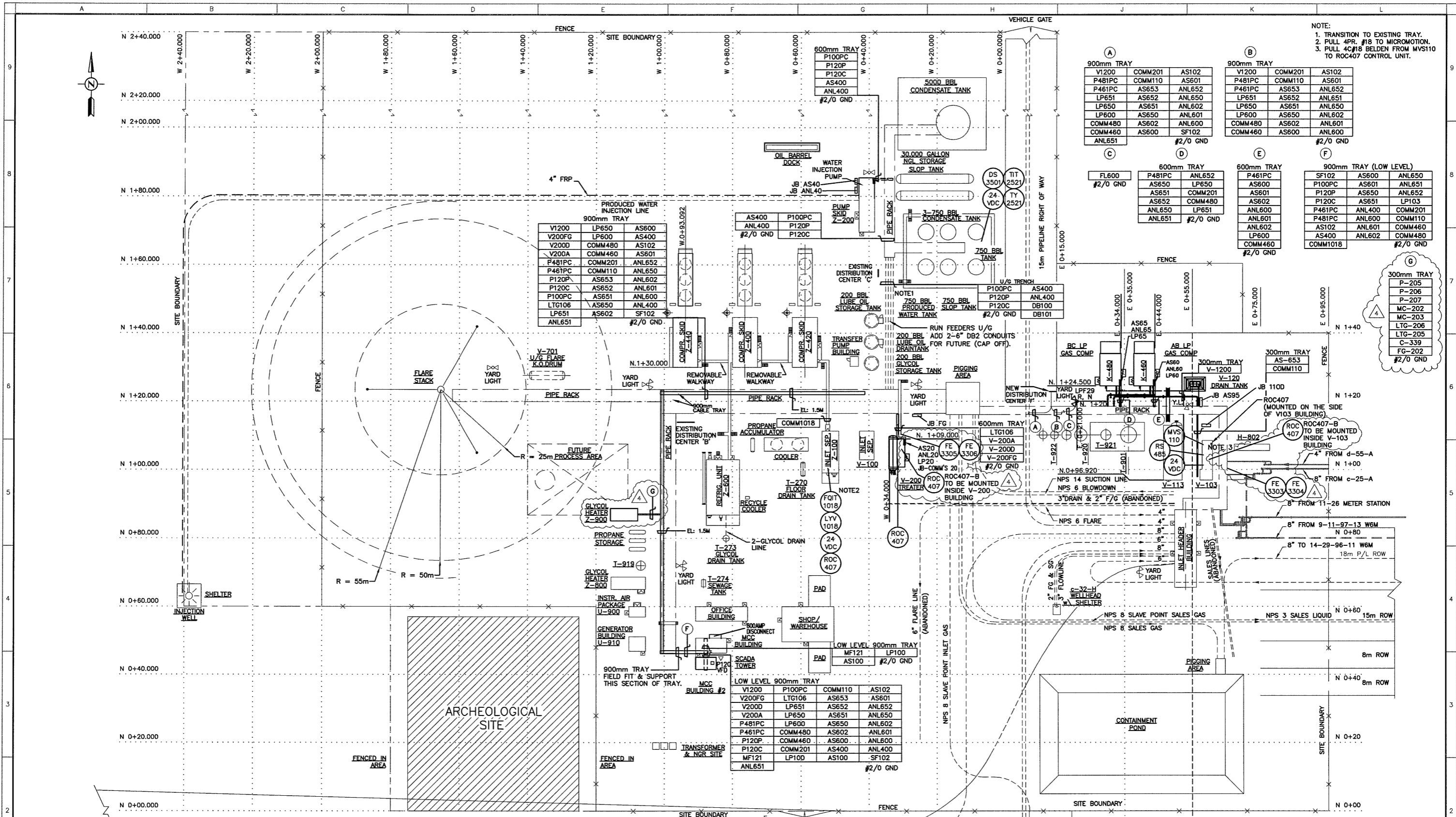
P-205	
P-206	
P-207	
MC-202	
MC-203	
LTG-206	
LTG-205	
C-339	
FG-202	
	#2/O GND

LOW LEVEL 900mm TRAY

V1200	P100PC	COMM110	AS102
V200FG	LTG106	AS653	AS601
V200D	LP651	AS652	ANL652
V200A	LP650	AS651	ANL650
P481PC	LP600	AS650	ANL602
P481PC	COMM480	AS602	ANL601
P120C	COMM460	AS600	ANL600
P120C	COMM201	AS400	ANL400
MF121	LP100	AS100	SF102
ANL651			#2/O GND

900mm TRAY

V1200	LP650	AS600
V200FG	LP600	AS400
V200D	COMM480	AS102
V200A	COMM460	AS601
P481PC	COMM201	ANL652
P120C	AS653	ANL650
P120C	AS652	ANL601
P100PC	AS651	ANL600
LTG106	AS650	ANL400
LP651	AS602	SF102
ANL651		#2/O GND



DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
		0	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FQ	TP		<p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
		1		REVISED AS NOTED	JB	TP	TP	
		2	06.05.23	ADD P120 VFD (778.16)	MR	RC		
		3		AS BUILT	JS			
		4	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL			



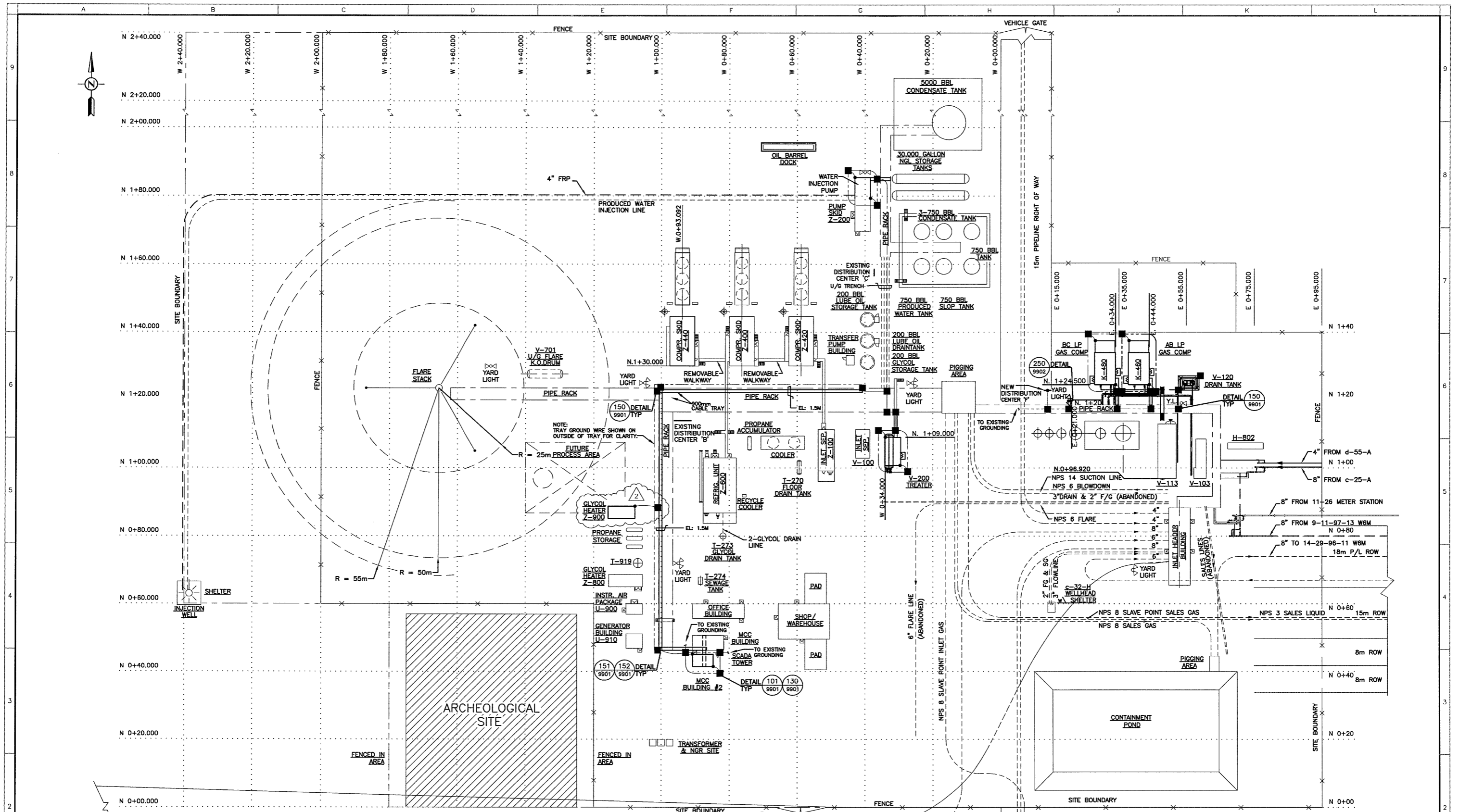
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 Fax: (604) 507-9801  
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By	DESIGNED	CHECKED	APPROVED
FQ			
DATE	05.10.19		



CHINCHAGA GAS PLANT  
 c-32-H/94-H-8  
 ELECTRICAL PLOT PLAN

SCALE	JOB NO.	DRAWING NUMBER	REV.
1:500	778.16	778-00-9010	4



**PIONEER**  
NATURAL RESOURCES CANADA INC.

**CHINCHAGA GAS PLANT**  
c-32-H/94-H-8  
ELECTRICAL GROUNDING PLAN

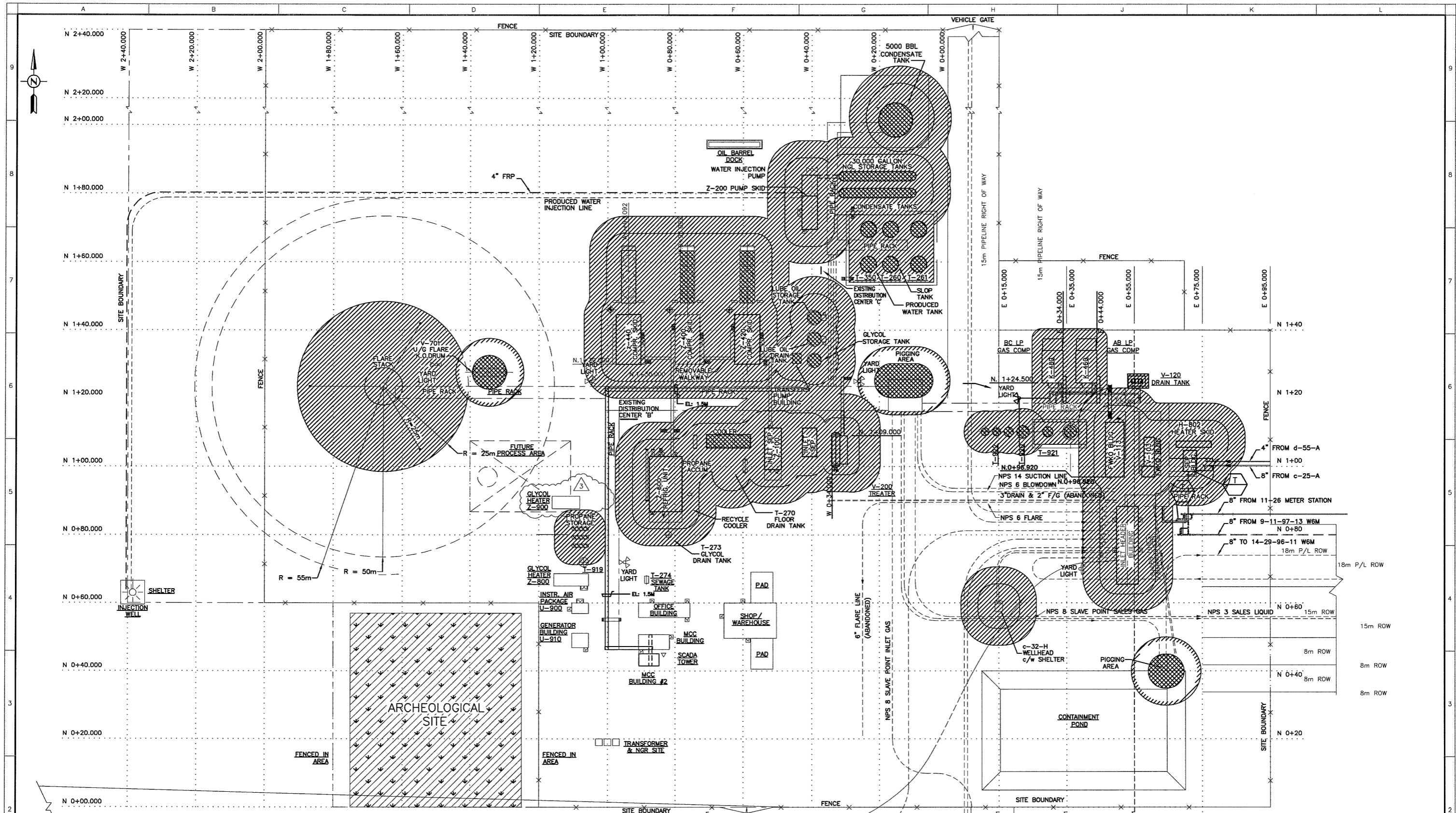
DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	0	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FQ	TP	-	<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
-	-	1	-	AS BUILT	JS	-	-	
-	-	2	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL	-	-	
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BY	DESIGNED	CHECKED	APPROVED	SCALE	JOB NO.	DRAWING NUMBER	REV.
FQ	-	-	-	1:500	778.16	778-00-9020	2
DATE	05.10.19	-	-	-	-	-	-



**PIONEER**  
NATURAL RESOURCES CANADA INC.

**CHINCHAGA GAS PLANT**  
c-32-H/94-H-8  
**ELECTRICAL AREA CLASSIFICATION**

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	0	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FQ	TP	-	
-	-	1	06.03.28	ISSUED FOR AREA CLASS UPDATED	-	TP	-	
-	-	2	-	AS BUILT	JS	-	-	
1	-	3	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL	-	-	

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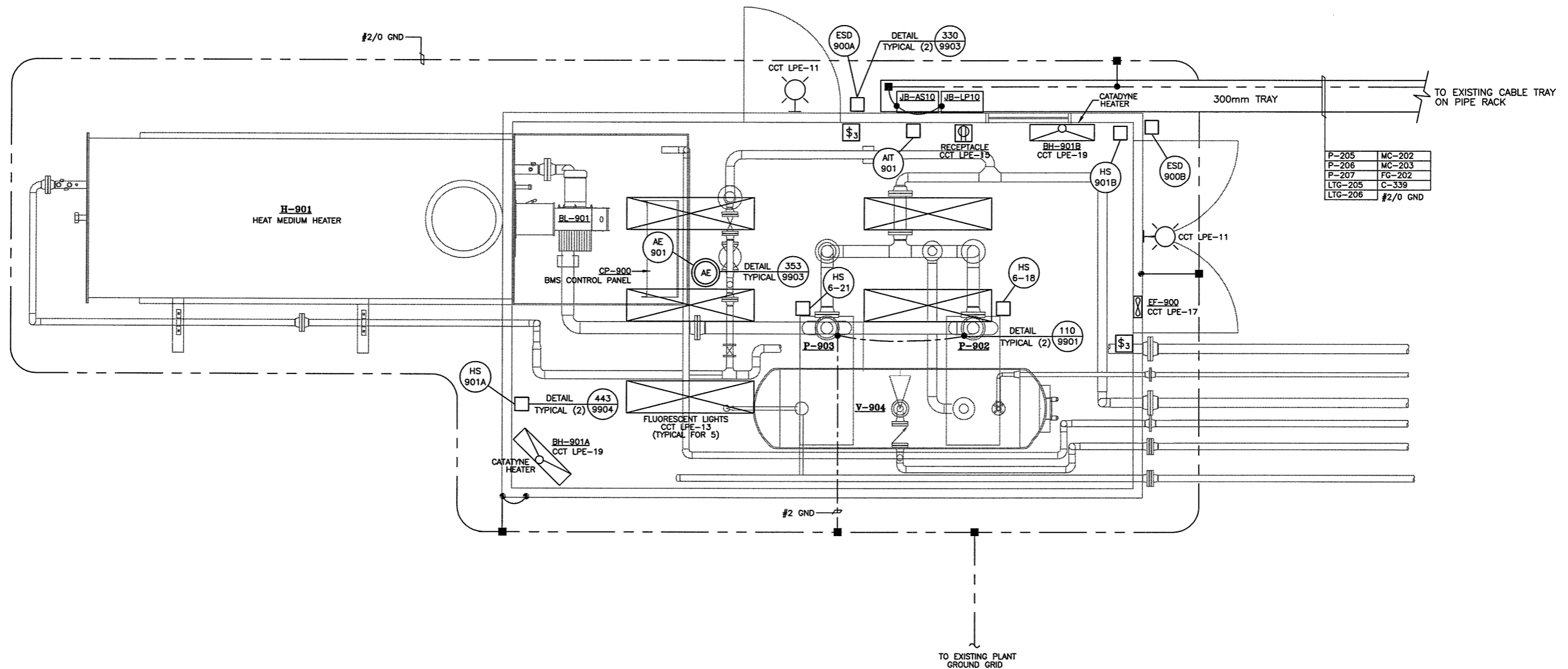
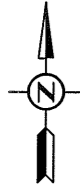
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BY	DRAWN	DESIGNED	CHECKED	APPROVED
DATE	FQ			
	05.10.19			

SCALE	JOB NO.	DRAWING NUMBER	REV.
1:500	778.16	778-00-9030	3



P-205	MC-202
P-206	MC-203
P-207	FG-202
LTC-205	C-339
LTC-206	#2/0 GND



CHINCHAGA GAS PLANT  
c-32-H/94-H-8  
GLYCOL HEAT MEDIUM BUILDING Z-900

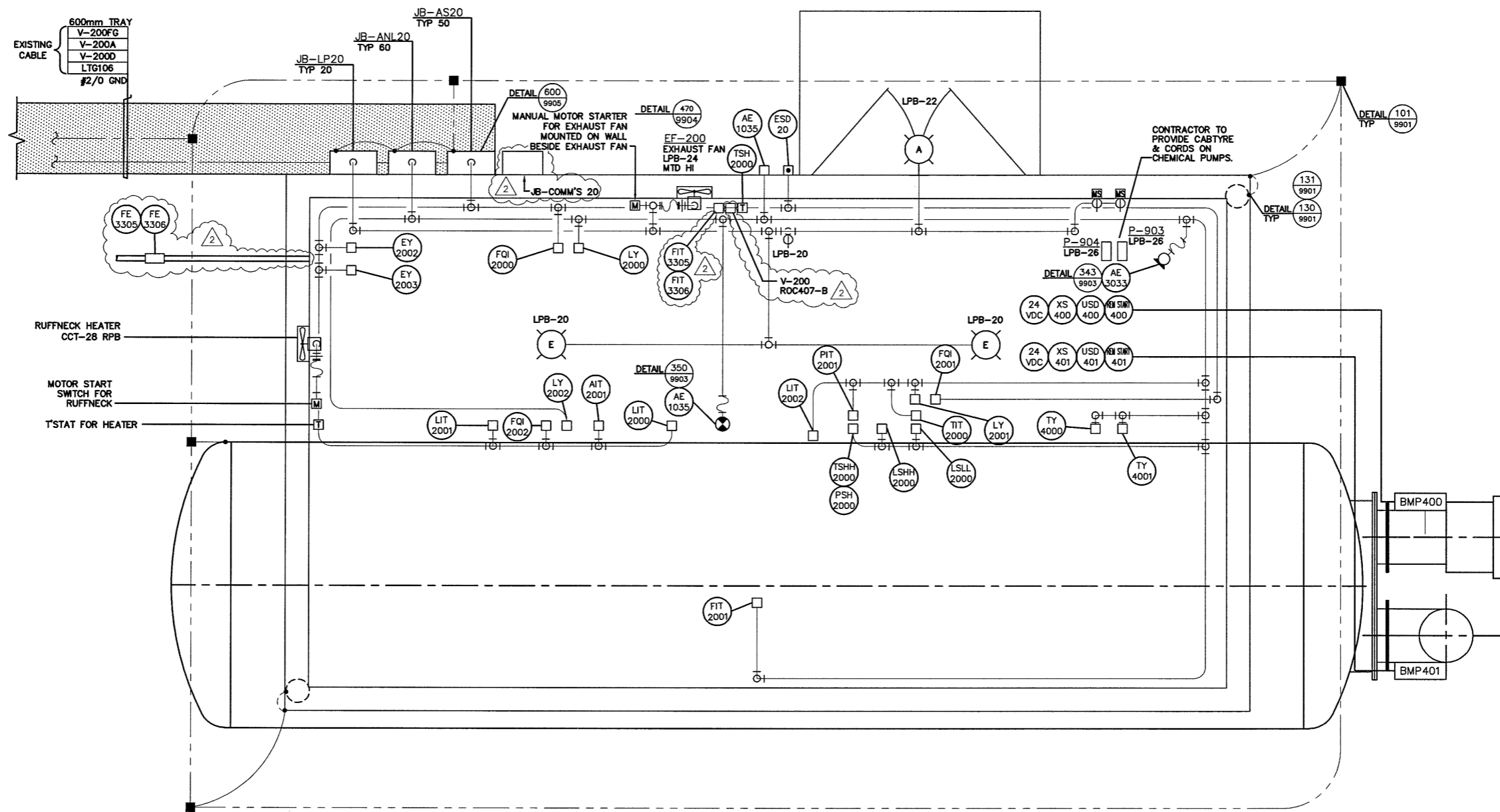
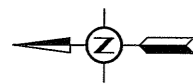
DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	A	06.11.15	ISSUED FOR REVIEW	RL			<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
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**SOLARIS** MANAGEMENT CONSULTANTS INC.

