

THIS DRAWING AND THE DESIGN IT COVERS ARE CONFIDENTIAL AND REMAIN THE PROPERTY OF ANADARKO PETROLEUM CORPORATION AND SHALL NOT BE DISCLOSED TO OTHERS OR REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WHATSOEVER EXCEPT BY WRITTEN PERMISSION BY THE OWNER.

FILE LOCATION: L:\SharedData\Denver\Rockies\CD\DWG\LEGENDS\OXY-PID-STD-00010.dwg

PLOT STYLE: -----

LAST SAVED: 1/9/2020 BY: Mec Pabianko

EQUIPMENT NUMBERING STANDARD	PIPE LINE NUMBERING STANDARD	FLOW SHEET LINE TYPES	VALVES	PIPING SYMBOLS	MISCELLANEOUS																																																																																																																																																																																																																																																																																																																																																																					
<p>EQUIPMENT IDENTIFICATION CODE</p> <p style="text-align: center;">X-####</p> <p>EQUIPMENT ID</p> <p>*TRAIN NUMBER (USE 0 FOR COMMON EQUIPMENT)(OR COMPRESSOR UNIT NUMBER - CTF SITES ONLY) INSTRUMENTATION NUMBERS - MATCH EQUIPMENT ID AND INCREMENT NUMERICALLY ONLY. ELECTRICAL NUMBERS - MATCH EQUIPMENT ID AND INCREMENT NUMERICALLY ONLY.</p> <p>ALPHAS ONLY AS APPROVED BY APC ENGINEERING.</p> <p>EQUIPMENT IDENTIFICATION CODE</p> <table style="width:100%; font-size: 8px;"> <tr> <td>AC-#### AIR COOLED FIN FAN</td> <td>T-#### TOWER</td> </tr> <tr> <td>C-#### COMPRESSOR</td> <td>TK-#### TANK ATMOSPHERE</td> </tr> <tr> <td>E-#### EXCHANGER</td> <td>V-#### VESSEL, PROCESS</td> </tr> <tr> <td>F-#### FILTER</td> <td>VS-#### VESSEL, STORAGE</td> </tr> <tr> <td>H-#### FIRED HEATERS</td> <td>FL-#### SPECIALTY I.E., VENT STACK, FLARE, INCINERATOR, ECD</td> </tr> <tr> <td>M-#### MOTOR</td> <td>TO-#### THERMAL OXIDIZER</td> </tr> <tr> <td>P-#### PUMP</td> <td>X-#### MISC. EQUIPMENT</td> </tr> <tr> <td>R-#### REACTOR</td> <td></td> </tr> </table> <p>EQUIPMENT NUMBERING SYSTEM</p> <table style="width:100%; font-size: 8px;"> <tr> <th colspan="3">COMPRESSOR STATIONS & OIL PUMPING FACILITIES</th> </tr> <tr> <th>AREA NUMBERS</th> <th>AREA REFERENCED</th> <th>TYPICAL EQUIPMENT</th> </tr> <tr> <td>10000</td> <td>INLET GAS AREA</td> <td>SLUG CATCHERS & SEPARATORS</td> </tr> <tr> <td>20000</td> <td>CRUDE OIL TRANSFER EQUIPMENT</td> <td>LINE HEATERS, PUMPS & SURGE VESSELS</td> </tr> <tr> <td>30000</td> <td>CONDENSATE HANDLING</td> <td>PUMPS, WATER SEPARATION & SURGE/STORAGE</td> </tr> <tr> <td>40000</td> <td>COMPRESSION</td> <td>ENGINE/COMP. SKID EQUIP., COOLERS, ON-SKID SEPARATORS</td> </tr> <tr> <td>50000</td> <td>DISCHARGE SEPARATION, DEHYDRATION</td> <td>DISCHARGE SEPARATORS, FILTERS & DEHYDRATION EQUIP.</td> </tr> <tr> <td>60000</td> <td>AMINE SYSTEM</td> <td>CONTACTOR, REGEN SYSTEM & FILTERS</td> </tr> <tr> <td>70000</td> <td>OUTLET AREA</td> <td>GAS METERS, LACTS, PUMPS & STORAGE</td> </tr> <tr> <td>80000</td> <td>SWD</td> <td>TANKS & PUMPS</td> </tr> <tr> <td>90000</td> <td>FLARE & UTILITIES</td> <td></td> </tr> <tr> <th colspan="3">OIL STABILIZATION FACILITIES</th> </tr> <tr> <th>AREA NUMBERS</th> <th>AREA REFERENCED</th> <th>TYPICAL EQUIPMENT</th> </tr> <tr> <td>10000</td> <td>INLET AREA</td> <td>SLUG CATCHERS, SURGE/SEPARATOR VESSELS, LACTS & INLET HEATERS</td> </tr> <tr> <td>20000</td> <td>-</td> <td>-</td> </tr> <tr> <td>30000</td> <td>PROCESS EQUIPMENT</td> <td>VESSLES, TOWERS, EXCHANGERS, REFLUX SYSTEM</td> </tr> <tr> <td>40000</td> <td>COMPRESSION</td> <td>COMPRESSORS, AFTERCOOLERS, COMPRESSOR ASSOCIATED VESSELS</td> </tr> <tr> <td>50000</td> <td>NGL STORAGE AND LACT</td> <td>STORAGE VESSELS, PUMPS, METERS, LP GAS METERS</td> </tr> <tr> <td>60000</td> <td>PRODUCT COOLING</td> <td>HEAT EXCHANGERS, CHILLERS, PUMPS, REFRIGERANT COMPRESSORS</td> </tr> <tr> <td>70000</td> <td>OUTLET AREA</td> <td>OIL BOOSTER PUMPS, OIL PIPELINE PUMPS, OIL LACT</td> </tr> <tr> <td>80000</td> <td>HEAT MEDIUM SYSTEM</td> <td>HEATERS, HM PUMPS, FILTERS</td> </tr> <tr> <td>90000</td> <td>FLARE & UTILITIES</td> <td>FLARE, KNOCKOUTS, ECD'S, T.O., AIR COMPRESSORS, DRAINS, FUEL GAS</td> </tr> <tr> <th colspan="3">GAS PLANTS</th> </tr> <tr> <th>AREA NUMBERS</th> <th>AREA REFERENCED</th> <th>TYPICAL EQUIPMENT</th> </tr> <tr> <td>10000</td> <td>INLET GAS AREA</td> <td>SLUG CATCHERS & SEPARATORS</td> </tr> <tr> <td>20000</td> <td>CRUDE OIL TRANSFER EQUIPMENT</td> <td>LINE HEATERS, PUMPS & SURGE VESSELS</td> </tr> <tr> <td>30000</td> <td>CONDENSATE HANDLING</td> <td>PUMPS, WATER SEPARATION & SURGE/STORAGE</td> </tr> <tr> <td>40000</td> <td>COMPRESSION</td> <td>ENGINE/COMP. SKID EQUIP., COOLERS, ON-SKID SEPARATORS</td> </tr> <tr> <td>50000</td> <td>DISCHARGE SEPARATION, DEHYDRATION</td> <td>DISCHARGE SEPARATORS, FILTERS & DEHYDRATION EQUIP.</td> </tr> <tr> <td>60000</td> <td>AMINE SYSTEM</td> <td>CONTACTOR, REGEN SYSTEM & FILTERS</td> </tr> <tr> <td>70000</td> <td>OUTLET AREA</td> <td>GAS METERS, LACTS, PUMPS & STORAGE</td> </tr> <tr> <td>80000</td> <td>SWD</td> <td>TANKS & PUMPS</td> </tr> <tr> <td>90000</td> <td>FLARE & UTILITIES</td> <td></td> </tr> <tr> <th colspan="3">PRODUCTION FACILITIES</th> </tr> <tr> <th>AREA NUMBERS</th> <th>AREA REFERENCED</th> <th>TYPICAL EQUIPMENT</th> </tr> <tr> <td>10000</td> <td>WELL HEADS</td> <td>WELL HEADS & METHANOL TANKS</td> </tr> <tr> <td>20000</td> <td>INLET AREA</td> <td>SEPARATORS, BURNER UNITS, BURNER MANAGEMENT, FUEL SCRUBBERS</td> </tr> <tr> <td>30000</td> <td>OIL SYSTEM</td> <td>BULK SEPARATORS, VAPOR RECOVERY TOWERS & LACTS</td> </tr> <tr> <td>40000</td> <td>GAS SYSTEM</td> <td>GAS SCRUBBERS, DEHY., AMINE & GAS METERS</td> </tr> <tr> <td>50000</td> <td>FLARE SYSTEMS</td> <td>FLARES, VENT & PURGE SYSTEMS, ECDs</td> </tr> <tr> <td>60000</td> <td>STORAGE AREA</td> <td>OIL TANKS, WATER TANKS, RECIRC PUMPS</td> </tr> <tr> <td>70000</td> <td>UTILITIES</td> <td>AIR COMPRESSORS, GENERATORS</td> </tr> <tr> <td>80000</td> <td>GAS COMPRESSORS</td> <td>VRUS & GAS COMPRESSORS</td> </tr> <tr> <td>90000</td> <td>WATER TRAIN</td> <td>SWD PUMPS & WATER METERS</td> </tr> <tr> <th colspan="3">P&ID NUMBERING STANDARD</th> </tr> <p style="text-align: center;">X#####-PID-XXXXX</p> <p>FUNCTIONAL LOCATION NUMBER DRAWING TYPE P&ID DRAWING NUMBERS(*)</p> <p>*P&ID DRAWING NUMBERS ARE BASED OFF OF THE SITE/EQUIPMENT AREA NUMBERS. (SEE EQUIPMENT IDENTIFICATION CODE AND NUMBERING SYSTEM)</p> </table>	AC-#### AIR COOLED FIN FAN	T-#### TOWER	C-#### COMPRESSOR	TK-#### TANK ATMOSPHERE	E-#### EXCHANGER	V-#### VESSEL, PROCESS	F-#### FILTER	VS-#### VESSEL, STORAGE	H-#### FIRED HEATERS	FL-#### SPECIALTY I.E., VENT STACK, FLARE, INCINERATOR, ECD	M-#### MOTOR	TO-#### THERMAL OXIDIZER	P-#### PUMP	X-#### MISC. EQUIPMENT	R-#### REACTOR		COMPRESSOR STATIONS & OIL PUMPING FACILITIES			AREA NUMBERS	AREA REFERENCED	TYPICAL EQUIPMENT	10000	INLET GAS AREA	SLUG CATCHERS & SEPARATORS	20000	CRUDE OIL TRANSFER EQUIPMENT	LINE HEATERS, PUMPS & SURGE VESSELS	30000	CONDENSATE HANDLING	PUMPS, WATER SEPARATION & SURGE/STORAGE	40000	COMPRESSION	ENGINE/COMP. SKID EQUIP., COOLERS, ON-SKID SEPARATORS	50000	DISCHARGE SEPARATION, DEHYDRATION	DISCHARGE SEPARATORS, FILTERS & DEHYDRATION EQUIP.	60000	AMINE SYSTEM	CONTACTOR, REGEN SYSTEM & FILTERS	70000	OUTLET AREA	GAS METERS, LACTS, PUMPS & STORAGE	80000	SWD	TANKS & PUMPS	90000	FLARE & UTILITIES		OIL STABILIZATION FACILITIES			AREA NUMBERS	AREA REFERENCED	TYPICAL EQUIPMENT	10000	INLET AREA	SLUG CATCHERS, SURGE/SEPARATOR VESSELS, LACTS & INLET HEATERS	20000	-	-	30000	PROCESS EQUIPMENT	VESSLES, TOWERS, EXCHANGERS, REFLUX SYSTEM	40000	COMPRESSION	COMPRESSORS, AFTERCOOLERS, COMPRESSOR ASSOCIATED VESSELS	50000	NGL STORAGE AND LACT	STORAGE VESSELS, PUMPS, METERS, LP GAS METERS	60000	PRODUCT COOLING	HEAT EXCHANGERS, CHILLERS, PUMPS, REFRIGERANT COMPRESSORS	70000	OUTLET AREA	OIL BOOSTER PUMPS, OIL PIPELINE PUMPS, OIL LACT	80000	HEAT MEDIUM SYSTEM	HEATERS, HM PUMPS, FILTERS	90000	FLARE & UTILITIES	FLARE, KNOCKOUTS, ECD'S, T.O., AIR COMPRESSORS, DRAINS, FUEL GAS	GAS PLANTS			AREA NUMBERS	AREA REFERENCED	TYPICAL EQUIPMENT	10000	INLET GAS AREA	SLUG CATCHERS & SEPARATORS	20000	CRUDE OIL TRANSFER EQUIPMENT	LINE HEATERS, PUMPS & SURGE VESSELS	30000	CONDENSATE HANDLING	PUMPS, WATER SEPARATION & SURGE/STORAGE	40000	COMPRESSION	ENGINE/COMP. SKID EQUIP., COOLERS, ON-SKID SEPARATORS	50000	DISCHARGE SEPARATION, DEHYDRATION	DISCHARGE SEPARATORS, FILTERS & DEHYDRATION EQUIP.	60000	AMINE SYSTEM	CONTACTOR, REGEN SYSTEM & FILTERS	70000	OUTLET AREA	GAS METERS, LACTS, PUMPS & STORAGE	80000	SWD	TANKS & PUMPS	90000	FLARE & UTILITIES		PRODUCTION FACILITIES			AREA NUMBERS	AREA REFERENCED	TYPICAL EQUIPMENT	10000	WELL HEADS	WELL HEADS & METHANOL TANKS	20000	INLET AREA	SEPARATORS, BURNER UNITS, BURNER MANAGEMENT, FUEL SCRUBBERS	30000	OIL SYSTEM	BULK SEPARATORS, VAPOR RECOVERY TOWERS & LACTS	40000	GAS SYSTEM	GAS SCRUBBERS, DEHY., AMINE & GAS METERS	50000	FLARE SYSTEMS	FLARES, VENT & PURGE SYSTEMS, ECDs	60000	STORAGE AREA	OIL TANKS, WATER TANKS, RECIRC PUMPS	70000	UTILITIES	AIR COMPRESSORS, GENERATORS	80000	GAS COMPRESSORS	VRUS & GAS COMPRESSORS	90000	WATER TRAIN	SWD PUMPS & WATER METERS	P&ID NUMBERING STANDARD			<p>PIPE LINE NUMBERING STANDARD</p> <p style="text-align: center;">XX-XX-XXXX-XXXX-XXXX</p> <p>SERVICE IDENTIFICATION PIPE SIZE SEQUENTIAL NUMBER</p> <p>INSULATION THICKNESS TRACING TYPE INSULATION TYPE PIPE SPECIFICATION</p> <p>SERVICE IDENTIFICATION CODE</p> <table style="width:100%; font-size: 8px;"> <tr> <td>AD = ACID DRAIN</td> <td>LH = LIQUID HYDROCARBON</td> </tr> <tr> <td>AF = ACID FLARE</td> <td>LO = LUBE OIL</td> </tr> <tr> <td>AG = ACID GAS</td> <td>LS = LOW PRESSURE STEAM</td> </tr> <tr> <td>AO = ABSORPTION OIL</td> <td>M = METHANE</td> </tr> <tr> <td>AV = ATMOSPHERE VENT</td> <td>MC = MEDIUM PRESSURE CONDENSATE</td> </tr> <tr> <td>B = N-BUTANE</td> <td>MD = MEDIUM PRESSURE DRAIN</td> </tr> <tr> <td>BD = BUILDING DRAIN</td> <td>MF = MEDIUM PRESSURE FLARE</td> </tr> <tr> <td>BG = BLANKET GAS</td> <td>MS = MEDIUM PRESSURE STEAM</td> </tr> <tr> <td>BV = BLOWDOWN VENT</td> <td>N = NITROGEN</td> </tr> <tr> <td>BW = BOILER FEED WATER</td> <td>NG = NATURAL GAS</td> </tr> <tr> <td>C = CAUSTIC</td> <td>OD = OPEN DRAIN</td> </tr> <tr> <td>CA = COMBUSTION AIR</td> <td>OT = HOT OIL TRACE</td> </tr> <tr> <td>CD = CLOSED DRAIN</td> <td>OV = OIL VENT</td> </tr> <tr> <td>CW = COLD WATER</td> <td>PA = PROPANE</td> </tr> <tr> <td>DA = DRAIN ATMOSPHERIC</td> <td>PC = PROCESS CONDENSATE</td> </tr> <tr> <td>DF = DIESEL FUEL</td> <td>PF = PROCESS FLARE</td> </tr> <tr> <td>DP = DRAIN PRESSURED</td> <td>PG = POWER GAS</td> </tr> <tr> <td>DW = DECHILLED WATER</td> <td>PV = PROCESS VENT</td> </tr> <tr> <td>E = ETHANE</td> <td>PW = PRODUCED WATER</td> </tr> <tr> <td>FC = FUEL GAS</td> <td>RA = RICH AMINE</td> </tr> <tr> <td>FW = FIRE WATER</td> <td>RG = RICH GLYCOL</td> </tr> <tr> <td>G = GLYCOL</td> <td>RW = RAW WATER</td> </tr> <tr> <td>GH = GAS HYDROCARBON</td> <td>SA = STARTING AIR</td> </tr> <tr> <td>H = HYDROGEN SULFIDE</td> <td>SD = SOLVENT DRAIN</td> </tr> <tr> <td>HC = HIGH PRESSURE CONDENSATE</td> <td>SE = SEAL GAS</td> </tr> <tr> <td>HD = HIGH PRESSURE DRAIN</td> <td>SG = STARTING GAS</td> </tr> <tr> <td>HF = HIGH PRESSURE FLARE</td> <td>SH = SHUT DOWN</td> </tr> <tr> <td>HG = HOT OIL</td> <td>SI = STEAM TRACE</td> </tr> <tr> <td>HS = HIGH PRESSURE STEAM</td> <td>ST = SOUR (PRODUCED) WATER</td> </tr> <tr> <td>HW = HOT WATER</td> <td>TG = TREATED GAS</td> </tr> <tr> <td>IA = INSTRUMENT AIR</td> <td>TW = TREATED WATER</td> </tr> <tr> <td>IB = ISOBUTANE</td> <td>UA = UTILITY AIR</td> </tr> <tr> <td>IG = INSTRUMENT GAS</td> <td>UV = UTILITY VENT</td> </tr> <tr> <td>IC = JACKET WATER</td> <td>UW = UTILITY WATER</td> </tr> <tr> <td>LA = LEAN AMINE</td> <td>V = VENT GAS</td> </tr> <tr> <td>LC = LOW PRESSURE CONDENSATE</td> <td>WF = WELL FLUID</td> </tr> <tr> <td>LD = LOW PRESSURE DRAIN</td> <td>WW = WASTE WATER</td> </tr> <tr> <td>LE = LOW PRESSURE FLARE</td> <td></td> </tr> <tr> <td>LG = LEAN GLYCOL</td> <td></td> </tr> </table> <p>PIPE SPECIFICATIONS NAMING CONVENTION</p> <p style="text-align: center;">XXXX</p> <p>FLANGE CLASS MATERIAL SERVICE GOVERNING CODE</p> <table style="width:100%; font-size: 8px;"> <tr> <th colspan="2">FLANGE CLASS</th> <th colspan="2">MATERIAL</th> </tr> <tr> <td>A - CL 150</td> <td>E - CL 900</td> <td>C - CARBON STEEL</td> <td></td> </tr> <tr> <td>B - CL 300</td> <td>F - CL 1500</td> <td>L - LOW TEMP. CARBON STEEL</td> <td></td> </tr> <tr> <td>D - CL 600</td> <td>G - CL 2500</td> <td>S - STAINLESS STEEL</td> <td></td> </tr> <tr> <td></td> <td></td> <td>P - HDPE/PVC</td> <td></td> </tr> </table> <table style="width:100%; font-size: 8px;"> <tr> <th colspan="2">GOVERNING CODE</th> <th colspan="2">SERVICE</th> </tr> <tr> <td>1 - ASME B31.1</td> <td>A - GENERAL SERVICE</td> <td></td> <td></td> </tr> <tr> <td>3 - ASME B31.3</td> <td>B - SOUR SERVICE</td> <td></td> <td></td> </tr> <tr> <td>4 - ASME B31.4</td> <td>C - Z - OTHER SERVICE FLUIDS</td> <td></td> <td></td> </tr> <tr> <td>8 - ASME B31.8</td> <td>L - DRAINS, GLYCOL, CRUDE OIL</td> <td></td> <td></td> </tr> </table> <p>INSULATION AND TRACE CODE</p> <table style="width:100%; font-size: 8px;"> <tr> <th colspan="2">INSULATION TYPE</th> <th colspan="2">TRACE TYPE</th> </tr> <tr> <td>XX</td> <td>C=COLD</td> <td>ST=STEAM</td> <td></td> </tr> <tr> <td>XX</td> <td>H=HOT</td> <td>ET=ELECTRIC</td> <td></td> </tr> <tr> <td>E/T</td> <td>P=PERSONNEL</td> <td>MT=MEDIA TRACE I.e., GLYCOL, HOT OIL</td> <td></td> </tr> <tr> <td></td> <td>S=SWEEP</td> <td></td> <td></td> </tr> </table> <p>MANUAL VALVE NUMBERING SYSTEM</p> <p>REPRESENTS PID DRAWING NUMBER * - ### UNIQUE 3 DIGIT NUMBER</p> <p>NUMBER SHALL COMMENCE ON EACH SHEET WITH 001 AND CONTINUE SEQUENTIALLY</p> <p>ABBREVIATIONS</p> <table style="width:100%; font-size: 8px;"> <tr> <td>ATM = ATMOSPHERE</td> <td>M = THOUSAND</td> </tr> <tr> <td>AG = ABOVE GRADE</td> <td>MM = MILLION</td> </tr> <tr> <td>AV = AIR VENT (AUTOMATIC)</td> <td>MW = MANWAY</td> </tr> <tr> <td>BE = BURNER ELEMENT</td> <td>NZ = NITROGEN</td> </tr> <tr> <td>BF = BELOW GRADE</td> <td>NC = NORMALLY CLOSED</td> </tr> <tr> <td>CBD = CONTINUOUS BLOWDOWN</td> <td>NLL = NORMAL LIQUID LEVEL</td> </tr> <tr> <td>CD = CLOSED DRAIN</td> <td>NO = NORMALLY OPEN</td> </tr> <tr> <td>CH = CHOKER</td> <td>OD = OPEN DRAIN</td> </tr> <tr> <td>CHO = CHAIN OPERATED</td> <td>OD = OVERALL DIAMETER (SIZE)</td> </tr> <tr> <td>CO = CLEAN OUT</td> <td>PB = PUSH BUTTON</td> </tr> <tr> <td>CP = CORROSION PROBE</td> <td>PC = PURGE CONNECTION</td> </tr> <tr> <td>CSC = CAR SEAL CLOSED</td> <td>QD = QUICK DISCONNECT</td> </tr> <tr> <td>CSO = CAR SEAL OPEN</td> <td>R = RESET</td> </tr> <tr> <td>DC = DRAIN CONNECTION</td> <td>ROC = RATE OF CHANGE</td> </tr> <tr> <td>FC = FAIL CLOSED</td> <td>ROV = REMOTE OPERATED VALVE</td> </tr> <tr> <td>FL = FAIL LAST</td> <td>RTD = RESISTANCE TEMP. DETECTOR</td> </tr> <tr> <td>FO = FAIL OPEN</td> <td>SC = SAMPLE CONNECTION</td> </tr> <tr> <td>GPH = GALLONS PER HOUR</td> <td>SCED = STD. CU. FT. PER DAY</td> </tr> <tr> <td>GPM = GALLONS PER MINUTE</td> <td>SCFH = STD. CU. FT. PER HOUR</td> </tr> <tr> <td>HC = HOSE CONNECTION</td> <td>SCFM = STD. CU. FT. PER MINUTE</td> </tr> <tr> <td>HLL = HIGH LIQUID LEVEL</td> <td>SD = SHUTDOWN</td> </tr> <tr> <td>HLL = HIGH LIQUID LEVEL</td> <td>SIS = SAFETY INSTRUMENT SYSTEM</td> </tr> <tr> <td>HP = HIGH PRESSURE</td> <td>SOC = STEAM OUT CONNECTION</td> </tr> <tr> <td>HSD = HAND SHUTDOWN</td> <td>SOW = SCOPE OF WORK</td> </tr> <tr> <td>IA = INSTRUMENT AIR</td> <td>SR = STRESS RELIEF</td> </tr> <tr> <td>IGN = IGNITION</td> <td>SS = SELECTOR SWITCH</td> </tr> <tr> <td>LC = LOCK CLOSED</td> <td>ST = STEAM TRAP</td> </tr> <tr> <td>LD = LIQUID DRAIN</td> <td>ST = START UP</td> </tr> <tr> <td>LLL = LOW LIQUID LEVEL</td> <td>TS = TEMPORARY STRAINER</td> </tr> <tr> <td>LLL = LOW LIQUID LEVEL</td> <td>TSO = TIGHT SHUT OFF</td> </tr> <tr> <td>LO = LOCK OPEN</td> <td>TYPICAL</td> </tr> <tr> <td>LP = LOW PRESSURE</td> <td>(V) = VENDOR SUPPLIED</td> </tr> <tr> <td>MIN = MINIMUM DISTANCE</td> <td>VB = VACUUM BREAKER</td> </tr> <tr> <td></td> <td>WC = WATER COLUMN</td> </tr> </table>	AD = ACID DRAIN	LH = LIQUID HYDROCARBON	AF = ACID FLARE	LO = LUBE OIL	AG = ACID GAS	LS = LOW PRESSURE STEAM	AO = ABSORPTION OIL	M = METHANE	AV = ATMOSPHERE VENT	MC = MEDIUM PRESSURE CONDENSATE	B = N-BUTANE	MD = MEDIUM PRESSURE DRAIN	BD = BUILDING DRAIN	MF = MEDIUM PRESSURE FLARE	BG = BLANKET GAS	MS = MEDIUM PRESSURE STEAM	BV = BLOWDOWN VENT	N = NITROGEN	BW = BOILER FEED WATER	NG = NATURAL GAS	C = CAUSTIC	OD = OPEN DRAIN	CA = COMBUSTION AIR	OT = HOT OIL TRACE	CD = CLOSED DRAIN	OV = OIL VENT	CW = COLD WATER	PA = PROPANE	DA = DRAIN ATMOSPHERIC	PC = PROCESS CONDENSATE	DF = DIESEL FUEL	PF = PROCESS FLARE	DP = DRAIN PRESSURED	PG = POWER GAS	DW = DECHILLED WATER	PV = PROCESS VENT	E = ETHANE	PW = PRODUCED WATER	FC = FUEL GAS	RA = RICH AMINE	FW = FIRE WATER	RG = RICH GLYCOL	G = GLYCOL	RW = RAW WATER	GH = GAS HYDROCARBON	SA = STARTING AIR	H = HYDROGEN SULFIDE	SD = SOLVENT DRAIN	HC = HIGH PRESSURE CONDENSATE	SE = SEAL GAS	HD = HIGH PRESSURE DRAIN	SG = STARTING GAS	HF = HIGH PRESSURE FLARE	SH = SHUT DOWN	HG = HOT OIL	SI = STEAM TRACE	HS = HIGH PRESSURE STEAM	ST = SOUR (PRODUCED) WATER	HW = HOT WATER	TG = TREATED GAS	IA = INSTRUMENT AIR	TW = TREATED WATER	IB = ISOBUTANE	UA = UTILITY AIR	IG = INSTRUMENT GAS	UV = UTILITY VENT	IC = JACKET WATER	UW = UTILITY WATER	LA = LEAN AMINE	V = VENT GAS	LC = LOW PRESSURE CONDENSATE	WF = WELL FLUID	LD = LOW PRESSURE DRAIN	WW = WASTE WATER	LE = LOW PRESSURE FLARE		LG = LEAN GLYCOL		FLANGE CLASS		MATERIAL		A - CL 150	E - CL 900	C - CARBON STEEL		B - CL 300	F - CL 1500	L - LOW TEMP. CARBON STEEL		D - CL 600	G - CL 2500	S - STAINLESS STEEL				P - HDPE/PVC		GOVERNING CODE		SERVICE		1 - ASME B31.1	A - GENERAL SERVICE			3 - ASME B31.3	B - SOUR SERVICE			4 - ASME B31.4	C - Z - OTHER SERVICE FLUIDS			8 - ASME B31.8	L - DRAINS, GLYCOL, CRUDE OIL			INSULATION TYPE		TRACE TYPE		XX	C=COLD	ST=STEAM		XX	H=HOT	ET=ELECTRIC		E/T	P=PERSONNEL	MT=MEDIA TRACE I.e., GLYCOL, HOT OIL			S=SWEEP			ATM = ATMOSPHERE	M = THOUSAND	AG = ABOVE GRADE	MM = MILLION	AV = AIR VENT (AUTOMATIC)	MW = MANWAY	BE = BURNER ELEMENT	NZ = NITROGEN	BF = BELOW GRADE	NC = NORMALLY CLOSED	CBD = CONTINUOUS BLOWDOWN	NLL = NORMAL LIQUID LEVEL	CD = CLOSED DRAIN	NO = NORMALLY OPEN	CH = CHOKER	OD = OPEN DRAIN	CHO = CHAIN OPERATED	OD = OVERALL DIAMETER (SIZE)	CO = CLEAN OUT	PB = PUSH BUTTON	CP = CORROSION PROBE	PC = PURGE CONNECTION	CSC = CAR SEAL CLOSED	QD = QUICK DISCONNECT	CSO = CAR SEAL OPEN	R = RESET	DC = DRAIN CONNECTION	ROC = RATE OF CHANGE	FC = FAIL CLOSED	ROV = REMOTE OPERATED VALVE	FL = FAIL LAST	RTD = RESISTANCE TEMP. DETECTOR	FO = FAIL OPEN	SC = SAMPLE CONNECTION	GPH = GALLONS PER HOUR	SCED = STD. CU. FT. PER DAY	GPM = GALLONS PER MINUTE	SCFH = STD. CU. FT. PER HOUR	HC = HOSE CONNECTION	SCFM = STD. CU. FT. PER MINUTE	HLL = HIGH LIQUID LEVEL	SD = SHUTDOWN	HLL = HIGH LIQUID LEVEL	SIS = SAFETY INSTRUMENT SYSTEM	HP = HIGH PRESSURE	SOC = STEAM OUT CONNECTION	HSD = HAND SHUTDOWN	SOW = SCOPE OF WORK	IA = INSTRUMENT AIR	SR = STRESS RELIEF	IGN = IGNITION	SS = SELECTOR SWITCH	LC = LOCK CLOSED	ST = STEAM TRAP	LD = LIQUID DRAIN	ST = START UP	LLL = LOW LIQUID LEVEL	TS = TEMPORARY STRAINER	LLL = LOW LIQUID LEVEL	TSO = TIGHT SHUT OFF	LO = LOCK OPEN	TYPICAL	LP = LOW PRESSURE	(V) = VENDOR SUPPLIED	MIN = MINIMUM DISTANCE	VB = VACUUM BREAKER		WC = WATER COLUMN	<p>FLOW SHEET LINE TYPES</p> <p>MAJOR _____</p> <p>MAJOR SECONDARY _____</p> <p>MINOR _____</p> <p>MINOR SECONDARY _____</p> <p>SKID LIMITS - - - - -</p> <p>VALVE CONNECTIONS</p> <p>THREADED/SOCKET WELD VALVE</p> <p>FLANGED VALVE</p> <p>REDUCERS</p> <p>CONCENTRIC</p> <p>ECCENTRIC (FOB) OR (FSD)</p> <p>ECCENTRIC (FOT) OR (FSU)</p> <p>SWAGE</p> <p>CONTROL ACTUATORS</p> <p>DIAPHRAGM OPERATOR</p> <p>COUNTERWEIGHT ACTUATOR VALVE</p> <p>PRESSURE REGULATOR SELF-CONTAINED</p> <p>DIAPHRAGM w/ HANDWHEEL</p> <p>PISTON OPERATOR</p> <p>PRESSURE REGULATOR w/ EXTERNAL PRESSURE TAP</p> <p>PRESSURE REGULATOR SELF-CONTAINED w/ ADJUSTING KNOB</p> <p>VALVE ACTUATOR AND POSITIONER</p> <p>MISCELLANEOUS ACTUATORS</p> <p>HANDWHEEL ACTUATOR</p> <p>ELECTROHYDRAULIC ACTUATOR</p> <p>ELECTRIC MOTOR ACTUATOR</p> <p>SOLENOID NON-LATCHING</p> <p>SOLENOID LATCHING</p> <p>R=LOCAL RESET</p> <p>E=ELECTRIC RESET</p>	<p>PIPING SYMBOLS</p> <p>BLIND FLANGE OR LINE TERMINATION</p> <p>UNION</p> <p>SENIOR/JUNIOR ORIFICE METER</p> <p>ORIFICE</p> <p>ORIFICE CLOSED</p> <p>ORIFICE PADDLE</p> <p>FLOW TRANSMITTER WITH GATE VALVE</p> <p>FLOW TRANSMITTER WITH BALL VALVE</p> <p>FLOW TRANSMITTER WITH NEEDLE VALVE</p> <p>BLEED RING WITH GATE VALVE</p> <p>BLEED RING WITH BALL VALVE</p> <p>SPECTACLE BLIND OPEN POSITION</p> <p>SPECTACLE BLIND CLOSED POSITION</p> <p>PADDLE BLIND CLOSED POSITION</p> <p>PADDLE BLIND OPEN POSITION</p> <p>NOZZLES</p> <p>COUPLING</p> <p>FRONT VIEW CONNECTION</p> <p>NOZZLE BLINDED</p> <p>NOZZLE FLANGED</p> <p>MANWAY SINGLE LINE (SIDE VIEW)</p> <p>MANWAY (SIDE VIEW)</p> <p>MANWAY (FRONT VIEW)</p> <p>TANK CLEANOUT</p> <p>EQUIPMENT NOZZLE CALLOUT</p>	<p>INLINES</p> <p>Y-TYPE STRAINER</p> <p>Y-TYPE STRAINER WITH GATE VALVE</p> <p>Y-TYPE STRAINER WITH BALL VALVE</p> <p>INSULATION (SEE TABLE)</p> <p>INSULATION WITH HEAT TRACE (SEE TABLE)</p> <p>INSULATION WITH GLYCOL HEAT TRACE</p> <p>EQUIPMENT INSULATION</p> <p>TURBINE METER</p> <p>POSITIVE DISPLACEMENT METER</p> <p>MAGNETIC FLOW METER</p> <p>ULTRASONIC METER</p> <p>INLINE MIXER</p> <p>BASKET STRAINER</p> <p>FILTER</p> <p>INLINE STRAINER</p> <p>CONE STRAINER</p> <p>START UP STRAINER (WITCH HAT)</p> <p>EXPANSION JOINT</p> <p>ROTAMETER FLOW INDICATOR</p> <p>V-CONE METER</p> <p>VENTURI TUBE OR FLOW NOZZLE</p> <p>VENTURI TUBE WITH TAPS</p> <p>STRAIGHTENING VANES</p> <p>FLOW CONDITIONER</p> <p>VORTEX SENSOR</p> <p>ANNUBAR</p> <p>MASS FLOW CORIOLIS METER</p> <p>CORIOLIS METER</p> <p>RUPTURE DISK</p> <p>RUPTURE DISK (PRESSURE)</p> <p>RUPTURE DISK (VACUUM)</p> <p>EXCESS FLOW PREVENTER/MIXER</p> <p>DIAPHRAGM SEAL</p> <p>CHEMICAL SEAL</p> <p>PITOT TUBE OR PITOT VENTURI TUBE</p> <p>FLOW CONDITIONER</p>	<p>MISCELLANEOUS</p> <p>DRESSER COUPLING</p> <p>MATERIAL, AG/BG, INSULATION, PIPING SPEC OR SOW CHANGE</p> <p>FLEXIBLE HOSE FLANGED</p> <p>FLEXIBLE HOSE</p> <p>TRUCK CONNECTION/BOW & CAP</p> <p>AGITATOR</p> <p>TRUCK (BACK VIEW)</p> <p>TRUCK (SIDE VIEW)</p> <p>RAILCAR</p> <p>Y-TRAP</p> <p>OPEN DRAIN</p> <p>LIQUID SEAL X"=HEIGHT</p> <p>VENT</p> <p>TIE IN TO EXISTING PIPING OR PIPING BY OTHERS</p> <p>SPECIALTY ITEM</p> <p>INSULATING FLANGE KIT</p> <p>CORROSION COUPON</p> <p>PROCESS STREAM FLOW</p> <p>FLAME ARRESTOR</p> <p>MIST PAD OR MIST ELIMINATOR</p> <p>VORTEX BREAKER</p> <p>EJECTOR OR EDUCTOR</p> <p>SLOPE POINTED IN DOWNHILL SIDE</p> <p>PLUG</p> <p>BULL PLUG</p> <p>CAP WELDED/PIPE/LINE OR TERMINATION</p> <p>CAP THREADED</p> <p>INSTRUMENT BREAK</p> <p>VENT TO ATMOS</p> <p>VENT WITH BUG SCREEN</p> <p>PIC PASSAGE INDICATOR (PIC SIG)</p>
AC-#### AIR COOLED FIN FAN	T-#### TOWER																																																																																																																																																																																																																																																																																																																																																																									
C-#### COMPRESSOR	TK-#### TANK ATMOSPHERE																																																																																																																																																																																																																																																																																																																																																																									
E-#### EXCHANGER	V-#### VESSEL, PROCESS																																																																																																																																																																																																																																																																																																																																																																									
F-#### FILTER	VS-#### VESSEL, STORAGE																																																																																																																																																																																																																																																																																																																																																																									
H-#### FIRED HEATERS	FL-#### SPECIALTY I.E., VENT STACK, FLARE, INCINERATOR, ECD																																																																																																																																																																																																																																																																																																																																																																									
M-#### MOTOR	TO-#### THERMAL OXIDIZER																																																																																																																																																																																																																																																																																																																																																																									
P-#### PUMP	X-#### MISC. EQUIPMENT																																																																																																																																																																																																																																																																																																																																																																									
R-#### REACTOR																																																																																																																																																																																																																																																																																																																																																																										
COMPRESSOR STATIONS & OIL PUMPING FACILITIES																																																																																																																																																																																																																																																																																																																																																																										
AREA NUMBERS	AREA REFERENCED	TYPICAL EQUIPMENT																																																																																																																																																																																																																																																																																																																																																																								
10000	INLET GAS AREA	SLUG CATCHERS & SEPARATORS																																																																																																																																																																																																																																																																																																																																																																								
20000	CRUDE OIL TRANSFER EQUIPMENT	LINE HEATERS, PUMPS & SURGE VESSELS																																																																																																																																																																																																																																																																																																																																																																								
30000	CONDENSATE HANDLING	PUMPS, WATER SEPARATION & SURGE/STORAGE																																																																																																																																																																																																																																																																																																																																																																								
40000	COMPRESSION	ENGINE/COMP. SKID EQUIP., COOLERS, ON-SKID SEPARATORS																																																																																																																																																																																																																																																																																																																																																																								
50000	DISCHARGE SEPARATION, DEHYDRATION	DISCHARGE SEPARATORS, FILTERS & DEHYDRATION EQUIP.																																																																																																																																																																																																																																																																																																																																																																								
60000	AMINE SYSTEM	CONTACTOR, REGEN SYSTEM & FILTERS																																																																																																																																																																																																																																																																																																																																																																								
70000	OUTLET AREA	GAS METERS, LACTS, PUMPS & STORAGE																																																																																																																																																																																																																																																																																																																																																																								
80000	SWD	TANKS & PUMPS																																																																																																																																																																																																																																																																																																																																																																								
90000	FLARE & UTILITIES																																																																																																																																																																																																																																																																																																																																																																									
OIL STABILIZATION FACILITIES																																																																																																																																																																																																																																																																																																																																																																										
AREA NUMBERS	AREA REFERENCED	TYPICAL EQUIPMENT																																																																																																																																																																																																																																																																																																																																																																								
10000	INLET AREA	SLUG CATCHERS, SURGE/SEPARATOR VESSELS, LACTS & INLET HEATERS																																																																																																																																																																																																																																																																																																																																																																								
20000	-	-																																																																																																																																																																																																																																																																																																																																																																								
30000	PROCESS EQUIPMENT	VESSLES, TOWERS, EXCHANGERS, REFLUX SYSTEM																																																																																																																																																																																																																																																																																																																																																																								
40000	COMPRESSION	COMPRESSORS, AFTERCOOLERS, COMPRESSOR ASSOCIATED VESSELS																																																																																																																																																																																																																																																																																																																																																																								
50000	NGL STORAGE AND LACT	STORAGE VESSELS, PUMPS, METERS, LP GAS METERS																																																																																																																																																																																																																																																																																																																																																																								
