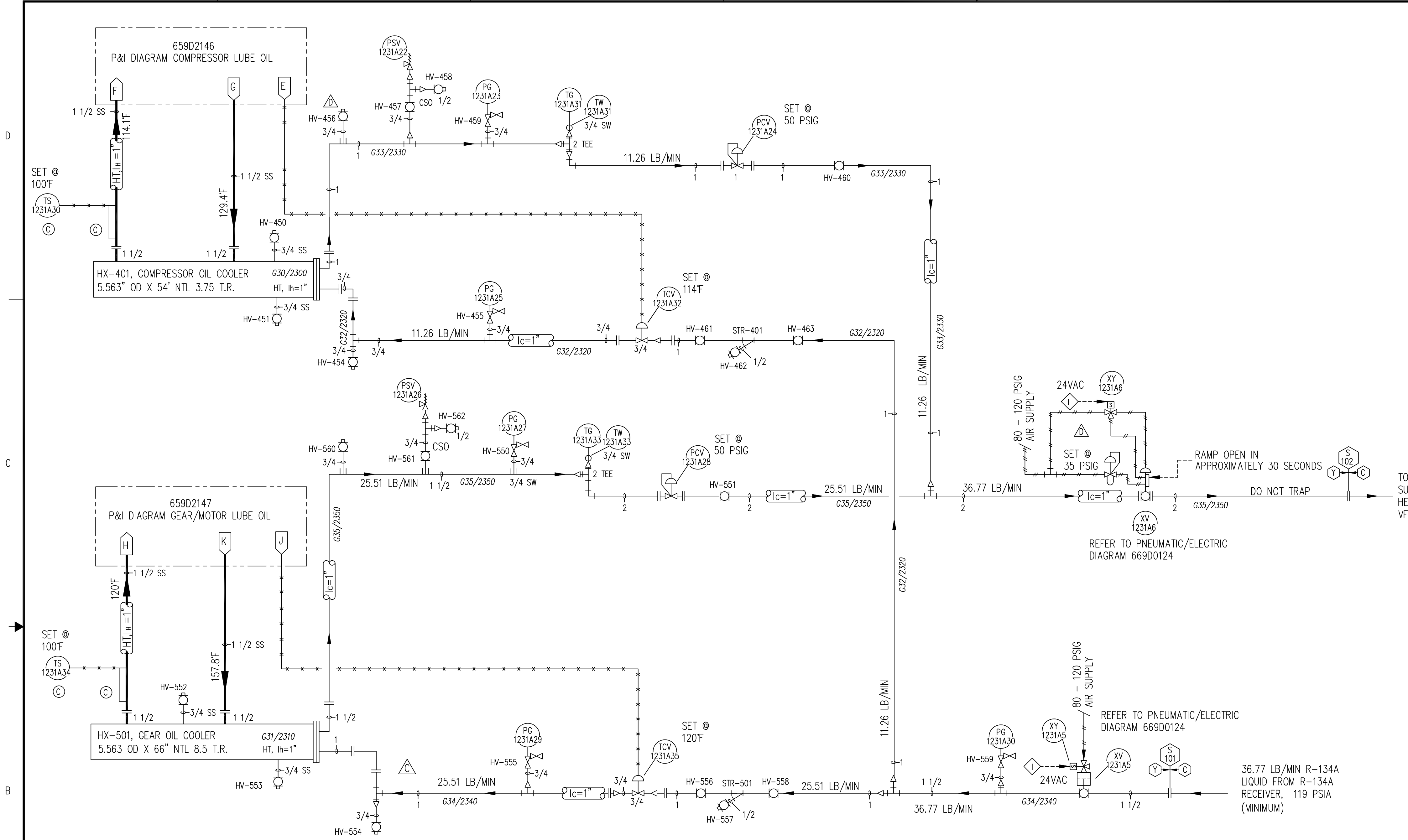


REVISION HISTORY							
ZONE	REV	ECN	DESCRIPTION	DATE	DR	CHK	APPD
	A		REVISIONS PER CUSTOMER AND ENGINEERING REVIEW REFER TO REVISION TRIANGLE $\Delta$	3/4/09	JES	TTP	TTP
	B		REVISIONS PER CUSTOMER MARK-UPS, TAG NUMBER CHANGES	4/15/09	JES	TTP	TTP
	C		REVISIONS PER BILL OF MATERIAL REVIEW.	6/8/09	JES	TTP	TTP
	D		REVISIONS PER CUSTOMER AND ENGINEERING REVIEW REFER TO REVISION TRIANGLE $\Delta$	12/22/09	TTP	TTP	TTP
	E		AS-BUILT CHANGES FOR TRAIN 1 REFER TO REVISION TRIANGLE $\Delta$	2/22/10	JES	TTP	TTP



- HX-401  $\Delta$  OIL COOLER; API BASCO; MODEL NUMBER: 05054 BEU; SS; 5.563" OD x 54" NTL; TYPE BEU WITH (34) PLAIN STAINLESS STEEL "U" TUBES; 3/8" OD x 24 BWG; 2 PASSES TUBESIDE; 200 PSIG SHELLSIDE/ 200 PSIG TUBESIDE; -20/250°F DWT; ASME CODE AND TEMA CLASS "C"; DUTY: 44940 BTUH COOLING 14.32 US GPM YORK J OIL SHELLSIDE; USING 675.6 LB/HR R-134A EVAPORATING TUBESIDE AT 51°F
- HX-501  $\Delta$  OIL COOLER; API BASCO; MODEL NUMBER: 05066 BEU; SS; 5.563" OD x 66" NTL; TYPE BEU WITH (34) PLAIN STAINLESS STEEL "U" TUBES; 3/8" OD x 24 BWG; 2 PASSES TUBESIDE; 200 PSIG SHELLSIDE/ 200 PSIG TUBESIDE; -20/250°F DWT ASME CODE AND TEMA CLASS "C"; DUTY: 101800 BTUH COOLING 13 US GPM LIGHT TURBINE OIL SHELLSIDE; USING 1530.6 LB/HR R-134A EVAPORATING TUBESIDE AT 51°F

ASME SAFETY RELIEF VALVE LEGEND				