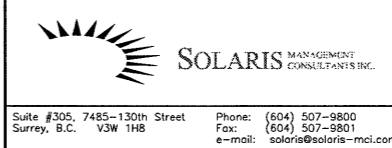
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 Fax: (604) 507-9801  
 e-mail: solaris@solaris-mc.com

BY	DATE	DESIGNED	DATE	CHECKED	DATE	APPROVED
RL	06.11.11	SR	06.11.11			

SCALE	JOB NO.	DRAWING NUMBER	REV.
1:20	P06-0007	P06-0007-604	△



DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	0	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FQ	-	-	<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
-	-	1	-	AS BUILT	JS	-	-	
-	-	2	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0013)	RL	-	-	
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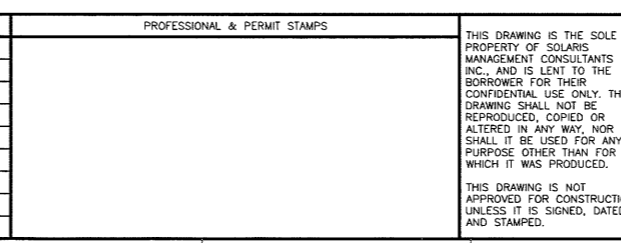



CHINCHAGA GAS PLANT  
c-32-H/94-H-8  
TREATER BUILDING LAYOUT


BY	DATE	DESIGNED	CHECKED	APPROVED	SCALE	JOB NO.	DRAWING NUMBER	REV.
FQ	05.10.19				1:20	778-16	778-00-9520	1

JUNCTION BOX No. JB-LP10 (120/208 VAC) GLYCOL HEATER BUILDING Z-900 DWG. P06-0007-604													
CABLE/CONDUIT		FROM			WIRE			JUNCTION BOX		TO		CABLE/CONDUIT	
TAG	COND. No.	I.D.	LOCATION	TB No.	NUMBER	TB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND No.	TAG	
LTC-205	1	BLK	LPE	-	E11	1	N/A	-	GLYCOL HTR BLDG	-	-	-	
	2	BLK	CCT. #E-11	-	E11N	2	N/A	-	EXTERIOR LIGHTS	-	-	-	
	3	BLK	LPE	-	E13	3	N/A	-	GLYCOL HTR BLDG	-	-	-	
	4	BLK	CCT. #E-13	-	E13N	4	N/A	-	INTERIOR LIGHTS	-	-	-	
	5	BLK	LPE	-	E15	5	N/A	-	GLYCOL HTR BLDG	-	-	-	
	6	BLK	CCT. #E-15	-	E15N	6	N/A	-	RECEPTACLES	-	-	-	
	7	BLK	LPE	-	E17	7	N/A	-	GLYCOL HTR BLDG	-	-	-	
	8	BLK	CCT. #E-17	-	E17N	8	N/A	-	EXHAUST FAN	-	-	-	
	9	BLK	LPE	-	E19	9	N/A	-	GLYCOL HTR BLDG	-	-	-	
	10	BLK	CCT. #E-19	-	E19N	10	N/A	-	CATADYNE HEATERS	-	-	-	
	11	BLK	LPE	-	E21	11	N/A	-	SPARE	-	-	-	
	12	BLK	CCT. #E-21	-	E21N	12	N/A	-	SPARE	-	-	-	
LTC-206	1	BLK	DIST. PNL	-	UPS-8H	13	N/A	-	GLYCOL BOILER	-	-	-	
	2	BLK	UPS CCT. 8	-	UPS-8N	14	N/A	-	BMS C-900	-	-	-	

JUNCTION BOX No. JB-AS10 (24VDC CONTROL) GLYCOL HEATER BUILDING Z-900 DWG. P06-0007-604												
CABLE/CONDUIT		FROM			WIRE		JUNCTION BOX		TO		CABLE/CONDUIT	
TAG	COND. No.	I.D.	LOCATION	TB No.	NUMBER	TB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND No.	TAG
C-339	1	BLK	MCP 2	129511	129511	1	N/A	C	ESD900A	-	-	-
	-	-	-	-	-	2	-	NC	-	-	-	-
	2	BLK	MCP 2	129519	120519	4	N/A	C	ESD900B	-	-	-
	3	BLK	MCP 2	R05S05 5-	133041	5	N/A	C	US-900	-	-	-
	4	BLK	MCP 2	R05S05 5+	133049	6	N/A	NC	US-900	-	-	-
	5	BLK	MCP 2	R05S05 6-	133051	7	N/A	C	UA-900	-	-	-
	6	BLK	MCP 2	R05S05 6+	133059	8	N/A	NC	UA-900	-	-	-
	7	BLK	MCP 2	R05S05 7-	133061	9	N/A	C	UC-901	-	-	-
	8	BLK	MCP 2	R05S05 7+	133069	10	N/A	NC	UC-901	-	-	-
	9	BLK	MCP 2	R05S07 27+	146611	11	N/A	+	UC-900	-	-	-
	10	BLK	MCP 2	R05S07 27-	146619	12	N/A	-	UC-900	-	-	-
	11	BLK	MCP 2	R05S07 28+	146631	13	N/A	+	USD-900	-	-	-
	12	BLK	MCP 2	R05S07 28-	146639	14	N/A	-	USD-900	-	-	-
	13	BLK	SPARE	-	-	15	N/A	-	-	-	-	-
	14	BLK	SPARE	-	-	16	N/A	-	-	-	-	-
	15	BLK	SPARE	-	-	17	N/A	-	-	-	-	-
	16	BLK	SPARE	-	-	18	N/A	-	-	-	-	-
	17	BLK	SPARE	-	-	19	N/A	-	-	-	-	-
	18	BLK	SPARE	-	-	20	N/A	-	-	-	-	-
	19	BLK	SPARE	-	-	21	N/A	-	-	-	-	-
20	BLK	SPARE	-	-	22	N/A	-	-	-	-	-	
FG-202	TR #1	RED	MCP 2	R06S05 6P	-	31	N/A	+24	-	-	-	-
	TR #1	WHT	MCP 2	R06S05 6V	-	32	N/A	SIG	AE-901	-	-	-
	TR #1	BLK	MCP 2	R06S05 6C	-	33	N/A	COM	AE-901 (GAS)	-	-	-
	TR #1	SHLD	MCP 2	GND	-	34	N/A	x	AE-901 (GAS)	-	-	-
	TR #1	RED	MCP 2	-	-	35	N/A	-	-	-	-	-
	TR #2	WHT	MCP 2	-	-	36	N/A	-	-	-	-	-
	TR #2	BLK	MCP 2	-	-	37	N/A	-	-	-	-	-
	TR #2	SHLD	MCP 2	-	-	38	N/A	-	-	-	-	-
	TR #3	RED	MCP 2	-	-	39	N/A	-	-	-	-	-
	TR #3	WHT	MCP 2	-	-	40	N/A	-	-	-	-	-
	TR #3	BLK	MCP 2	-	-	41	N/A	-	-	-	-	-
	TR #3	SHLD	MCP 2	-	-	42	N/A	-	-	-	-	-
	TR #4	RED	MCP 2	-	-	43	N/A	-	-	-	-	-
	TR #4	WHT	MCP 2	-	-	44	N/A	-	-	-	-	-
	TR #4	BLK	MCP 2	-	-	45	N/A	-	-	-	-	-
	TR #4	SHLD	MCP 2	-	-	46	N/A	-	-	-	-	-

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	A	06.11.15	ISSUED FOR REVIEW	RL	-	-	
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**PIONEER**  
 NATURAL RESOURCES CANADA INC.

**CHINCHAGA GAS PLANT**  
 c-32-H/94-H-8  
 JUNCTION BOXES

SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	P06-0007	P06-0007-603	△

**JUNCTION BOX No. JBC-103**  
(24VDC CONTROL)  
V-103 F.W.K.O. BUILDING

CONDUIT/CABLE TAG	FROM				WIRE NUMBER	JUNCTION BOX				TO			
	COND. No.	I.D.	LOCATION	TB No.		WB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND. No.	TAG	
1	BLK	CONTROL	ESD31	1843	1	N/A	N/A	NC	ESD-1031	--	--		
2	BLK	PANEL	ESD32	1844	2	N/A	N/A	NC	ESD-1032	--	--		
3	BLK	CONTROL	ESD33	1861	3	N/A	N/A	NC					
4	BLK	PANEL	ESD34	1862	4	N/A	N/A	NC					
5	BLK	CONTROL	RO3S09 5+	37141	5	N/A	N/A	C					
6	BLK	PANEL	RO2S09 8S	37149	6	N/A	N/A	NC	PSHH-1030	--	--		
7	BLK	CONTROL	RO3S09 8+	37151	7	N/A	N/A	C	LSHH-1031	--	--		
8	BLK	PANEL	RO3S09 8S	37159	8	N/A	N/A	NO	LSLL-1032	--	--		
9	BLK	CONTROL	RO3S09 7+	37161	9	N/A	N/A	C					
10	BLK	PANEL	RO3S09 7S	37169	10	N/A	N/A	NO					
11	BLK	CONTROL	RO3S09 8+	37171	11	N/A	N/A	C	LSLL-1033	--	--		
12	BLK	PANEL	RO3S09 8S	37179	12	N/A	N/A	NO					
13	BLK	CONTROL	RO3S08 CH1	36021	13	N/A	N/A	+	RY-1031	--	--		
14	BLK	PANEL	RO3S08 CH1	36029	14	N/A	N/A	--					
15	BLK	CONTROL	RO3S08 CH2	36041	15	N/A	N/A	+	RY-1035	--	--		
16	BLK	PANEL	RO3S08 CH2	36049	16	N/A	N/A	--					
17	BLK	CONTROL	RO3S08 CH3	36061	17	N/A	N/A	+	RY-1032	--	--		
18	BLK	PANEL	RO3S08 CH3	46069	18	N/A	N/A	--					
19	BLK	CONTROL	RO3S08 CH4	36081	19	N/A	N/A	+					
20	BLK	PANEL	RO3S08 CH4	36089	20	N/A	N/A	--	RY-1033	--	--		
21	BLK	CONTROL	RO3S08 CH5	36101	21	N/A	N/A	+	RY-1030	--	--		
22	BLK	PANEL	RO3S08 CH5	36109	22	N/A	N/A	--					
23	BLK	CONTROL	RO3S08 CH6	36121	23	N/A	N/A	+	RY-1037	--	--		
24	BLK	PANEL	RO3S08 CH6	36129	24	N/A	N/A	--					
25	BLK	CONTROL	RO3S08 CH8	36161	25	N/A	N/A	+	RY-1036	--	--		
26	BLK	PANEL	RO3S08 CH8	36169	26	N/A	N/A	--					
27	BLK	CONTROL	RO3S08 CH9	36181	27	N/A	N/A	+	RY-1038	--	--		
28	BLK	PANEL	RO3S08 CH9	36189	28	N/A	N/A	--					
29	BLK	CONTROL	RO3S08 CH10	36201	29	N/A	N/A	+	RY-1039	--	--		
30	BLK	PANEL	RO3S08 CH10	36209	30	N/A	N/A	--					
1	BLK	CONTROL	RO3S09 1+	37101	31	N/A	N/A	C					
2	BLK	PANEL	RO3S09 1S	37109	32	N/A	N/A	NO	PSLL-8020	--	--		
3	BLK	CONTROL	RO3S09 2+	37111	33	N/A	N/A	C	LSLL-8021	--	--		
4	BLK	PANEL	RO3S09 2S	37119	34	N/A	N/A	NO					
5	BLK	CONTROL	RO3S09 3+	37121	35	N/A	N/A	C	FSLL-8041	--	--		
6	BLK	PANEL	RO3S09 3S	37129	36	N/A	N/A	NO					
7	BLK	CONTROL	RO3S09 4+	37131	37	N/A	N/A	C	TSLL-8041	--	--		
8	BLK	PANEL	RO3S09 4S	37139	38	N/A	N/A	NO					
9	BLK	CONTROL	RO3S08 CH7	36141	39	N/A	N/A	+	RY-8020	--	--		
10	BLK	PANEL	RO3S08 CH7	36149	40	N/A	N/A	--					
11	BLK	CONTROL	RO3S08 CH11	36221	41	N/A	N/A	+	RY-1034	--	--		
12	BLK	PANEL	RO3S08 CH11	36229	42	N/A	N/A	--					
13	BLK	CONTROL	RO3S09 9+	37181	43	N/A	N/A	C	LSLL-1031	--	--		
14	BLK	PANEL	RO3S09 9S	37189	44	N/A	N/A	NO					
15	BLK	CONTROL	3.9,11	37201	45	N/A	N/A	C	PSHH-111C	--	--		
16	BLK	PANEL	3.9,11	37209	46	N/A	N/A	NO					
17	BLK	CONTROL	3.9,14	37241	47	N/A	N/A	--	PSHH-101	--	--		
18	BLK	PANEL	3.9,14	37249	48	N/A	N/A	--					
19	BLK	CONTROL	3.9,13	37231	49	N/A	N/A	--	PSLL-101	--	--		
20	BLK	PANEL	3.9,13	37239	50	N/A	N/A	--					
1	BLK	P-804A MCC	7	89141	51	N/A	N/A	--	P-804A CONTROL STATION	--	--		
2	BLK	MCC	8	89142	52	N/A	N/A	--					
3	BLK	MCC	10	89143	53	N/A	N/A	--					
4	BLK	P-804B MCC	7	89471	54	N/A	N/A	--	P-804B CONTROL STATION	--	--		
5	BLK	MCC	8	89472	55	N/A	N/A	--					
6	BLK	MCC	10	89473	56	N/A	N/A	--					
7	BLK	MCC	--	SPARE 4	57	N/A	N/A	--					
8	BLK	480V MCC	--	SPARE 3	58	N/A	N/A	--					
9	BLK	MCC	--	SPARE 2	59	N/A	N/A	--					
10	BLK	MCC	--	SPARE 1	60	N/A	N/A	--					

**JUNCTION BOX No. JBL-103**  
(120/208VAC)  
V-103 F.W.K.O. BUILDING

CONDUIT/CABLE TAG	FROM				WIRE NUMBER	JUNCTION BOX				TO			
	COND. No.	I.D.	LOCATION	TB No.		WB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND. No.	TAG	
1	BLK	DISTRIB.	--	D14	1	N/A	N/A	--	RECEPTACLE	--	--		
2	BLK	PANEL 'D'	--	D14N	2	N/A	N/A	--					
3	BLK	DISTRIB.	--	D16	3	N/A	N/A	--	INTERIOR LIGHTS	--	--		
4	BLK	PANEL 'D'	--	D16N	4	N/A	N/A	--					
5	BLK	DISTRIB.	--	D18	5	N/A	N/A	--	EXTERIOR LIGHTS	--	--		
6	BLK	PANEL 'D'	--	D18N	6	N/A	N/A	--					
7	BLK	DISTRIB.	--	D20	7	N/A	N/A	--	EXHAUST FAN	--	--		
8	BLK	PANEL 'D'	--	D20N	8	N/A	N/A	--					
9	BLK	DISTRIB.	--	D40	9	N/A	N/A	--	HEAT TRACE POWER	--	--		
10	BLK	PANEL 'D'	--	D42	10	N/A	N/A	--					
11	BLK	DISTRIB.	--	D17	11	N/A	N/A	--	HEAT TRACE POWER	--	--		
12	BLK	PANEL 'D'	--	D19	12	N/A	N/A	--					
13	BLK	DISTRIB.	--	D17	13	N/A	N/A	--	HEAT TRACE POWER	--	--		
14	BLK	PANEL 'D'	--	D19	14	N/A	N/A	--					
15	BLK	LTG-D17	--	--	15	N/A	N/A	--	LTG-D17	--	--		
16	BLK	LTG-D19	--	--	16	N/A	N/A	--	LTG-D19	--	--		
17	BLK	LTG-D40	--	--	17	N/A	N/A	--	LTG-D40	--	--		
18	BLK	LTG-D42	--	--	18	N/A	N/A	--	LTG-D42	--	--		

**JUNCTION BOX No. JB-110P**  
(120/208VAC)  
EAST YARD RACK

CONDUIT/CABLE TAG	FROM				WIRE NUMBER	JUNCTION BOX				TO			
	COND. No.	I.D.	LOCATION	TB No.		WB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND. No.	TAG	
1	BLK	DISTRIB.	--	--	1	N/A	N/A	--	SPARE	--	--		
2	BLK	PANEL 'D'	--	--	2	N/A	N/A	--	SPARE	--	--		
3	BLK	DISTRIB.	--	--	3	N/A	N/A	--	SPARE	--	--		
4	BLK	PANEL 'D'	--	--	4	N/A	N/A	--	SPARE	--	--		
5	BLK	DISTRIB.	--	--	5	N/A	N/A	--	SPARE	--	--		
6	BLK	PANEL 'D'	--	--	6	N/A	N/A	--	SPARE	--	--		
7	BLK	DISTRIB.	--	--	7	N/A	N/A	--	SPARE	--	--		
8	BLK	PANEL 'D'	--	--	8	N/A	N/A	--	SPARE	--	--		
9	BLK	DISTRIB.	--	--	9	N/A	N/A	--	SPARE	--	--		
10	BLK	PANEL 'D'	--	--	10	N/A	N/A	--	SPARE	--	--		
11	BLK	DISTRIB.	--	--	11	N/A	N/A	--	SPARE	--	--		
12	BLK	PANEL 'D'	--	--	12	N/A	N/A	--	HEAT TRACE POWER	--	--		
13	BLK	DISTRIB.	--	--	13	N/A	N/A	--	D-29	--	--		
14	BLK	PANEL 'D'	--	--	14	N/A	N/A	--	D-31	--	--		
15	BLK	DISTRIB.	--	--	15	N/A	N/A	--	D-33	--	--		
16	BLK	PANEL 'D'	--	--	16	N/A	N/A	--	HEAT TRACE POWER	--	--		
17	BLK	DISTRIB.	--	--	17	N/A	N/A	--	HEAT TRACE POWER	--	--		
18	BLK	PANEL 'D'	--	--	18	N/A	N/A	--					
19	BLK	DISTRIB.	--	--	19	N/A	N/A	--					
20	BLK	PANEL 'D'	--	--	20	N/A	N/A	--					

**JUNCTION BOX No. JB-110C**  
(24VDC CONTROL)  
EAST YARD RACK

CONDUIT/CABLE TAG	FROM				WIRE NUMBER	JUNCTION BOX				TO			
	COND. No.	I.D.	LOCATION	TB No.		WB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND. No.	TAG	
PR 11	WHT	R1,5,6 CH 7	82		1	N/A	N/A	--	PY-1032				
BLK	SHLD		83		2	N/A	N/A	--					
WHT			81		3	N/A	N/A	--					
BLK	SHLD		84		4	N/A	N/A	--					
PR 8	WHT		78		5	N/A	N/A	--	PT-1114				
BLK	SHLD		79		6	N/A	N/A	--					
PR 9	WHT		77		7	N/A	N/A	--	PT-1115				
BLK	SHLD		80		8	N/A	N/A	--					
WHT			*		9	N/A	N/A	--					
PR 2	BLK		*		10	N/A	N/A	--	PT-1116				
BLK	SHLD		*		11	N/A	N/A	--					
PR 4	WHT		*		12	N/A	N/A	--					
BLK	SHLD		*		13	N/A	N/A	--					
PR 6	WHT		*		14	N/A	N/A	--					
BLK	SHLD		*		15	N/A	N/A	--					
WHT			*		16	N/A	N/A	--					
PR 5	BLK		22		17	N/A	N/A	--					
BLK	SHLD		23		18	N/A	N/A	--					
WHT			24		19	N/A	N/A	--					
PR 1	BLK		27		20	N/A	N/A	--					
BLK	SHLD		28		21	N/A	N/A	--					
WHT			29		22	N/A	N/A	--					
PR 3	BLK		31		23	N/A	N/A	--					
BLK	SHLD		32		24	N/A	N/A	--					
WHT			33		25	N/A	N/A	--					
PR 10	BLK		40		26	N/A	N/A	--	PT-1110				
BLK	SHLD		41		27	N/A	N/A	--					
WHT			42		28	N/A	N/A	--					
BLK	SHLD		37		29	N/A	N/A	--					
WHT			38		30	N/A	N/A	--					
BLK	SHLD		39		31	N/A	N/A	--					
WHT			43		32	N/A	N/A	--					
BLK	SHLD		44		33	N/A	N/A	--					
WHT			45		34	N/A	N/A	--					
BLK	SHLD		46		35	N/A	N/A	--					
WHT			47		36	N/A	N/A	--					
BLK	SHLD		48		37	N/A	N/A	--					
WHT			49		38	N/A	N/A	--					
BLK	SHLD		50		39	N/A	N/A	--					



**JUNCTION BOX No. JBC-104**  
Y-103 F.W.K.O. BUILDING  
(24VDC CONTROL)

CONDUIT/CABLE			FROM		WIRE		JUNCTION BOX		TO		CONDUIT/CABLE		
TAG	COND. No.	I.D.	LOCATION	TB No.	NUMBER	TB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND. No.	TAG	
PR #1	WHT	SHLD	CONTROL PANEL	R01S04 27+	TT-1031	1	N/A	+	TT-1031				
	BLK	SHLD		R01S04 27-		2	N/A	-					
PR #2	WHT	SHLD	CONTROL PANEL	R01S04 29+	LT-1031	3	N/A	x	LT-1031				
	BLK	SHLD		R01S04 29-		4	N/A	-					
PR #3	WHT	SHLD	CONTROL PANEL	R01S04 30+	LT-1032	5	N/A	+	LT-1032				
	BLK	SHLD		R01S04 30-		6	N/A	-					
PR #4	WHT	SHLD	CONTROL PANEL	R01S04 31+	LT-1033	7	N/A	+	LT-1033				
	BLK	SHLD		R01S04 31-		8	N/A	-					
PR #5	WHT	SHLD	CONTROL PANEL	R01S04 32+	PT-1035	9	N/A	x	PT-1035				
	BLK	SHLD		R01S04 32-		10	N/A	-					
PR #6	WHT	SHLD	CONTROL PANEL	R01S06 7+	PY-1032	11	N/A	+	PY-1032				
	BLK	SHLD		R01S06 7-		12	N/A	-					
PR #7	WHT	SHLD	CONTROL PANEL	R01S06 27+	LY-1031	13	N/A	+	LY-1031				
	BLK	SHLD		R01S06 27-		14	N/A	-					
PR #8	WHT	SHLD	CONTROL PANEL	R01S06 CH11	PY-1033	15	N/A	+	PY-1033				
	BLK	SHLD				16	N/A	-					
PR #9	WHT	SHLD	CONTROL PANEL		SPARE	17	N/A	+					
	BLK	SHLD				18	N/A	-					
PR #10	WHT	SHLD	CONTROL PANEL		SPARE	19	N/A	+					
	BLK	SHLD				20	N/A	-					
PR #11	WHT	SHLD	CONTROL PANEL	TS-RS485-TX	FE-3303/3304	21	N/A	+	V-103 R00407-B				
	BLK	SHLD		TS-RS485-RX		22	N/A	-					
PR #12	WHT	SHLD	CONTROL PANEL	R01S05 1+	PT-1032	23	N/A	+	PT-1032				
	BLK	SHLD		R01S05 1-		24	N/A	-					
PR #13	WHT	SHLD	CONTROL PANEL		SPARE	25	N/A	+					
	BLK	SHLD				26	N/A	-					
PR #14	WHT	SHLD	CONTROL PANEL		SPARE	27	N/A	+					
	BLK	SHLD				28	N/A	-					
PR #15	WHT	SHLD	CONTROL PANEL		PT-1114	29	N/A	+	PT-1114				
	BLK	SHLD				30	N/A	-					
PR #16	WHT	SHLD	CONTROL PANEL		PT-1115	31	N/A	+	PT-1115				
	BLK	SHLD				32	N/A	-					
PR #17	WHT	SHLD	CONTROL PANEL		PT-1116	33	N/A	+	PT-1116				
	BLK	SHLD				34	N/A	-					
PR #18	WHT	SHLD	CONTROL PANEL	R01S03 CH11	PT-1110	35	N/A	+	PT-1110				
	BLK	SHLD				36	N/A	-					
PR #19	WHT	SHLD	CONTROL PANEL		SPARE	37	N/A	+					
	BLK	SHLD				38	N/A	-					
PR #20	WHT	SHLD	CONTROL PANEL		SPARE 1	39	N/A	+					
	BLK	SHLD				40	N/A	-					

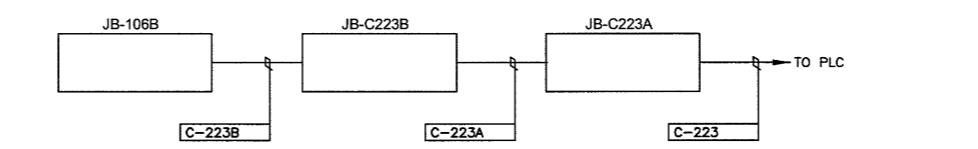
CONDUIT/CABLE			FROM		WIRE		JUNCTION BOX		TO		CONDUIT/CABLE		
TAG	COND. No.	I.D.	LOCATION	TB No.	NUMBER	TB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND. No.	TAG	
TRI #1	WHT	SHLD	CONTROL PANEL	R01S10 3P	AT-1031	61	N/A	+	AT-1031				
	BLK	SHLD		R01S10 3V		62	N/A	-					
TRI #2	WHT	SHLD	CONTROL PANEL	R01S10 4P	AT-1032	63	N/A	+	AT-1032				
	BLK	SHLD		R01S10 4V		64	N/A	-					
TRI #3	WHT	SHLD	CONTROL PANEL	R01S10 5P	BT-1031	65	N/A	+	BT-1031				
	BLK	SHLD		R01S10 5V		66	N/A	-					
TRI #4	WHT	SHLD	CONTROL PANEL	R01S10 6P	BT-1032	67	N/A	+	BT-1032				
	BLK	SHLD		R01S10 6V		68	N/A	-					
TRI #5	WHT	SHLD	CONTROL PANEL	R01S10 7P	AT-201	69	N/A	+	AT-201				
	BLK	SHLD		R01S10 7V		70	N/A	-					
TRI #6	WHT	SHLD	CONTROL PANEL	R01S10 8P	BT-201	71	N/A	+	BT-201				
	BLK	SHLD		R01S10 8V		72	N/A	-					
TRI #7	WHT	SHLD	CONTROL PANEL	R01S10 9P	SPARE 2	73	N/A	+					
	BLK	SHLD		R01S10 9V		74	N/A	-					
TRI #8	WHT	SHLD	CONTROL PANEL	R01S10 10P	SPARE 1	75	N/A	+					
	BLK	SHLD		R01S10 10V		76	N/A	-					

**JUNCTION BOX No. JBC-106A**  
Z-200 PUMP SKID  
(24VDC CONTROL)

CONDUIT/CABLE			FROM		WIRE		JUNCTION BOX		TO		CONDUIT/CABLE		
TAG	COND. No.	I.D.	LOCATION	TB No.	NUMBER	TB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND. No.	TAG	
PR #1	WHT	SHLD	CONTROL PANEL	R01S04 24+	LT-2812	1	N/A	+	LT-2812				
	BLK	SHLD		R01S04 24-		2	N/A	-					
PR #2	WHT	SHLD	CONTROL PANEL		FE-2940	3	N/A	x	FE-2940				
	BLK	SHLD				4	N/A	-					
PR #3	WHT	SHLD	CONTROL PANEL		SPARE 14	5	N/A	+					
	BLK	SHLD				6	N/A	-					
PR #4	WHT	SHLD	CONTROL PANEL		SPARE 13	7	N/A	+					
	BLK	SHLD				8	N/A	-					
PR #5	WHT	SHLD	CONTROL PANEL		SPARE 12	9	N/A	+					
	BLK	SHLD				10	N/A	-					
PR #6	WHT	SHLD	CONTROL PANEL		SPARE 11	11	N/A	+					
	BLK	SHLD				12	N/A	-					
PR #7	WHT	SHLD	CONTROL PANEL		SPARE 10	13	N/A	+					
	BLK	SHLD				14	N/A	-					
PR #8	WHT	SHLD	CONTROL PANEL		SPARE 9	15	N/A	+					
	BLK	SHLD				16	N/A	-					
PR #9	WHT	SHLD	CONTROL PANEL		SPARE 8	17	N/A	+					
	BLK	SHLD				18	N/A	-					
PR #10	WHT	SHLD	CONTROL PANEL		SPARE 7	19	N/A	+					
	BLK	SHLD				20	N/A	-					
PR #11	WHT	SHLD	CONTROL PANEL		SPARE 6	21	N/A	+					
	BLK	SHLD				22	N/A	-					
PR #12	WHT	SHLD	CONTROL PANEL		SPARE 5	23	N/A	+					
	BLK	SHLD				24	N/A	-					
PR #13	WHT	SHLD	CONTROL PANEL		SPARE 4	25	N/A	+					
	BLK	SHLD				26	N/A	-					
PR #14	WHT	SHLD	CONTROL PANEL		SPARE 3	27	N/A	+					
	BLK	SHLD				28	N/A	-					
PR #15	WHT	SHLD	CONTROL PANEL		SPARE 2	29	N/A	+					
	BLK	SHLD				30	N/A	-					
PR #16	WHT	SHLD	CONTROL PANEL		SPARE 1	31	N/A	+					
	BLK	SHLD				32	N/A	-					

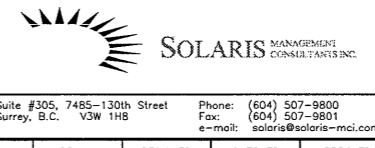
**JUNCTION BOX No. JBC-106B**  
Z-200 PUMP SKID  
(24VDC CONTROL)

CONDUIT/CABLE			FROM		WIRE		JUNCTION BOX		TO		CONDUIT AND CABLE		
TAG	COND. No.	I.D.	LOCATION	TB No.	NUMBER	TB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND. No.	TAG	
1	BLK	CONTROL	PANEL	R03S09 17+	37431	1	N/A	C	LSHH-2811				
	BLK	CONTROL		R03S09 17-		2	N/A	NC					
2	BLK	PANEL			21511	3	N/A		RECYCLE LOW FLOW				
	BLK	PANEL				4	N/A						
3	BLK	PANEL			29441	5	N/A		EY-1015				
	BLK	PANEL				6	N/A						
4	BLK	PANEL			29448	7	N/A		OL FLOW SWITCH				
	BLK	PANEL				8	N/A						
5	BLK	CONTROL			32231	9	N/A		FSSL-287				
	BLK	CONTROL				10	N/A						
6	BLK	CONTROL			40269	11	N/A		FSSL-288				
	BLK	CONTROL				12	N/A						
7	BLK	CONTROL			40271	13	N/A		DS-3501				
	BLK	CONTROL				14	N/A						
8	BLK	CONTROL			22239	15	N/A		DT-3501				
	BLK	CONTROL				16	N/A						
9	BLK	CONTROL			CP-64	17	N/A						
	BLK	CONTROL				18	N/A						
10	BLK	PANEL			SPARE 3	19	N/A						
	BLK	PANEL				20	N/A						



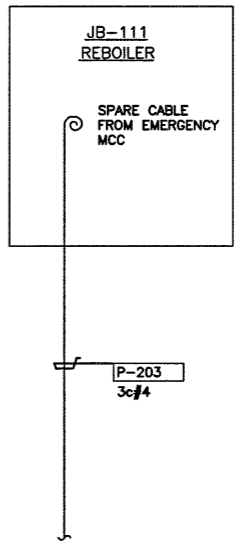
- NOTES:**
- SPARE PAIRS 1-4 OF CABLE C-240 SHALL BE TAPED AND LEFT COILED IN BOTTOM OF JBC-104.
  - SPARE TRIADS #1 & 2 OF CABLE FG-201 SHALL BE TAPED AND LEFT COILED IN BOTTOM OF JBC-104.

