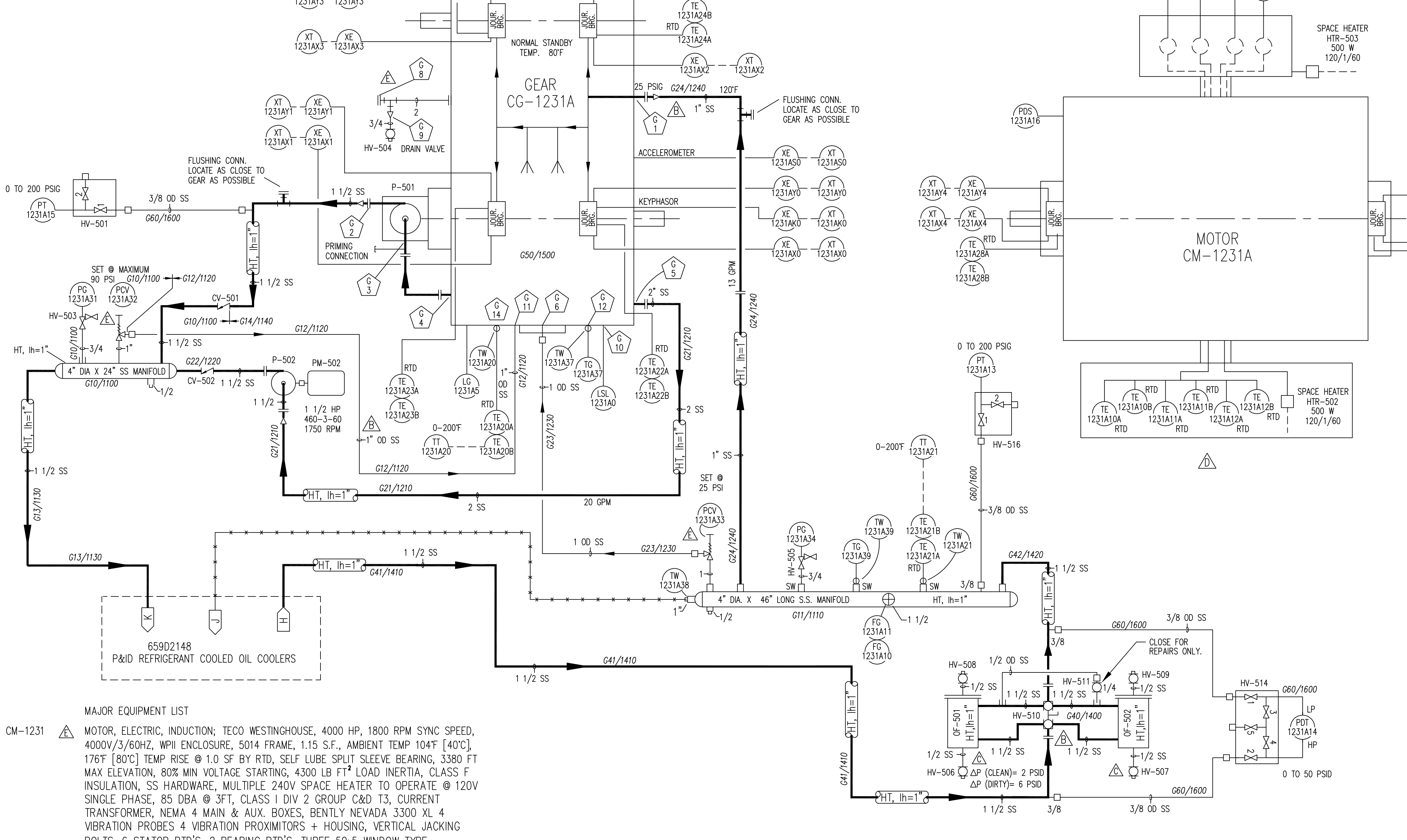


GEAR CONNECTION LIST		
TAG	DESCRIPTION	SIZE
G1	BEARING OIL SUPPLY	1 1/2" CL150 FLG
G2	SHAFT PUMP DISCHARGE	2" SAE SW FLG
G3	SHAFT PUMP SUCTION (AT PUMP)	2" SAE SW FLG
G4	SHAFT PUMP SUCTION (AT GEAR)	2" SAE SW FLG
G5	AUX OIL PUMP SUCTION	2" CL150 FLG
G6	RELIEF VALVE RETURN	1" NPTI
G7	OIL SUMP HEATER	2" NPTI
G8	ELECTRIC MOTOR OIL RETURN	2" CL150 FLG
G9	DRAIN/FILL CONNECTION	3/4" NPTI
G10	LOW OIL LEVEL SWITCH	1 1/2" NPTI
G11	AUX OIL PUMP RELIEF RETURN	1" NPTI
G12	OIL SUMP THERMOMETER	3/4" NPTI
G13	SUMP CLEAN OUT PORT	6" CL150 FLG
G14	OIL SUMP RTD	3/4" NPTI

