

P&ID Bill of Materials**Job: 08260-004-bom****Item:** 10 Well Header Pkg, Sweet, 300 ANSI**Description:** P&ID BOM**Drawing:** 08260-004-1 REV 6**Customer:** PENNWEST

<i>Part #</i>	<i>Qty</i>	<i>Description/Notes</i>
FE - 1020	1.00	<p>METER RUN 2" CL 300</p> <p>230RFDC80SAW00WF_ABA9-FF-BC-E-0 DUAL CHAMBER W/ RUN, 2" 300RF, SCH80, 2PC NACE(CS Trim), Grease Seat, WxF 2000 Ed., A216 WCB, LEFT HAND ORIF PLT, 2"x 1/8" , 1.000", 304SS 2" ELASTOMER SEAL, 80D 2" "K" STYLE RETAINER RING Pipe: Cold Drawn, A106B / A105N, OAL: 48" AGA 2000 Upstream: 300RF, Downstream: 300RF Flow Conditioner: Pin, 0.75 Beta Outlets: 3/4" TOL, 1" TOL Includes Hydro Test, MTR's, Canalta Inspection Canalta Standard Paint</p> <p>Ref. Canalta Quotation SQ004663 DT. JANUARY,25,2012</p>
FE - 1030	1.00	<p>METER RUN 3" CL 300</p> <p>330RFDC40SAW00WF_ABA9-FF-BC-E-0 DUAL CHAMBER W/ RUN, 3" 300RF, SCH40, 2PC NACE(CS Trim), Grease Seat, WxF 2000 Ed., A216 WCB, LEFT HAND ORIF PLT, 3"x 1/8",1.500", 304SS 3" ELASTOMER SEAL, 80D 3" "K" STYLE RETAINER RING Pipe: Cold Drawn, A106B / A105N, OAL: 64" AGA 2000 Upstream: 300RF, Downstream: 300RF Flow Conditioner: Pin, 0.75 Beta Outlets: 3/4" TOL, 1" TOL Includes Hydro Test, MTR's, Canalta Inspection Canalta Standard Paint</p> <p>REF : CANALTA QUOTATION SQ004663 DT. 25 JANUARY,2012</p>
ST-1	2.00	<p>Y STRAINER,2" CL 300</p> <p>2" ANSI CL 300 RF, 1/8" Screen Perforation STD TRIM</p>
ESDV -1030	1.00	<p>ESD VALVE FC JAG 4"</p> <p>Jag Model FB2R40R03N 4" IN. EA CL 300 RF Red. Port, Floater Ball Valve, Sour/ Std. Temp. C/W CVS Controls Model CVS160SR-06 Pneumatic Spring Return Actuator. 40 psi. Required. FAIL CLOSE</p> <p>Quote : CVS 0149330 dt 27th January,2012</p>