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
		7	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0013)	RL			
		6	03.03.28	AS-BUILT (778.07)	JB	TP		
		5	00.05.16	AS-BUILT CONCISE DESIGN ENGINEERING	QB			
		4	00.01.25	I.F.C. CONCISE DESIGN ENGINEERING	GJD			
		3	99.12.03	ALBERTA GAS SEPARATOR ADDITION (ISSUED FOR CONSTR. REVIEW)	KL			
		2	99.10.25	ALBERTA GAS SEPARATOR ADDITION (ISSUED FOR BID)	KL			
		1	99.05.20	AS BUILT 1999 PLANT ADDITION (AS PER NOR-TECH SYSTEM M/UPS)	KL			
		0	99.02.12	ISSUED FOR CONSTRUCTION	KL			




**JUNCTION BOX No. JB-COMM'S 20**

CONDUIT/CABLE			FROM		WIRE		JUNCTION BOX		TO		CONDUIT/CABLE		
TAG	COND. No.	I.D.	LOCATION	TB No.	NUMBER	TB No.	JUMPER	TB No.	LOCATION/TAG No.	I.D.	COND. No.	TAG	
COMM-201	PR #1	SHLD	CONTROL PANEL	GND	COMM-201	1	N/A	5	V-200 ROC-407	-	-	COMM-201A	
		WHT		TS-RS485-TX		2	N/A	3					
		BLK		TS-RS485-RX		3	N/A	X					
	PR #2	SHLD	CONTROL PANEL	GND	CB-54	-	4	N/A	24VDC+	V-200 ROC-407	-	-	-
		WHT		TS-31 CBS4(+)			5	N/A	-				
		BLK		TS-31 CBS4(-)			6	N/A	-				
	PR #3	SHLD	CONTROL PANEL	GND	COMM-203	-	7	N/A	5	V-200 ROC407-B	-	-	COMM-203A
		WHT		TS-RS485-TX			8	N/A	3				
		BLK		TS-RS485-RX			9	N/A	X				
	PR #4	SHLD	CONTROL PANEL	GND	CB-50	-	10	N/A	24VDC+	V-200 ROC407-B	-	-	-
		WHT		TS-31 CBS9(+)			11	N/A	24VDC-				
		BLK		TS-31 CBS9(-)			12	N/A	-				
-	-	-	-	-	-	13	N/A	-	-	-	-	-	
-	-	-	-	-	-	14	N/A	-	-	-	-	-	
-	-	-	-	-	-	15	N/A	-	-	-	-	-	
-	-	-	-	-	-	16	N/A	-	-	-	-	-	
-	-	-	-	-	-	17	N/A	-	-	-	-	-	
-	-	-	-	-	-	18	N/A	-	-	-	-	-	
-	-	-	-	-	-	19	N/A	-	-	-	-	-	
-	-	-	-	-	-	20	N/A	-	-	-	-	-	
-	-	-	-	-	-	21	N/A	-	-	-	-	-	
-	-	-	-	-	-	22	N/A	-	-	-	-	-	
-	-	-	-	-	-	23	N/A	-	-	-	-	-	
-	-	-	-	-	-	24	N/A	-	-	-	-	-	
-	-	-	-	-	-	25	N/A	-	-	-	-	-	
-	-	-	-	-	-	26	N/A	-	-	-	-	-	
-	-	-	-	-	-	27	N/A	-	-	-	-	-	
-	-	-	-	-	-	28	N/A	-	-	-	-	-	
-	-	-	-	-	-	29	N/A	-	-	-	-	-	
-	-	-	-	-	-	30	N/A	-	-	-	-	-	




DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	A	06.11.15	ISSUED FOR REVIEW	RL	-	-	<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	


**SOLARIS** MANAGEMENT CONSULTANTS INC.

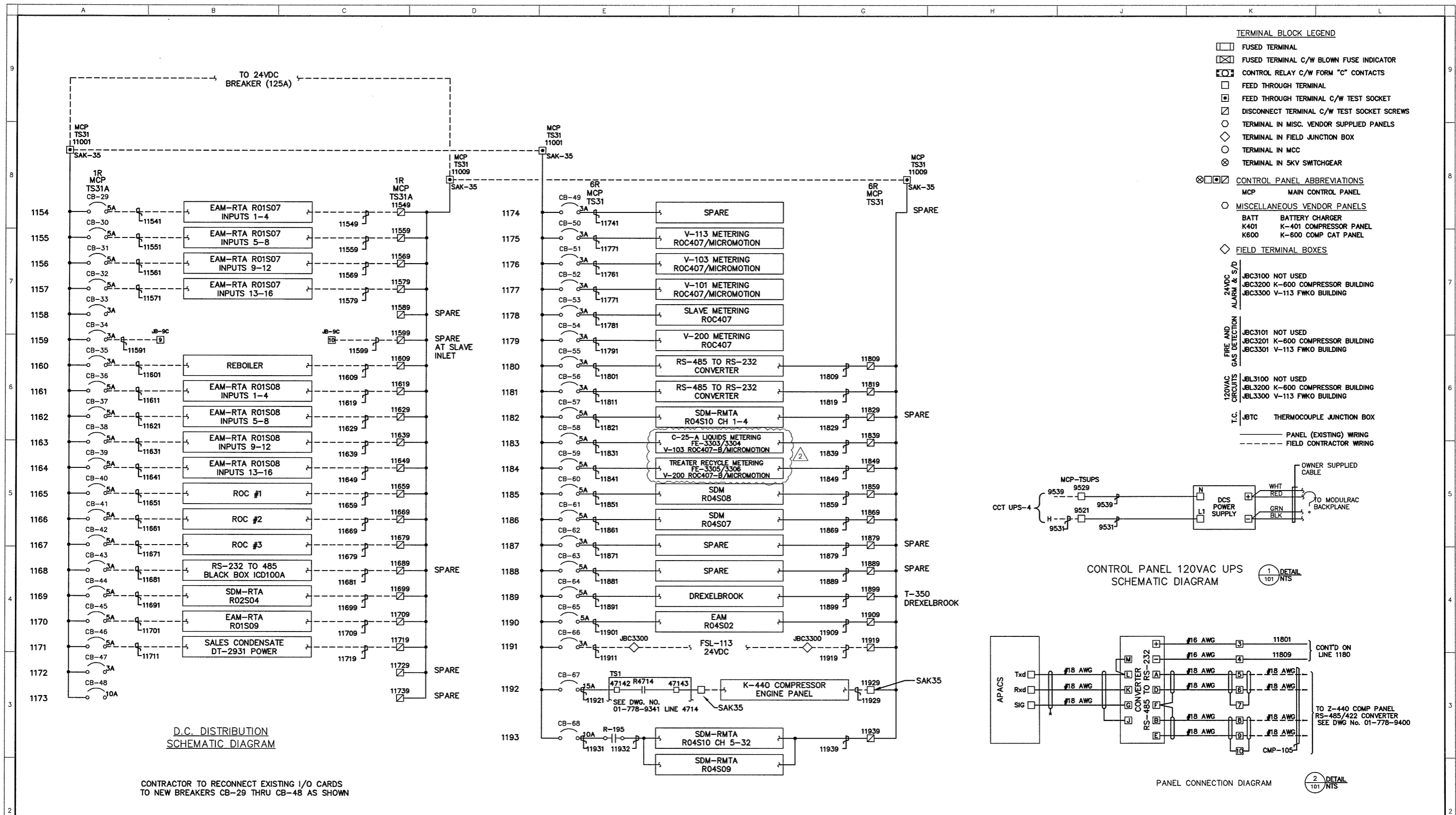
Suite #305, 7485-130th Street Phone: (604) 507-9800  
 Surrey, B.C. V3W 1H8 Fax: (604) 507-9801  
 e-mail: solaris@solaris-mci.com

DRAWN	DESIGNED	CHECKED	APPROVED
BY RL	SR		
DATE 06.11.07	06.11.03		


**PIONEER**  
 NATURAL RESOURCES CANADA INC.

**CHINCHAGA GAS PLANT**  
 c-32-H/94-H-8  
**JUNCTION BOX DETAILS**

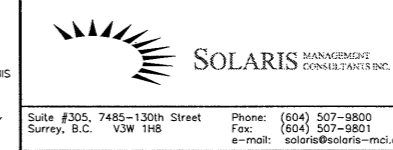
SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	P06-0013	P06-0013-601	A



**D.C. DISTRIBUTION SCHEMATIC DIAGRAM**

CONTRACTOR TO RECONNECT EXISTING I/O CARDS TO NEW BREAKERS CB-29 THRU CB-48 AS SHOWN

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
		B	01.11.27	ISSUED FOR COMPRESSOR & F.W.K.O. ADDITION BID	LG			<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
		C	01.12.19	ISSUED FOR PANEL CHANGES AS NOTED	GAC			
		0	01.12.21	ISSUED FOR K-440 COMP & V-113 FWKO ADDITION CONSTR.	LG			
		1	02.02.02	AS-BUILT	LG			
		2	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0013)	RL			



**CHINCHAGA GAS PLANT**  
 c-32-H/94-H-8  
 24VDC POWER DISTRIBUTION - LINE 1154-1193

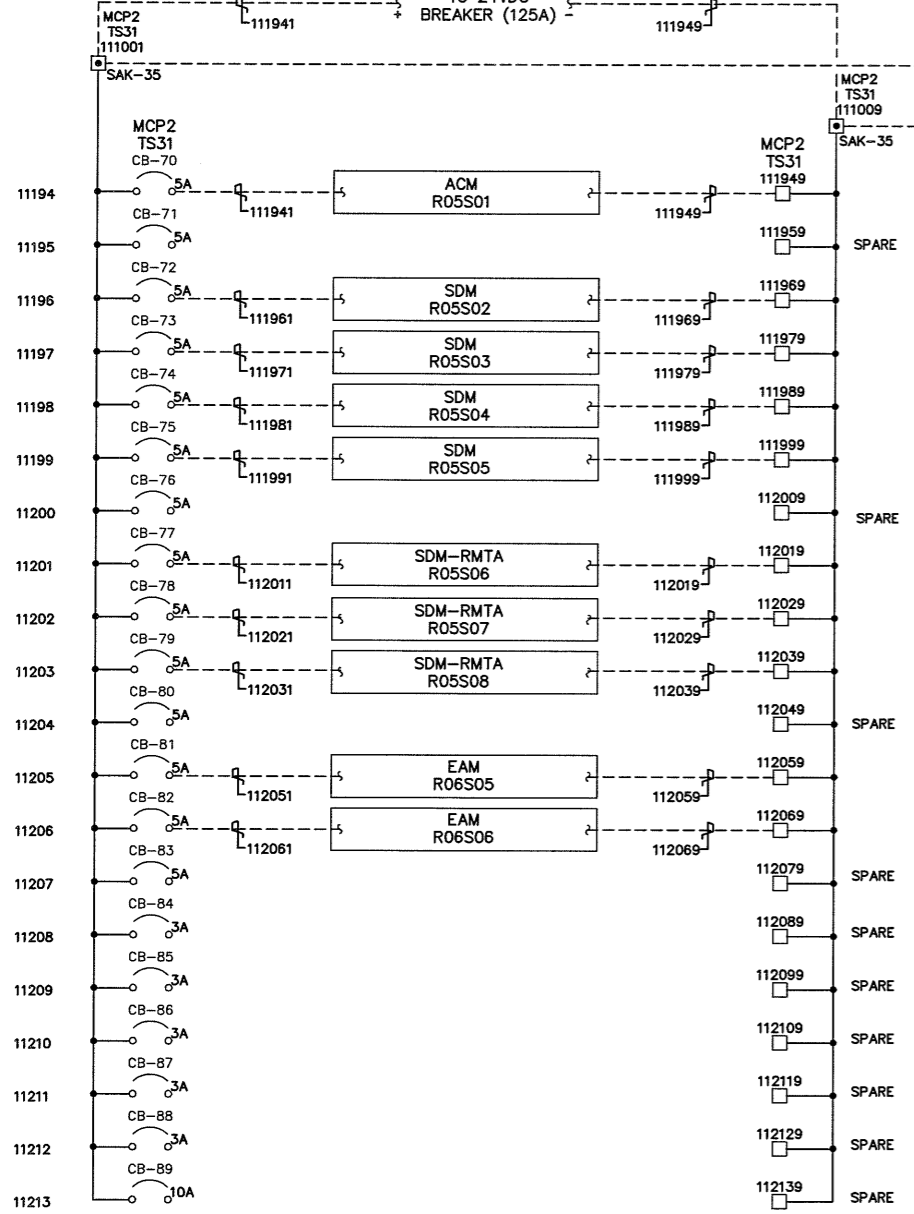
SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	01-778.04	01-778-9305	2

CONT'D ON DWG No.  
01-778-9305  
TO 24VDC  
BREAKER (125A)

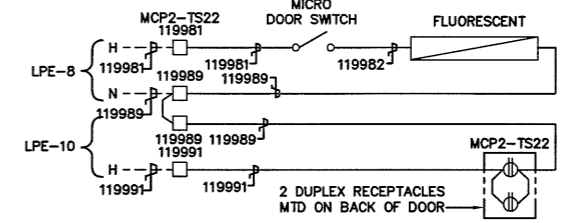
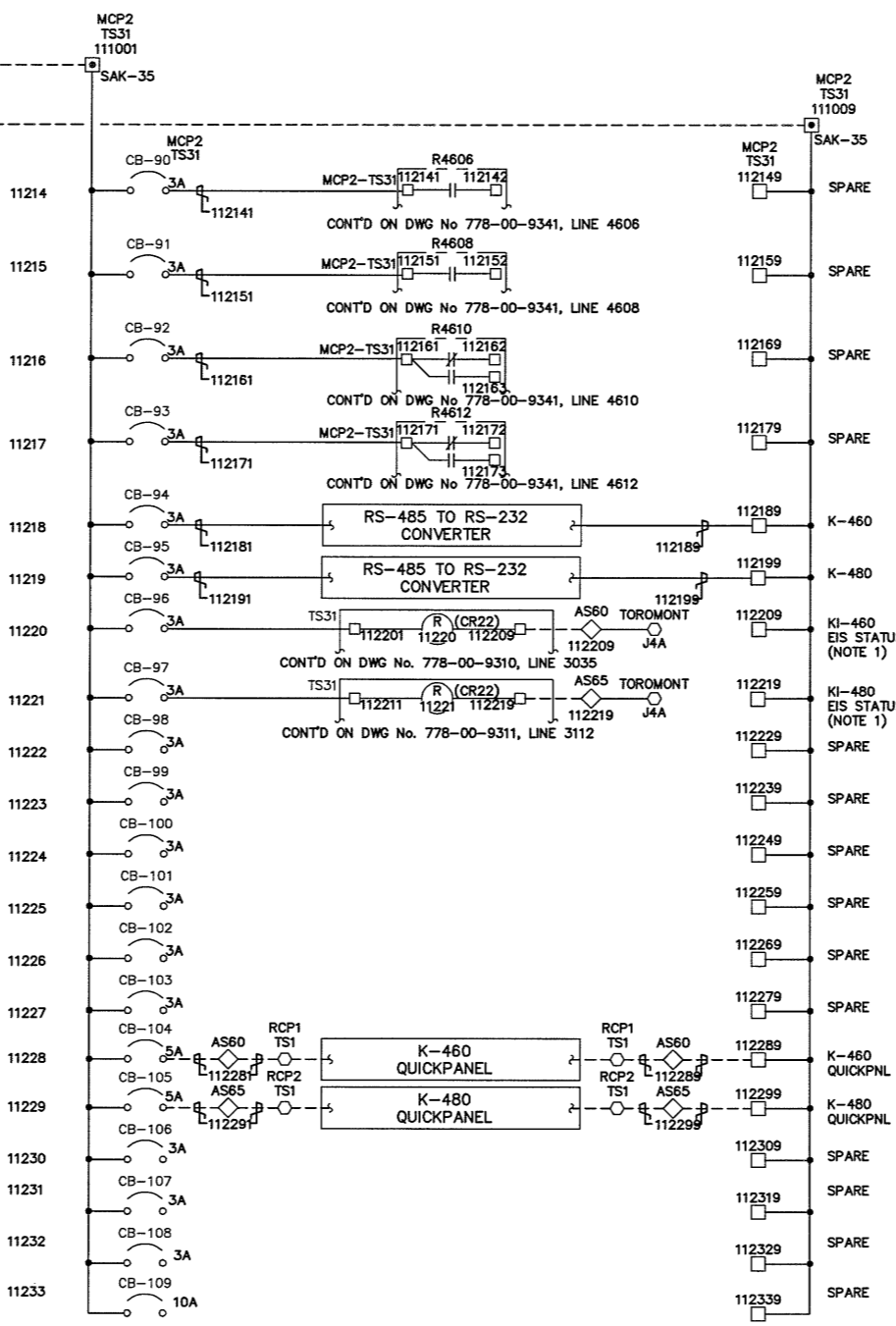
- TERMINAL BLOCK LEGEND**
- ☒ FUSED TERMINAL C/W BLOWN FUSE INDICATOR
  - ☒ CONTROL RELAY C/W FORM "C" CONTACTS
  - FEED THROUGH TERMINAL
  - ☒ FEED THROUGH TERMINAL C/W TEST SOCKET
  - ☒ DISCONNECT TERMINAL C/W TEST SOCKET SCREWS
  - TERMINAL IN MISC. VENDOR SUPPLIED PANELS
  - ◇ TERMINAL IN FIELD JUNCTION BOX
  - TERMINAL IN MCC

- CONTROL PANEL ABBREVIATIONS**
- MCP MAIN CONTROL PANEL
- MISCELLANEOUS VENDOR PANELS**
- BATT BATTERY CHARGER
  - ZIR ZIRCO PANEL
  - QUK QUICKPANEL
- FIELD TERMINAL BOXES**

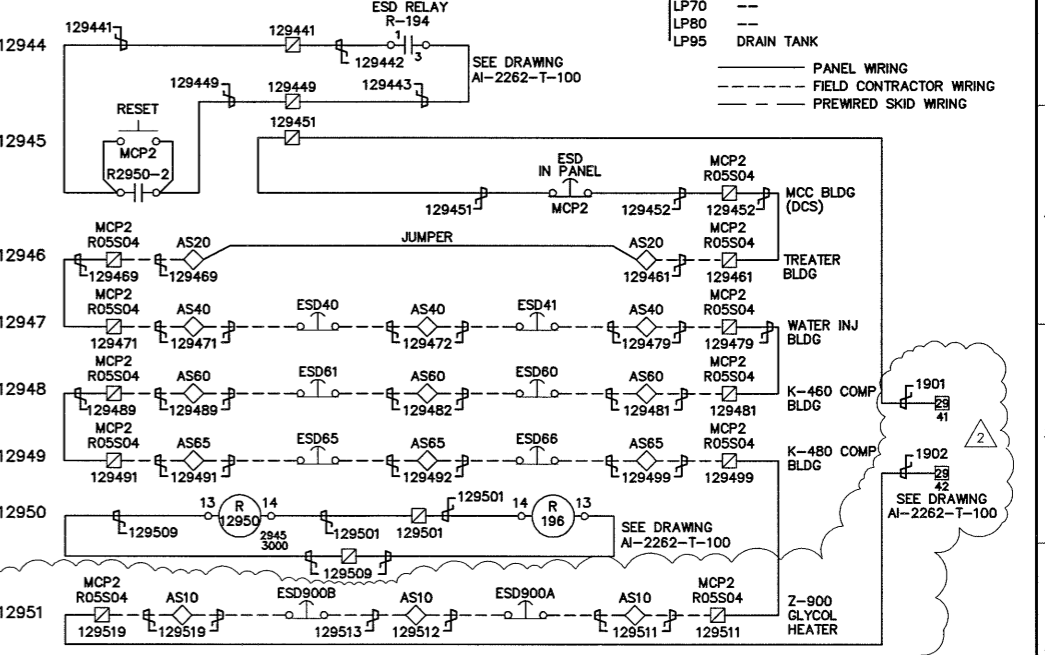
- AS1 NOT USED
- AS10 GLYCOL HEATER Z-900
- AS20 TREATER BLDG
- AS30 ---
- AS40 WATER INJECTION PUMP BLDG
- AS50 ---
- AS60 K-460 COMPRESSOR BLDG
- AS70 K-480 COMPRESSOR BLDG
- AS80 ---
- AS80 DRAIN TANK
- AS95 ---
- ANL1 NOT USED
- ANL10 GLYCOL HEATER Z-900
- ANL20 TREATER BLDG
- ANL30 ---
- ANL40 WATER INJECTION PUMP BLDG
- ANL50 ---
- ANL60 K-460 COMPRESSOR BLDG
- ANL65 K-480 COMPRESSOR BLDG
- ANL70 ---
- ANL80 DRAIN TANK
- ANL95 ---
- LP1 NOT USED
- LP10 GLYCOL HEATER Z-900
- LP20 TREATER BLDG
- LP30 ---
- LP40 WATER INJECTION PUMP BLDG
- LP50 ---
- LP60 K-460 COMPRESSOR BLDG
- LP65 K-480 COMPRESSOR BLDG
- LP70 ---
- LP80 DRAIN TANK
- LP95 ---



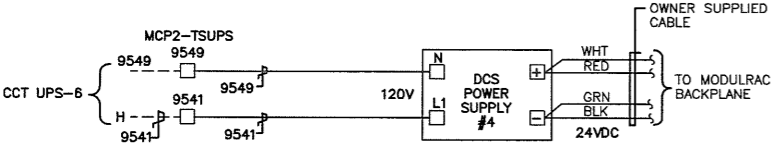
**D.C. DISTRIBUTION  
SCHEMATIC DIAGRAM**



**CONTROL PANEL 120VAC  
SCHEMATIC DIAGRAM**



**MANUAL ESD STRING**



**CONTROL PANEL 120VAC UPS  
SCHEMATIC DIAGRAM**

1  
101  
DETAIL  
NTS

NOTE:  
1. CONTRACTOR SHALL INSTALL  
RELAYS R1220 AND R1221 IN MCP2.