REVISION HISTORY							
ZONE	REV	ECN	DESCRIPTION	DATE	DR	CHK	APPD
	A		REVISIONS PER CUSTOMER AND ENGINEERING REVIEW REFER TO REVISION TRIANGLE	3/4/09	JES	TTP	TTP
	B		REVISIONS PER CUSTOMER MARK-UPS, TAG NUMBER CHANGES	4/15/09	JES	TTP	TTP
	C		REVISIONS PER BILL OF MATERIAL REVIEW.	6/8/09	JES	TTP	TTP
	D		REMOVED NOTE ABOUT STATOR RTD'S AND SPARES	9/25/09	JES	TTP	TTP
	E		REVISIONS PER FAT AND ENGINEERING REVIEW REFER TO REVISION TRIANGLE	12/22/09	TTP	TTP	TTP
	F		AS-BUILT CHANGES FOR TRAIN 1 REFER TO REVISION TRIANGLE	2/22/10	JES	TTP	TTP



- NOTES:
- REFERENCE DRAWINGS:
 P & I DIAGRAM, (6) REFRIGERATION COMPRESSOR UNITS: 659D2149
 GENERAL ARRANGEMENT, COMPR. DRIVELINE: 659D2540
 P & I DIAGRAM, COMPRESSOR LUBE OIL 659D2146
 GENERAL ARRANGEMENT, COMPRESSOR LUBE OIL MODULE: 659D2560
 P & I DIAGRAM, GEAR/MOTOR LUBE OIL: 659D2147
 GENERAL ARRANGEMENT, GEAR/MOTOR LUBE OIL MODULE: 659D2561
 P & I DIAGRAM, REFRIGERANT OIL COOLERS: 659D2148
 PNEUMATIC/ELECTRIC DIAGRAM: 669D0124
 LOGIC DIAGRAM: 669D0127
 PLC PANEL: 645D1279
 COMPRESSOR PROXIMATOR BOX: 648D2383
 GEAR PROXIMATOR BOX: 648D2384
 P & ID LEGEND: 650D0020
 - AREA CLASSIFICATION:
 OUTDOOR, UNDER ROOF, HAZARDOUS, NEMA 4X, CL I, GR C&D, DIV 2
 - ALL MANUAL VALVES ARE NORMALLY OPEN (NO), UNLESS NOTED NORMALLY CLOSED (NC), EXCEPT VENT AND DRAIN VALVES WHICH ARE NORMALLY CLOSED.
 - ALL CUSTOMER CONNECTIONS ARE FURNISHED WITH EITHER PIPE PLUGS OR SEALING DISKS.
 - MAJOR PIPING CUSTOMER CONNECTIONS ARE LISTED IN CHART. AUXILIARY CONNECTIONS (E.G. PNEUMATIC, ELECTRIC, RELIEF VENT, ETC.) ARE NOT LOCATED. REFER TO GA, WIRING DIAGRAM AND JUNCTION BOX DRAWINGS, ETC., FOR ADDITIONAL INFORMATION.
 - INSULATION AND HEAT TRACING "BY OTHERS", (REFER TO LEGEND). CONSULT WITH YORK ENGINEERING FOR SPECIAL LUBE SYSTEM HEAT TRACING AND INSULATION WHEN THE AVERAGE AMBIENT TEMPERATURE AT START-UP WILL BE LESS THAN 40° F.
 - CAUTION: DO NOT CLOSE SERVICE VALVES IN LIQUID PIPING UNLESS THE ISOLATED PIPING IS OPENED IMMEDIATELY FOR SERVICE. EXCESSIVE PRESSURE CAN DEVELOP FROM THERMAL EXPANSION.
 - DELETE ---
 - INTERCONNECTING PIPING IS "BY OTHERS". PIPE HANGERS SHOULD BE USED AS NECESSARY TO AVOID EXCESS STRESS ON PIPING AND COMPONENTS. SUPPORTS ARE SUPPLIED AND INSTALLED "BY OTHERS". (PIPING FLEXIBILITY ANALYSIS FOR EXTERNAL PIPING IS "BY OTHERS".)
 - DESIGN WORKING PRESSURE 200 PSIG.
 - TOTAL AIR SUPPLY REQUIRED: 4000 SCFH, 80-100 PSIG. AIR QUALITY REQUIRED IN ACCORDANCE WITH ISA 57.0.01.
 - TAG NUMBERS SHOWN ARE FOR TRAIN 1 ITEM 1000, LETTER "A" IN TAG NUMBER SHALL BE SEQUENCED "B" THRU "F" FOR ITEMS 2000 THRU 6000.
 - FOR TRAIN 2 TAG NUMBERS REPLACE "1231A" WITH "1331A" THRU "1331E" FOR ITEMS 8000 THRU 12000.

