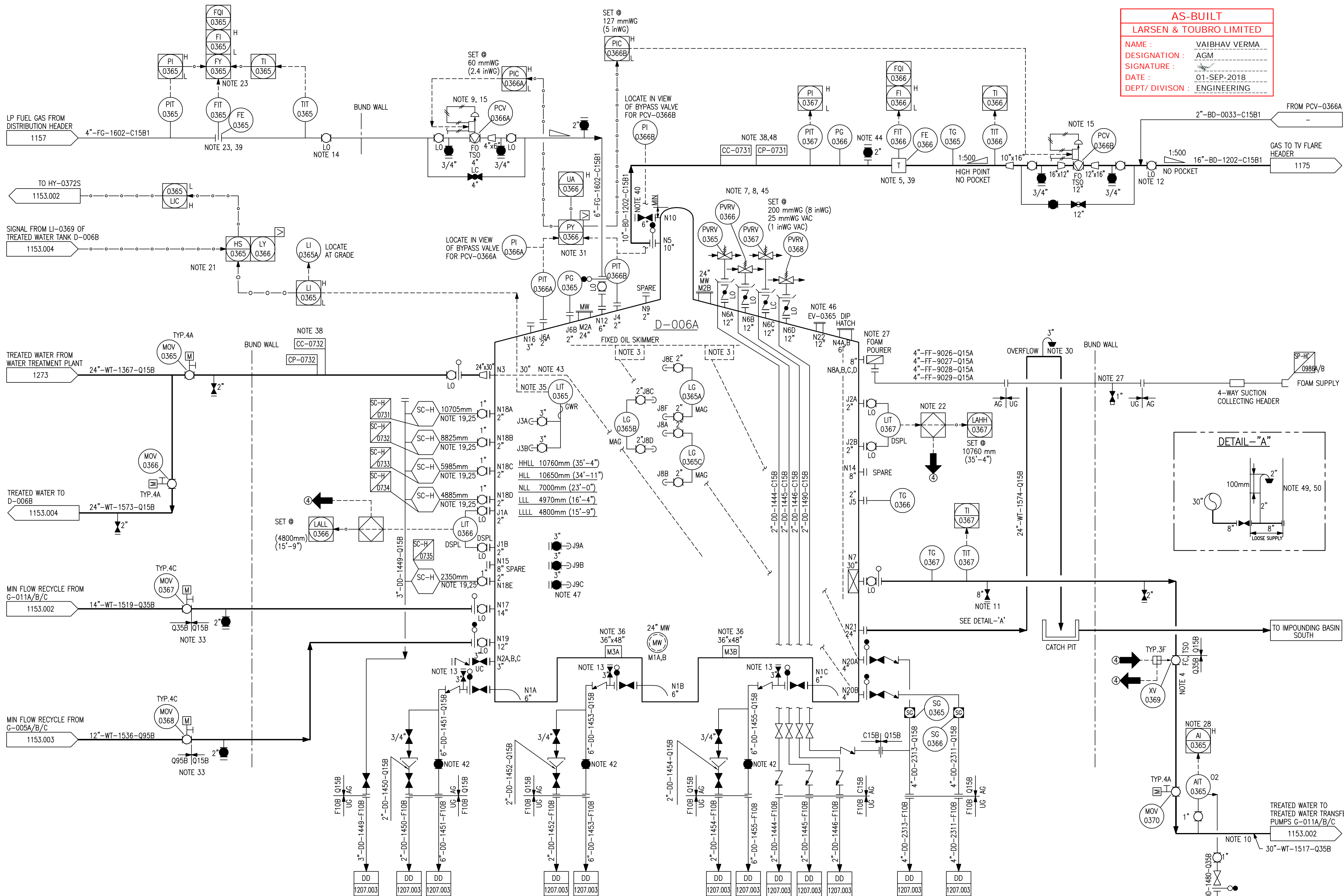


D-006A NOTE 2, 21

TREATED WATER TANK

CAPACITY m3 (BBLs) : 8652 (54422) NOTE 2  
ID mm (ft.-in) : 32000 (105'-0")  
HEIGHT mm (ft.-in) : 12300 (40'-4")  
OP PRESS /DES PRESS MMWG (IN WG) : 50~127/254/-38 (2~5/10/-1.5)  
OP TEMP/DESIGN TEMP °C (°F) : 15~55/93/-3 (59~131/200/27)  
UTC NO. :  
TRIM NO. : DT-D006A-Q15B/C15B1/Q35B/C35B1



NOTES: (CONTD.)