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	0	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FQ	TP	-	<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC., AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
-	-	1	06.05.24	AS BUILT	JS	-	-	
-	-	2	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL	-	-	
-	-	-	-	-	-	-	-	

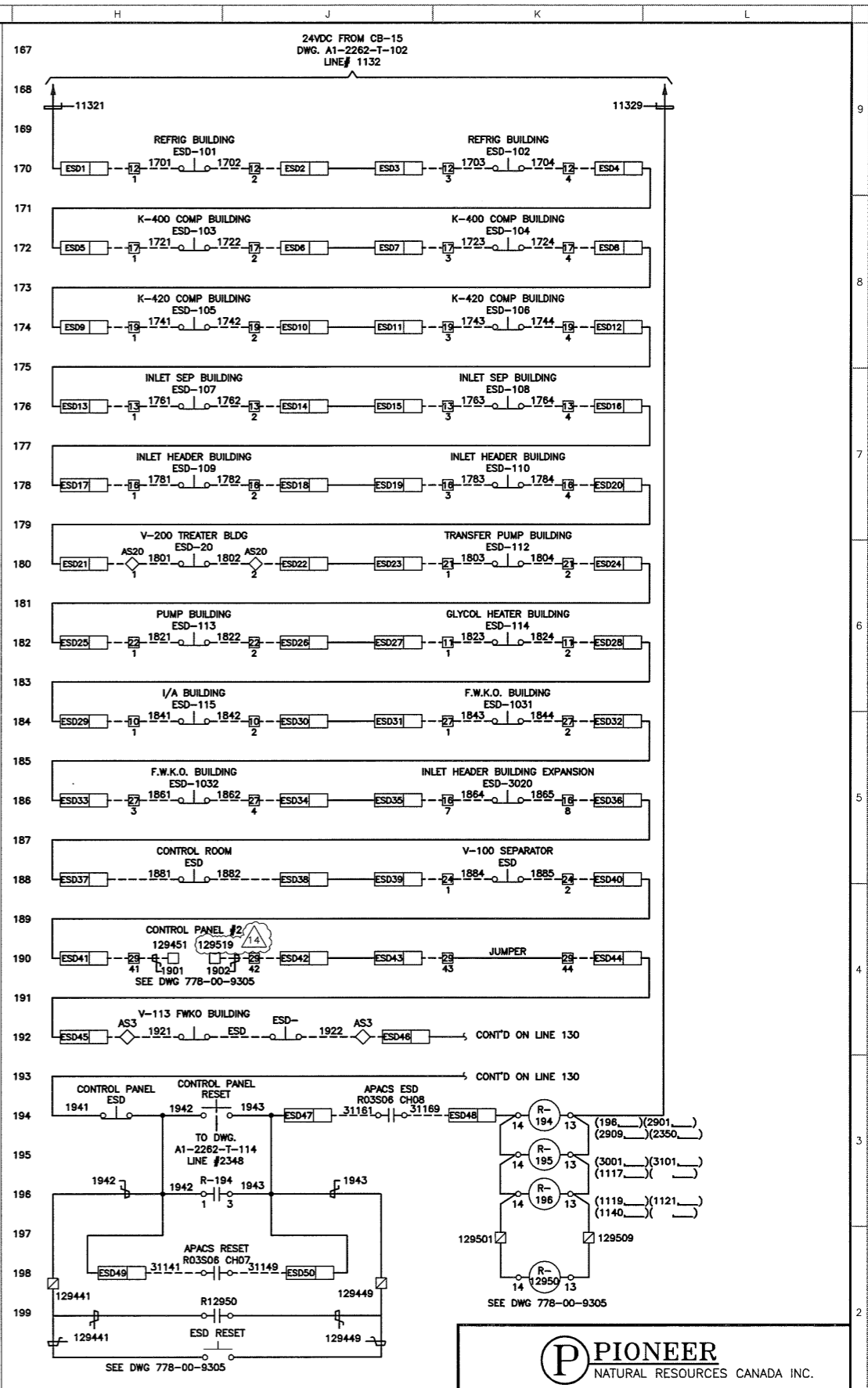
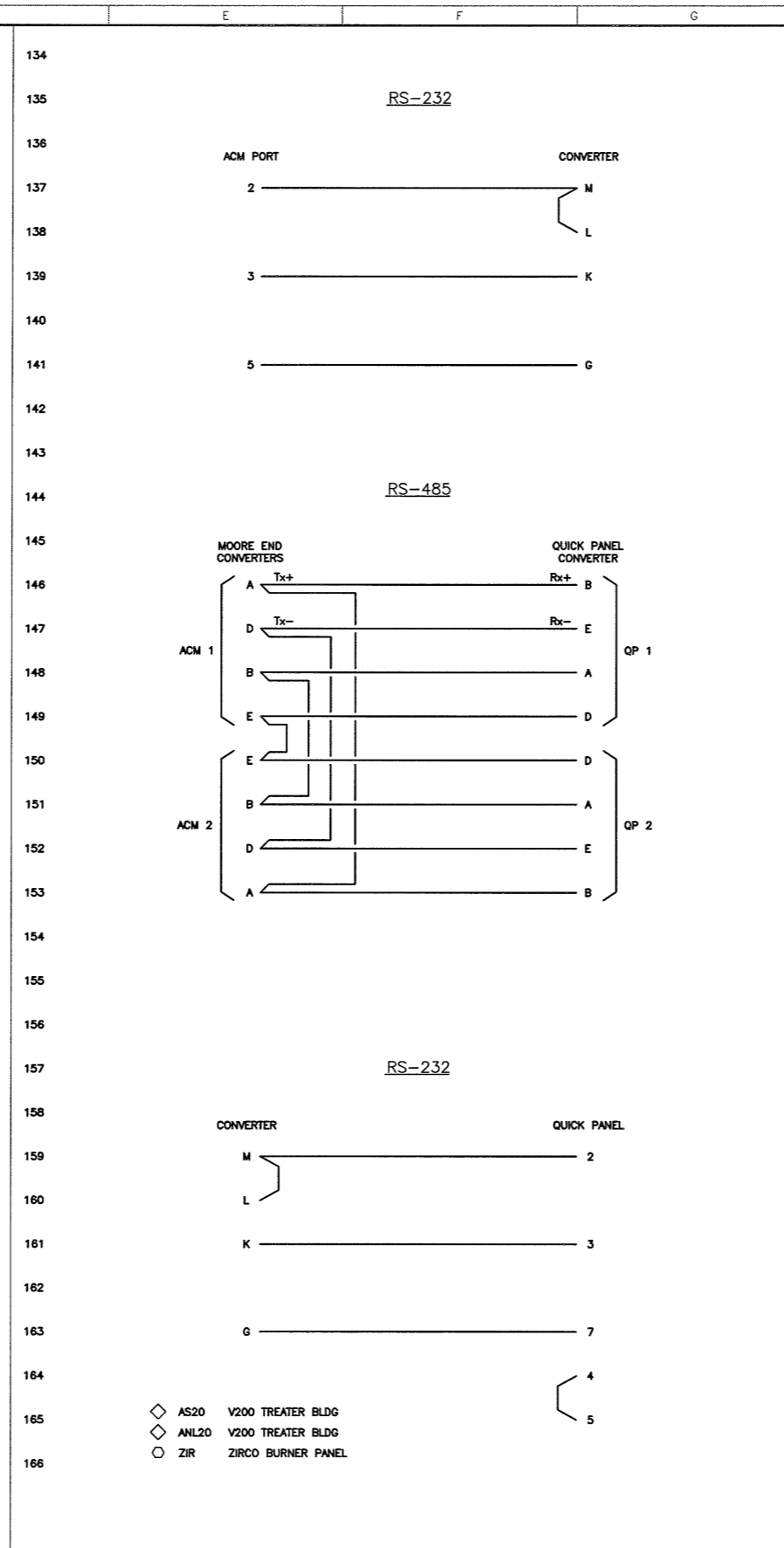
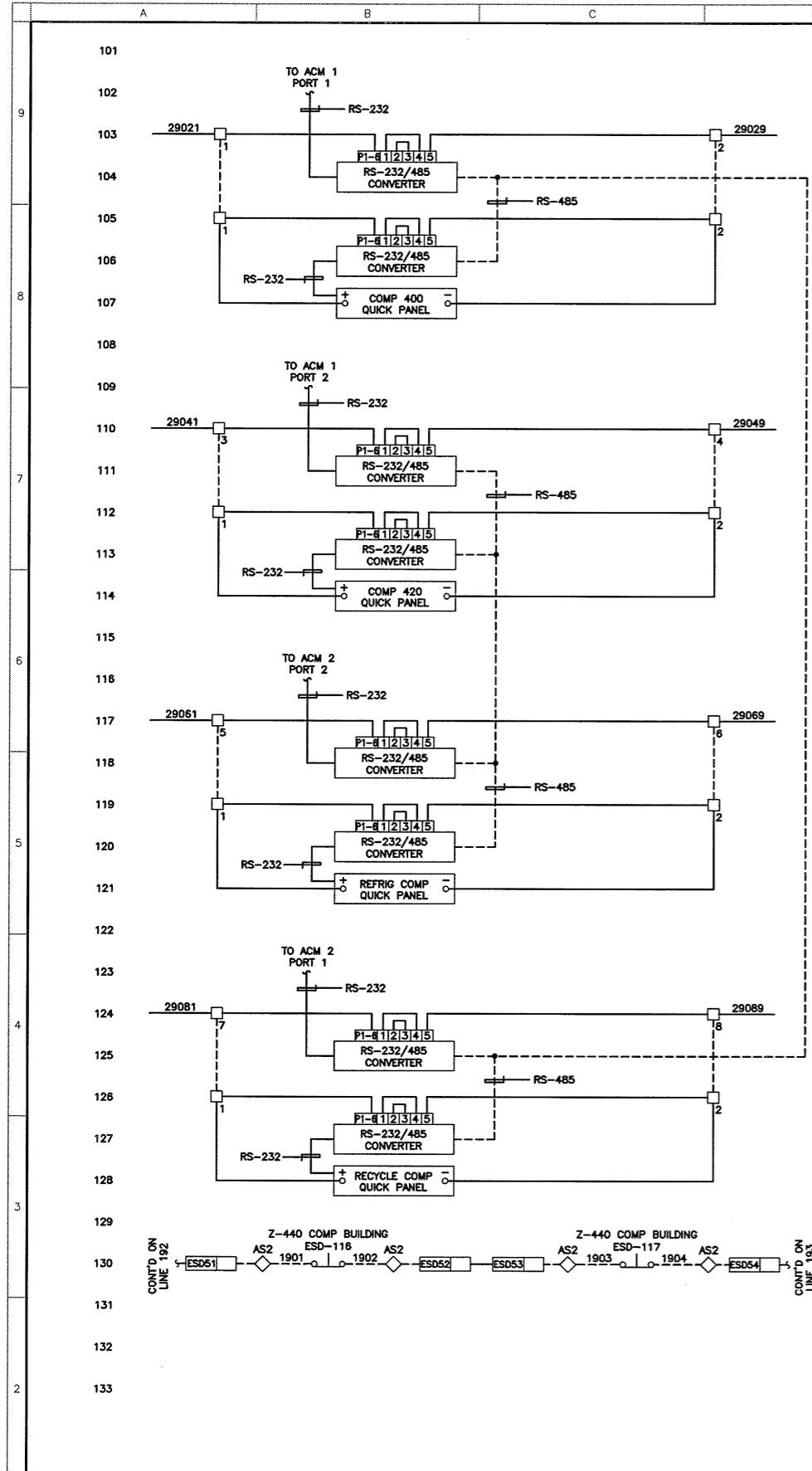


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Surrey, B.C. V3W 1H8  
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Fax: (604) 507-9801  
e-mail: solaris@solaris-mci.com



**CHINCHAGA GAS PLANT**  
c-32-H/94-H-8  
24VDC POWER DISTRIBUTION - LINE 11194-11233

SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	778.16	778-00-9305	2



DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	8	01.11.14	ISSUED FOR COMPRESSOR & F.W.K.O. ADDITION BID (CONCISE DESIGN)	LG			
-	-	7	GJD	I.F.C. CONCISE DESIGN ENGINEERING				
-	-	6	99.12.03	ALBERTA GAS SEPARATOR ADDITION (IFC REVIEW)	KL			
-	-	14	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL			
-	-	13		AS BUILT	JS			
-	-	12	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FO			
-	-	11	06.01.17	ISSUED FOR PRE-CONSTRUCTION REVIEW	FO			
-	-	10	02.02.02	AS-BUILT (CONCISE DESIGN #778.04)	LG			
-	-	9	01.12.21	ISSUED FOR K-440 COMP & V-113 KWKO ADDITION CONSTRUCTION	GAC			

SOLARIS MANAGEMENT CONSULTANTS INC.

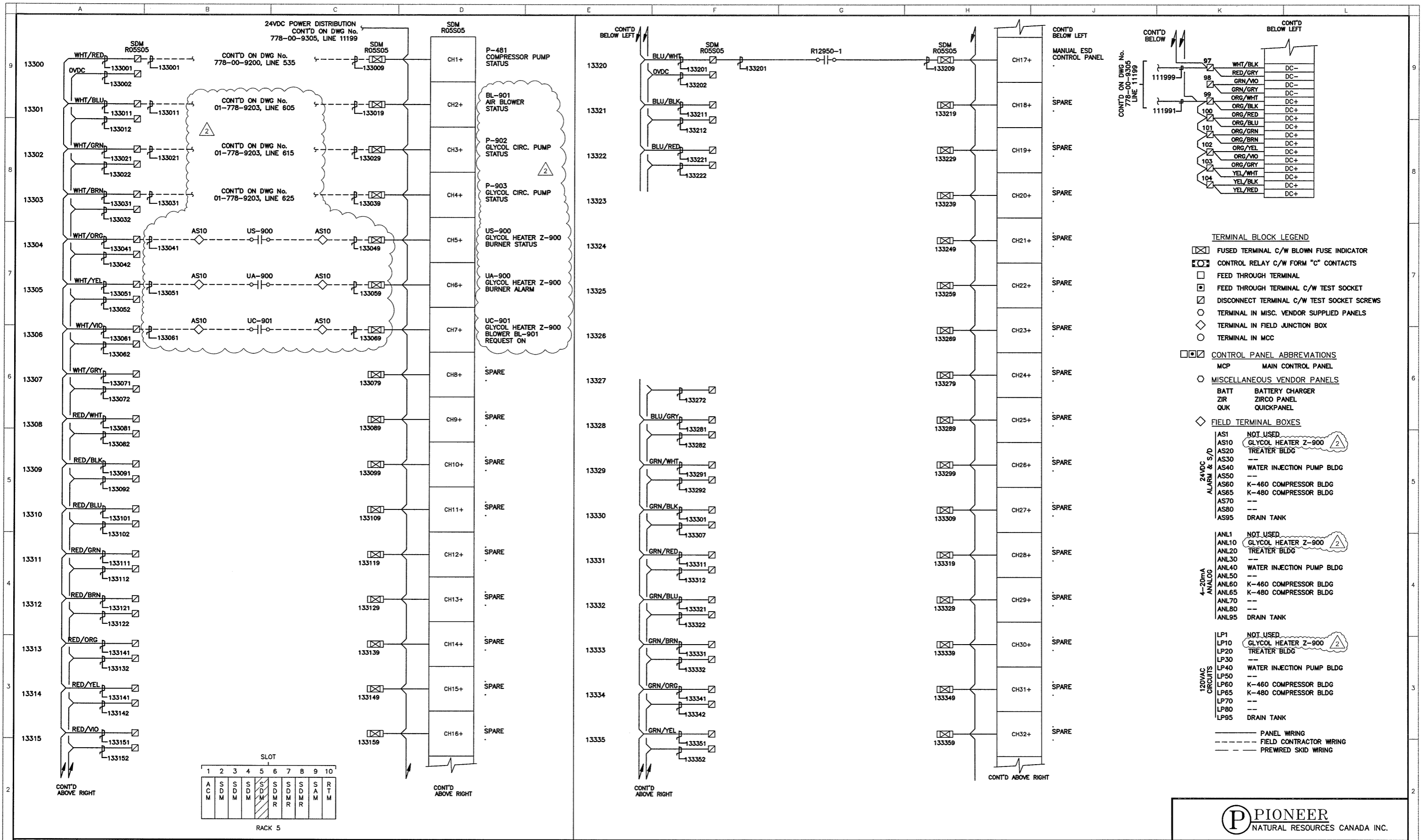
Suite #305, 7485-130th Street  
Surrey, B.C. V3W 1H8

Phone: (604) 507-8800  
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e-mail: solaris@solaris-mci.com

**PIONEER**  
NATURAL RESOURCES CANADA INC.

**CHINCHAGA GAS PLANT**  
c-32-H/94-H-8  
CONTROL SCHEMATICS

SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	226200	A1-2262-T-100	1



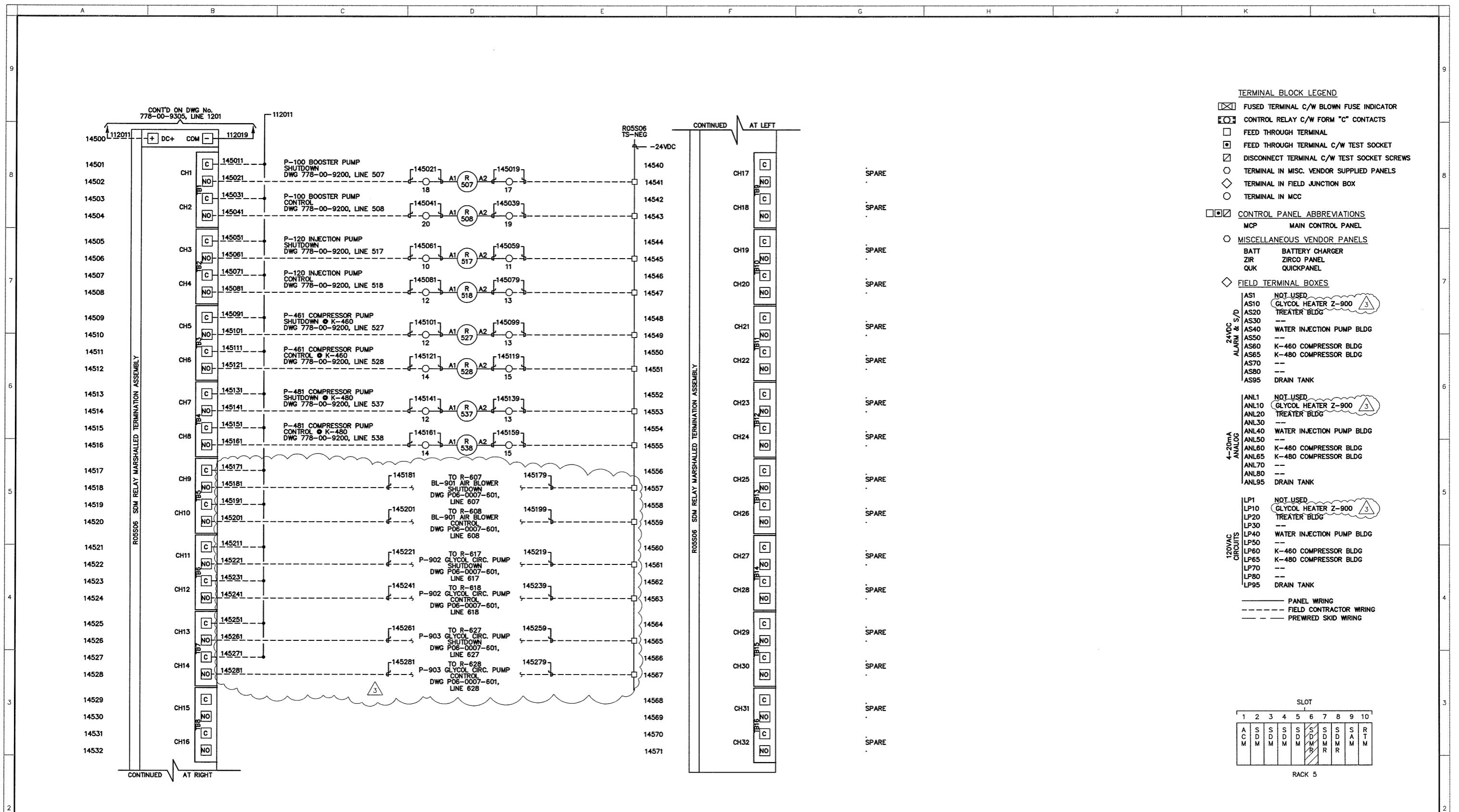
DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
		0	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FQ	TP		THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.  THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.
		1		AS BUILT	JS			
		2	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL			

		<b>SOLARIS MANAGEMENT CONSULTANTS INC.</b>	
Suite #305, 7485-130th Street Surrey, B.C. V3W 1H8		Phone: (604) 507-9800 Fax: (604) 507-9801 e-mail: solaris@solaris-mci.com	
DRAWN	DESIGNED	CHECKED	APPROVED
BY	FQ		
DATE	05.10.19		

<b>PIONEER</b> NATURAL RESOURCES CANADA INC.			
<b>CHINCHAGA GAS PLANT</b> c-32-H/94-H-8 DCS DISCRETE INPUTS - LINE 13300 - 13339			
SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	778.16	778-00-9313	2



DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
		0	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FQ	TP		<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
		1	06.05.23	ADD P120 VFD (778.16)	MR	RC		
		2		AS BUILT	JS			
		3	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL			

