

Date: 1/20/16
Rev: E2

EQUIPMENT LIST - Revised for Permit
AERA - FIELD REDEVELOPMENT PROJECT

LEGEND for Plant Processes

Legend table mapping process codes (COS, CPP, GS, LOS) to descriptions (Clean Oil Storage, Central Plant Processes, Group Station, Light Oil Storage) and other codes (OCP, Off-Plot, PGSG, PGTG) to descriptions (Oil Cleaning Plant, Off-Plot/Fire Water, Produced Gas Steam Generation, Produced Gas Treatment Plant) and SCS to Solids Concentration Plant.

Feel free to use autofilters. Warning, Performing a sort will sever links to the other sheets! Do not modify hidden columns Q, R, and S.

Main equipment list table with columns: Tag Identifier, Tag Number, Description Short, Description Long, Process Grouping, Project Phase (timing), PFD Dwg No., Plot Plan Dwg No., Process Media, Capacity, Size, Equipment Information (Driver Type, Horse power, Ratings (MAWP, Press/Temp, etc.)), Codes, Location. Rows include various pumps, coolers, scrubbers, and reservoirs.

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LEGEND for Plant Processes

COS	Clean Oil Storage	OCF	Oil Cleaning Plant	SCP	Solids Concentration Plant
CPP	Central Plant Processes	Off-Plot	Off-Plot / Fire Water	SGS	Steam Generation Site
GS	Group Station	PGSG	Produced Gas Steam Generation	WCP	Water Cleaning Plant
LOS	Light Oil Storage	PGTP	Produced Gas Treatment Plant	WSP	Water Softening Plant