42. ENSURE THAT LOCATION OF BALL VALVES PROVIDED ON THE DRAIN LINES CLOSE TO THE DIVERTING DRAIN TO THE FUNNEL.
43. DISTRIBUTOR PIPE.
44. PURGE CONNECTION IS PROVIDED ON TANK VAPOUR OUTLET LINE.
45. ONLY ONE PVRV IS TO BE REMOVED AT A TIME OF MAINTENANCE/INSPECTION WHEN TANK IS IN SERVICE.
46. EMERGENCY VENT VALVE, ONE SHALL BE INSTALLED & ONE SHALL BE WAREHOUSE SPARE.
47. J10A/B/C SPARE NOZZLE ELEVATIONS:-  
J10A : 300 mm FROM TOP OF THE TANK  
J10B : CENTER FROM TOP OF THE TANK & BOTTOM NOZZLE  
J10C : 500 mm ABOVE THE BOTTOM OF THE TANK
48. ONE ADDITIONAL INTERNAL CORROSION MONITORING POINT SHALL BE INSTALLED AT THE TOP AT 12 O'CLOCK POSITION.
49. VENT LINE SHALL BE EXTENDED TO 100mm ABOVE THE HEADER.  
IT WILL BE USED AS VENT DURING MAINTENANCE PURPOSE WHEN TANK ISOLATION VALVE & XV/ESDV WILL BE IN CLOSED POSITION.  
SAME ARRANGEMENT WILL BE APPLICABLE FOR TANK D-001/002/003, D-006A/B, D-007/008.
50. 2" VENT ALONG WITH FLANGE CONNECTION WILL BE PROVIDED AS LOOSE SUPPLY BY L&T.

AS-BUILT

KOC APPROVAL

NAME / KOC No.:  
DESIGNATION :  
GROUP / TEAM :  
SIGNATURE :  
DATE :

AS-BUILT

LARSEN & TOUBRO LIMITED

NAME : VAIBHAV VERMA  
DESIGNATION : AGM  
SIGNATURE :  
DATE : 01-SEP-2018  
DEPT/ DIVISION : ENGINEERING

GENERAL 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, SBDV, XV, MOV & ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.001, .002, .003, .004, .005, .006 & .007.
- E. FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE & GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS, PUMPS, 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-PHL-1009.
- L. FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