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LV 1020/1030	2.00	NORRISEAL CONTROL VALVE <i>Norriseal Model 2220,2" CL 300 RF,1/2" QO Trim Size 9 Actuator,FAIL CLOSED</i>
CH-4	1.00	4" WAFER CHECK - WHEATLEY <i>4" 300# ANSI RF,STD Trim</i>
CH-2	6.00	2" WAFER CHECK - WHEATLEY <i>2" ANSI CL 300,STD TRIM</i>
GL - 2	1.00	Globe Valve - Newco 2" ANSI 300# RF <i>2" ANSI 300# RF MER2GL3RB12NCDZ Meridian/Neway Glove Valve Conventional Port Forged A350 LF2 Body/Bolted Bonnet 316/HF Trim 12 Graphite Packing & Gasket To API602 & NACE MR0175</i>
ESDV- 1020	1.00	ESD Valve FO Jag 2"ANSI 300# RF <i>Jag Model FB2R20R03N 2 IN. 300 Class RF Red. Port, Floater Ball Valve, Sour/ Std. Temp. C/W CVS Controls Model CVS125-SR7 Pneumatic Spring Return Actuator. 40 psi. Required. FAIL OPEN</i> <i>Quote 0003094</i>
BA-2	28.00	2" CL 300 RP RF, NACE BALL VALVE <i>2" CL 300 RF NEWAY SPLIT BODY FLOATING BALL VALVE, RP, A216 WCB BODY, 316 SS BALL AND STEM, R-PTFE SEAT, GRAPHITE PACKING, API 607 REV 4, VALVE MEETS THE INTENT OF NACE MR0175/ ISO 15156 REV 2005, AS STATED IN TABLE A.2, B16.34, W/HANDLE. PBV C-5430-31-2236-FT-NL-I</i>
BA-4	3.00	4" CL 300 RP RF, NACE BALL VALVE <i>FB2R40R03 JAG 4 IN. CL300 RF MERIDIAN BOLTED BODY LEVER OPERATED.FLOATING BALL VALVE, RP, A216 WCB BODY, A182F316 BALL & STEM,A193 B7M BOLTS, A 194 2HM NUTSTFM 1700/MPTFE SEAT, TFE/GRAPHITE SEALS, MEETS THE INTENT OF NACE MR0175/ ISO 15156 REV 2005, MEETSCSA Z245.15, API 6D, API 607, API 608, AND B16.34,</i>
BA-3	11.00	3" CL 300 FP RF, NACE BALL VALVE <i>PBV 3 IN. CL300 RF SPLIT BODY FLOATING BALL VALVE, FP, A216 WCB BODY, A182 F316 BALL & STEM, TFM 1700/ MPTFE SEAT, TFE/GRAPHITE SEALS, MEETS THE INTENT OF NACE MR0175/ISO 15156 REV 2005, MEETS CSA Z245.15, API 6D, API 607, API</i>

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		608, AND B16.34, LEVER OPERATED PBV C-65430-31-2236-FT-NL-I
PI-1040	1.00	PRESSURE GAUGE HYDROPAK 2-1/2" F PRESSURE GAUGE HYDROPAK 2-1/2" F 1/4" BM 0 - 160 PSI 316 SST, LIQUID FILLED, DUAL SCALE
LGV-330	2.00	Sight Glass Valve Penberthy 3/4" LGV 1020/1030 Sight Glass Valve Penberthy 3/4 IN MNPT 4000 PSI AT 100 F STD Trim Model 330J 64810-500
NE-1	15.00	NEEDLE VALVE 3/4" M X 1/2" F ANDERSON GREENWOOD H7VIS-46Q-SG 3/4 IN M x 1/2 IN F
NE-2	1.00	NEEDLE VALVE 1/4" F X F ANDERSON GREENWOOD, H7VIS-2-SG 1/4" F x F
PCV-1040	1.00	REGULATOR PRESSURE 627 FISHER REGULATOR PRESSURE 627 FISHER 75-150 PSI STD TRIM 1/8" ORIFICE CS BODY, 2000 PSI MAWP
Heater support	2.00	P/N 9676-FX516 HEATER SUPPORT FOR RUFFNECK HEATERS WITH 16 IN. FAN, BMK, P/N 9676-FX516, BASIC MOUNT TO FIT RUFFNECK HEATER FX5-480360-15T Revised PN and description 9725-MTG Kit Ruffneck BMK FX516
BA-1	7.00	VALVE BALL FUSION 1" 2000 RP VALVE BALL FUSION 1" 2000 RP SCR'D CARBON STEEL Body Low Temp Nace 332-TF-010-F-08-L1-AA
645293	4.00	LEVEL SWITCH MURPHY 2" NPT MODEL LSHH 1020/1030 AND LSL L 1020/1030 LEVEL SWITCH MURPHY 2" NPT MODEL L200 ELECTRIC SNAP ACTING SPDT SUITABLE FOR CLASS 1 DIV 1
EY-1020/21/22	3.00	Solenoid ASCO 3-Way, 1/4" NPT SST Solenoid ASCO 3-Way, 1/4" NPT SST Body 24VDC Coil, CSA Approved Explosion Proof, 130 psig Maximum Operating Pressure Differential, Low Power 0.55