60000	PRODUCT COOLING	HEAT EXCHANGERS, CHILLERS, PUMPS, REFRIGERANT COMPRESSORS																																																																																																																																																																																																																																																																																																																																																																								
70000	OUTLET AREA	OIL BOOSTER PUMPS, OIL PIPELINE PUMPS, OIL LACT																																																																																																																																																																																																																																																																																																																																																																								
80000	HEAT MEDIUM SYSTEM	HEATERS, HM PUMPS, FILTERS																																																																																																																																																																																																																																																																																																																																																																								
90000	FLARE & UTILITIES	FLARE, KNOCKOUTS, ECD'S, T.O., AIR COMPRESSORS, DRAINS, FUEL GAS																																																																																																																																																																																																																																																																																																																																																																								
GAS PLANTS																																																																																																																																																																																																																																																																																																																																																																										
AREA NUMBERS	AREA REFERENCED	TYPICAL EQUIPMENT																																																																																																																																																																																																																																																																																																																																																																								
10000	INLET GAS AREA	SLUG CATCHERS & SEPARATORS																																																																																																																																																																																																																																																																																																																																																																								
20000	CRUDE OIL TRANSFER EQUIPMENT	LINE HEATERS, PUMPS & SURGE VESSELS																																																																																																																																																																																																																																																																																																																																																																								
30000	CONDENSATE HANDLING	PUMPS, WATER SEPARATION & SURGE/STORAGE																																																																																																																																																																																																																																																																																																																																																																								
40000	COMPRESSION	ENGINE/COMP. SKID EQUIP., COOLERS, ON-SKID SEPARATORS																																																																																																																																																																																																																																																																																																																																																																								
50000	DISCHARGE SEPARATION, DEHYDRATION	DISCHARGE SEPARATORS, FILTERS & DEHYDRATION EQUIP.																																																																																																																																																																																																																																																																																																																																																																								
60000	AMINE SYSTEM	CONTACTOR, REGEN SYSTEM & FILTERS																																																																																																																																																																																																																																																																																																																																																																								
70000	OUTLET AREA	GAS METERS, LACTS, PUMPS & STORAGE																																																																																																																																																																																																																																																																																																																																																																								
80000	SWD	TANKS & PUMPS																																																																																																																																																																																																																																																																																																																																																																								
90000	FLARE & UTILITIES																																																																																																																																																																																																																																																																																																																																																																									
PRODUCTION FACILITIES																																																																																																																																																																																																																																																																																																																																																																										
AREA NUMBERS	AREA REFERENCED	TYPICAL EQUIPMENT																																																																																																																																																																																																																																																																																																																																																																								
10000	WELL HEADS	WELL HEADS & METHANOL TANKS																																																																																																																																																																																																																																																																																																																																																																								
20000	INLET AREA	SEPARATORS, BURNER UNITS, BURNER MANAGEMENT, FUEL SCRUBBERS																																																																																																																																																																																																																																																																																																																																																																								
30000	OIL SYSTEM	BULK SEPARATORS, VAPOR RECOVERY TOWERS & LACTS																																																																																																																																																																																																																																																																																																																																																																								
40000	GAS SYSTEM	GAS SCRUBBERS, DEHY., AMINE & GAS METERS																																																																																																																																																																																																																																																																																																																																																																								
50000	FLARE SYSTEMS	FLARES, VENT & PURGE SYSTEMS, ECDs																																																																																																																																																																																																																																																																																																																																																																								
60000	STORAGE AREA	OIL TANKS, WATER TANKS, RECIRC PUMPS																																																																																																																																																																																																																																																																																																																																																																								
70000	UTILITIES	AIR COMPRESSORS, GENERATORS																																																																																																																																																																																																																																																																																																																																																																								
80000	GAS COMPRESSORS	VRUS & GAS COMPRESSORS																																																																																																																																																																																																																																																																																																																																																																								
90000	WATER TRAIN	SWD PUMPS & WATER METERS																																																																																																																																																																																																																																																																																																																																																																								
P&ID NUMBERING STANDARD																																																																																																																																																																																																																																																																																																																																																																										
AD = ACID DRAIN	LH = LIQUID HYDROCARBON																																																																																																																																																																																																																																																																																																																																																																									
AF = ACID FLARE	LO = LUBE OIL																																																																																																																																																																																																																																																																																																																																																																									
AG = ACID GAS	LS = LOW PRESSURE STEAM																																																																																																																																																																																																																																																																																																																																																																									
AO = ABSORPTION OIL	M = METHANE																																																																																																																																																																																																																																																																																																																																																																									
AV = ATMOSPHERE VENT	MC = MEDIUM PRESSURE CONDENSATE																																																																																																																																																																																																																																																																																																																																																																									
B = N-BUTANE	MD = MEDIUM PRESSURE DRAIN																																																																																																																																																																																																																																																																																																																																																																									
BD = BUILDING DRAIN	MF = MEDIUM PRESSURE FLARE																																																																																																																																																																																																																																																																																																																																																																									
BG = BLANKET GAS	MS = MEDIUM PRESSURE STEAM																																																																																																																																																																																																																																																																																																																																																																									
BV = BLOWDOWN VENT	N = NITROGEN																																																																																																																																																																																																																																																																																																																																																																									
BW = BOILER FEED WATER	NG = NATURAL GAS																																																																																																																																																																																																																																																																																																																																																																									
C = CAUSTIC	OD = OPEN DRAIN																																																																																																																																																																																																																																																																																																																																																																									
CA = COMBUSTION AIR	OT = HOT OIL TRACE																																																																																																																																																																																																																																																																																																																																																																									
CD = CLOSED DRAIN	OV = OIL VENT																																																																																																																																																																																																																																																																																																																																																																									
CW = COLD WATER	PA = PROPANE																																																																																																																																																																																																																																																																																																																																																																									
DA = DRAIN ATMOSPHERIC	PC = PROCESS CONDENSATE																																																																																																																																																																																																																																																																																																																																																																									