BY	DATE	DESIGNED	CHECKED	APPROVED	SCALE	JOB NO.	DRAWING NUMBER	REV.
FQ	05.10.19				NONE	778.16	778-00-9340	3

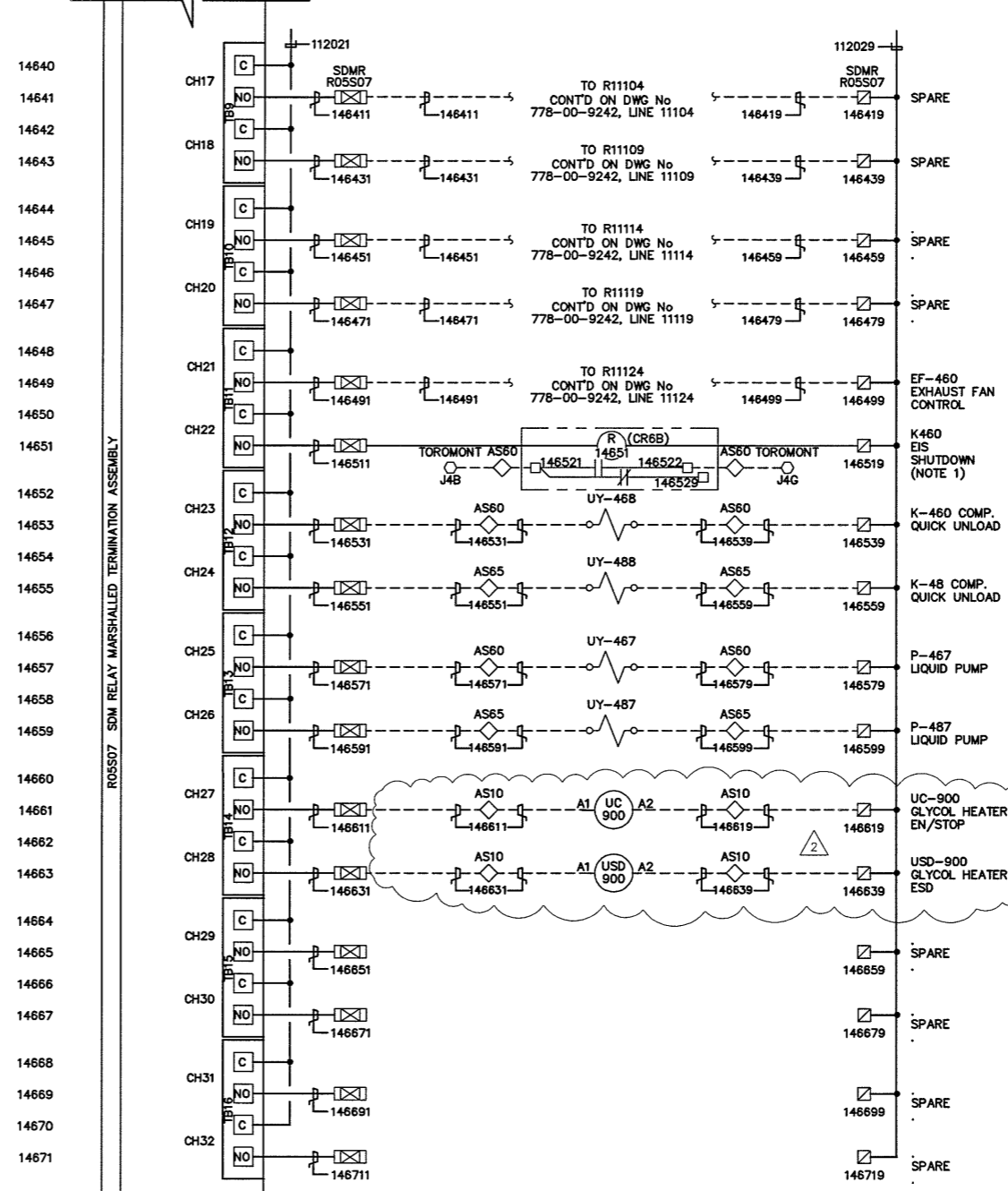
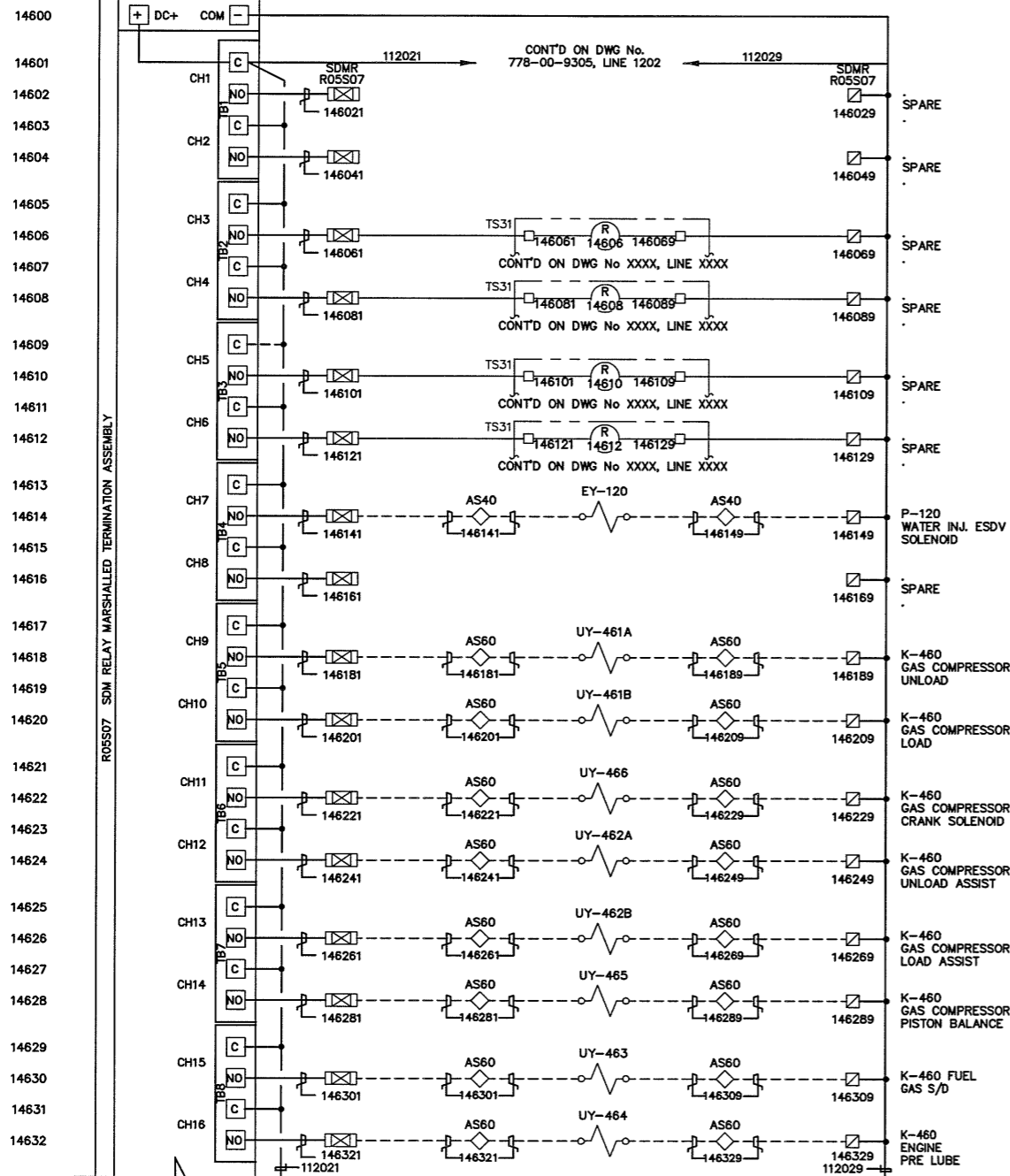
**SOLARIS MANAGEMENT CONSULTANTS INC.**

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Surrey, B.C. V3W 1H8

Phone: (604) 507-9800  
Fax: (604) 507-9801  
e-mail: solaris@solaris-mc.com

**PIONEER**  
NATURAL RESOURCES CANADA INC.

**CHINCHAGA GAS PLANT**  
c-32-H/94-H-8  
DCS DISCRETE OUTPUTS - LINE 14500 - 14579



- TERMINAL BLOCK LEGEND**
- ⊠ FUSED TERMINAL C/W BLOWN FUSE INDICATOR
  - ⊡ CONTROL RELAY C/W FORM "C" CONTACTS
  - FEED THROUGH TERMINAL
  - ▣ FEED THROUGH TERMINAL C/W TEST SOCKET
  - ⊞ DISCONNECT TERMINAL C/W TEST SOCKET SCREWS
  - TERMINAL IN MISC. VENDOR SUPPLIED PANELS
  - ◇ TERMINAL IN FIELD JUNCTION BOX
  - TERMINAL IN MCC

- CONTROL PANEL ABBREVIATIONS**
- MCP MAIN CONTROL PANEL
  - MISCELLANEOUS VENDOR PANELS
  - BATT BATTERY CHARGER
  - ZIR ZIRCO PANEL
  - QUK QUICKPANEL

- FIELD TERMINAL BOXES**
- AS1 NOT USED
  - AS10 GLYCOL HEATER Z-900 TREATER BLDG
  - AS20 TREATER BLDG
  - AS30 ---
  - AS40 WATER INJECTION PUMP BLDG
  - AS50 ---
  - AS60 K-460 COMPRESSOR BLDG
  - AS65 K-480 COMPRESSOR BLDG
  - AS70 ---
  - AS80 DRAIN TANK
  - AS85 ---
  - AS89 ---
  - AS90 ---
  - AS95 DRAIN TANK

- ANALOG**
- ANL1 NOT USED
  - ANL10 GLYCOL HEATER Z-900 TREATER BLDG
  - ANL20 TREATER BLDG
  - ANL30 ---
  - ANL40 WATER INJECTION PUMP BLDG
  - ANL50 ---
  - ANL60 K-460 COMPRESSOR BLDG
  - ANL65 K-480 COMPRESSOR BLDG
  - ANL70 ---
  - ANL80 ---
  - ANL95 DRAIN TANK

- 120VAC CIRCUITS**
- LP1 NOT USED
  - LP10 GLYCOL HEATER Z-900 TREATER BLDG
  - LP20 TREATER BLDG
  - LP30 ---
  - LP40 WATER INJECTION PUMP BLDG
  - LP50 ---
  - LP60 K-460 COMPRESSOR BLDG
  - LP65 K-480 COMPRESSOR BLDG
  - LP70 ---
  - LP80 ---
  - LP95 DRAIN TANK

--- PANEL WIRING  
 - - - FIELD CONTRACTOR WIRING  
 - - - PREWIRED SKID WIRING

SLOT

1	2	3	4	5	6	7	8	9	10
A	S	S	S	S	S	S	S	S	R
C	D	D	D	D	D	D	D	A	T
M	M	M	M	M	M	M	M	M	M

RACK 5

NOTE:  
 1. CONTRACTOR SHALL INSTALL RELAY R4651 IN MCP2.

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	0	06.01.28	ISSUED FOR CONSTRUCTION	FQ	TP	-	
-	-	1	-	AS BUILT	JS	-	-	
-	-	2	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	

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THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.

DRAWN	DESIGNED	CHECKED	APPROVED
BY FQ			
DATE 05.10.19			

**SOLARIS** MANAGEMENT CONSULTANTS INC.

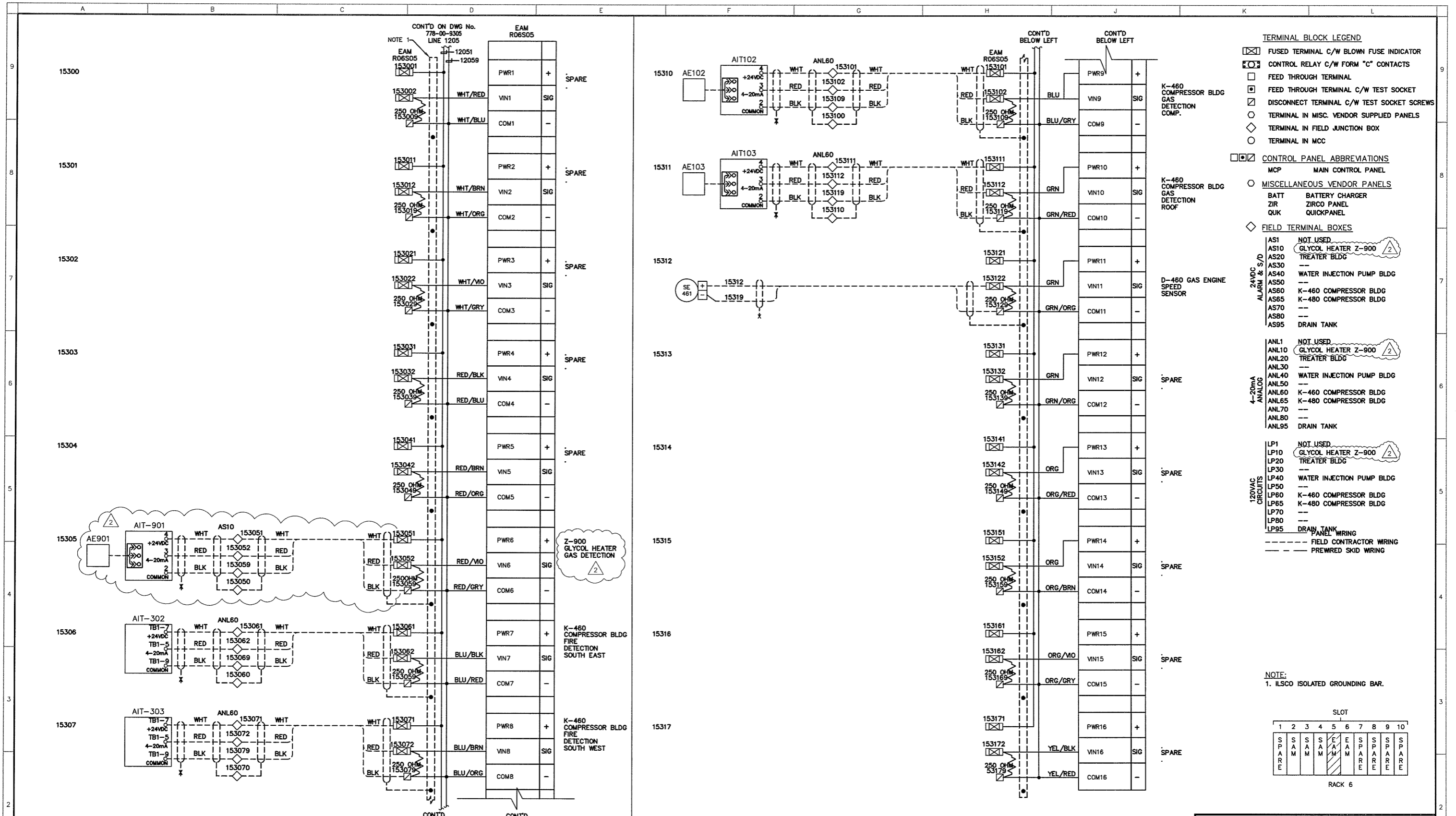
Suite #305, 7485-130th Street Surrey, B.C. V3W 1H8 Phone: (604) 507-9800 Fax: (604) 507-9801 e-mail: solaris@solaris-mci.com

**PIONEER**  
 NATURAL RESOURCES CANADA INC.

**CHINCHAGA GAS PLANT**  
 c-32-H/94-H-8  
 DCS DISCRETE OUTPUTS - LINE 14600 - 14679

SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	778.16	778-00-9341	2

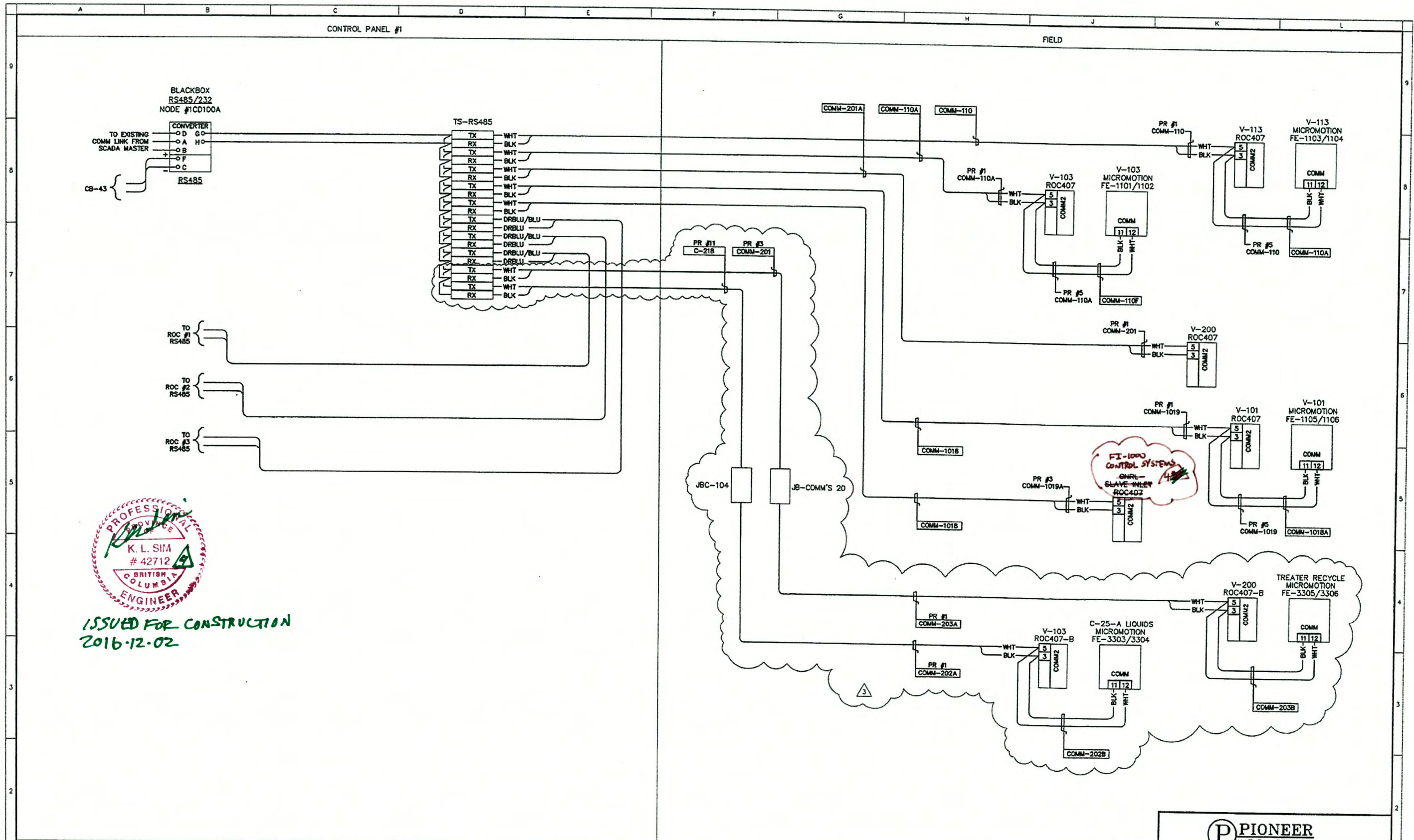




DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS												
		0	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FQ	TP		<p>SOLARIS MANAGEMENT CONSULTANTS INC.</p> <p>Suite #305, 7485-130th Street, Surrey, B.C. V3W 1H8            Phone: (604) 507-9800 Fax: (604) 507-9801            e-mail: solaris@solaris-mci.com</p>												
		1		AS BUILT	JS															
		2	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL															
THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.								<table border="1"> <tr> <td>DRAWN</td><td>DESIGNED</td><td>CHECKED</td><td>APPROVED</td> </tr> <tr> <td>BY FQ</td><td></td><td></td><td></td> </tr> <tr> <td>DATE 05.10.19</td><td></td><td></td><td></td> </tr> </table>	DRAWN	DESIGNED	CHECKED	APPROVED	BY FQ				DATE 05.10.19			
DRAWN	DESIGNED	CHECKED	APPROVED																	
BY FQ																				
DATE 05.10.19																				
THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.								<table border="1"> <tr> <td>SCALE</td><td>JOB NO.</td><td>DRAWING NUMBER</td><td>REV.</td> </tr> <tr> <td>NONE</td><td>778.16</td><td>778-00-9373</td><td>2</td> </tr> </table>	SCALE	JOB NO.	DRAWING NUMBER	REV.	NONE	778.16	778-00-9373	2				
SCALE	JOB NO.	DRAWING NUMBER	REV.																	
NONE	778.16	778-00-9373	2																	



CHINCHAGA GAS PLANT  
c-32-H/94-H-8  
DCS ANALOG INPUTS - LINE 15300 - 15319



ISSUED FOR CONSTRUCTION  
2016.12.02

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.
		0	06.01.28	ISSUED FOR 2006 CONSTRUCTION	FO	TP	
		1	06.02.22	REVISED AS NOTED	GB	TP	
		2		AS BUILT	JS		
		3	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-001.3)	RL		
		4 A)	4.11.23	TAA-MC-2016-0154 IFA REVA	LTJ		
		4	2016/12/02	TAA-MC-2016-0154 IFC	KLS		

PROFESSIONAL & PERMIT STAMPS

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THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.

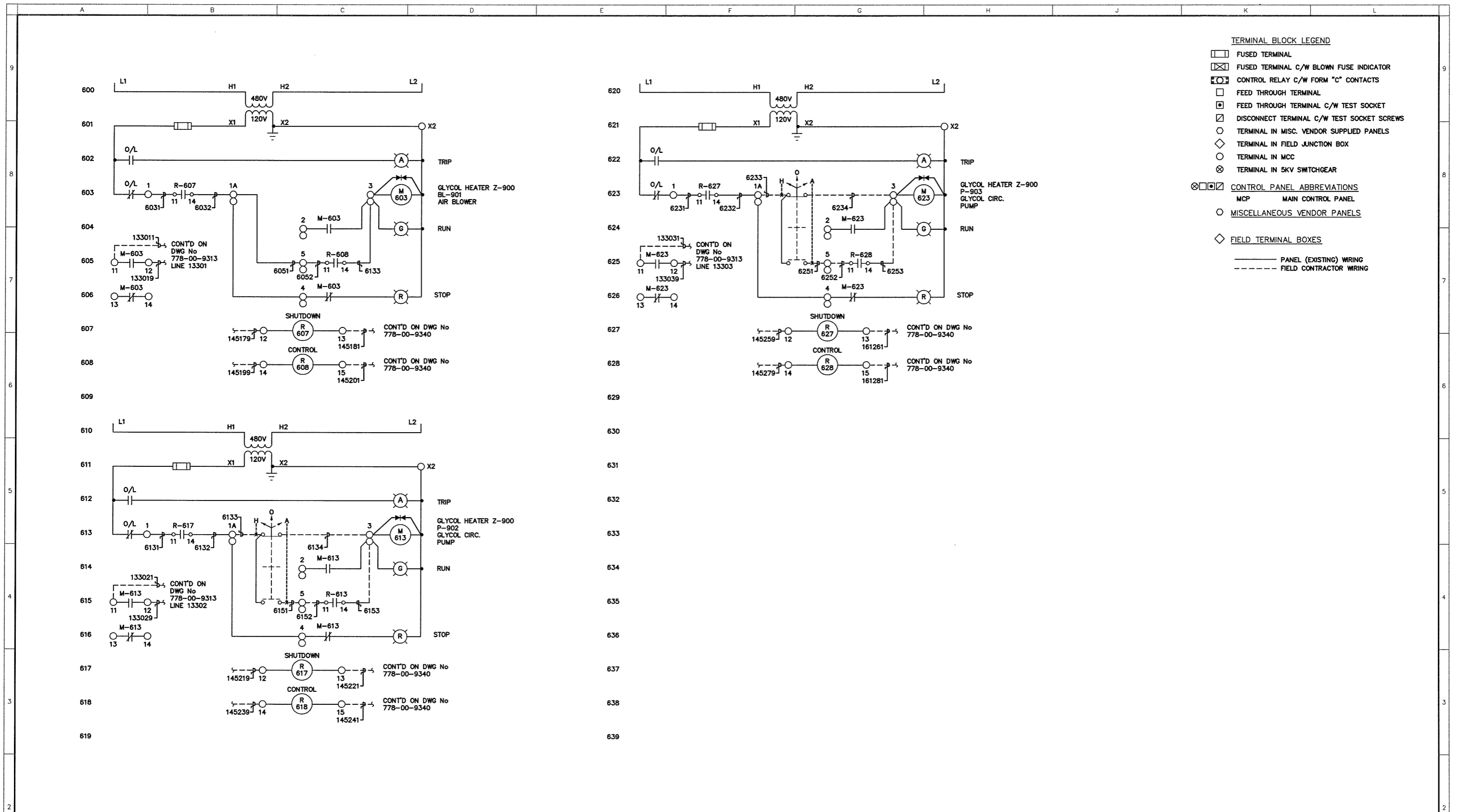
**SOLARIS MANAGEMENT CONSULTANTS INC.**  
Suite #205, 7485-130th Street Surrey, B.C. V3W 1H8  
Phone: (604) 507-8800 Fax: (604) 507-9801 e-mail: solaris@solaris-mci.com

DRAWN	DESIGNED	CHECKED	APPROVED
BY	FO		
DATE	05.10.19		

**PIONEER**  
NATURAL RESOURCES CANADA INC.

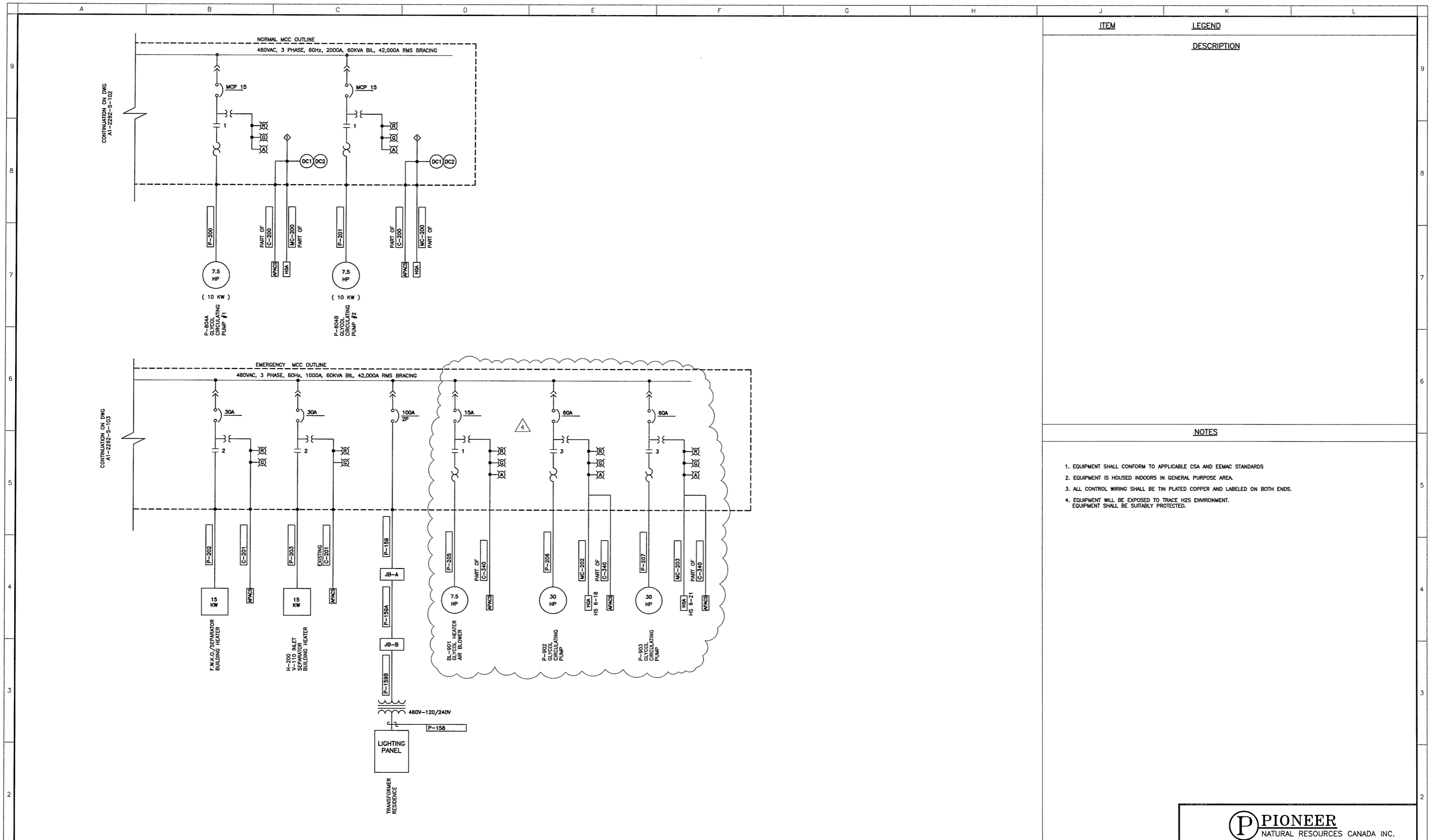
CHINCHAGA GAS PLANT  
C-32-H/94-H-8  
RS485 WIRING DIAGRAM

SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	778.16	778-00-9401	4



- TERMINAL BLOCK LEGEND**
- FUSED TERMINAL
  - FUSED TERMINAL C/W BLOWN FUSE INDICATOR
  - CONTROL RELAY C/W FORM "C" CONTACTS
  - FEED THROUGH TERMINAL
  - FEED THROUGH TERMINAL C/W TEST SOCKET
  - DISCONNECT TERMINAL C/W TEST SOCKET SCREWS
  - TERMINAL IN MISC. VENDOR SUPPLIED PANELS
  - TERMINAL IN FIELD JUNCTION BOX
  - TERMINAL IN MCC
  - TERMINAL IN 5KV SWITCHGEAR
  - CONTROL PANEL ABBREVIATIONS
    - MCP MAIN CONTROL PANEL
  - MISCELLANEOUS VENDOR PANELS
  - FIELD TERMINAL BOXES
- PANEL (EXISTING) WIRING  
 FIELD CONTRACTOR WIRING

<b>PIONEER</b> NATURAL RESOURCES CANADA INC.		<b>SOLARIS</b> MANAGEMENT CONSULTANTS INC.		<b>CHINCHAGA GAS PLANT</b> c-32-H/94-H-8 480VAC MOTOR CONTROL SCHEMATICS LINE 600-639	
DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	PROFESSIONAL & PERMIT STAMPS
		A	06.11.15	ISSUED FOR REVIEW	THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.  THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.
BY	DESIGNED	CHECKED	APPROVED	SCALE	JOB NO.
DATE	06.11.03	06.11.07		NONE	P06-0007
				DRAWING NUMBER	REV.
				P06-0007-602	A



ITEM	LEGEND
	DESCRIPTION

- NOTES**
- EQUIPMENT SHALL CONFORM TO APPLICABLE CSA AND EEMAC STANDARDS
  - EQUIPMENT IS HOUSED INDOORS IN GENERAL PURPOSE AREA.
  - ALL CONTROL WIRING SHALL BE TIN PLATED COPPER AND LABELED ON BOTH ENDS.
  - EQUIPMENT WILL BE EXPOSED TO TRACE H2S ENVIRONMENT. EQUIPMENT SHALL BE SUITABLY PROTECTED.