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		<i>Watts</i>
100927	1.00	Globe Valve NEWCO 1" NPT CL 800 <i>GL - 1</i> <i>VALVE GLOBE NEWCO 1" NPT CL 800 THREADED.API TRIM 16,NACE FIG 28T-LF24/3-NC</i>
CH-1	3.00	VALVE SWING CHECK 1" CL 800 <i>VALVE SWING CHECK 1" CL 800 RP SCR'D CARBON STEEL BODY NACE TRIM WILLIAMS F801T-62N</i>
FT/PT/TT 1030	1.00	EMERSON/FISHER MVS 205R <i>RSE-1606-93285 MVS205R REMOTE SENSOR (0.1%) 0-250DP 0-800PSIG, 316 SST SENSOR CONSTRUCTION (Formerly Part Number: RSE2CS)- Qty 1</i> <i>RTD-2.5 3 WIRE RTD COMPLETE WITH THERMOWELL (2.5 In. INSERTION LENGTH), 3/4 In. PROCESS CONNECTION, -100 DEG C TO 260 DEG C- Qty 1</i> <i>5TIS-4FLG 5 WAY MANIFOLD - FLANGE X 1/2" FNPT NACE- Qty 1</i> <i>AK-002-10-HD MOUNTING BRACKET (CARBON STEEL) FOR M673 and 5TIS 5-WAY MANIFOLDS- Qty 1</i> <i>Spartan Quote ID: Q108954-A, Rev 0 Arthur Wegelin (403) 695-2530 Wegelin.Arthur@spartancontrols.com</i>
LC 1020/1030	2.00	NORRISEAL LEVEL CONTROLLER <i>Norriseal Level Controller Series EVS, 2" NPT, Direct Snap Acting</i>
PSV-1030	1.00	VALVE RELIEF TAYLOR <i>VALVE RELIEF TAYLOR 1" X 1-1/2" NPT,"D"Orifice, 720 psi, STD TRIM INSP.& TEST REPORT REQ'D U.V. STAMP REQUIRED MODEL 8200</i>
PSV-1020	1.00	VALVE RELIEF TAYLOR <i>VALVE RELIEF TAYLOR 1" X 1-1/2" NPT 720 PSI,"D"Orifice, STD TRIM INSP. & TEST REPORT REQ'D U.V. STAMP REQUIRED MODEL 8200</i>
PSV-1040	1.00	VALVE RELIEF TAYLOR <i>VALVE RELIEF TAYLOR 1"x 1" NPT,"D"Orifice, 150 PSI, STD TRIM INSP. & TEST REPORT REQ'D U.V. STAMP REQUIRED MODEL 8200</i>

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PI-1020/1030	2.00	PRESSURE GAUGE, 0-1000 PSI <i>PRESSURE GAUGE HYDROPOISE 4 IN FACE 1/2 IN BM 0 - 1000 PSI STAINLESS STEEL LIQUID FILLED,DUAL SCALE,MODEL 402</i>
PI- 2000-2011	12.00	PRESSURE GAUGE, 0-1000 PSI <i>PRESSURE GAUGE HYDROPOISE 4 IN FACE 1/2 IN BM 0 - 1000 PSI STAINLESS STEEL LIQUID FILLED,DUAL SCALE,MODEL 402</i>
551697	2.00	THERMOMETER 3" DIAL TREND 6" STEM <i>TI-1020/1030</i> <i>THERMOMETER 3" DIAL TREND 6" STEM -20 TO 120C / 0 TO 250F 304SS MODEL 33</i>
423369	2.00	THERMOWELL WIKA 1/2" X 3/4" 6" <i>TW-1020/1030</i> <i>THERMOWELL WIKA 1/2" X 3/4" 6" 304SS</i>
LG-1020/1030	2.00	REFLEX FLAT GLASS <i>REFLEX FLAT GLASS PENBERTHY 1750 PSI MAWP@ 100 F 1RM5 STD SERVICE, 7-7/8" VISIBLE LENGTH</i>
599928	1.00	SCRUBBER FLOAT 2" HLSD <i>HLSD-1040</i>
CH-3	10.00	SWING CHECK VALVE 3" CL 300 RF FP <i>SWING CHECK VALVE WHEATLEY-3" CL 300 RF,FULL PORT A216 WCB BODY, BOLTED CAP,A 193 GR B7M BOLTS, ,A194GR 2H NUTS API TRIM NUMBER 800(F6 AND HF), ASME B 16.34</i>
BA-7	10.00	VALVE BALL FUSION 3/4" 2000 FP <i>VALVE BALL FUSION 3/4" 2000 RP SCR'D CARBON STEEL BODY STD TRIM 332-TF-007-F-08-N1-AA</i>
ESDV- 1021	1.00	ESD VALVE FC JAG 2" <i>Jaq Model FB2R20R03N 2 IN. 300 Class RF Red. Port, Floater Ball Valve, Sour/ Std. Temp. C/W CVS Controls Model CVS125-SR7 Pneumatic Spring Return Actuator. 40 psi. Required. FAIL CLOSED</i> <i>Quote 0003094</i>
PSHH-1020/1030	2.00	HIGH PRESSURE SWITCH <i>PRESSURE SWITCH CCS DUAL SNAP SET @ 220 PSI</i>