DF = DIESEL FUEL	PF = PROCESS FLARE																																																																																																																																																																																																																																																																																																																																																																									
DP = DRAIN PRESSURED	PG = POWER GAS																																																																																																																																																																																																																																																																																																																																																																									
DW = DECHILLED WATER	PV = PROCESS VENT																																																																																																																																																																																																																																																																																																																																																																									
E = ETHANE	PW = PRODUCED WATER																																																																																																																																																																																																																																																																																																																																																																									
FC = FUEL GAS	RA = RICH AMINE																																																																																																																																																																																																																																																																																																																																																																									
FW = FIRE WATER	RG = RICH GLYCOL																																																																																																																																																																																																																																																																																																																																																																									
G = GLYCOL	RW = RAW WATER																																																																																																																																																																																																																																																																																																																																																																									
GH = GAS HYDROCARBON	SA = STARTING AIR																																																																																																																																																																																																																																																																																																																																																																									
H = HYDROGEN SULFIDE	SD = SOLVENT DRAIN																																																																																																																																																																																																																																																																																																																																																																									
HC = HIGH PRESSURE CONDENSATE	SE = SEAL GAS																																																																																																																																																																																																																																																																																																																																																																									
HD = HIGH PRESSURE DRAIN	SG = STARTING GAS																																																																																																																																																																																																																																																																																																																																																																									
HF = HIGH PRESSURE FLARE	SH = SHUT DOWN																																																																																																																																																																																																																																																																																																																																																																									
HG = HOT OIL	SI = STEAM TRACE																																																																																																																																																																																																																																																																																																																																																																									
HS = HIGH PRESSURE STEAM	ST = SOUR (PRODUCED) WATER																																																																																																																																																																																																																																																																																																																																																																									
HW = HOT WATER	TG = TREATED GAS																																																																																																																																																																																																																																																																																																																																																																									
IA = INSTRUMENT AIR	TW = TREATED WATER																																																																																																																																																																																																																																																																																																																																																																									
IB = ISOBUTANE	UA = UTILITY AIR																																																																																																																																																																																																																																																																																																																																																																									
IG = INSTRUMENT GAS	UV = UTILITY VENT																																																																																																																																																																																																																																																																																																																																																																									
IC = JACKET WATER	UW = UTILITY WATER																																																																																																																																																																																																																																																																																																																																																																									
LA = LEAN AMINE	V = VENT GAS																																																																																																																																																																																																																																																																																																																																																																									
LC = LOW PRESSURE CONDENSATE	WF = WELL FLUID																																																																																																																																																																																																																																																																																																																																																																									
LD = LOW PRESSURE DRAIN	WW = WASTE WATER																																																																																																																																																																																																																																																																																																																																																																									
LE = LOW PRESSURE FLARE																																																																																																																																																																																																																																																																																																																																																																										
LG = LEAN GLYCOL																																																																																																																																																																																																																																																																																																																																																																										
FLANGE CLASS		MATERIAL																																																																																																																																																																																																																																																																																																																																																																								
A - CL 150	E - CL 900	C - CARBON STEEL																																																																																																																																																																																																																																																																																																																																																																								
B - CL 300	F - CL 1500	L - LOW TEMP. CARBON STEEL																																																																																																																																																																																																																																																																																																																																																																								
D - CL 600	G - CL 2500	S - STAINLESS STEEL																																																																																																																																																																																																																																																																																																																																																																								
		P - HDPE/PVC																																																																																																																																																																																																																																																																																																																																																																								
GOVERNING CODE		SERVICE																																																																																																																																																																																																																																																																																																																																																																								
1 - ASME B31.1	A - GENERAL SERVICE																																																																																																																																																																																																																																																																																																																																																																									
3 - ASME B31.3	B - SOUR SERVICE																																																																																																																																																																																																																																																																																																																																																																									
4 - ASME B31.4	C - Z - OTHER SERVICE FLUIDS																																																																																																																																																																																																																																																																																																																																																																									
8 - ASME B31.8	L - DRAINS, GLYCOL, CRUDE OIL																																																																																																																																																																																																																																																																																																																																																																									
INSULATION TYPE		TRACE TYPE																																																																																																																																																																																																																																																																																																																																																																								
XX	C=COLD	ST=STEAM																																																																																																																																																																																																																																																																																																																																																																								
XX	H=HOT	ET=ELECTRIC																																																																																																																																																																																																																																																																																																																																																																								
E/T	P=PERSONNEL	MT=MEDIA TRACE I.e., GLYCOL, HOT OIL																																																																																																																																																																																																																																																																																																																																																																								
	S=SWEEP																																																																																																																																																																																																																																																																																																																																																																									
ATM = ATMOSPHERE	M = THOUSAND																																																																																																																																																																																																																																																																																																																																																																									
AG = ABOVE GRADE	MM = MILLION																																																																																																																																																																																																																																																																																																																																																																									
AV = AIR VENT (AUTOMATIC)	MW = MANWAY																																																																																																																																																																																																																																																																																																																																																																									