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IDENTIFICATION		DESCRIPTION						EQUIPMENT INFORMATION							
Tag Identifier	Tag Number	Description short	Description Long	Process Grouping	Project Phase (timing)	PFD Dwg No.	Plot Plan Dwg No.	Process Media	Capacity	Size	Driver Type	Horse power	Ratings (MAWP, Press/Temp, etc.)	Codes	Location
P	4620	Pump	Water Injection Pump	WSP	Phase 1	SK-13186-69	072-13-063A/B	Water	12,000 BPD @ 1,800psig	-	VFD	500	1,800 psig @ 200°F	API 674	CPF
T	4200	Tank	Soft Water Tank	WSP	Phase 1	SK-13186-69	072-13-063A/B	Water	10,000 BBL	55'-0" DIA x 24'-0"	NA	NA	Design: <1 psig @ 250°F	API 650	CPF
T	4290	Tank	Brine Tank	WSP	Phase 1	SK-13186-69	072-13-063A/B	Water	170 Tons Salt	14'-0" DIA x 35'-0"	NA	NA	Design: Atmospheric @ 180°F	ASME RTP-1	CPF
T	4300	Tank	Brine Tank	WSP	Phase 1	SK-13186-69	072-13-063A/B	Water	170 Tons Salt	14'-0" DIA x 35'-0"	NA	NA	Design: Atmospheric @ 180°F	ASME RTP-1	CPF
T	4600	Tank	Water Injection Tank	WSP	Phase 1	SK-13186-69	072-13-063A/B	Water	3,000 BBL	29'-9" DIA x 24'-0"	NA	NA	Design: <1 psig @ 250°F	API 650	CPF
V	4010	Vessel	SAC Primary Softener Vessel	WSP	Phase 1	SK-13186-67	072-13-063A/B	Water	18,500 BPD	10'-0" DIA x 11'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4020	Vessel	SAC Polisher Softener Vessel	WSP	Phase 1	SK-13186-67	072-13-063A/B	Water	18,500 BPD	7'-0" DIA x 11'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4030	Vessel	SAC Primary Softener Vessel	WSP	Phase 1	SK-13186-67	072-13-063A/B	Water	18,500 BPD	10'-0" DIA x 11'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4040	Vessel	SAC Polisher Softener Vessel	WSP	Phase 1	SK-13186-67	072-13-063A/B	Water	18,500 BPD	7'-0" DIA x 11'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4050	Vessel	WAC Polisher Softener Vessel	WSP	Phase 1	SK-13186-67	072-13-063A/B	Water	18,500 BPD	7'-0" DIA x 9'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4060	Vessel	WAC Polisher Softener Vessel	WSP	Phase 1	SK-13186-67	072-13-063A/B	Water	18,500 BPD	7'-0" DIA x 9'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
P	4410	Pump	Steam Plant Feed Pump	WSP	Phase 2	SK-13186-70	072-13-063A/B	Water	525 gpm @ 300 psig	-	Motor	150	300 psig @ 250°F	ANSI B73.1	CPF
P	4420	Pump	Steam Plant Feed Pump	WSP	Phase 2	SK-13186-70	072-13-063A/B	Water	525 gpm @ 300 psig	-	Motor	150	300 psig @ 250°F	ANSI B73.1	CPF
P	4430	Pump	Brine Make-Up/Dilution Pump	WSP	Phase 2	SK-13186-70	072-13-063A/B	Water	200 gpm @ 80 psig	-	Motor	15	80 psig @ 250°F	ANSI B73.1	CPF
P	4440	Pump	Brine Make-Up/Dilution Pump	WSP	Phase 2	SK-13186-70	072-13-063A/B	Water	200 gpm @ 80 psig	-	Motor	15	80 psig @ 250°F	ANSI B73.1	CPF
P	4450	Pump	Softener Backwash Pump	WSP	Phase 2	SK-13186-64	072-13-063A/B	Water	800 gpm @ 60 psig	-	Motor	50	60 psig @ 250°F	ANSI B73.1	CPF
P	4460	Pump	Softener Backwash Pump	WSP	Phase 2	SK-13186-64	072-13-063A/B	Water	800 gpm @ 60 psig	-	Motor	50	60 psig @ 250°F	ANSI B73.1	CPF
P	4470	Pump	Concentrated Brine Pump	WSP	Phase 2	SK-13186-70	072-13-063A/B	Water	140 gpm @ 80 psig	-	Motor	15	80 psig @ 250°F	ANSI B73.1	CPF
P	4480	Pump	Concentrated Brine Pump	WSP	Phase 2	SK-13186-70	072-13-063A/B	Water	140 gpm @ 80 psig	-	Motor	15	80 psig @ 250°F	ANSI B73.1	CPF
V	9990	Skid	Nitrogen Storage and Vaporization Skid	WSP	Phase 2	SK-13186-92	072-13-063A/B	Nitrogen	-	-	-	-	-	-	CPF
T	4400	Tank	Soft Water Tank	WSP	Phase 2	SK-13186-70	072-13-063A/B	Water	10,000 BBL	55'-0" DIA x 24'-0"	NA	NA	Design: <1 psig @ 250°F	API 650	CPF
T	4490	Tank	Brine Tank	WSP	Phase 2	SK-13186-70	072-13-063A/B	Water	170 Tons Salt	14'-0" DIA x 35'-0"	NA	NA	Design: Atmospheric @ 180°F	ASME RTP-1	CPF
T	4500	Tank	Brine Tank	WSP	Phase 2	SK-13186-70	072-13-063A/B	Water	170 Tons Salt	14'-0" DIA x 35'-0"	NA	NA	Design: Atmospheric @ 180°F	ASME RTP-1	CPF
V	4110	Vessel	SAC Primary Softener Vessel	WSP	Phase 2	SK-13186-68	072-13-063A/B	Water	18,500 BPD	10'-0" DIA x 11'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4120	Vessel	SAC Polisher Softener Vessel	WSP	Phase 2	SK-13186-68	072-13-063A/B	Water	18,500 BPD	7'-0" DIA x 11'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4130	Vessel	SAC Primary Softener Vessel	WSP	Phase 2	SK-13186-68	072-13-063A/B	Water	18,500 BPD	10'-0" DIA x 11'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4140	Vessel	SAC Polisher Softener Vessel	WSP	Phase 2	SK-13186-68	072-13-063A/B	Water	18,500 BPD	7'-0" DIA x 11'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4150	Vessel	WAC Polisher Softener Vessel	WSP	Phase 2	SK-13186-68	072-13-063A/B	Water	18,500 BPD	7'-0" DIA x 9'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF
V	4160	Vessel	WAC Polisher Softener Vessel	WSP	Phase 2	SK-13186-68	072-13-063A/B	Water	18,500 BPD	7'-0" DIA x 9'-0" S/S	NA	NA	100 psig @ 239°F	ASME Sec 8	CPF