PSV #	MANUFACTURER, MODEL	INLET SIZE	OUTLET SIZE	SET PRESSURE
403	HYDROSEAL 15D1FOC10	1/2"	1"	200 PSIG
503	HYDROSEAL 15D1FOC10	1/2"	1"	200 PSIG

CONNECTION LEGEND			
CONN	SIZE	DESCRIPTION	QTY
S-101	1 1/2"-CL 150 ANSI FLANGE	REFRIGERANT LIQUID INLET	1
S-102	2"-CL 150 ANSI FLANGE	REFRIGERANT LIQUID OUTLET	1

- NOTES:
- REFERENCE DRAWINGS:  
P & I DIAGRAM, (6) REFRIGERATION COMPRESSOR UNITS: 659D2149  
GENERAL ARRANGEMENT, COMPR. DRIVELINE: 569D2540  
P & I DIAGRAM, COMPRESSOR LUBE OIL: 659D2146  
GENERAL ARRANGEMENT, COMPRESSOR LUBE OIL MODULE: 569D2560  
P & I DIAGRAM, GEAR/MOTOR LUBE OIL: 659D2147  
GENERAL ARRANGEMENT, GEAR/MOTOR LUBE OIL MODULE: 569D2561  
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:  
 $\Delta$  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 S7.0.01.
  - 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.

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 DIMENSIONS ARE IN INCHES DO NOT SCALE	
YORK REFRIGERATION Waynesboro, PA 17268		JOHNSON CONTROLS YORK Process Systems	
THIS DRAWING CERTIFIED FOR SANDRIDGE ENERGY ORDER NO. 294100 YORK REFRIGERATION Waynesboro, PA PER T PALMER DATE 3/4/09		TITLE P & I DIAGRAM REFRIGERANT OIL COOLERS YORK M555BA DRIVELINE	
DR D HUFF	12/12/2008	SIZE D	CASE CODE 23587
CHK L. ALEXANDER	12/22/08	DWG NO 659D2148	REV E
APPD T. PALMER	12/22/08	SCALE NONE	SHEET 1 OF 1