BE = BURNER ELEMENT	NZ = NITROGEN																																																																																																																																																																																																																																																																																																																																																																									
BF = BELOW GRADE	NC = NORMALLY CLOSED																																																																																																																																																																																																																																																																																																																																																																									
CBD = CONTINUOUS BLOWDOWN	NLL = NORMAL LIQUID LEVEL																																																																																																																																																																																																																																																																																																																																																																									
CD = CLOSED DRAIN	NO = NORMALLY OPEN																																																																																																																																																																																																																																																																																																																																																																									
CH = CHOKER	OD = OPEN DRAIN																																																																																																																																																																																																																																																																																																																																																																									
CHO = CHAIN OPERATED	OD = OVERALL DIAMETER (SIZE)																																																																																																																																																																																																																																																																																																																																																																									
CO = CLEAN OUT	PB = PUSH BUTTON																																																																																																																																																																																																																																																																																																																																																																									
CP = CORROSION PROBE	PC = PURGE CONNECTION																																																																																																																																																																																																																																																																																																																																																																									
CSC = CAR SEAL CLOSED	QD = QUICK DISCONNECT																																																																																																																																																																																																																																																																																																																																																																									
CSO = CAR SEAL OPEN	R = RESET																																																																																																																																																																																																																																																																																																																																																																									
DC = DRAIN CONNECTION	ROC = RATE OF CHANGE																																																																																																																																																																																																																																																																																																																																																																									
FC = FAIL CLOSED	ROV = REMOTE OPERATED VALVE																																																																																																																																																																																																																																																																																																																																																																									
FL = FAIL LAST	RTD = RESISTANCE TEMP. DETECTOR																																																																																																																																																																																																																																																																																																																																																																									
FO = FAIL OPEN	SC = SAMPLE CONNECTION																																																																																																																																																																																																																																																																																																																																																																									
GPH = GALLONS PER HOUR	SCED = STD. CU. FT. PER DAY																																																																																																																																																																																																																																																																																																																																																																									
GPM = GALLONS PER MINUTE	SCFH = STD. CU. FT. PER HOUR																																																																																																																																																																																																																																																																																																																																																																									
HC = HOSE CONNECTION	SCFM = STD. CU. FT. PER MINUTE																																																																																																																																																																																																																																																																																																																																																																									
HLL = HIGH LIQUID LEVEL	SD = SHUTDOWN																																																																																																																																																																																																																																																																																																																																																																									
HLL = HIGH LIQUID LEVEL	SIS = SAFETY INSTRUMENT SYSTEM																																																																																																																																																																																																																																																																																																																																																																									
HP = HIGH PRESSURE	SOC = STEAM OUT CONNECTION																																																																																																																																																																																																																																																																																																																																																																									
HSD = HAND SHUTDOWN	SOW = SCOPE OF WORK																																																																																																																																																																																																																																																																																																																																																																									
IA = INSTRUMENT AIR	SR = STRESS RELIEF																																																																																																																																																																																																																																																																																																																																																																									
IGN = IGNITION	SS = SELECTOR SWITCH																																																																																																																																																																																																																																																																																																																																																																									
LC = LOCK CLOSED	ST = STEAM TRAP																																																																																																																																																																																																																																																																																																																																																																									
LD = LIQUID DRAIN	ST = START UP																																																																																																																																																																																																																																																																																																																																																																									
LLL = LOW LIQUID LEVEL	TS = TEMPORARY STRAINER																																																																																																																																																																																																																																																																																																																																																																									
LLL = LOW LIQUID LEVEL	TSO = TIGHT SHUT OFF																																																																																																																																																																																																																																																																																																																																																																									
LO = LOCK OPEN	TYPICAL																																																																																																																																																																																																																																																																																																																																																																									
LP = LOW PRESSURE	(V) = VENDOR SUPPLIED																																																																																																																																																																																																																																																																																																																																																																									
MIN = MINIMUM DISTANCE	VB = VACUUM BREAKER																																																																																																																																																																																																																																																																																																																																																																									
	WC = WATER COLUMN																																																																																																																																																																																																																																																																																																																																																																									
<p>LINKS AND FLOW ARROWS</p> <p>INDICATES PROCESS INPUT/OUTPUT & FLOW DIRECTION FROM OR TO OTHER AREAS</p> <p>P&ID TO/FROM EQUIPMENT</p> <p>DUAL FLOW</p> <p>CONTINUATION ARROW FROM/TO OUTSIDE SCOPE</p> <p>CONTINUATION OF INSTRUMENT SYMBOL</p> <p>FLOW DIRECTION ARROW</p>		<p>NOTES:</p> <table style="width:100%; font-size: 8px;"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>CHK.</th> <th>DATE</th> <th>APPR.</th> <th>DATE</th> </tr> <tr> <td>1</td> <td>INITIAL RELEASE FOR ENGINEERING STANDARD</td> <td>05/24/19</td> <td>MJ</td> <td>05/24/19</td> <td>PM</td> <td>05/24/19</td> </tr> <tr> <td>2</td> <td>ISSUED FOR REVIEW</td> <td>04/23/19</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>ISSUED FOR REVIEW</td> <td>01/10/19</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>ISSUED FOR REVIEW</td> <td>09/11/18</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>ISSUED FOR REVIEW</td> <td>07/02/18</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>ISSUED FOR REVIEW</td> <td>06/26/18</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		NO.	DESCRIPTION	DATE	CHK.	DATE	APPR.	DATE	1	INITIAL RELEASE FOR ENGINEERING STANDARD	05/24/19	MJ	05/24/19	PM	05/24/19	2	ISSUED FOR REVIEW	04/23/19					3	ISSUED FOR REVIEW	01/10/19					4	ISSUED FOR REVIEW	09/11/18					5	ISSUED FOR REVIEW	07/02/18					6	ISSUED FOR REVIEW	06/26/18																																																																																																																																																																																																																																																																																																																										
NO.	DESCRIPTION	DATE	CHK.	DATE	APPR.	DATE																																																																																																																																																																																																																																																																																																																																																																				
1	INITIAL RELEASE FOR ENGINEERING STANDARD	05/24/19	MJ	05/24/19	PM	05/24/19																																																																																																																																																																																																																																																																																																																																																																				
2	ISSUED FOR REVIEW	04/23/19																																																																																																																																																																																																																																																																																																																																																																								
3	ISSUED FOR REVIEW	01/10/19																																																																																																																																																																																																																																																																																																																																																																								
4	ISSUED FOR REVIEW	09/11/18																																																																																																																																																																																																																																																																																																																																																																								
5	ISSUED FOR REVIEW	07/02/18																																																																																																																																																																																																																																																																																																																																																																								
6	ISSUED FOR REVIEW	06/26/18																																																																																																																																																																																																																																																																																																																																																																								