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		<i>RISING C/W FACTORY SET CERTIFICATE MODEL 6900GZE 18</i>
CH-5	2.00	CHECK VALVE, PLAINSMAN <i>SB-50, 1/2 NPTF x 1/2 NPTF, 3000 PSI 316 STAINLESS</i>
BA-5	2.00	4" ANSI 300# RF, DBB, FP <i>4" 300# RF FP GROVE B4 BALL VLV TRUN LT AND N DB AND B L/O NET Mfg Part# 9K-4B04F03FO2A</i>
NE-3	11.00	NEEDLE VALVE 1/2" M X 1/2" F <i>ANDERSON GREENWOOD H7VIS-44Q-SG 1/2 IN M X 1/2 IN F NEEDLE VALVE</i>
PV-1030	1.00	SUR-FLO BPCV <i>SF10V-C-30-S63-X-4.3/ BACK PRESSURE CONTROL VALVE 7.125 In. FACE TO FACE DIMENSION 24 In. Sch 80 expansion bottle. SK Registered 4 In. 300 Control Valve Centering Kit Quote 1001599</i>
FE-1040	1.00	ROOTS METER <i>ROOTS Meter Model 8C175, 175 PSI MAWP, -40-140F Working Temp. 1-1/2" MNPT</i>
SA-1020	1.00	TARPON REM SAMPLER <i>TARPON - REM SAMPLER -Sample every dump or configure for electric or pneumatic timer -Adjustable sample volume taken once each cycle -Sample container can be vented externally -Use any sample container that fits the table -Container table mounted on ball bearings -Sample probe ? 1/2 inch NPT x 1/4 inch tube probe or Floco probe -Sample point connector rated at 2500 PSI - 1/4 inch NPT x 1/4 inch tube air and sample connections -Easy mounting on 2 inch pipe or wall -Dimensions-10 inch x 16 inch x 7 inch QUOTATION - 1269 - 0019 DT 12TH MARCH, 2012</i>
BA-9	1.00	2" CL 300 FP RF, NACE BALL VALVE <i>2" CL 300 RF NEWAY SPLIT BODY FLOATING BALL VALVE, FP, A216 WCB BODY, 316 SS BALL AND STEM, R-PTFE SEAT, GRAPHITE PACKING, API</i>