- NOTES:
1. DELETED.
2. MAXIMUM CAPACITY TANK BOTTOM TO HLL.
3. FIXED OIL SKIMMER ELEVATION IS IN BETWEEN HLL & NLL.
4. IF VALVE XV-0369 IS NOT FULLY OPEN, THE ASSOCIATED PUMP (G-011A/B/C) IS INHIBITED FROM STARTING, OR IF RUNNING STOPPED.
5. THERMAL MASS FLOW METER.
6. DELETED.
7. DRIP PAN FOR PVRV PIPE IS CONNECTED TO TANK BASE.
8. PVRV IS N+2 WITH FLAME ARRESTOR & AS PER KOC-MV-007 CL 9.6.
9. CAPACITY OF CONTROL VALVE ARE NOT MORE THAN PVRV OUT BREATHING CAPACITY. 4937 Nm3/hr. (4.41 MMSCFD)
10. SUCTION LINE IS SIZED FOR BOTH PUMPS OPERATING ONE TANK.
11. MOBILE PUMP CONNECTION.
12. THE ISOLATION VALVE FOR TANK VAPOUR LOCATED NEAR TO TV FLARE HEADER.
13. TANK BOTTOM DRAIN NOZZLE FLUSHING.
14. LOCATE ON THE GROUND.
15. LOCATE ON THE ROOF OF TANK.
- 16,17,18. DELETED.
19. TRICOCK ELEVATIONS TO BE ALIGNED WITH TANK LEVEL.
20. DELETED.
21. HS-0365 (PID 1153-001) IS USED FOR THREE OPERATING MODES OF TREATED WATER TANK  
(a) SINGLE TANK OPERATION D-006A  
(b) SINGLE TANK OPERATION D-006B  
(c) PARALLEL TANK OPERATION D-006A/D-006B.
22. HIGH HIGH LEVEL IN EITHER TANK, D-006A (LAHH-0367) OR D-006B (LAHH-0370 P&ID 1153.004) OPENS XV-0300 AND CLOSING XV-0299 BOTH VALVES SHOWN ON P&ID-1273.
23. FY PROVIDES PRESSURE AND TEMPERATURE COMPENSATION FOR FOI.
24. MULTIPLE LEVEL GAUGES ARE PROVIDED TO COVER ALL OPERATING RANGES.
25. FOR SAMPLE NOZZLE DETAIL SEE STANDARD DWG. P&ID 1108.001
26. DELETED.
27. FOR DETAILS OF TANK AREA FIRE PROTECTION SYSTEMS & PIT LOCATION REFER TO DRAWING P&ID 50489-530-000-PID-1115.
28. INLINE OXYGEN ANALYSERS ARE INSTALLED. PROBES ARE 100% SPARED.  
O<sub>2</sub> PROBES ARE ONLINE RETRIEVABLE.
29. DELETED.
30. PIPE TO EXTEND TO 200mm ABOVE HLL IN TANK TO PROVIDE OVERFLOW. PIPE TO DISCHARGE INTO BUND
31. DEVIATION OF PIT-0366A/B OUTPUT BY 5% INITIATES ALARM.
32. DELETED.
33. AT LEAST MOV-0367 & MOV-368 OR MOV-0373 & MOV-0372 (PID-1153.004) MUST ALWAYS OPEN.
34. DELETED.
35. LIT-0365 COVERS THE WHOLE LEVEL RANGE OF THE TANK.
36. M3A & M3B ARE CLEAN OUT DOORS.
37. 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 COUPEN/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.
39. STRAIGHT LENGTH REQUIRED  
(a) FOR ORIFICE FLOW METER : 20D UPSTREAM & 5D DOWNSTREAM  
(b) FOR THERMAL MASS FLOW METER : 10D UPSTREAM & 5D DOWNSTREAM
40. HIGH POINT VENT.
41. DELETED.

REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
Z0	ISSUED FOR AS-BUILT	PY/CHS	CHS	VAV	VAV	01.09.18
02	ISSUED FOR CONSTRUCTION	PY/CHS	CHS	VAV	VAV	20.11.17
01	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	02.11.16
0	ISSUED FOR CONSTRUCTION	HSB/VSA	AKG	SRA	RAK	28.03.16
D	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	22.12.15
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	BAK/VSA	AKG	SRA	RAK	19.02.15
A	ISSUED FOR APPROVAL	BAK/VSA	AKG	SRA	RAK	05.12.14

CONTRACTOR REVISION

**KUWAIT OIL CO.**  
**K. S. C.**  
شركة نفط الكويت  
ش.م.ك.  
ايسو 9001:2015  
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**  
**TREATED WATER TANK D-006A**

PROJECT NO.	DRAWING NO.	REV.	KOC DRG. NO.	REV.
EF1902	CONTRACTOR DRG. NO.	50489-530-020-PID-1153.001	Z0	
	SHEET NO. 1 OF 23			
	COMPANY DRG. NO.	EF1902-530-DCO-PID-0153.001	A4	
	SHEET NO.			