PIPING & INSTRUMENTATION DIAGRAM MECHANICAL LEGEND

DRAWN BY: MJ	CREATION DATE: -	AFE No.:
APPROVED: -	APPR. DATE: -	
SCALE: NONE	DWG. No.: OXY-PID-STD-00010	SHEET No. 10F 4

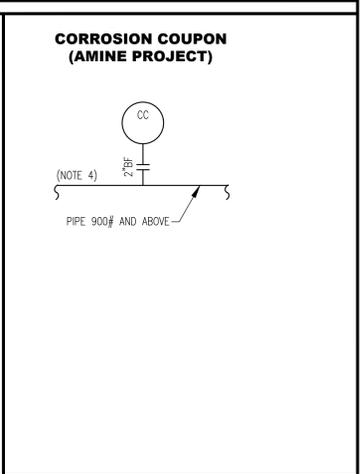
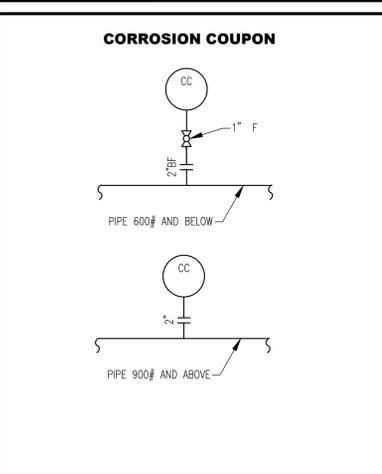
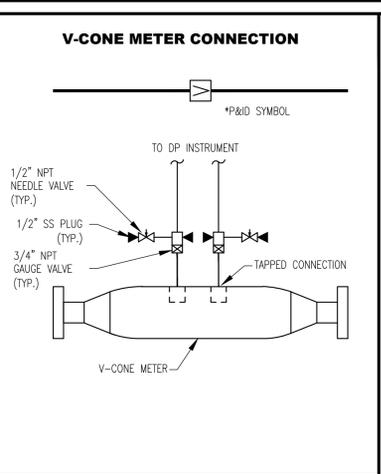
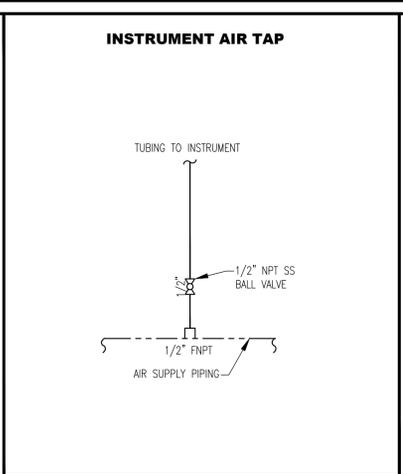
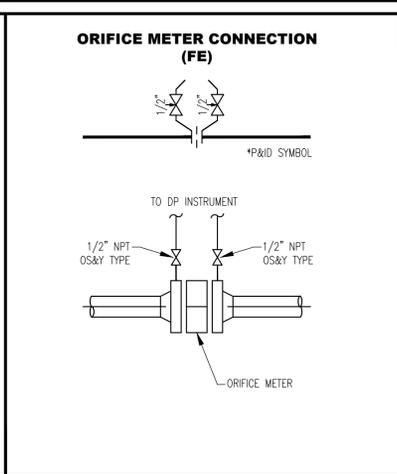
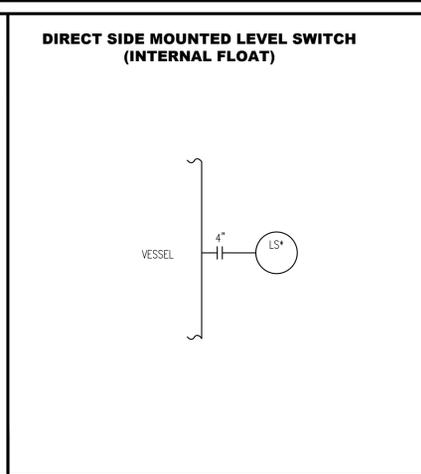
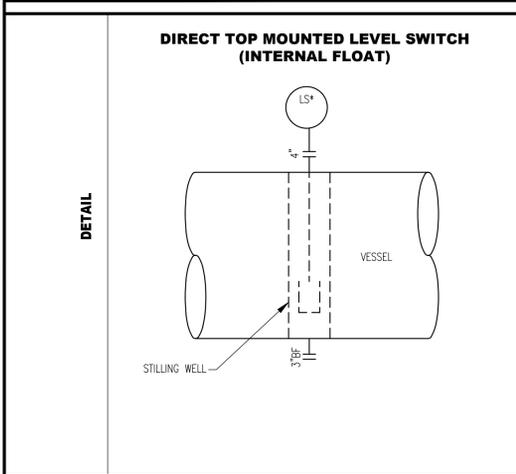
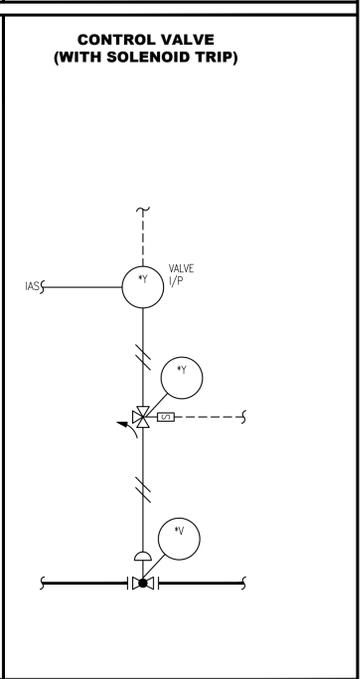
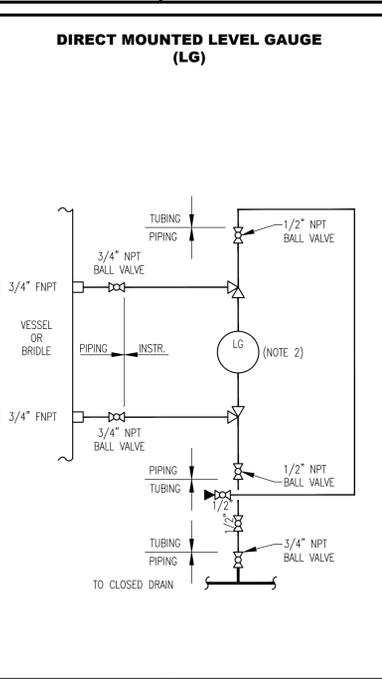
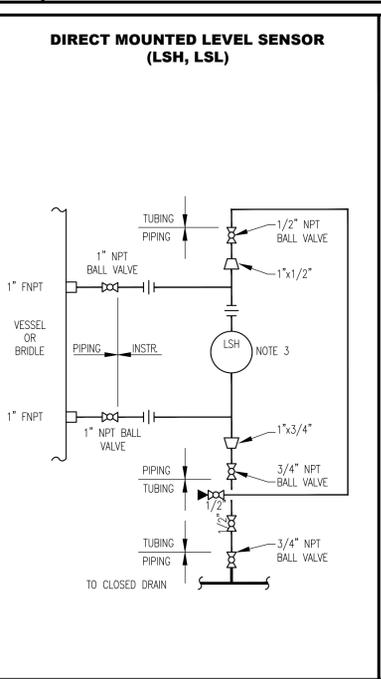
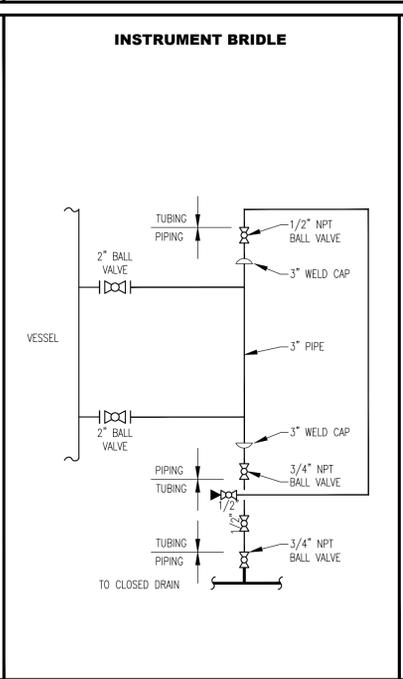
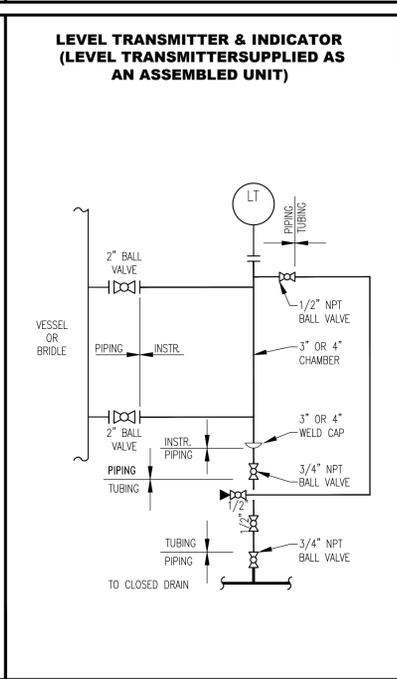
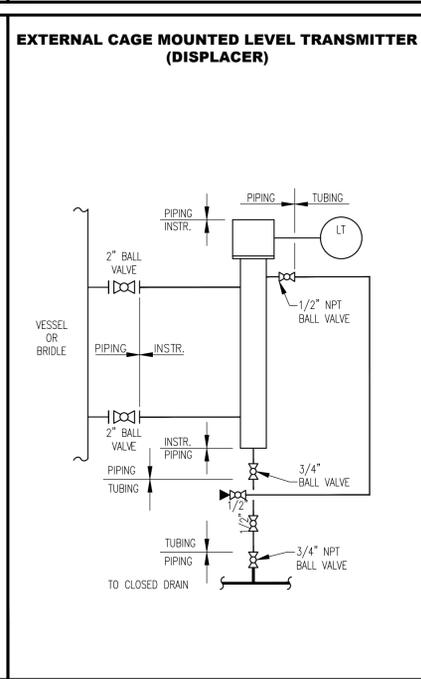
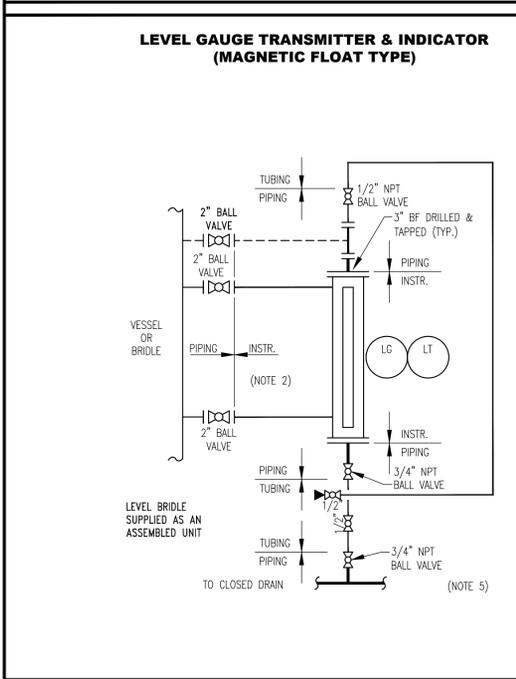
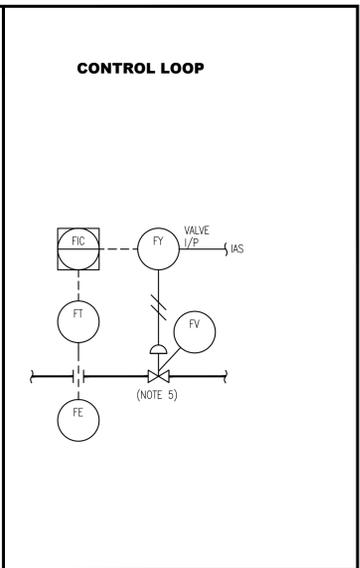
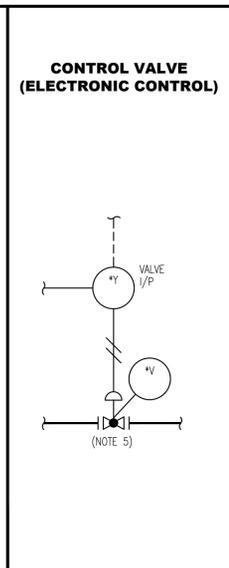
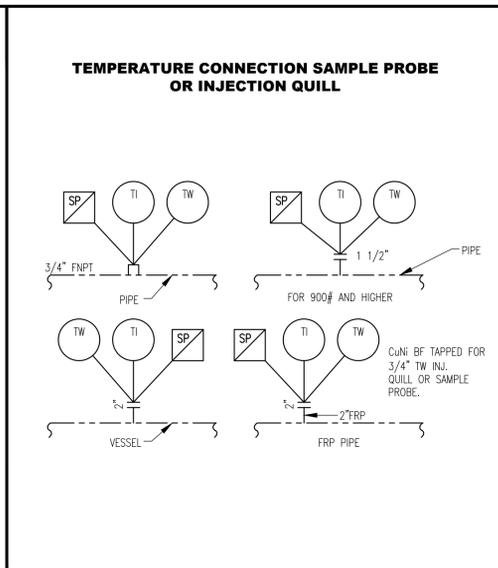
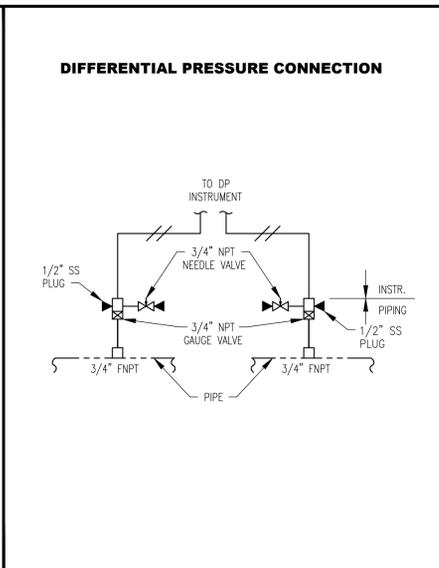
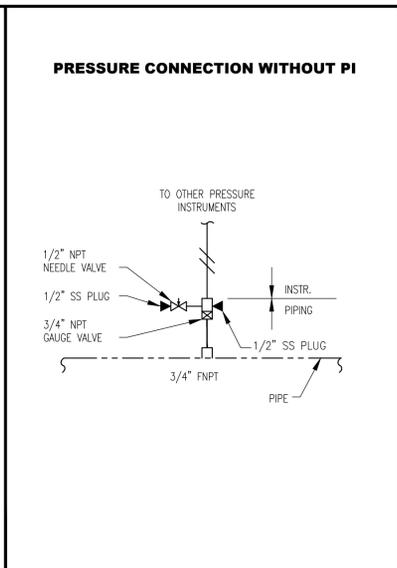
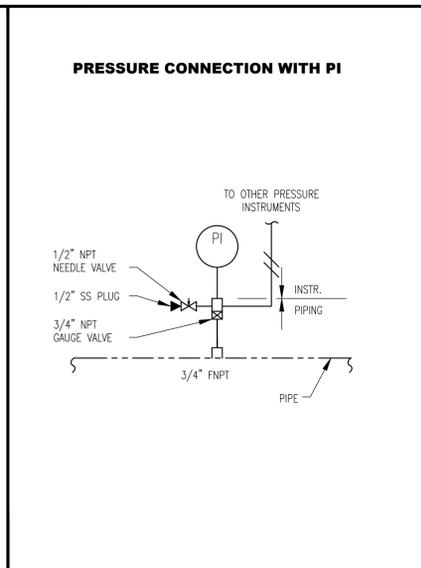
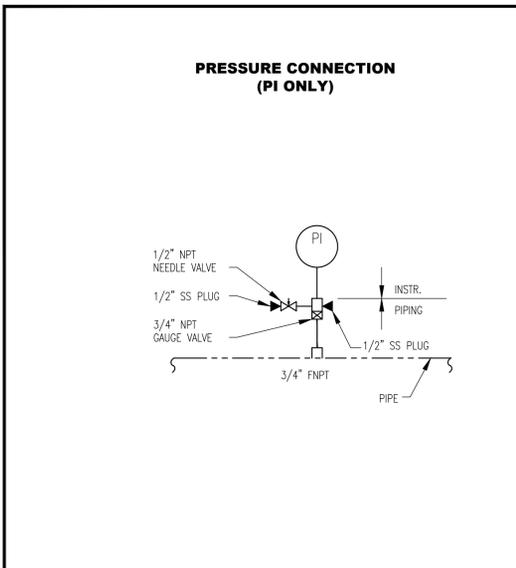
DWG. NO.	TITLE	NO.	DESCRIPTION	DATE	CHK.	DATE	APPR.	DATE
----------	-------	-----	-------------	------	------	------	-------	------

THIS DRAWING AND THE DESIGN IT COVERS ARE CONFIDENTIAL AND REMAIN THE PROPERTY OF ANADARKO PETROLEUM CORPORATION AND SHALL NOT BE DISCLOSED TO OTHERS OR REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WHATSOEVER EXCEPT BY WRITTEN PERMISSION BY THE OWNER.