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
		0	99.02.15	ISSUED FOR CONSTRUCTION	KL			<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
		1	99.05.20	AS BUILT 1999 PLANT ADDITION (AS PER NOR-TECH SYSTEM M/UPS)	KL			
		2	99.10.25	ALBERTA GAS SEPARATOR ADDITION (ISSUED FOR BID)	KL			
		3	99.12.03	ALBERTA GAS SEPARATOR ADDITION (ISSUED FOR CONSTR. REVIEW)	KL			
		4	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL			

**SOLARIS** MANAGEMENT CONSULTANTS INC.

Suite #305, 7485-130th Street  
Surrey, B.C. V3W 1H8

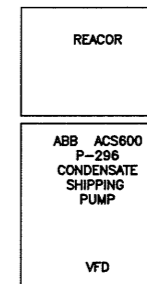
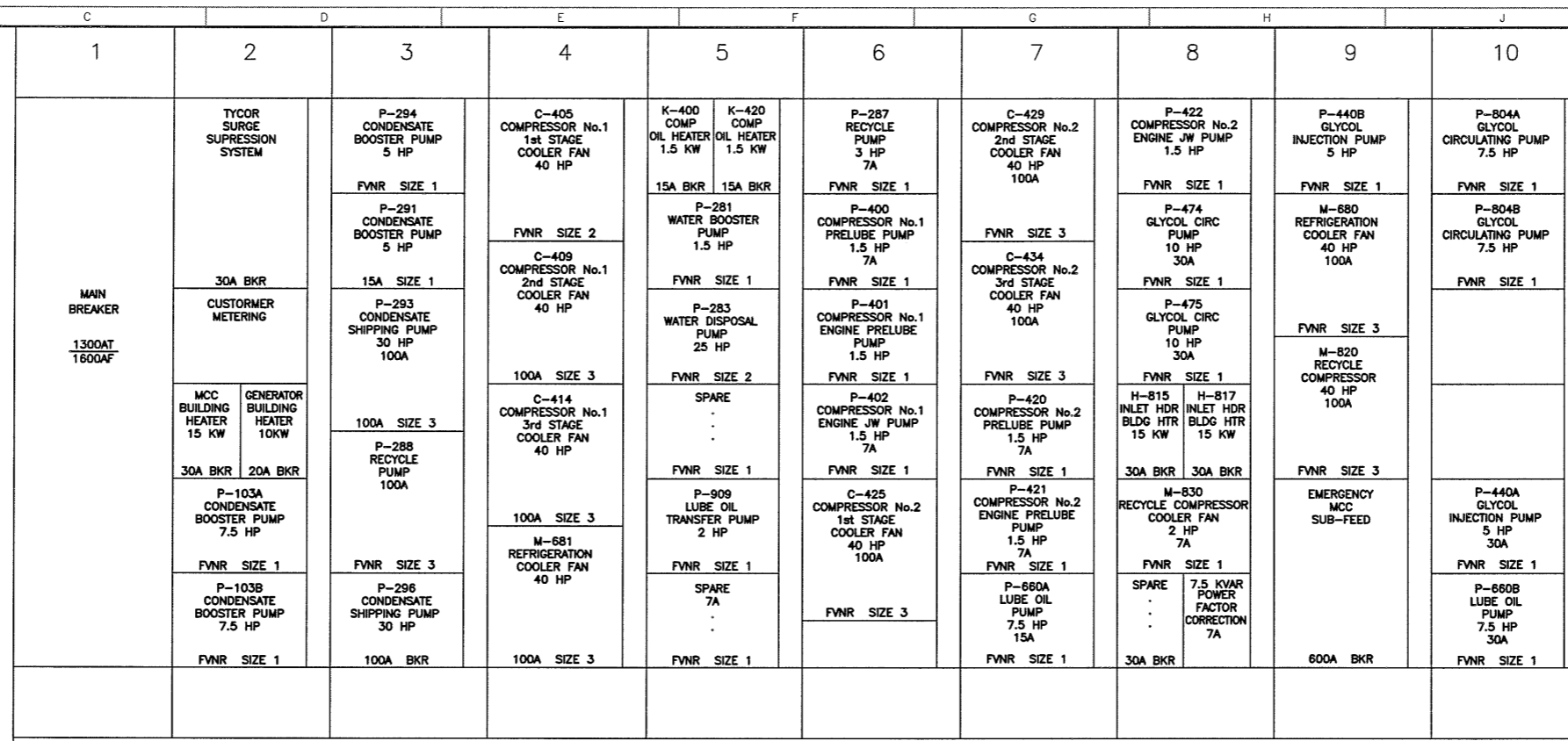
Phone: (604) 507-8800  
Fax: (604) 507-9801  
e-mail: solaris@solaris-mci.com

BY	DESIGNED	CHECKED	APPROVED
KL			
DATE	99.01.25		

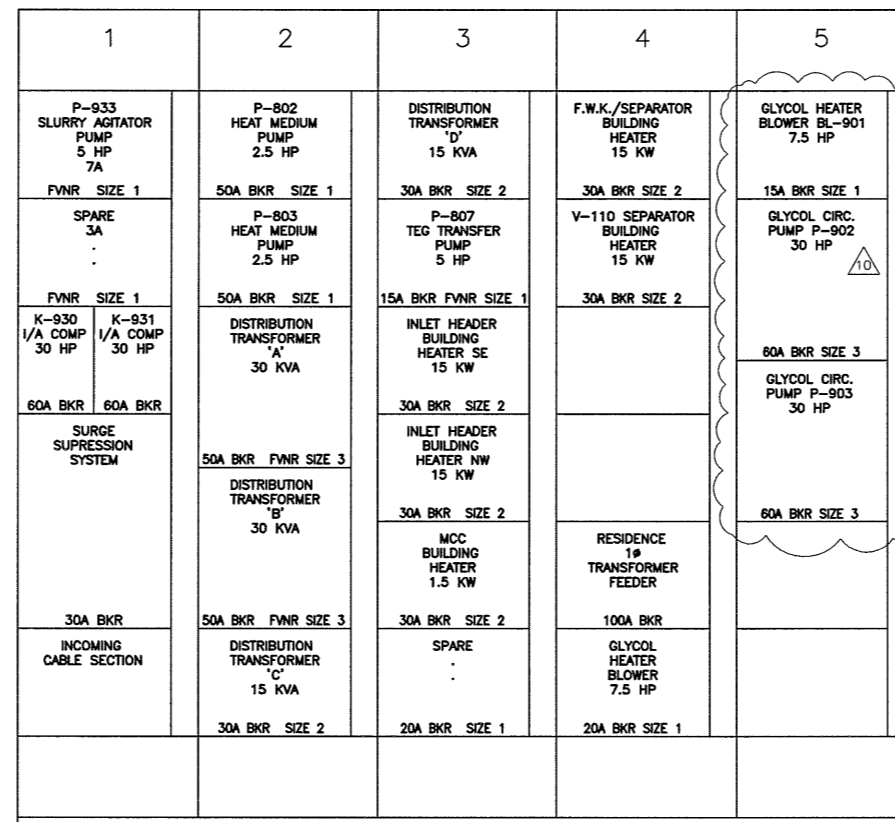
**PIONEER**  
NATURAL RESOURCES CANADA INC.

**CHINCHAGA GAS PLANT**  
c-32-H/94-H-8  
480 VOLT SINGLE LINE DIAGRAM

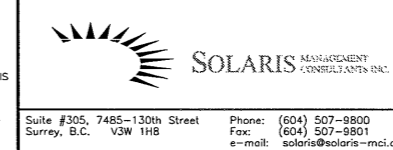
SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	PNR103-1	A1-2262-S-104	△



480V MCC LAYOUT



480V EMERGENCY MCC LAYOUT



CHINCHAGA GAS PLANT  
c-32-H/94-H-8  
480 VOLT MCC LAYOUTS

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	8	02.11.06	ISSUED FOR BID (778.07)	TP			THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.  THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.
-	-	7	00.01.25	I.F.C. CONCISE DESIGN ENGINEERING	GJD			
-	-	6	99.12.03	ALBERTA GAS SEPARATOR ADDITION (ISSUED FOR CONSTR. REVIEW)	KL			
-	-	5	99.10.25	ALBERTA GAS SEPARATOR ADDITION (ISSUED FOR BID)	KL			
-	-	4	99.10.08	AS BUILT AS PER CONTRACTOR'S MARKUPS	KL			
-	-	3	99.05.20	AS BUILT 1999 PLANT ADDITION (A/P NOR-TECH SYSTEMS M/UPS)	KL			
-	-	2	99.02.15	ISSUED FOR 1999 PLANT ADDITION CONSTRUCTION	KL			
-	-	10	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL			
-	-	9	03.03.28	AS BUILT (778.07)	JB	TP		

BY	DATE	DESIGNED	CHECKED	APPROVED	SCALE	JOB NO.	DRAWING NUMBER	REV.
KL	99.02.15				1:10	2262	A1-2262-S-200	1

**DISTRIBUTION PANEL "A" - MCC BUILDING**  
120/208 VAC, 225A

DESCRIPTION	LOAD (WATTS)			BKR	CCT#	MAIN BKR	100A	CCT#	BKR	LOAD (WATTS)			DESCRIPTION
	A	B	C							A	B	C	
CONT PNL 'A' - EXT. LIGHTS CTRL	10			15	1		2	15					MCC BUILDING - INTERIOR LIGHTS
CONT PNL 'A' - EXH. FAN CTRL		10		15	3		4	15					MCC BUILDING - EXTERIOR LIGHTS
CONT PNL 'A' - HORN/STROBE			200	15	5		6	15					MCC BUILDING - RECEPTACLES
24VDC UPS	240			3P	7		8	15					MCC BUILDING - EXT RECEPTACLES
APL METER BUILDING					9		10	15					MCC BUILDING - EXHAUST FAN
MCC BUILDING UPS - MAIN SUPPLY					11		12	15					MCC BUILDING - EXHAUST FAN
MCC BUILDING UPS - BYPASS SUPPLY					13		14	15					OFFICE AREA FLOODLIGHT
M-600 REFRIG COMP SPACE HTR					15		16	15					GLY HTR BLDG - INTERIOR LIGHTS
OFFICE HEAT TRACE					17		18	15					GLY HTR BLDG - RECEPTACLE
					19		20	15					GLY HTR BLDG - EXTERIOR LIGHTS
					21		22	15					GLY HTR BLDG - EXHAUST FAN
					23		24	15					GLY HTR BLDG - EXHAUST FAN
					25		26	15					GLY HTR BLDG - HEATER
					27		28	15					
					29		30	15					
					31		32						
OFFICE SUB-PANEL					33		34	30					GENERATOR BLDG SUB-PANEL
					35		36	3P					
					37		38	30					
SHOP/WAREHOUSE SUB-PANEL					39		40	2P					INSTRUMENT AIR BLDG SUB-PANEL
					41		42	15					CNTRL PNL 'A' - HEAT TRACE CNTRL
TOTAL													TOTAL

PHASE 'A' \_\_\_\_\_ W  
 PHASE 'B' \_\_\_\_\_ W  
 PHASE 'C' \_\_\_\_\_ W  
 GRAND TOTAL \_\_\_\_\_ W

\* HEAT TRACE CIRCUIT BREAKERS TO BE 30 mA GFCI TYPE.

**DISTRIBUTION PANEL "UPS" - MCC BUILDING**  
120V, 60A

DESCRIPTION	LOAD (WATTS)			BKR	CCT#	MAIN BKR	100A	CCT#	BKR	LOAD (WATTS)			DESCRIPTION
	A	B	C							A	B	C	
MAIN				60	1		2	15					GLYCOL BOILER CONTROL
OFFICE COMPUTER				15	3		4	15					
DCS CONTROLLER				15	5		6	15					MCP #2 PLC RACK 5/6 P.S. #4
RADIO EQUIPMENT				15	7		8	15					GLYCOL HEATER 2-900 BMS CP-900
					9		10						
					11		12						
					13		14						
					15		16						
					17		18						
TOTAL													TOTAL

PHASE 'A' \_\_\_\_\_  
 PHASE 'B' \_\_\_\_\_  
 GRAND TOTAL \_\_\_\_\_

**DISTRIBUTION PANEL "B" - REFRIGERATION AREA**  
120/208 VAC, 225A

DESCRIPTION	LOAD (WATTS)			BKR	CCT#	MAIN BKR	100A	CCT#	BKR	LOAD (WATTS)			DESCRIPTION
	A	B	C							A	B	C	
CONT PNL B - EXT. LIGHTS CTRL	30			15	1		2	15	1030				INLET SEP. - INTERIOR LIGHTS
CONT PNL B - EXHAUST FAN CTRL		80		15	3		4	15		500			INLET SEP. - RECEPTACLE
CONT PNL B - HEAT TRACE CTRL			20	15	5		6	15			140		INLET SEP. - EXTERIOR LIGHTS
REFRIG. BLDG. - INTERIOR LIGHTS	1080			15	7		8	15	480				INLET SEP. - EXHAUST FAN
REFRIG. BLDG. - INTERIOR LIGHTS		1080		15	9		10	15		480			INLET SEP. - EXHAUST FAN
REFRIG. BLDG. - RECEPTACLE			500	15	11		12	15			780		INLET SEP. - HEATER FANS
REFRIG. BLDG. - EXTERIOR LIGHTS	210			15	13		14	2P	780				
REFRIG. BLDG. - EXHAUST FAN		480		15	15		16	15					
REFRIG. BLDG. - EXHAUST FAN		480		15	17		18	15					
REFRIG. BLDG. - HEATER FAN	480			15	19		20	15	380				TREATER BUILDING INT LIGHTS + RECEPTACLE
REFRIG. BLDG. - HEATER FAN		480		15	21		22	15		500			TREATER BUILDING EXT LIGHTS
REFRIG. BLDG. - HEATER FAN		480		15	23		24	15			140		TREATER BUILDING EXHAUST FAN
REFRIG. BLDG. - HEATER FAN	480			15	25		26	15	480				TREATER BUILDING EXH CHEMICAL PUMPS
IN USE		140		15	27		28	15		820			TREATER BLDG HEATER
IN USE			1000	15	29		30	15					IN USE
Z-440 COMP. - INTERIOR LIGHTS	1000			15	31		32	15					IN USE
Z-440 COMP. - EXHAUST FAN		480		15	33		34	2P					IN USE
Z-440 COMP. - EXHAUST FAN		480		15	35		36	15					IN USE
Z-440 COMP. - UNIT HEATER	550			15	37		38	2P	550		550		Z-440 COMP. - UNIT HEATER
Z-440 COMP. - RECEPTACLE		550		2P	39		40	15					Z-440 COMP EXTERIOR LIGHTS
Z-440 COMP. - RECEPTACLE			500	15	41		42	15					Z-440 COMP INTERIOR LIGHTS
TOTAL	3760	3220	3460						3150	2300	1060		TOTAL

PHASE 'A' 6910W  
 PHASE 'B' 5220W  
 PHASE 'C' 4520W  
 GRAND TOTAL 16650W

**DISTRIBUTION PANEL "C" - PUMP AREA**  
120/208 VAC, 225A

DESCRIPTION	LOAD (WATTS)			BKR	CCT#	MAIN BKR	100A	CCT#	BKR	LOAD (WATTS)			DESCRIPTION
	A	B	C							A	B	C	
CONT PNL 'C' - EXT. LIGHTS CTRL	20			15	1		2	15	1000				YARDLIGHT - PUMP BLDG. AREA
CONT PNL 'C' - EXH. FAN CTRL		20		15	3		4	15		1500			YARDLIGHT - ESDV/PIG AREA
CONT PNL 'C' - ALARM HORNS			200	15	5		6	15					
PUMP BLDG. - INTERIOR LIGHTS	730			15	7		8	15	175				TRAN. PUMP BLDG. - INT. LIGHTS
PUMP BLDG. - RECEPTACLE		500		15	9		10	15		500			TRAN. PUMP BLDG. - RECEPTACLE
PUMP BLDG. - EXTERIOR LIGHTS			140	15	11		12	15		70			TRAN. PUMP BLDG. - EXT. LIGHTS
PUMP BLDG. - EXHAUST FAN	480			15	13		14	15	480				TRAN. PUMP BLDG. - EXH. FAN
PUMP BLDG. - EXHAUST FAN		480		15	15		16	15	480				TRAN. PUMP BLDG. - HEATER FAN
PUMP BLDG. - HEATER FAN	820			15	17		18	15		530			TRAN. PUMP - T-908 LIGHT/HEAT
PUMP BLDG. - HEATER FAN		820		15	19		20	15	530				TRAN. PUMP - T-272 LIGHT/HEAT
HEAT TRACE 5000 TANK LINE				15	21		22	15					
EAST TANK FARM LIGHT POLE				15	23		24	15					
TANK FARM BACK LIGHTS				15	25		26	15					
WATER INJ PUMP EXT LIGHT				15	27		28	15					
WATER INJ RECEPTACLE				15	29		30	15					
				15	31		32	15					
				15	33		34	15					
				15	35		36	15					
				15	37		38	15					
				15	39		40	15					
CATHODIC PROTECTION				15	41		42	15					UTILITY PLUG AT PANEL "C"
TOTAL	2030	980	960						2185	2480	600		TOTAL

PHASE 'A' 4215W  
 PHASE 'B' 3480W  
 PHASE 'C' 1560W  
 GRAND TOTAL 9235W

**DISTRIBUTION PANEL "BB" - REFRIGERATION AREA**  
120/208 VAC, 225A

DESCRIPTION	LOAD (WATTS)			BKR	CCT#	MAIN BKR	100A	CCT#	BKR	LOAD (WATTS)			DESCRIPTION
	A	B	C							A	B	C	
K-400 COMP. - INTERIOR LIGHTS	1000			15	1		2	15	1000				K-420 COMP. - INTERIOR LIGHTS
K-400 COMP. - INTERIOR LIGHTS		1030		15	3		4	15		1030			K-420 COMP. - INTERIOR LIGHTS
K-400 COMP. - RECEPTACLE			500	15	5		6	15			500		K-420 COMP. - RECEPTACLE
K-400 COMP. - EXTERIOR LIGHTS	140			15	7		8	15	140				K-420 COMP. - EXTERIOR LIGHTS
K-400 COMP. - EXHAUST FAN		480		15	9		10	15		480			K-420 COMP. - EXHAUST FAN
K-400 COMP. - EXHAUST FAN		480		15	11		12	15		480			K-420 COMP. - EXHAUST FAN
K-400 COMP. - HEATER FAN	550			15	13		14	15	550				K-420 COMP. - HEATER FAN
K-400 COMP. - HEATER FAN		550		15	15		16	15		550			K-420 COMP. - HEATER FAN
K-400 COMP. - HEATER FAN		550		15	17		18	15		550			K-420 COMP. - HEATER FAN
K-440 OIL & DRAIN LINES H/T				15	19		20	2P	550		550		K-420 COMP. - HEATER FAN
YARDLIGHT - FLARE AREA		1500		15	21		22	15		80			INJECTION WELL BLDG - LIGHTS
FLARE STACK - IGNITOR PANEL	250			15	23		24	15	1000		1000		WATER INJECTION BLDG - HEATER
* FLARE LINE HEAT TRACE		660		15	25		26	15					
* FLARE LINE HEAT TRACE		660		2P	29		30	15					
* FLARE STACK HEAT TRACE		960		15	31		32	2P	550		550		PROPANE ACCUMULATOR PUMP
* FLARE STACK HEAT TRACE		960		15	33		34	15					
K-400 BATTERY CHARGER		2184		2P	37		38	15					
K-400 BATTERY CHARGER			2184	2P	41		42	2P		2184			K-420 BATTERY CHARGER
TOTAL	4110	5564	6834						3790	4404	5264		TOTAL

PHASE 'A' 7900W  
 PHASE 'B' 10868  
 PHASE 'C' 12098W  
 GRAND TOTAL 30866W

\* HEAT TRACE CIRCUIT BREAKERS TO BE 30 mA GFCI TYPE.