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		607 REV 4, VALVE MEETS THE INTENT OF NACE MR0175/ ISO 15156 REV 2005, AS STATED IN TABLE A.2, B16.34, W/HANDLE. PBV C-6430-31-2236-FT-NL-I
PV-1020	1.00	SUR-FLO BPCV SF10V-C-30-S63-X-2.3/ BACK PRESSURE CONTROL VALVE 5.375 In. FACE TO FACE DIMENSION 12 In. Sch 80 expansion bottle. SK Registered 2 In. 300 Control Valve Centering Kit Quote 1001599
FE-1021/1031	2.00	NUFLO TURBINE 9A-10101095 ASSY,FM,7/8x1IN,MNPT ENDS,RND,STD ASSEMBLY, FLOWMETER, 7/8 IN. X 1 IN., MNPT ENDS, ROUND, STANDARD GRADE 9A-100002077 PICKUP, FLOW METER, FOR USE WITH 7/8 IN AND LARGER FLOW METERS, TEMP. RANGE MINUS 67 TO PLUS 250 DEG. F. 9A-0818-0000A-12 818A PRE-AMP CSA 0-5 V O/P 1: 4 IN. STANDOFF 2: STANDARD 0 TO 5 VOLT OUTPUT. Input: Low power turbine signal Output: 0.5 to 5.5 mA or 0 to 5 VDC square wave Housing: CSA explosion proof, Class I, Division I, Group C and D when mounted on turbine Power Requirement: 18 36 VDC Mounting: Integral to turbine c/w 4" stand-off Quotation 4500/E70/20948400
PI-1041	1.00	PRESSURE GAUGE, 0-200 PSI PRESSURE GAUGE HYDROPOISE 4 IN FACE 1/2 IN BM 0 - 200 PSI STAINLESS STEEL LIQUID FILLED,DUAL SCALE,MODEL 402
BH - 3000 A/B	2.00	RUFFNECK HEATER Ruffneck Heater2) FX5-480360-15-WT 480VAC,3 PH,60HZ c/w THERMOSTAT
FT/PT/TT 1020	1.00	EMERSON/FISHER MVS 205R RSE-1606-93285 MVS205R REMOTE SENSOR (0.1%) 0-250DP 0-800PSIG, 316 SST SENSOR CONSTRUCTION (Formerly Part Number: RSE2CS)- Qty 1 RTD-1.5

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		3 WIRE RTD COMPLETE WITH THERMOWELL (1.5 In. INSERTION LENGTH), 3/4 In. PROCESS CONNECTION, -100 DEG C TO 260 DEG C- Qty 1
		5TIS-4FLG 5 WAY MANIFOLD - FLANGE X 1/2" FNPT NACE- Qty 1
		AK-002-10-HD MOUNTING BRACKET (CARBON STEEL) FOR M673 and 5TIS 5-WAY MANIFOLDS- Qty 1
		Spartan Quote ID: Q108954-A, Rev 0 Arthur Wegelin (403) 695-2530 Wegelin.Arthur@spartancontrols.com
BA-6	26.00	VALVE BALL FUSION 1/2" 2000 FP VALVE BALL FUSION 1/2" 2000 FP SCR'D CARBON STEEL BODY STD TRIM PBV 332-TF-005-F-08-L1-AA
BA-10	2.00	VALVE BALL FUSION 1" 2000 FP VALVE BALL FUSION 1/2" 2000 FP SCR'D CARBON STEEL BODY STD TRIM PBV 332-TF-005-F-08-L1-AA SPRING LOAD CLOSED
PRV-4010-4017	8.00	REGULATOR FISHER 67CFR REGULATOR FISHER 67CFR 0-60 PSI STD TRIM TAPPED BONNET C/W 0-60 PSI GAUGE SST CASE TUBE AND SOCKET
PRV-4016	1.00	REGULATOR FISHER 67CFR REGULATOR FISHER 67CFR 0-125 PSI STD TRIM TAPPED BONNET C/W 0-160 PSI GAUGE SST CASE TUBE AND SOCKET
ZSC/ZSO-1020/1021	3.00	CVS Limit Switch CVS Limit Switch, Model Model ALS-500M2
PI-1021/1031	2.00	Wika,0-300 PSI WIKA Pressure Gauge, Type 233.53 - Liquid-filled Case, Dual Scale, Bottom Mount, 2-1/2" Dial, 0-300 PSI
BDV-1020/1030	2.00	1" NPT Fisher D4 D4-X1B1J Fisher D4 Control Valve 1 In NPT LCC Steel 1/2 In Micro-Form 416 SST HT ENVIRO-SEAL PTFE packing

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		<i>Integral size 40 actuator, Fail Open Maximum differential 4250 psi Operating Range:0-33 psi</i>
EY-1030/31	2.00	Solenoid ASCO 3-Way, 1/4" NPT SST <i>Solenoid ASCO 3-Way, 1/4" NPT SST Body 24VDC Coil, CSA Approved Explosion Proof, 130 psig Maximum Operating Pressure Differential, Low Power 0.55 Watts</i>

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