PLOT STYLE: -----

LAST SAVED: 1/8/2020 BY: Mec Publishers

FILE LOCATION: L:\ShareData\Denver\Rockies\DWG\LEGENDS\OXY-PID-STD-00012.dwg



NOTES:

- P&ID DETAILS ARE TYPICAL UNLESS INDICATED OTHERWISE ON THE P&ID WITH SPECIFIC APPLICATION.
- LEVEL GAUGES SHOULD SPAN THE OPERATIONAL RANGE WITH 3" EXTRA VISIBLE GLASS AT HIGH AND LOW LEVELS. LEVEL GAUGE TO BE SUPPLIED AS AN ASSEMBLED UNIT.
- LSH/LSL BRIDLES SHALL BE PROVIDED WITH EXTRA LENGTH BETWEEN CENTER-TO-CENTERS TO ALLOW FOR FIELD ADJUSTMENT WHERE POSSIBLE.
- CORROSION COUPON TO BE EXTRACTED WITH A TOOL HAVING A DOUBLE BLOCK AND BLEED VALVE.
- VALVES USED ON AMINE UNIT TO HAVE COMPATIBLE SOFT GOODS FOR AMINE SERVICE.

REFERENCE DRAWINGS		REVISIONS			
DWG. NO.	TITLE	NO.	DESCRIPTION	BY	DATE
		1	INITIAL RELEASE FOR ENGINEERING STANDARD	JRF	05/24/19
		2	ISSUED FOR REVIEW	JRF	05/27/19
		3	ISSUED FOR APC STANDARD	MJ	10/27/17



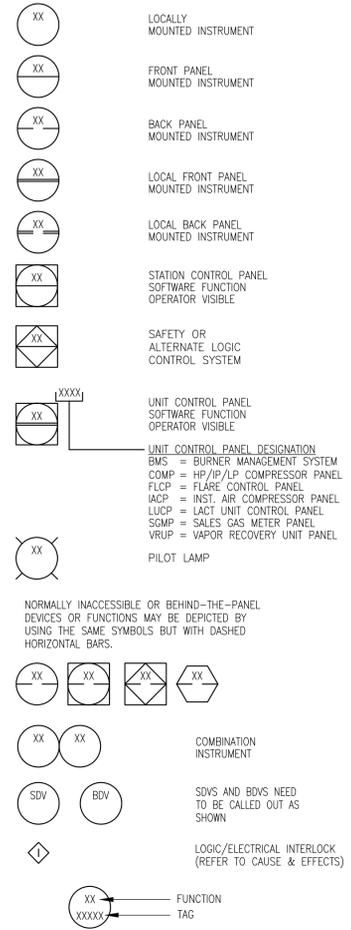
PIPING & INSTRUMENTATION DIAGRAM		
INSTRUMENTATION LEGEND		
DRAWN BY: MJ	CREATION DATE: -	AFE No.:
APPROVED: -	APPR. DATE: -	
SCALE: NONE	DWG. No.: OXY-PID-STD-00012	SHEET No. 3 OF 4

THIS DRAWING AND THE DESIGN IT COVERS ARE CONFIDENTIAL AND REMAIN THE PROPERTY OF ANADARKO PETROLEUM CORPORATION AND SHALL NOT BE DISCLOSED TO OTHERS OR REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WHATSOEVER EXCEPT BY WRITTEN PERMISSION BY THE OWNER.

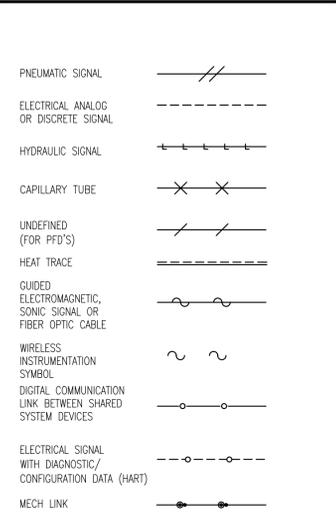
INSTRUMENT IDENTIFICATION

AAH ANALYZER ALARM HIGH	PI PRESSURE INDICATOR
AE ANALYZER ELEMENT	PIT PRESSURE INDICATING TRANSMITTER
AI ANALYZER INDICATOR	PIC PRESSURE INDICATING CONTROLLER
ASH COMBUSTIBLE GAS DETECTOR	PR PRESSURE RECORDER
AT ANALYZER TRANSMITTER	PRC PRESSURE RECORDING CONTROLLER
BDV BLOWDOWN VALVE	PS PRESSURE SWITCH
BDY BLOWDOWN SOLENOID VALVE	PSE PRESSURE SAFETY ELEMENT
BSLL BURNER FLAME LOW LOW	PSH PRESSURE SWITCH HIGH
BS&W BS&W MONITOR	PSHH PRESSURE SWITCH HIGH HIGH
ESD EMERGENCY SHUTDOWN	PSL PRESSURE SWITCH LOW
FA FLAME ARRESTOR	PSLL PRESSURE SWITCH LOW LOW
FAH FLOW ALARM HIGH	PSV PRESSURE SAFETY VALVE
FAHH FLOW ALARM HIGH HIGH	PT PRESSURE TRANSMITTER
FAL FLOW ALARM LOW	PV PRESSURE CONTROL VALVE
FALL FLOW ALARM LOW LOW	PY PRESSURE TRANSDUCER/RELAY
FC FLOW CONTROLLER	RO RESTRICTING ORIFICE
FR FLOW RECORDER	SA SPARK ARRESTOR
FE FLOW ELEMENT	SAH SPEED ALARM HIGH
FI FLOW INDICATOR	SAHH SPEED ALARM HIGH HIGH
FIT FLOW INDICATING TRANSMITTER	SSH SPEED SWITCH HIGH
FIC FLOW INDICATOR CONTROLLER	SSH HIGH SPEED SWITCH HIGH HIGH
FQI FLOW QUOTIENT INDICATOR	SSHH SPEED SWITCH HIGH HIGH HIGH
FR FLOW RECORDER	SDV SHUTDOWN VALVE
FRC FLOW RECORDING CONTROLLER	SDY SHUTDOWN SOLENOID VALVE
FS FLOW SWITCH	SI SPEED INDICATOR
FSH FLOW SWITCH HIGH	SP SPECIALTY ITEM
FSHH FLOW SWITCH HIGH HIGH	SV SOLENOID VALVE
FSL FLOW SWITCH LOW	TAH TEMPERATURE ALARM HIGH
FSLL FLOW SWITCH LOW LOW	TAHH TEMPERATURE ALARM HIGH HIGH
FSV FLOW SAFETY (CHECK) VALVE	TAL TEMPERATURE ALARM LOW
FT FLOW TRANSMITTER	TALL TEMPERATURE ALARM LOW LOW
FV FLOW VALVE	TC TEMPERATURE CONTROLLER
FY FLOW TRANSDUCER/RELAY	TE TEMPERATURE ELEMENT
FX FLOW STRAIGHTENING VANES	TH THIEF HATCH
HCV HAND CONTROL VALVE	TI TEMPERATURE INDICATOR
HIC HAND INDICATING CONTROLLER	TIC TEMPERATURE INDICATING CONTROLLER
HOA HAND OFF AUTO	TIT TEMPERATURE INDICATING TRANSMITTER
HS HAND SWITCH	TR TEMPERATURE RECORDER
HV HAND VALVE	TSE TEMPERATURE SAFETY ELEMENT
HY HAND RELAY	TSH TEMPERATURE SWITCH HIGH
I CURRENT INDICATOR	TSHH TEMPERATURE SWITCH HIGH HIGH
IOA JOG OFF AUTO	TSL TEMPERATURE SWITCH LOW
KK TIMER	TSLL TEMPERATURE SWITCH LOW LOW
LAH LEVEL ALARM HIGH	TT TEMPERATURE TRANSMITTER
LAHH LEVEL ALARM HIGH HIGH	TV TEMPERATURE CONTROL VALVE
LAL LEVEL ALARM LOW	TY TEMPERATURE TRANSDUCER/RELAY
LALL LEVEL ALARM LOW LOW	TW THERMOWELL
LC LEVEL CONTROLLER	UA UNIT TROUBLE ALARM
LG LEVEL GAUGE	VAH VIBRATION ALARM HIGH
LJ LEVEL INDICATOR	VAHH VIBRATION ALARM HIGH HIGH
LIC LEVEL INDICATING CONTROLLER	VSH VIBRATION SWITCH HIGH
LIT LEVEL INDICATING TRANSMITTER	VSHH VIBRATION SWITCH HIGH HIGH
LS LEVEL SWITCH	XA UNCLASSIFIED ALARM
LSH LEVEL SWITCH HIGH	XC FIXED CHOKE
LSHH LEVEL SWITCH HIGH HIGH	XCP CORROSION COUPON
LSL LEVEL SWITCH LOW	XCV ADJUSTABLE CHOKE VALVE
LSLL LEVEL SWITCH LOW LOW	XDV DELUGE VALVE
LT LEVEL TRANSMITTER	XI UNCLASSIFIED INDICATOR
LV LEVEL VALVE	XPI PIG PASSAGE INDICATOR (PIG SIG)
LY LEVEL TRANSDUCER/RELAY	XV SOLENOID ACTUATED ON/OFF VALVE
NP SAND PROBE	YV DIVERTER VALVE
PAH PRESSURE ALARM HIGH	YY DIVERTER VALVE TRANSDUCER
PAHH PRESSURE ALARM HIGH HIGH	ZC POSITION/LIMIT CLOSED
PAL PRESSURE ALARM LOW	ZIC POSITION INDICATOR CLOSED
PALL PRESSURE ALARM LOW LOW	ZIO POSITION INDICATOR OPEN
PC PRESSURE CONTROLLER	ZIT POSITION INDICATING TRANSMITTER
PCV REGULATOR	ZSC POSITION/LIMIT SWITCH CLOSED
PDA PRESSURE DIFFERENTIAL ALARM	ZSO POSITION/LIMIT SWITCH OPEN
PDAAH PRESSURE DIFFERENTIAL ALARM HIGH	
PDAAHH PRESSURE DIFFERENTIAL ALARM HIGH HIGH	
PDAL PRESSURE DIFFERENTIAL ALARM LOW	
PDALL PRESSURE DIFFERENTIAL ALARM LOW LOW	
PDI PRESSURE DIFFERENTIAL INDICATOR	
PDIC PRESSURE DIFFERENTIAL INDICATING CONTROLLER	
PDIT PRESSURE DIFFERENTIAL INDICATING TRANSMITTER	
PDR PRESSURE DIFFERENTIAL RECORDER	
PDRC PRESSURE DIFFERENTIAL RATIO CONTROLLER	
PDS PRESSURE DIFFERENTIAL SWITCH	
PDT PRESSURE DIFFERENTIAL TRANSMITTER	

