

EFFLUENT WATER BALANCE TANK

NOTES:

- A. FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
- B. ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 530--.
- C. ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 030--.
- D. FOR TYPICAL INSTRUMENT CONNECTION SBOV, XV, MOV & ESD DETAILS SEE DRAWINGS 50489-530-020-PID-1108.002, .003, .004, .005, .006 & .007.
- E. FOR PUMPS/STAGNANT PIPING TYPICAL VALVING, DRAINAGE & GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS, SCALLES, STRAINERS & CONTROL VALVES SEE DRAWINGS 50489-530-020-PID-1108.001 TO 1108.010.
- F. DRAWING NUMBERS SHOWN IN P&ID CONTINUATION BOXES ARE ABBREVIATED SHOWING DRAWING SEQUENTIAL NUMBERS ONLY. THE FULL FORM OF THE DRAWING NUMBER IS 50489-530-020-PID-XXXX.SHT.NO.
- G. FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
- H. DETAIL NUMBERING FOR CI, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
- I. PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
- J. LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
- K. FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHIL-1006.
- L. FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1009.

NOTES:

1. DELETED.
2. FOR CHEMICAL INJECTION NOZZLE DETAIL SEE STANDARD DWG. 50489-530-020-PID-1108.001
3. PUMP SUCTION AND DISCHARGE MANIFOLD AND HEADER ARE SIZED FOR 320,000 BWPD.
4. DRIP PAN FOR PVRV PIPE IS CONNECTED TO TANK BASE.
5. TI-0275 LOCATED CLOSE TO D-005B.
6. CONSIDERING VERY LOW PRESSURE DROP AVAILABILITY, PRESENCE OF DROPLETS CARRIED OVER INTO THE GAS STREAMS AND THE REQUIRED ACCURACY, INSERTION TYPE THERMAL MASS FLOW METER IS USED.
7. FY PROVIDES PRESSURE AND TEMPERATURE COMPENSATION FOR FQI.
8. DELETED.
9. DISTRIBUTOR IS PROVIDED FOR UNIFORM DISTRIBUTION OF EFFLUENT WATER OVER CROSS SECTIONAL AREA OF TANK.
10. FIXED TYPE OF OIL COLLECTOR PIPE SYSTEM IS PROVIDED IN BETWEEN HLL & NLL.
11. DELETED.
12. PVRV IS N+2 WITH FLAME ARRESTOR & AS PER KOC-MV-007 CL 9.6.
13. THE CAPACITY OF CONTROL VALVES ARE NOT MORE THAN PVRV OUTBREATHING CAPACITY. 5405.36 Nm³/hr (4.84 MMSCFD).
14. OIL IN WATER ANALYSERS PROVIDED.
15. MOBILE PUMP CONNECTION.
16. LOCATE AT GRADE.
17. LOCATE ON THE ROOF OF TANK.
- 16,17,20,21,22,23,24. DELETED.
2. 2 OUT OF 3 VOTING.
26. THE ISOLATION VALVE FOR TANK VAPOUR LOCATED NEAR TO TV FLARE HEADER.
27. FOR SAMPLE NOZZLE DETAIL SEE STANDARD DWG. 50489-530-020-PID-1108.001
28. MULTIPLE LEVEL GAUGES ARE PROVIDED TO COVER ALL OPERATING RANGES.
29. DELETED.
30. FOR DETAILS OF TANK AREA FIRE PROTECTION SYSTEMS & PIT LOCATION REFER TO DRAWING 50489-530-000-PID-1133
- 31,32,33. DELETED.
34. DEVIATION OF PIT-0274A/B OUTPUT OF 5% INITIATES ALARM.
35. DELETED.
36. FOR CORROSION MONITORING STATIONS (CMS):-
 - (a) CMS ARE INSTALLED AS PER KOC-MP-035.
 - (b) PROPER ACCESS PIT OR PLATFORM ARE PROVIDED FOR RETRIEVAL OF COUPON/PROBE.
 - (c) MATERIAL FOR CMS ARE PROCURED FROM KOC APPROVED VENDOR LIST.
 - (d) CMS ARE LOCATED IN BOTTOM 6 O'CLOCK POSITION.
 - (e) TAG NUMBERING OF CMS IS AS PER APPENDIX-C OF KOC-MP-035.
37. ENSURE THAT LOCATION OF BALL VALVES PROVIDED ON THE DRAIN LINES CLOSE TO THE DIVERTING DRAIN TO THE FUNNEL.
38. STRAIGHT LENGTH REQUIRED
 - (a) FOR CRITICAL FLOW METER : 20D UPSTREAM & 5D DOWNSTREAM
 - (b) FOR THERMAL MASS FLOW METER : 10D UPSTREAM & 5D DOWNSTREAM
39. IN CASE OF HIGH-HIGH LEVEL (LAHH-0268) IN THE EFFLUENT WATER BALANCE TANK, EFFLUENT WATER FROM UPSTREAM OF TANK IS AUTOMATICALLY ROUTED TO SLOP TANK BY OPENING OF XV-0277 & CLOSING OF XV-0280.
40. IN CASE OF HIGH-HIGH LEVEL (LAHH-0268) IN THE EFFLUENT WATER BALANCE TANK, EFFLUENT WATER FROM UPSTREAM OF TANK IS AUTOMATICALLY ROUTED TO SLOP TANK BY OPENING OF XV-0302 & CLOSING OF XV-0280.
41. DELETED.
42. CLEAN OUT DOOR.
43. ONLY ONE PVRV TO BE REMOVED AT A TIME FOR MAINTENANCE/INSPECTION, WHEN TANK IS IN SERVICE.

Z1	RE-ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	10.10.18
Z0	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	01.09.18
O1	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	02.11.16
O	ISSUED FOR CONSTRUCTION	HSR/PRS	AKG	SRA	RAK	24.05.16
D	ISSUED INCORPORATED CLIENT COMMENTS	HSR/VSA	AKG	SRA	RAK	19.04.16
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	14.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	30.05.15
B	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	19.02.15
A	ISSUED FOR APPROVAL	BAK/VSA	AKG	SRA	RAK	05.12.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM APPR.	DATE

CONTRACTOR REVISION

KUWAIT OIL CO.
K. S. C.

شركة نفط الكويت
ش.م.ك.
 مصرف الكويت - فرع شركة النفط الكويتية
 A Subsidiary of Kuwait Petroleum Corporation

CONTRACTOR DETAILS:—

LARSEN & TOUBRO LIMITED
FARIDABAD

PROJECT TITLE:—

NEW GATHERING CENTRE GC-30
IN NORTH KUWAIT

DOCUMENT TITLE

PIPING & INSTRUMENTATION DIAGRAM
EFFLUENT WATER BALANCE TANK D-005B

PROJECT NO.		DRAWING NO.		
EF1902	CONTRACTOR DRG. NO.	REV.	KOC DRG. NO.	REV.
	50489-530-020-PID-1151.002	Z1		
	SHEET NO. 2 OF 2		SHEET NO.	
	COMPANY DRG. NO.	REV.		
	EF1902-530-DCO-PID-0151.001	A4		
	SHEET NO.			