- MAJOR EQUIPMENT LIST
- CM-1231 MOTOR, ELECTRIC, INDUCTION; TECO WESTINGHOUSE, 4000 HP, 1800 RPM SYNC SPEED, 4000V/3/60HZ, WPII ENCLOSURE, 5014 FRAME, 1.15 S.F., AMBIENT TEMP 104°F [40°C], 176°F [80°C] TEMP RISE @ 1.0 SF BY RTD, SELF LUBE SPLIT SLEEVE BEARING, 3380 FT MAX ELEVATION, 80% MIN VOLTAGE STARTING, 4300 LB FT² LOAD INERTIA, CLASS F INSULATION, SS HARDWARE, MULTIPLE 240V SPACE HEATER TO OPERATE @ 120V SINGLE PHASE, 85 DBA @ 3FT, CLASS 1 DIV 2 GROUP C&D T3, CURRENT TRANSFORMER, NEMA 4 MAIN & AUX. BOXES, BENTLY NEVADA 3300XL 4 VIBRATION PROBES 4 VIBRATION PROXIMITORS + HOUSING, VERTICAL JACKING BOLTS, 6 STATOR RTD'S, 2 BEARING RTD'S, THREE 50:5 WINDOW TYPE DIFFERENTIAL CURRENT TRANSFORMERS.
- CG-1231 GEAR, SPEED INCREASER; LUFKIN; MODEL NUMBER: N1800C; CAST IRON; PER API 613 STANDARDS; WITH 1.4 API SF MIN; TO TRANSMIT 4000 HP FROM MOTOR AT 1772 RPM TO 3217 RPM COMPRESSOR; WITH SPARKPROOF L.S. COUPLING GUARD AND SHIM SET; HYDRAULICALLY RELEASING (KEYLESS) TAPERED SHAFT EXTENSION WITH COUPLING NUT, FOR 3" RIVERHAWK COUPLING, TAPERED 1/2"/FT; CYLINDRICAL L.S. SHAFT EXTENSION WITH 6.5" DIA AND SINGLE KEYWAY; SS TAGGING ON ALL INSTRUMENTATION AND LUBE OIL CONNECTIONS; CS BODY SHAFT DRIVEN OIL PUMP; IMMERSION HEATER WITH BUILT IN THERMOSTAT; PROVISIONS FOR OIL SUMP TEMP SENSOR AND LOW OIL LEVEL SWITCH; VERTICAL LIQUID LEVEL GAUGE; OIL SUMP CLEAN OUT; 8 BENTLY NEVADA 3300XL VIBRATION PROBES, 2 EACH JOURNAL BEARING; 1 KEYPHASOR PROBE ON L.S. SHAFT, 1 CASE MOUNTED ACCELEROMETER ON L.S. SHAFT EXTENSION, BEARING HOUSING, HORIZONTAL LOCATION BELOW PARTING LINE; 4 MINCO 100 OHM DUPLEX EMBEDDED RTD'S, 1 EACH JOURNAL; 1 PROBE TYPE DUPLEX RTD IN OIL SUMP WITH SS THERMOWELL.

- P-502
PM-502
OIL PUMP; VIKING; MODEL NUMBER: HJ493M; CARBON STEEL; 20 GPM CAPACITY AT 1750 RPM; 1 1/2" CL300 ANSI FF FLANGED PORTS; LESS RELIEF VALVE; 300 PSIG DWP; NEOPRENE MECHANICAL SHAFT SEAL; DRIVER WILL BE A MANUFACTURER STD. 1 1/2 HP, 1750 RPM, TEFC, 460-3-60, 1.15 SF, 145 TC FRAME, SUITABLE FOR USE IN A CLASS I, DIVISION 2 OUTDOOR LOCATION.
- OF-501
OF-502
OIL FILTER; SS, WITH ONE 5 MICRON FILTER ELEMENT; 200 PSIG DWP; -20°F / 250°F DWT; WITH 1 1/2" INLET & OUTLET CONNECTIONS; ASME B31.3; BY JCI/YORK

THIS DRAWING CERTIFIED
 FOR SANDRIDGE ENERGY
 ORDER NO. 294100
 YORK REFRIGERATION
 Waynesboro, PA
 PER T PALMER DATE 3/4/09

PURCHASER SANDRIDGE ENERGY 1601 N.W. EXPRESSWAY SUITE 1600 OKLAHOMA CITY, OK 73118		NOTICE TO PURCHASER REFER TO CONTRACT FOR MATERIAL TO BE SUPPLIED BY YORK REFRIGERATION. THE AMOUNT OF SUCH MATERIAL IS NOT INCREASED BY ANYTHING SHOWN UPON THIS DRAWING.	
YORK ORD NO 294100	PURCH ORD NO 27607-P-13-012JCI	UNLESS OTHERWISE SPECIFIED TOLERANCES PER GAP 18	
THIRD ANGLE PROJECTION		DO NOT SCALE	
UNLESS OTHERWISE SPECIFIED TOLERANCES PER GAP 18		JOHNSON CONTROLS	
DR D HUFF		YORK Process Systems	
CHK L. ALEXANDER		Waynesboro, PA 17268	
APPD T. PALMER		TITLE P & I DIAGRAM GEAR/MOTOR LUBE OIL YORK M555BA DRIVELINE	
DEC 2PL	DEC 3PL	FRACT	ANGLE
DR	D HUFF	12/12/2008	
APPD	T. PALMER	12/22/08	
CODE		SCALE NONE	SHEET 1 OF 1
SIZE D	CAGE CODE 23587	DWG NO 659D2147	REV F