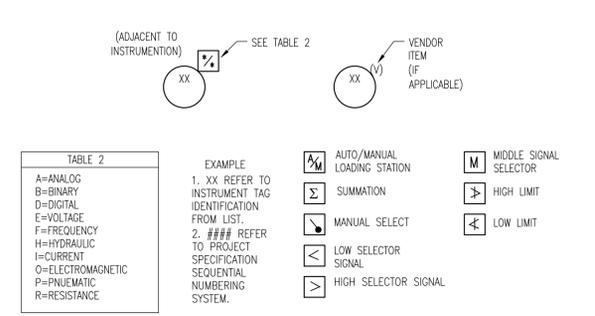
INSTRUMENTATION



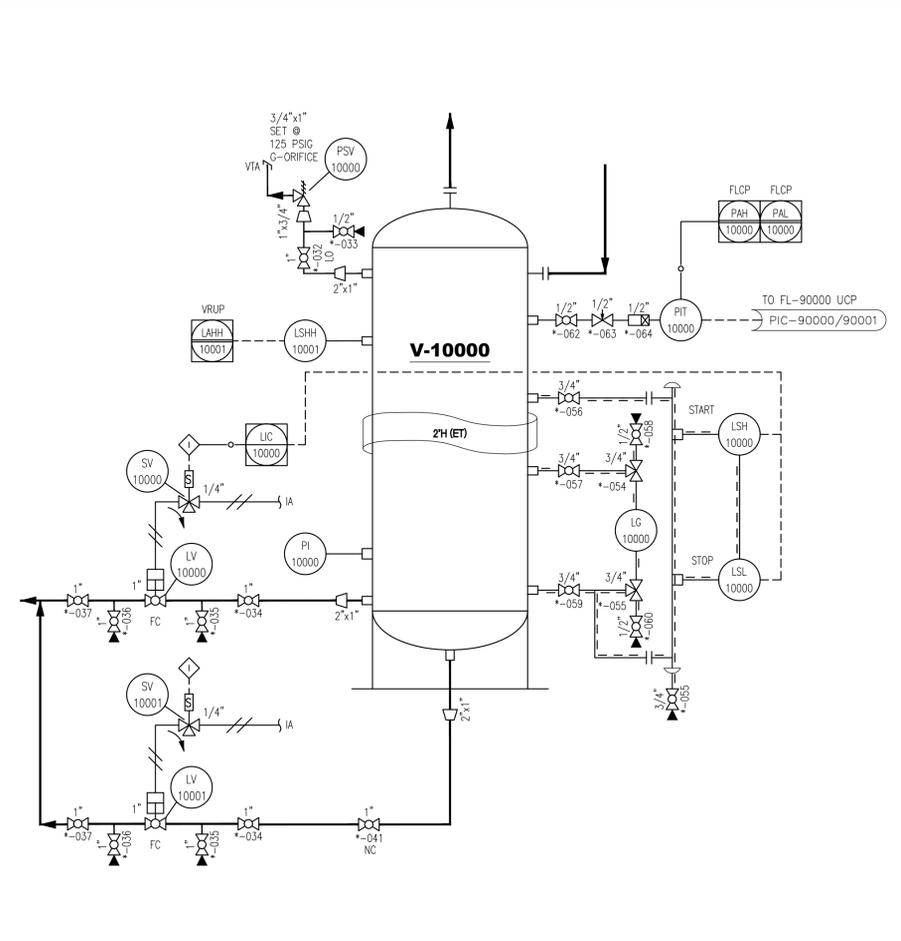
INSTRUMENTATION LINE TYPES



RELAY FUNCTION DESIGNATIONS



INSTRUMENT TAGGING EXAMPLE



NOTES:
 IN INSTANCES OF ONE INSTRUMENT PER VESSEL, SUCH AS THE LC ABOVE, THE INSTRUMENT IS CALLED-OUT PER THE NUMERICAL PORTION OF THE VESSEL TAG NUMBER.
 WHERE THERE IS MORE THAN ONE OF THE SAME INSTRUMENT PER VESSEL, SUCH AS THE LVs ABOVE, THE FIRST INSTRUMENT IS CALLED-OUT PER THE NUMERICAL PORTION OF THE VESSEL TAG NUMBER, THE SECOND INSTRUMENT IS CALLED-OUT IN NUMERICAL SEQUENCE.
 ALPHAS ONLY AS APPROVED BY APC ENGINEERING.

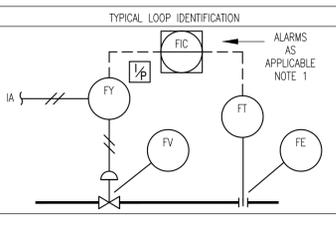
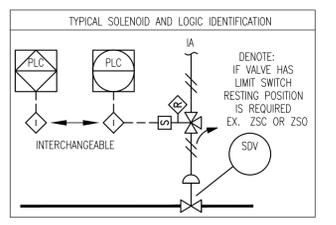
INSTRUMENT TAGGING

- (1) F(RATIO), M(MOMENTARY), K(TIME RATE OF CHANGE), Q(INTEGRATE AND TOTALIZE), OR ANY COMBINATION OF THESE IS INTENDED TO REPRESENT A NEW AND SEPARATE MEASURED VARIABLE, AND THE COMBINATION IS TREATED AS A FIRST LETTER ENTITY. THUS, INSTRUMENTS TD1 AND T2 INDICATE TWO DIFFERENT VARIABLES, NAMELY DIFFERENTIAL-TEMPERATURE AND TEMPERATURE. MODIFYING LETTERS ARE USED WHEN APPLICABLE.
- (2) LEVEL GAUGE NOMENCLATURE:
 NUMBER OF SECTIONS (2) LG
 ILLUMINATOR (I)
- (3) IDENTIFY RELAYS WITH FUNCTIONAL SUPERSCRIPIT SEE TABLE
- (4) IDENTIFY ANALYZERS AND EQUIPMENT WITH SUPERSCRIPIT OUTSIDE OF CIRCLE SEE TABLE BELOW
 AE XX (SEE TABLE 3)

ANALYZER SUPERSCRIPIT TABLE 3

CO2 = CARBON DIOXIDE
GC = GAS CHROMATOGRAPH
H2O = MOISTURE
H2S = HYDROGEN SULFIDE
LEL = LOWER EXPLOSIVE LIMIT
O2 = OXYGEN
PH = PH VALUE

- | | |
|-----------------------|----------------------|
| AS = AIR SUPPLY | NS = NITROGEN SUPPLY |
| ES = ELECTRIC SUPPLY | SS = STEAM SUPPLY |
| GS = GAS SUPPLY | UA = UTILITY AIR |
| HS = HYDRAULIC SUPPLY | WS = WATER SUPPLY |
| IA = INSTRUMENT AIR | |
- (6) ELECTRICAL RELAYS, SWITCHES, AND MISC. ITEMS IDENTIFIED WITH AN INSTRUMENT TAG BALLOON AND AN (E) SHOWN IN PLACE OF THE INSTRUMENT TAG NUMBER ARE TO BE SPECIFIED AND FURNISHED BY ELEC.
 HOA SPECIFIED & FURN. BY ELECTRICAL
 HOA SPECIFIED & FURN. BY INSTRUMENTS
 - (7) INDICATING AND BLIND SWITCHES ARE IDENTIFIED HIGH, LOW, HIGH HIGH OR LOW LOW THUS:
 LSH LSL LSHH LSLH LSLL



NOTES:

DWG. NO.	TITLE	NO.	DESCRIPTION	BY	DATE	CHK.	DATE	APPR.	DATE
			INITIAL RELEASE FOR ENGINEERING STANDARD	JRF	05/24/19	MJ	05/24/19	JFM	05/24/19
			ISSUED FOR REVIEW	JRF	04/23/19				
			ISSUED FOR REVIEW	MJ	9/11/18				
			ISSUED FOR REVIEW	BC	07/02/18				
			ISSUED FOR REVIEW	JRF	07/02/18				
			ISSUED FOR REVIEW	JRF	06/26/18				



PIPING & INSTRUMENTATION DIAGRAM
INSTRUMENT IDENTIFICATION LEGEND

DRAWN BY: MJ	CREATION DATE: -	AFE No.:
APPROVED: -	APPR. DATE: -	
	DWG. No.:	SHEET No. 4 OF 4
SCALE: NONE	OXY-PID-STD-00013	

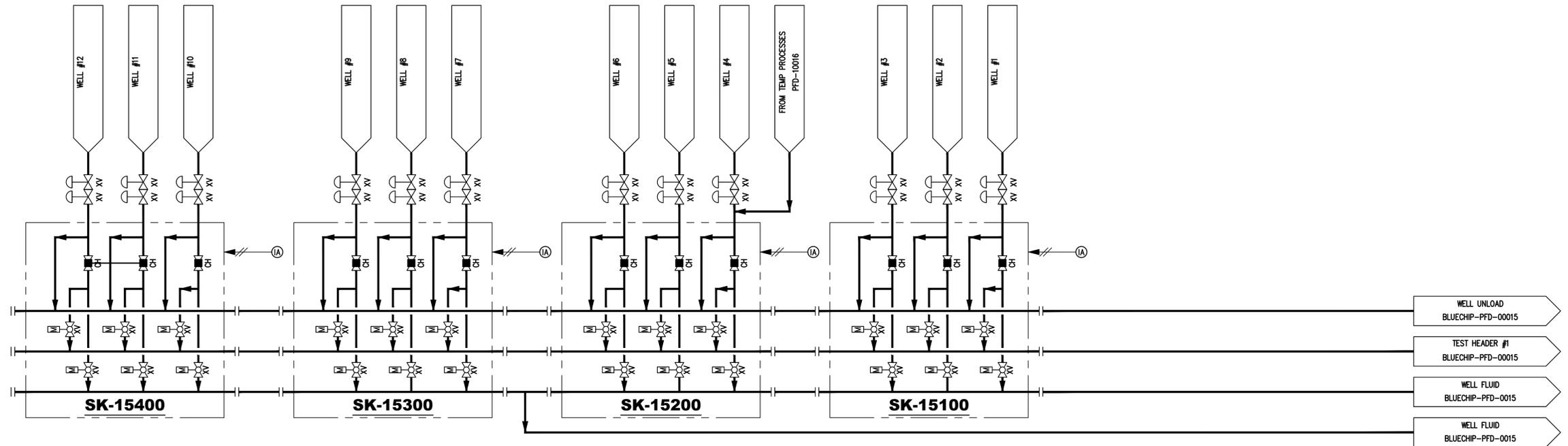
FILE LOCATION: L:\ShareData\Denver\Rockies\CD\WCS\LEGENDS\OXY-PID-STD-00013.dwg

PLOT STYLE: -

LAST SAVED: 1/8/2020 BY: Mec Palumbo

SK-15100-15400
WELLHEAD MANIFOLD
 (3 PACK)

ABBREVIATIONS/SYMBOLS	
◆	STREAM NUMBER
Ⓐ	TO OR FROM INSTRUMENT AIR SYSTEM
Ⓕ	TO OR FROM FUEL GAS SYSTEM
Ⓐ	TO OR FROM ATMOSPHERE



THIS DRAWING AND THE DESIGN IT COVERS ARE CONFIDENTIAL AND SHALL NOT BE DISCLOSED TO OTHERS OR REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WHATSOEVER EXCEPT BY WRITTEN PERMISSION BY THE OWNER.

FILE LOCATION: P:\14046 - Well Head Production Facility\Drawings\01 - P&IDs and PFDs\Blue Chip Working\Blue Chip-PFD-0010.dwg

PLOT STYLE: APC_Standard.ctb

LAST SAVED: 2/23/2022 BY: Terry Thompson

NOTES:	
--------	--

REFERENCE DRAWINGS		REVISIONS			
DWG. NO.	TITLE	NO.	DESCRIPTION	BY	DATE
		1	ISSUED FOR PERMIT	TCT	02/25/22
				JTK	02/25/22
				JTK	02/25/22

Kerr-McGee Oil & Gas Onshore LP

BLUE CHIP

PROCESS FLOW DIAGRAM		
PRODUCTION FACILITY		
DRAWN BY: TCT	CREATION DATE: 02/25/22	AFE No.: -
APPROVED: JTK	APPR. DATE: 02/25/22	
SCALE: -	DWG. No.: BLUE CHIP-PFD-00010	SHEET No. - OF -