**DISTRIBUTION PANEL "D" - INLET AREA**  
120/208 VAC, 225A

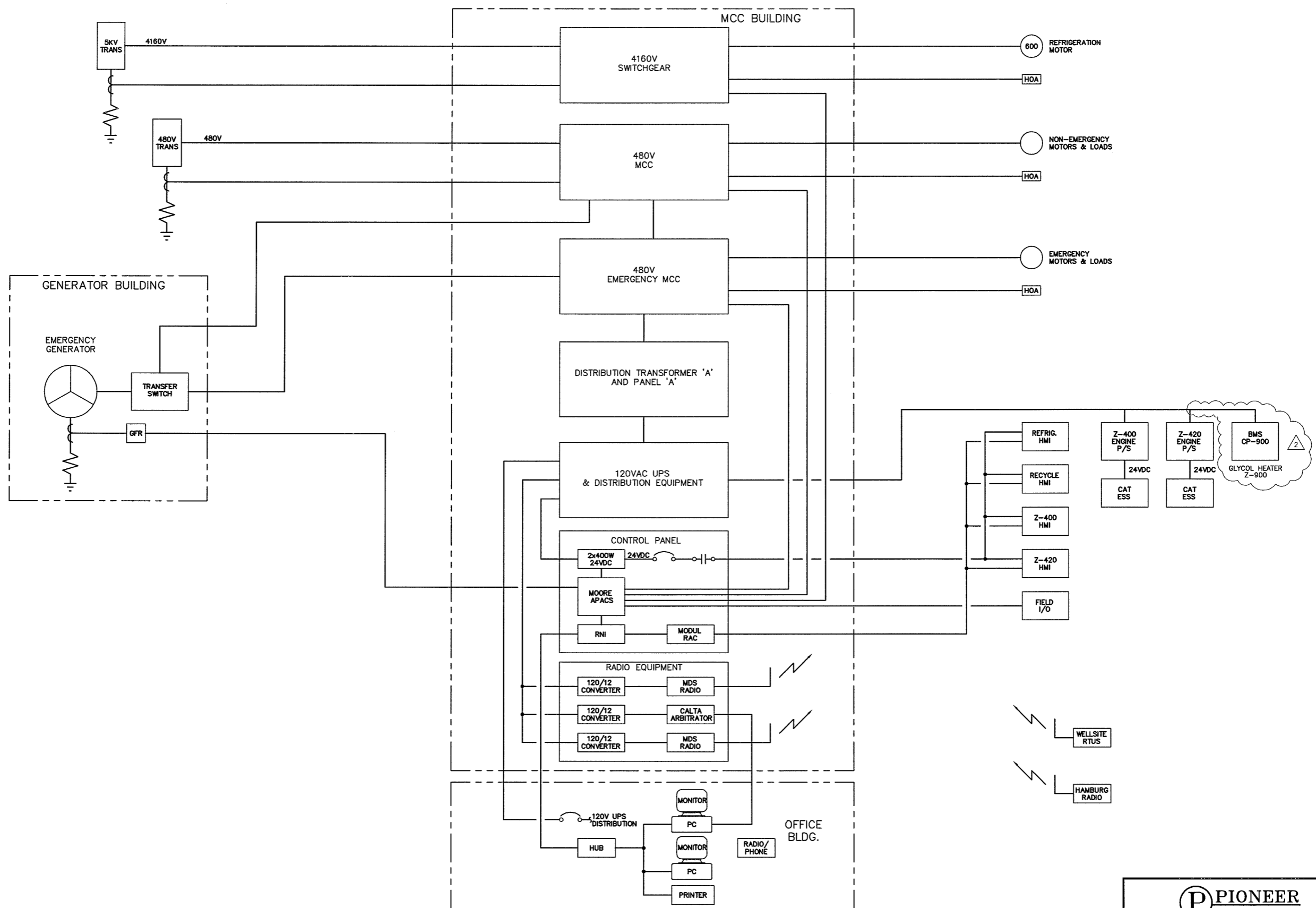
DESCRIPTION	LOAD (WATTS)			BKR	CCT#	MAIN BKR	100A	CCT#	BKR	LOAD (WATTS)			DESCRIPTION
	A	B	C							A	B	C	
CONT PNL 'D' - EXT. LIGHT CTRL	10			15	1		2	15	1000				YARDLIGHT - INLET HEADER AREA
CONT PNL 'D' - EXH. FAN CTRL		10		15	3		4	15		480			CHEMICAL INJECTION PUMP No.1
				15	5		6	15		480			CHEMICAL INJECTION PUMP No.2
INLET HDR. - INTERIOR LIGHTS	730			15	7		8	15					INLET HDR. - HEAT TRACE
INLET HDR. - INTERIOR LIGHTS		730		15	9		10	15					
INLET HDR. - RECEPTACLE			500	15	11		12	15			100		F.W.K.O. BLDG EX. F-103 CONTROL
INLET HDR. - EXTERIOR LIGHTS	210			15	13		14	15					
INLET HDR. - EXHAUST FAN		820		15	15		16	15					
V-103 - HEAT TRACING				15	17		18	15					
V-103 - HEAT TRACING				15	19		20	15	500				F.W.K.O. BLDG EX. FAN F-103
SPARE		400		15	21		22	15					
SPARE			700	15	23		24	15		200		200	
SPARE				15	25		26	15		700			
V-110 SEP INLET HEAT TRACE		700		15	27		28	15		200		200	V-113 FWKO BLDG-EXT. LIGHTS
V-110 SEP INLET HEAT TRACE			700	2P	29		30	15			400		V-113 FWKO BLDG-INT. LIGHTS
V-110 SEP. HEAT TRACE				30	31		32	15	480				V-113 FWKO BLDG-EX FAN HIGH
V-110 SEP. HEAT TRACE				15	33		34	15					V-113 FWKO BLDG-EX FAN LOW
V-113 F.W.K.O. CHEM. PUMP #3				15	35		36	15				500	V-113 FWKO BLDG-RECEPTACLE
V-113 F													

VOLTS <u>208/120</u>		HERTZ <u>60</u>		PHASE <u>3</u>		WIRE <u>4</u>		PANEL <u>LPE</u>						225 AMP BUS		NONE AMP MAIN CB		SOLID NEUTRAL		SURFACE MOUNTING	
LOCATION <u>MCC BLDG</u>		FEEDER <u>SF101</u>																			
LOAD DESCRIPTION	LOAD			BKR SIZE	CCT No.	BUS			CCT No.	BKR SIZE	LOAD			LOAD DESCRIPTION							
	A	B	C			A	B	C			A	B	C								
MCC BLDG EXTERIOR LTG	-	-	-	15	1				2	15	1140			BATTERY CHARGER - 24VDC - 20AMP							
MCC BLDG INTERIOR LTG	-	-	-	15	3				4	15											
MCC BLDG RECEPTACLE	-	-	-	15	5				6	15											
MCC BLDG EXHAUST FAN	-	-	-	15	7				8	15				CONTROL PANEL LIGHTING							
	-	-	-	15	9				10	15				CONTROL PANEL RECEPTACLES							
GLYCOL HEATER Z-900 EXTERIOR LIGHTS	-	-	-	15	11				12	15				RADIO RACK RECEPTACLE							
GLYCOL HEATER Z-900 INTERIOR LIGHTS	-	-	-	15	13				14	15				120/208 30A TWIST LOCK							
GLYCOL HEATER Z-900 RECEPTACLE	-	-	-	15	15				16	15				120/208 30A TWIST LOCK							
GLYCOL HEATER Z-900 EXHAUST FAN	-	-	-	15	17				18	15											
GLYCOL HEATER Z-900 BUILDING HEATERS	-	-	-	15	19				20	15											
GLYCOL HEATER Z-900 SPARE	-	-	-	15	21				22	15											
	-	-	-	15	23				24	15											
	-	-	-	15	25				26	15											
	-	-	-	15	27				28	15											
	-	-	-	15	29				30	15											
	-	-	-	15	31				32	15											
	-	-	-	15	33				34	15											
	-	-	-	15	35				36	15											
	-	-	-	15	37				38	15											
	-	-	-	15	39				40	15											
	-	-	-	15	41				42	15											
LEFT SIDE WATTS PER PHASE	-	-	-							-	-	-	RIGHT SIDE WATTS PER PHASE								
RIGHT SIDE WATTS PER PHASE	-	-	-							-	-	-									
TOTAL WATTS PER PHASE	-	-	-							-	-	-									
TOTAL WATTS _____																					

VOLTS <u>208/120</u>		HERTZ <u>60</u>		PHASE <u>3</u>		WIRE <u>4</u>		PANEL <u>LPF</u>						225 AMP BUS		NONE AMP MAIN CB		SOLID NEUTRAL		SURFACE MOUNTING	
LOCATION <u>REMOTE PWR CENTER</u>		FEEDER <u>SF104</u>																			
LOAD DESCRIPTION	LOAD			BKR SIZE	CCT No.	BUS			CCT No.	BKR SIZE	LOAD			LOAD DESCRIPTION							
	A	B	C			A	B	C			A	B	C								
K-480 COMPRESSOR BLDG EXT LTG	-	-	-	15	1				2	15				K480 24VDC UPS							
K-480 COMPRESSOR BLDG INT LTG	-	-	-	15	3				4	15				K480 24VDC UPS							
MCC#2 EXTERIOR LIGHTS	-	-	-	15	5				6	15											
K-480 COMPRESSOR BLDG RECEPTACLE	-	-	-	15	7				8	15				K480 GLYCOL HTR H1-A/B/C							
K-480 COMPRESSOR BLDG EXH FAN	-	-	-	15	9				10												
	-	-	-	15	11				12												
	-	-	-	15	13				14					K480 GLYCOL HTR H2-A/B/C							
K-480 COMPRESSOR BLDG EXT LTG	-	-	-	15	15				16												
K-480 COMPRESSOR BLDG INT LTG	-	-	-	15	17				18												
	-	-	-	15	19				20												
K-480 COMPRESSOR BLDG RECEPTACLE	-	-	-	15	21				22												
K-480 COMPRESSOR BLDG EXH FAN	-	-	-	15	23				24												
	-	-	-	15	25				26												
	-	-	-	15	27				28												
YARDLIGHT COMPRESSOR AREA	-	-	-	15	29				30												
	-	-	-	15	31				32												
	-	-	-	15	33				34												
	-	-	-	15	35				36												
	-	-	-	15	37				38												
	-	-	-	15	39				40												
	-	-	-	15	41				42												
LEFT SIDE WATTS PER PHASE	-	-	-							-	-	-	RIGHT SIDE WATTS PER PHASE								
RIGHT SIDE WATTS PER PHASE	-	-	-							-	-	-									
TOTAL WATTS PER PHASE	-	-	-							-	-	-									
TOTAL WATTS _____																					

LIGHTING FIXTURE SCHEDULE	
ITEM	DESCRIPTION
A	CL.1, DIV.2, GR. D 120VAC 70 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" WALL MOUNT, & CWA BALLAST. LOW PROFILE
B	CL.1, DIV.2, GR. D 120VAC 100 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" PENDANT MOUNT, & CWA BALLAST. LOW PROFILE
C	CL.1, DIV.2, GR. D 120VAC 150 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" PENDANT MOUNT, & CWA BALLAST. LOW PROFILE
D	CL.1, DIV.2, GR. D 120VAC 100 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" CEILING MOUNT, & CWA BALLAST. LOW PROFILE
E	CL.1, DIV.2, GR. D 120VAC 70 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" CEILING MOUNT, & CWA BALLAST. LOW PROFILE
F	CL.1, DIV.2, GR. D 120VAC 70 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" STANCHION MOUNT, & CWA BALLAST. LOW PROFILE
G	CL.1, DIV.1, GR. D 120VAC 100 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" PENDANT MOUNT, & CWA BALLAST. LOW PROFILE
H	CL.1, DIV.1, GR. D 120VAC 150 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" PENDANT MOUNT, & CWA BALLAST. LOW PROFILE
J	CL.1, DIV.1, GR. D 120VAC 100 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" CEILING MOUNT, & CWA BALLAST. LOW PROFILE
K	CL.1, DIV.1, GR. D 120VAC 150 WATT HPS FIXTURE C/W LAMP, GLOBE, GUARD, 3/4" CEILING MOUNT, & CWA BALLAST. LOW PROFILE
L	OUTDOOR, 120VAC 70 WATT HPS WALLPACK C/W LAMP, GUARD AND CWA BALLAST. LOW PROFILE
M	CL.1, DIV.2, GR. D, 120VAC, 400 WATT HPS FLOODLIGHT FIXTURE C/W LAMP, GLOBE, GUARD, & CWA BALLAST
N	400W HPS FLOODLIGHT, C/W 120 VOLT LAMP, SLIPFITTER MOUNT & CWA BALLAST, MOUNT WITH ITEM 'R'.
P	400W HPS FLOODLIGHT, C/W 208 VOLT LAMP, SLIPFITTER MOUNT & CWA BALLAST, MOUNT WITH ITEM 'R'.
R	30 FT. HINGED FLOODLIGHT POLE C/W HORN MOUNTING BRACKETS AS REQUIRED, PLASTIC NUT COVERS, ANCHOR BOLTS, AND HAND WINCH.
S	24VDC HORN WEATHERPROOF FEDERAL SIGNAL 300GC OR APPROVED EQUAL
T	WEATHER PROOF 24VDC STROBE SIGNAL LIGHT C/W XENON LAMP AND RED LENS. FEDERAL SIGNAL ELECTRARAY MODEL FB2PST, OR APPROVED EQUAL
U	WEATHER PROOF 24VDC STROBE SIGNAL LIGHT C/W XENON LAMP AND BLUE LENS. FEDERAL SIGNAL ELECTRARAY MODEL FB2PST, OR APPROVED EQUAL
V	CL.1, DIV.2, 24VDC STROBE SIGNAL LIGHT C/W XENON LAMP AND RED LENS. FEDERAL SIGNAL ELECTRARAY MODEL 225XST, OR APPROVED EQUAL
W	CL.1, DIV.2, 24VDC STROBE SIGNAL LIGHT C/W XENON LAMP AND BLUE LENS. FEDERAL SIGNAL ELECTRARAY MODEL 225XST, OR APPROVED EQUAL
X	CL.1, DIV.2, 24VDC STROBE SIGNAL LIGHT C/W XENON LAMP AND AMBER LENS. FEDERAL SIGNAL ELECTRARAY MODEL 225XST, OR APPROVED EQUAL
Y	CL.1, DIV.1, 24VDC STROBE SIGNAL LIGHT C/W XENON LAMP AND RED LENS. FEDERAL SIGNAL ELECTRARAY MODEL 27XST, OR APPROVED EQUAL
Z	CL.1, DIV.1, 24VDC STROBE SIGNAL LIGHT C/W XENON LAMP AND BLUE LENS. FEDERAL SIGNAL ELECTRARAY MODEL 27XST, OR APPROVED EQUAL
AA	2 X 40W CHAIN MOUNT FLOURESCENT FIXTURE C/W 120V BALLAST, LAMPS AND WRAP AROUND GUARD.

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS	THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC., AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.  THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.	 SOLARIS MANAGEMENT CONSULTANTS INC. Suite #305, 7485-130th Street Surrey, B.C. V3W 1H8 Phone: (604) 507-9800 Fax: (604) 507-9801 e-mail: solaris@solaris-mci.com	 CHINCHAGA GAS PLANT c-32-H/94-H-8 LIGHTING PANEL & FIXTURE SCHEDULE			
								DRAWN: FQ DESIGNED: CHECKED: APPROVED: DATE: 05.10.19			SCALE: NONE JOB NO.: 778.16 DRAWING NUMBER: 778-00-9820 REV.: 2			



DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	A	97.12.12	PRELIMINARY	CR	-	-	<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
-	-	1	98.01.22	ISSUED FOR CONSTRUCTION	DGR	-	-	
-	-	2	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL	-	-	
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-

SOLARIS MANAGEMENT CONSULTANTS INC.  
 Suite #305, 7485-130th Street Surrey, B.C. V3W 1H8  
 Phone: (604) 507-9800 Fax: (604) 507-9801  
 e-mail: solaris@solaris-mci.com

DRAWN	DESIGNED	CHECKED	APPROVED
CR			
DATE	97.12.12		

**PIONEER**  
 NATURAL RESOURCES CANADA INC.

**CHINCHAGA GAS PLANT**  
 c-32-H/94-H-8  
 INTERCONNECTION DIAGRAM

SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	226200	A1-2262-S-804	2



CABLE NUMBER	CIRCUIT		FROM	VIA	TO	CABLE TYPE	CONDUIT SIZE TYPE	CONDUCTORS					REMARKS	
	LOAD	VOLTS						No.	SIZE	INSUL	VOLTS	SPARE		
P-149	-	480	480V MCC	TRAY	JBL-2 S.E. CORNER INLET HEADER BLDG	TECK 90	-	3	#6	XLPE	1000	0	FEEDER FOR HEATER H-815	
P-149A	-	480	JBL-2 S.E. CORNER OF INLET HEADER BLDG	TRAY	HEATER H-815 INLET HEADER BLDG	TECK 90	-	3	#6	XLPE	1000	0	FEED ER FOP HEATER H-815	
P-158	-	120/208	RESIDENCE TRANSFORMER	U/G	RESIDENCE SERVICE PANEL	TECK 90	-	3	#1	XLPE	1000	0	RESIDENCE SERVICE PANEL FEEDER	
P-159	-	480	480V MCC	U/G	JB-A (PIPE RACK BY MCC)	TECK 90	-	3	#1	XLPE	1000	0	RESIDENCE BLDG TRANSFORMER FEEDER	
P-159A	-	480	JB-A (PIPE RACK BY MCC)	U/G	JB-B (E. OF ARCHEOLOGICAL SITE)	USEB 90	-	2	#4/0	USEB90	1000	0	RESIDENCE BLDG TRANSFORMER FEEDER	
P-159B	-	480	JB-B (E. OF ARCHEOLOGICAL SITE)	U/G	RESIDENCE TRANSFORMER	USEB 90	-	2	#4/0	USEB90	1000	0	RESIDENCE BLDG TRANSFORMER FEEDER	
P-200	7.5 HP	480	480V MCC	TRAY	P-804A GLYCOL PUUMP	TECK 90	-	3	4	XLPE	1000	0	-	
P-201	7.5 HP	480	480V MCC	TRAY	P-804B GLYCOL PUUMP	TECK 90	-	3	4	XLPE	1000	0	-	
P-202	15 KW	480	480V EMERGENCY MCC	TRAY	F.W.K.O. BUILDING HEATER	TECK 90	-	3	4	XLPE	1000	0	-	
P-203	15 KW	480	480V EMERGENCY MCC	TRAY	F.W.K.O. BUILDING HEATER	TECK 90	-	3	4	XLPE	1000	0	SPARE IN JB-111	
P-204	1KW	208	V-110 SEPARATOR BLDG JBL-110P	TRAY/UG	PIPELINE HEAT TRACE	TECK 90	-	4	#10	XLPE	600	0	SELF REGULATED HEAT TRACE POWER	
MC-200	-	24VDC	480V MCC	TRAY	JBC-103 F.W.K.O. BUILDING	TECK 90	-	10	14	XLPE	600	4	GLYCOL PUMPS CONTROL	
MC-201	-	24VDC	JBC-103 F.W.K.O. BUILDING	TRAY	P-804A/B CONTROL STN.	TECK 90	-	10	14	XLPE	600	4	GLYCOL PUMPS CONTROL	
LTG-200	-	120/208	DIST. PANEL "D" INLET INLET HEADER BLDG AREA	TRAY	JBL-103 F.W.K.O. BUILDING	TECK 90	-	15	12	XLPE	600	1	EX. FAN, LIGHTING AND RECEPTACLES	
LTG-201	-	120/208	DIST. PANEL "D" INLET INLET HEADER BLDG AREA	TRAY	JB-110P EAST YARD RACK	TECK 90	-	20	10	XLPE	600	16	-	
LTG-202	-	120/208	JBL-103 F.W.K.O. BUILDING	TRAY	10" INLET	TECK 90	-	4	12	XLPE	600	0	SELF REGULATED HEAT TRACE POWER	
LTG-203	-	120/208	12" INLET	TRAY	2" INLET FLARE	TECK 90	-	2	12	XLPE	600	0	SELF REGULATED HEAT TRACE POWER	
LTG-204	-	120/208	JBL-103 F.W.K.O. BUILDING	TRAY	4" H2/D DUMP	TECK 90	-	2	12	XLPE	600	0	SELF REGULATED HEAT TRACE POWER	
FG-200	-	24VDC	CONTROL PANEL	TRAY	JBC-104 F.W.K.O. BUILDING	INSTR. TECK	-	8 TR	#16	PVC	300	4 TR	FIRE AND GAS DETECTOR	
FG-201	-	24VDC	JBC-110 V-110 SEPARATOR BLDG	TRAY	JBC-110 V-110 SEPARATOR BLDG	INSTR. TECK	-	4 TR	#16	PVC	300	2 TR	FIRE AND GAS DETECTOR	
C-114-A	-	24VDC	JBC-1 INLET	U/G	DISTRIBUTION PANEL "D"	INSTR. TECK	-	20	#14	PVC	300	7	-	
C-160	-	24VDC	JBC-106A Z-200 PUMP SKID	TRAY	DENSITOMETER	INSTR. TECK	-	4 TR	#16	PVC	300	3 TR	B,S&W MONITOR	
C-161	-	24VDC	JBC-201 PUMP BUILDING	TRAY	FE-2940	INSTR. TECK	-	2 PR	#16	PVC	300	0	CUSTODY TO SALES FLOW TURBINE	
C-163	-	24VDC	CONTROL ROOM	U/G	RESIDENCE	SEAL PICK	-	20 PR	#22	-	300	18 PR	SPEAKER WIRE	
C-200	-	24VDC	CONTROL PANEL	SURFACE	480V MCC	TECK 90	-	20	14	XLPE	600	4	GLYCOL PUMPS CONTROL	
C-201	-	24VDC	CONTROL PANEL	SURFACE	480V EMERGENCY MCC	TECK 90	-	6	14	XLPE	600	0	F.W.K.O. BLDG HEATER H-103 & INLET HEADER BLDG HEATER H-817 S/D AND V-110 SEP. BLDG HEATER H-200 S/D	
C-211	-	24VDC	CONTROL PANEL	TRAY	JBC-103 F.W.K.O. BUILDING	TECK 90	-	30	14	XLPE	600	0	-	
C-212	-	24VDC	CONTROL PANEL	SURFACE	JBC-103 F.W.K.O. BUILDING	TECK 90	-	20	14	XLPE	600	4	-	
C-213	-	24VDC	JBC-103 F.W.K.O. BUILDING	SURFACE	EY-1031/EY-1035 OUTSIDE V-103 F.W.K.O. BLDG	TECK 90	-	6	14	XLPE	600	2	V-103 F.W.K.O. INLET ESD VALVES	
C-214	-	24VDC	JBC-103 F.W.K.O. BUILDING	SURFACE	PSHH-1030, EY-1030 OUTSIDE V-103 F.W.K.O. BLDG	TECK 90	-	6	14	XLPE	600	2	V-103 F.W.K.O. INLET PRESS CONTROL VALVE & INLET PRESSURE SWITCH	
C-215	-	24VDC	JBC-103 F.W.K.O. BUILDING	SURFACE	EY-1037 OUTSIDE V-103 F.W.K.O. BLDG	TECK 90	-	6	14	XLPE	600	4	V-103 F.W.K.O. VESSEL BLOWDOWN VALVE	
C-216	-	24VDC	JBC-103 F.W.K.O. BUILDING	SURFACE	PSLL-8020,LSL-8021,EY-8020 H-802 GLYCOL HEATER SKID	TECK 90	-	10	14	XLPE	600	4	GLYCOL HEATER CONTROL	
C-217	-	24VDC	JBC-103 F.W.K.O. BUILDING	SURFACE	FSLL-8041, TSSL-8041 GLYCOL SUPPLY LINE	TECK 90	-	6	14	XLPE	600	2	GLYCOL HEATER CONTROL	
C-218	-	24VDC	CONTROL PANEL	TRAY	JBC-104 F.W.K.O. BUILDING	INSTR. TECK	-	20 PR	16	PVC	300	7	-	
C-219	-	24VDC	JBC-104 F.W.K.O. BUILDING	SURFACE	PY-1032 OUTSIDE V-103 F.W.K.O. BLDG	TECK 90	-	2 PR	14	PVC	600	1 PR	V-103 F.W.K.O. INLET PRESS CONTROL VALVE PCV-1031	
C-220	-	24VDC	PSHH-101	SURFACE	FSLL-101 P-101 LOW FLOW	TECK 90	-	2	14	XPPE	600	-	P-101 LOW FLOW	
C-221	-	24VDC	JBC-301	TRAY	PSHH-101 P-101 HIGH PRESSURE	TECK 90	-	4	14	XPPE	600	-	P-101 HIGH PRESSURE	
C-222	-	24VDC	CONTROL PANEL	TRAY/UG	JB-106A Z-200 PUMP SKID	INSTR. TECK	-	16 PR	16	PVC	300	14 PR	CONDENSATE AND WATER TANKS CONTROL IN TANK FARM	
C-223	-	24VDC	CONTROL PANEL	TRAY/UG	JB-223A Z-200 PUMP SKID	TECK 90	-	20	14	XLPE	600	3	CONDENSATE AND WATER TANKS CONTROL IN TANK FARM	
C-223A	-	24VDC	JB-223A	U/G	JB-223B	TECK 90	-	20	14	XLPE	600	3	-	
C-223B	-	24VDC	JB-223B	TRAY	JB-106B	TECK 90	-	20	14	XLPE	600	3	-	
C-224	-	24VDC	JBC-104 F.W.K.O. BUILDING	TRAY	PT-1032	INSTR. TECK	-	2 PR	14	PVC	600	1 PR	INLET PRESSURE	
C-227	-	24VDC	JB-108A Z-200 PUMP SKID	SURFACE	LT-2612 CONDENSATE TANK T-261	TECK 90	-	3/4" RGS	2 PR	16	PVC	300	1 PR	-
C-228	-	24VDC	JB-108B Z-200 PUMP SKID	SURFACE	LSHH-2611 CONDENSATE TANK T-261	TECK 90	-	3/4" RGS	4	14	XLPE	600	2	-
C-229	-	24VDC	CONTROL ROOM	U/G	JBC-1000 (E. OF ARCHEOLOGICAL SITE)	INSTR. TECK	-	8 PR	18	PVC	300	5 PR	RESIDENCE DATA COMMUNICATION	
C-229A	-	24VDC	JBC-1000 (EAST OF ARCHEOLOGICAL SITE)	U/G	RESIDENCE	INSTR. TECK	-	8 PR	18	PVC	300	5 PR	RESIDENCE DATA COMMUNICATION	
C-230	-	24VDC	CONTROL ROOM	U/G	JBC-1000 (E. OF ARCHEOLOGICAL SITE)	INSTR. TECK	-	8 PR	18	PVC	300	8 PR	SPARE CABLE	
C-230A	-	24VDC	JBC-1000 (EAST OF ARCHEOLOGICAL SITE)	U/G	RESIDENCE	INSTR. TECK	-	8 PR	18	PVC	300	8PR	SPARE CABLE	

CABLE NUMBER	CIRCUIT		FROM	VIA	TO	CABLE TYPE	CONDUIT SIZE TYPE	CONDUCTORS					REMARKS
	LOAD	VOLTS						No.	SIZE	INSUL	VOLTS	SPARE	
C-240	-	24VDC	JBC-104 V-103 F.W.K.O. BLDG	TRAY	JBC-110C EAST YARD RACK	INSTR. TECK	-	12 PR	16	PVC	300	7 PR	-
C-241	-	24VDC	CONTROL PANEL	TRAY	JBC-110C EAST YARD RACK	TECK 90	-	20	14	XLPE	600	4	-
C-242	-	24VDC	REMOTE DIST. CENTER "D"	TRAY/U/G	JBC-110C EAST YARD RACK	INSTR. TECK	-	8 PR	#16	PVC	300	8 PR	-
C-243	-	24VDC	JB-110C	TRAY	PIG TRAP AREA	TECK 90	-	6C	#14	PVC	300	0Z	-
C-244	-	24VDC	JB-110C	U/G	BOY-110 C-25-A INLET BDV	TECK 90	-	6C	#14	PVC	600	2	-
C-316	-	24VDC	JBC-104 V-103 F.W.K.O. BLDG	TRAY	JBC-110 V-110 SEPARATOR BLDG	INSTR. TECK	-	12 PR	16	PVC	300	8 PR	-
C-317	-	24VDC	CONTROL PANEL	TRAY	JBC-110 V-110 SEPARATOR BLDG	TECK 90	-	20	14	XLPE	600	8	-
C-318	-	24VDC	REMOTE DIST. CENTER "D"	TRAY/U/G	JBC-110 V-110 SEPARATOR BLDG	INSTR. TECK	-	8 PR	#16	PVC	300	8	V-110 SEPARATOR METER RUN TO ROC
C-329	-	24VDC	CONTROL ROOM	U/G	RESIDENCE	SEAL PICK	-	20 PR	#22	-	300	18 PR	SPEAKER WIRE
C-330	-	24VDC	CONTROL PANEL	SURFACE	480V MCC	TECK 90	-	20	14	XLPE	600	4	GLYCOL PUMPS CONTROL
C-331	-	24VDC	CONTROL ROOM	SURFACE	480V EMERGENCY MCC	TECK 90	-	6	14	XLPE	600	0	F.W.K.O. BLDG HEATER H-103 & INLET HEADER BLDG HEATER H-817 S/D AND V-110 SEP. BLDG HEATER H-200 S/D
C-332	-	24VDC	CONTROL PANEL	TRAY	JBC-103 F.W.K.O. BUILDING	TECK 90	-	30	14	XLPE	600	0	-
C-333	-	24VDC	CONTROL PANEL	SURFACE	JBC-103 F.W.K.O. BUILDING	TECK 90	-	20	14	XLPE	600	4	-
C-334	-	24VDC	JBC-103 F.W.K.O. BUILDING	SURFACE	EY-1031/EY-1035 OUTSIDE V-103 F.W.K.O. BLDG.	TECK 90	-	6	14	XLPE	600	2	V-103 F.W.K.O. INLET ESD VALVES
C-335	-	24VDC	JBC-103 F.W.K.O. BUILDING	SURFACE	SPARE IN TRAY	TECK 90	-	6	14	XLPE	600	2	V-103 F.W.K.O. INLET PRESS CONTROL VALVE & INLET PRESSURE SWITCH
C-336	-	24VDC	MCP CONTROL PANEL #2	TRAY	P-120 VFD	INSTR. TECK	-	1 PR	#16	PVC	600	0	-
C-337	-	24VDC	JBC-103 F.W.K.O. BUILDING	SURFACE	PSLL-8020,LSL-8021,EY-8020 H-802 GLYCOL HEATER SKID	TECK 90	-	10	14	XLPE	600	4	GLYCOL HEATER CONTROL
C-338	-	24VDC	JBC-103 F.W.K.O. BUILDING	SURFACE	FSLL-8041, TSSL-8041 GLYCOL SUPPLY LINE	TECK 90	-	6	14	XLPE	600	2	GLYCOL HEATER CONTROL
P-205	-	480V	EMERGENCY MCC	TRAY	BL-901	TECK 90	-	3	10	XLPE	1000	0	-
P-206	-	480V	EMERGENCY MCC	TRAY	P-902	TECK 90	-	3	4	XLPE	1000	0	-
P-207	-	480V	EMERGENCY MCC	TRAY	P-903	TECK 90	-	3	4	XLPE	1000	0	-
MC-202	-	120V	EMERGENCY MCC	TRAY	P-902 CONTROL STATION	TECK 90	-	3	14	XLPE	600	0	-
MC-203	-	120V	EMERGENCY MCC	TRAY	P-903 CONTROL STATION	TECK 90	-	3	14	XLPE	600	0	-
C-339	-	24VDC	MCP #2	TRAY	JB-AS10	TECK 90	-	20	14	XLPE	600	8	-
C-340	-	24VDC	MCP #2	SURFACE	EMERGENCY MCC	TECK 90	-	12	14	XLPE	600	3	-
LTG-205	-	120V	LP-E	TRAY	JB-LP10	TECK 90	-	12	10	XLPE	600	2	-
LTG-206	-	120V	120V UPS DISTRIBUTION PANEL	TRAY	JB-LP10	TECK 90	-	2	10	XLPE	600	0	-
FG-202	-	24VDC	MCP #2	TRAY	JB-AS10	ARM INSTR.	-	4 TR	#16	PVC	300	3 TR	-
C-342	-	24VDC	JB-110C	SURFACE	V-103 ROC407-B	TECK 90	-	2	14	XLPE	600	0	-
COMM-202A	-	24VDC	JBC-104	SURFACE	V-103 ROC407-B	ARM INSTR.	-	1 PR	#16	PVC	300	0	-
COMM-202B	-	24VDC	V-103 ROC407-B	SURFACE	FIT-3303/3304	ARM INSTR.	-	1 PR	#16	PVC	300	0	-
COMM-202C	-	24VDC	V-103 ROC407-B	SURFACE	TT-3303/3304	ARM INSTR.	-	1 PR	#16	PVC	300	0	-
COMM-203A	-	24VDC	JB-COMM'S 20	SURFACE	V-200 ROC407-B	ARM INSTR.	-	2 PR	#16	PVC	300	0	-
COMM-203B	-	24VDC	V-200 ROC407-B	SURFACE	FIT-3305/3306	ARM INSTR.	-	1 PR	#16	PVC	300	0	-
COMM-203C	-	24VDC	V-200 ROC407-B	SURFACE	TT-3305/3306	ARM INSTR.	-	1 PR	#16	PVC	300	0	-

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	8	03.03.28	AS BUILT (778.07)	JB	TP	.	<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC., AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
-	-	7	02.11.06	ISSUED FOR BID (778.07)	JB	TP	.	
-	-	6	00.05.16	AS-BUILT CONCISE DESIGN ENGINEERING	QB	.	.	
-	-	5	00.01.25	I.F.C. CONCISE DESIGN ENGINEERING	GJD	.	.	
-	-	4	99.12.03	ALBERTA GAS SEPARATOR ADDITION (IFC REVIEW)	KL	.	.	
-	-	3	99.10.25	ALBERTA GAS SEPARATOR ADDITION (ISSUED FOR BID)	KL	.	.	
-	-	2	99.05.20	AS BUILT 1999 PLANT ADDITION (AS PER NOR-TECH M/UPS)	KL	.	.	
-	-	9	06.11.15	ISSUED FOR REVIEW (SOLARIS JOB P06-0007)	RL	.	.	
-	-	1	99.02.24	REVISE NO. OF SPARES IN CABLE C-211 & 212	KL	.	.	

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Solaris Management Consultants Inc.  
Suite #305, 7485-130th Street Surrey, B.C. V3W 1H8  
Phone: (604) 507-9800 Fax: (604) 507-9801 e-mail: solaris@solaris-mci.com

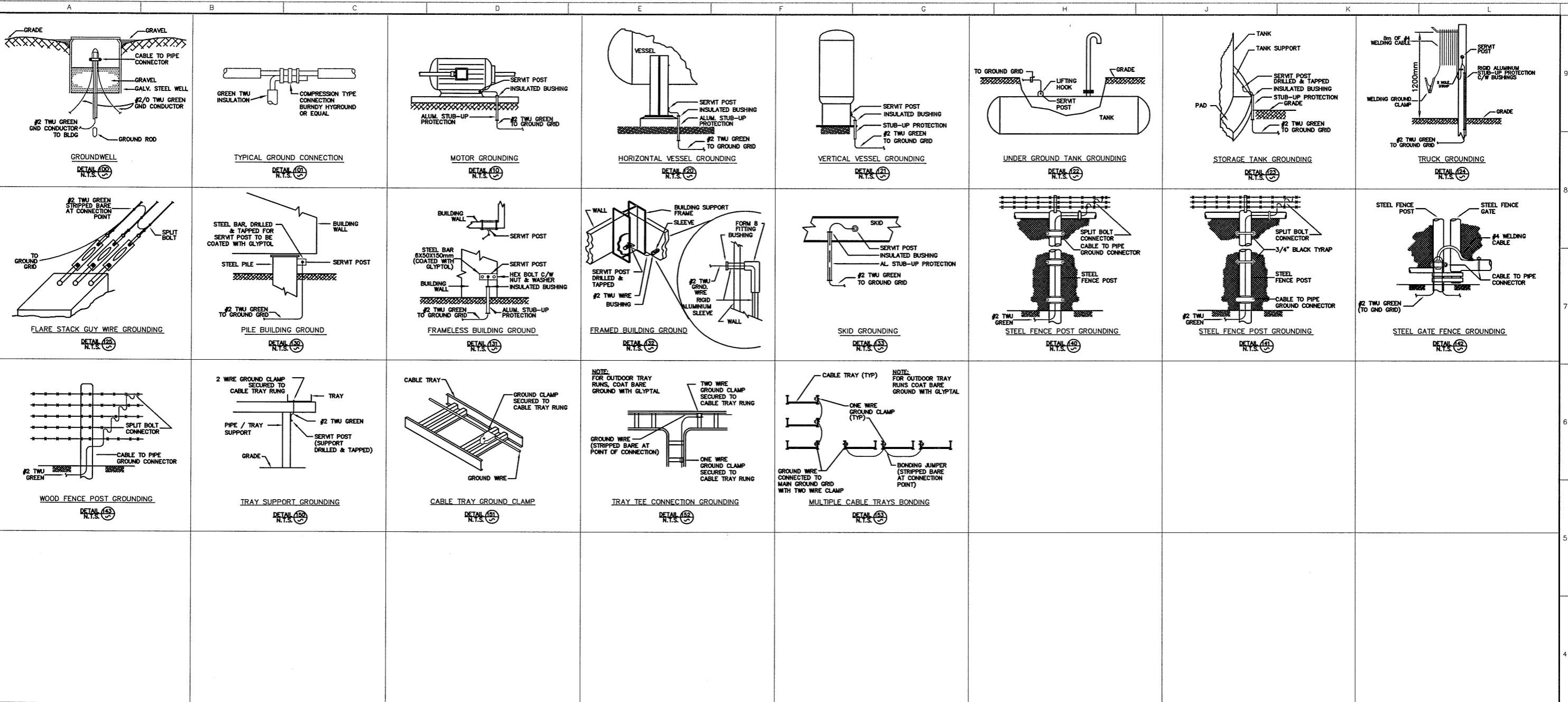
DRAWN	DESIGNED	CHECKED	APPROVED
KL			
DATE	99.01.21		

**PIONEER**  
NATURAL RESOURCES CANADA INC.

**SOLARIS** MANAGEMENT CONSULTANTS INC.

**CHINCHAGA GAS PLANT**  
c-32-H/94-H-8  
CABLE SCHEDULE

SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	PNR101-8	A1-2262-S-403	9



FOR INFORMATION ONLY



**CHINCHAGA GAS PLANT**  
c-32-H/94-H-8  
**ELECTRICAL STANDARD INSTALLATION DETAILS**

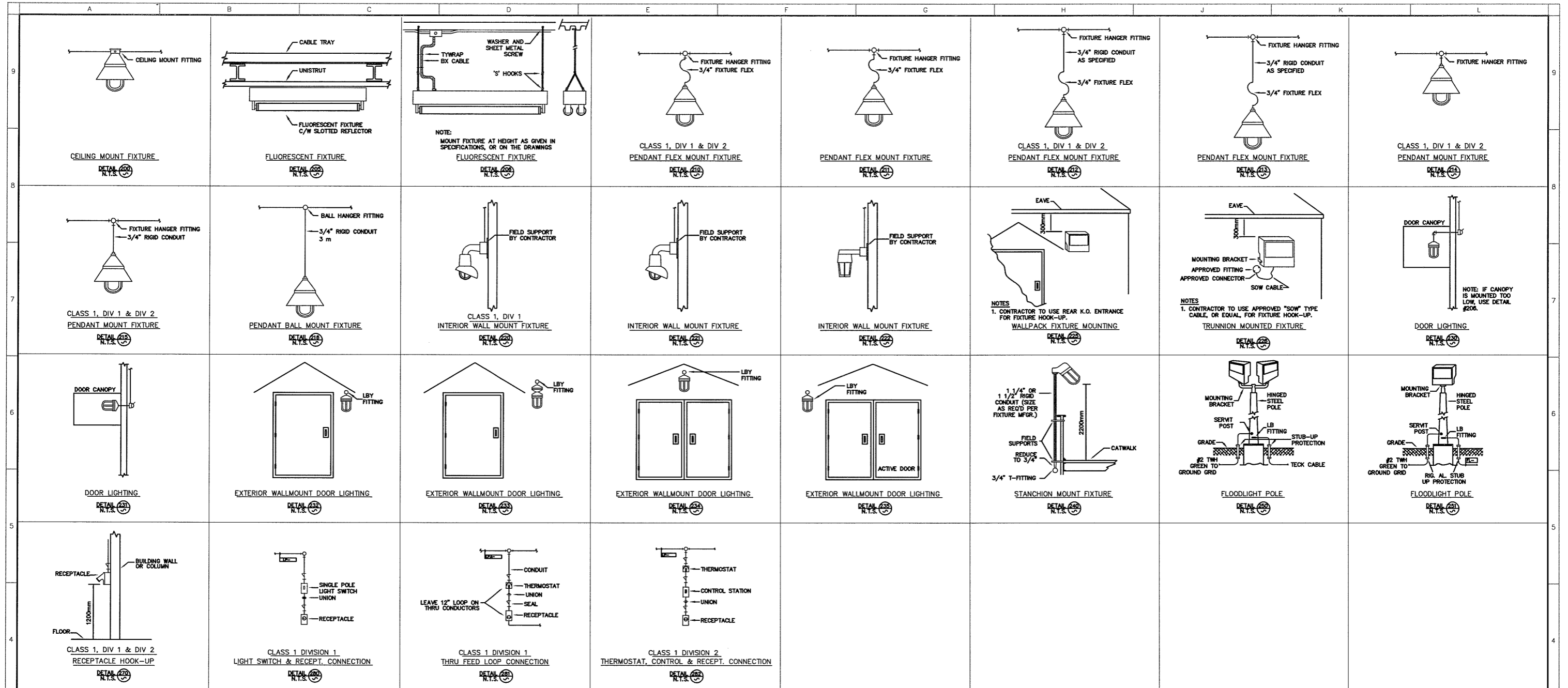
DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	A	06.01.17	ISSUED FOR PRE-CONSTRUCTION REVIEW	FQ	-	-	THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC., AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.  THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.
-	-	B	06.11.15	ISSUED FOR INFORMATION (SOLARIS JOB P06-0007)	RL	-	-	
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**SOLARIS** MANAGEMENT CONSULTANTS INC.

Suite #305, 7485-130th Street Surrey, B.C. V3W 1H8 Phone: (604) 507-9800 Fax: (604) 507-9801 e-mail: solaris@solaris-mci.com

BY	DESIGNED	CHECKED	APPROVED
FQ			
DATE	05.10.19		

SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	778.16	778-00-9901	A



FOR INFORMATION ONLY

**P** PIONEER  
NATURAL RESOURCES CANADA INC.

CHINCHAGA GAS PLANT  
c-32-H/94-H-8  
ELECTRICAL STANDARD INSTALLATION DETAILS

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
-	-	A	06.01.17	ISSUED FOR PRE-CONSTRUCTION REVIEW	FQ	-	-	
-	-	B	06.11.15	ISSUED FOR INFORMATION (SOLARIS JOB P06-0007)	RL	-	-	
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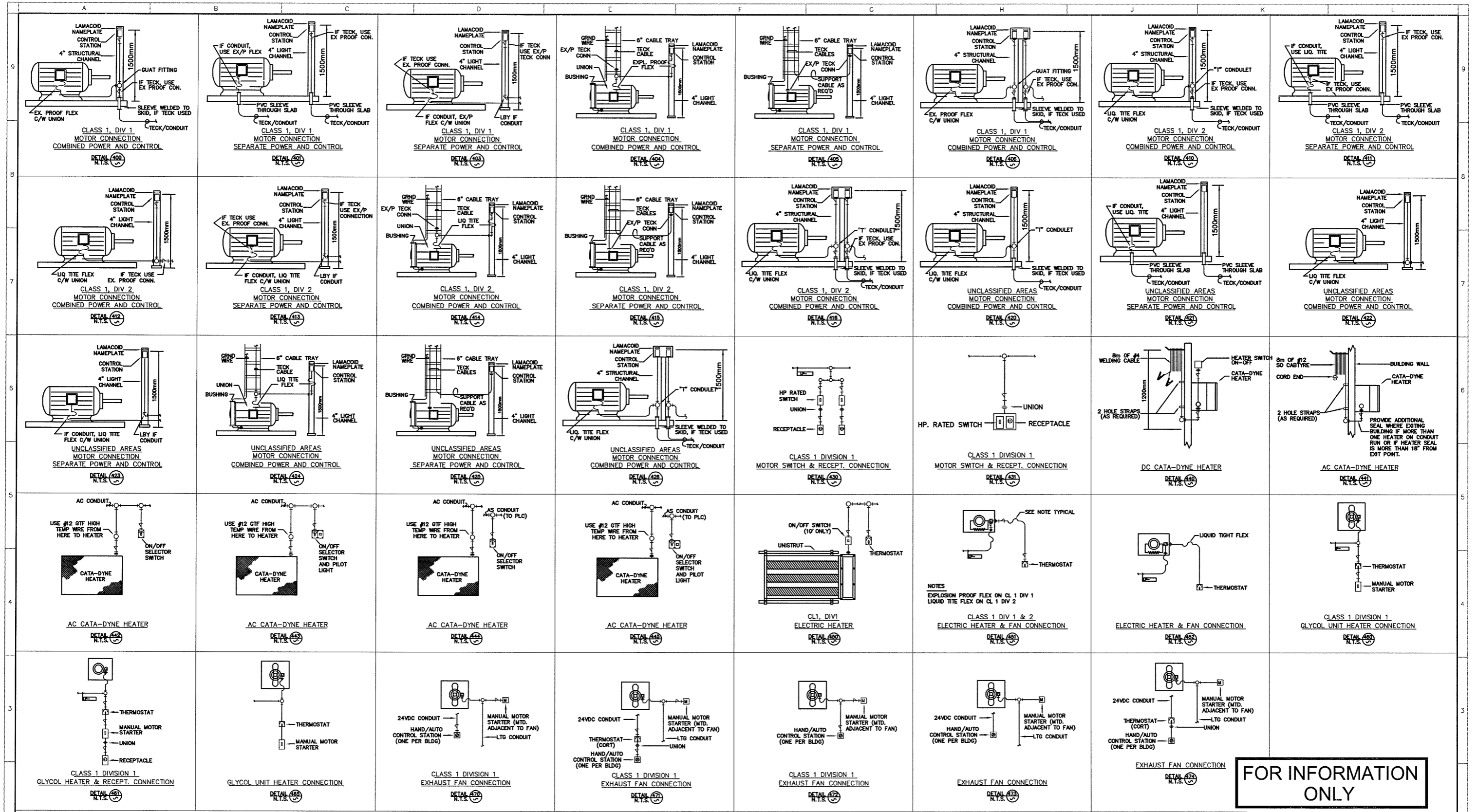
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Surrey, B.C. V3W 1H6    Fax: (604) 507-8801  
e-mail: solaris@solaris-mci.com

BY	DESIGNED	CHECKED	APPROVED
FQ			
DATE	05.10.19		

SCALE	JOB NO.	DRAWING NUMBER	REV.
NONE	778.16	778-00-9902	B





FOR INFORMATION ONLY

**P** PIONEER  
NATURAL RESOURCES CANADA INC.

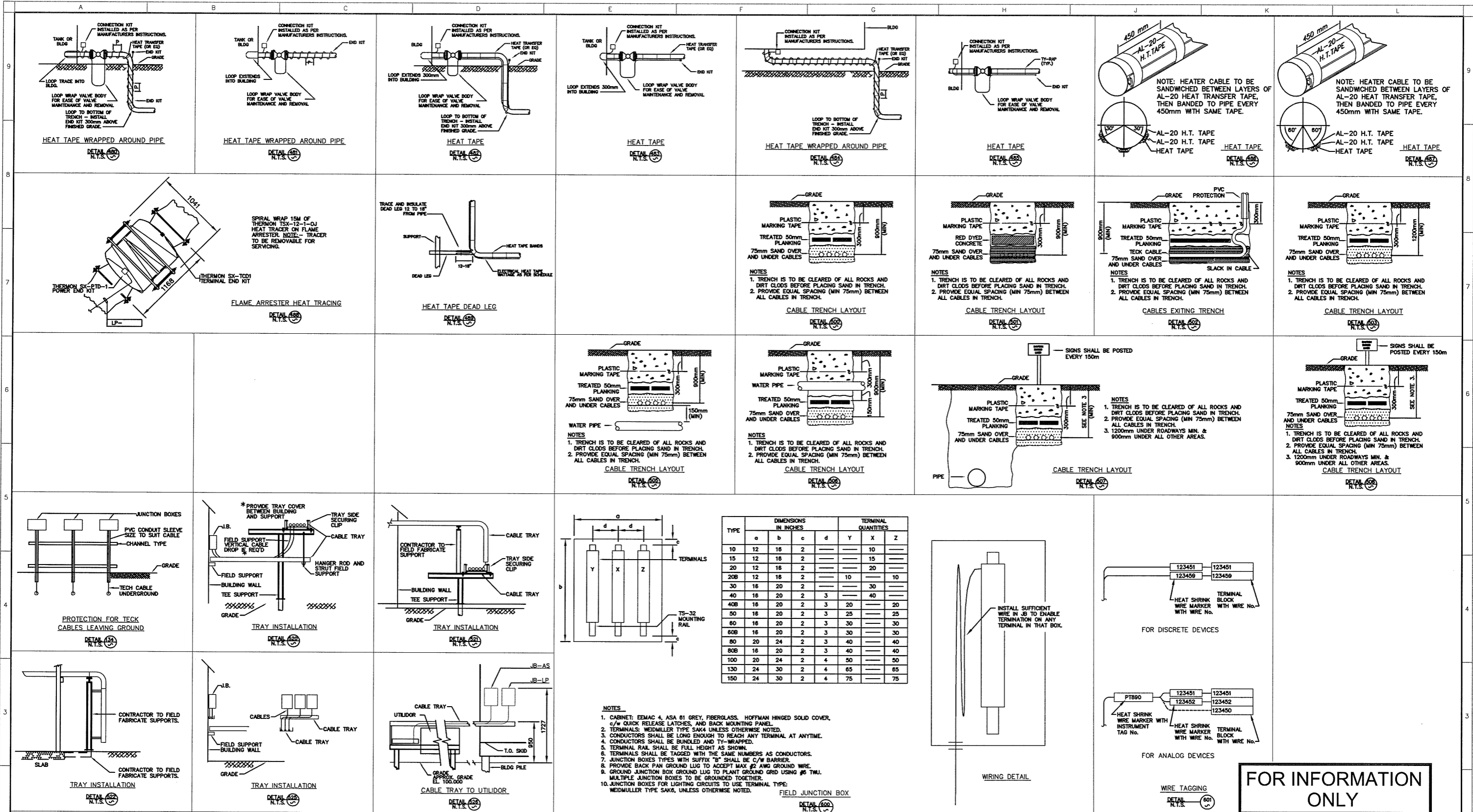
CHINCHAGA GAS PLANT  
c-32-H/94-H-8  
ELECTRICAL STANDARD INSTALLATION DETAILS

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
		A	06.01.17	ISSUED FOR PRE-CONSTRUCTION REVIEW	FQ			
		B	06.11.15	ISSUED FOR INFORMATION (SOLARIS JOB P06-0007)	RL			

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DRAWN: FQ DESIGNED: FQ CHECKED: FQ APPROVED: FQ DATE: 05.10.19	SCALE: NONE JOB NO.: 778.16 DRAWING NUMBER: 778-00-9904 REV: A



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e-mail: solaris@solaris-mci.com

**CHINCHAGA GAS PLANT**  
c-32-H/94-H-8  
**ELECTRICAL STANDARD INSTALLATION DETAILS**

DWG. NUMBER	REFERENCE DRAWINGS	REV.	DATE	REVISION DESCRIPTION	DRAWN	CHECK	APPR.	PROFESSIONAL & PERMIT STAMPS
		A	06.01.17	ISSUED FOR PRE-CONSTRUCTION REVIEW	FQ			<p>THIS DRAWING IS THE SOLE PROPERTY OF SOLARIS MANAGEMENT CONSULTANTS INC. AND IS LOANED TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY. THIS DRAWING SHALL NOT BE REPRODUCED, COPIED OR ALTERED IN ANY WAY, NOR SHALL IT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PRODUCED.</p> <p>THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS IT IS SIGNED, DATED AND STAMPED.</p>
		B	06.11.15	ISSUED FOR INFORMATION (SOLARIS JOB P06-0007)	RL			

DATE	DRAWN	DESIGNED	CHECKED	APPROVED	SCALE	JOB NO.	DRAWING NUMBER	REV.
05.10.19	FQ				NONE	778.16	778-00-9905	A