



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. PIPING PROBE, EXTRACTABLE AND INSERTIONABLE UNDER FULL LINE PRESSURE. ORIENTATION ARE ACCORDING WITH LABEL ON THE DEVICE.  
2. PURGE CONNECTION IS PROVIDED TO PURGE THE PUMP FROM SUCTION TO DISCHARGE LINE  
3. PAHH AT PUMP DISCHARGE  
4. STRAINER DRIP PAN  
5. CABINET DRIP PAN DRAIN  
6. CELL SAMPLER CONTROL BOX CONNECT TO PLC  
7. GATE VALVE ONLY FOR HYDROSTATIC TEST VENT PURPOSE  
8. PUMP CASING VENT AND DRAIN NPS AS STANDARD MANUFACTURER  
9. Ex-d BOX (24 Vdc CONVENTER)  
10. GRAB SIGNAL IS HARD WIRED  
11. PALL AT PUMP SUCTION  
12. DEDICATED EQUIPMENT WITH 4" FLANGE FOR CONNECTION TO ROOT VALVE ON PIPELINE NOZZLE AND 3" FLANGE FOR CONNECTION TO THE PIPING FROM AUTOSAMPLER. WITHDRAWAL OPERATION IS ACHIEVED WITH THE HYDRAULIC EXTRACTOR FURNISHED.  
13. 1/2" CONNECTION FOR DRAIN DURING EXTRACTION OPERATION  
14. FOR AUTO SAMPLING CONNECTION REFER PID-1132.001.  
15. VENDOR PID NO: 50489-530-020-00079-PID-V002 SHEET 1 OF 2.  
16. FOR CONTINUATION, SEE DRAWING 50489-530-020-PID-1276.002.  
17. SAMPLING ACCORDING TO API 8.2 / ISO-3171.  
18. G-104 A/B MINIMUM FLOW RETURN LINE IS MINIMUM 50 METER AWAY FROM SAMPLE TAKE UP POINT.  
19. FIRST ISOLATION VALVE OF PIT-1678/1679 IS LO  
20. TYPICAL WATER INJECTION FLOW RATE IS 1% OF THE TOTAL FLOW RATE, SO THE NORMAL VENT VALVE IN THE PIPING WELL UPSTREAM OF AUTO SAMPLING SYSTEM CAN BE USED WHEN AND IF TESTING AS PER ISO 3171 AND API 8.2 IS REQUIRED.

AS-BUILT	
KOC APPROVAL	
NAME / KOC No:	
DESIGNATION:	
GROUP / TEAM:	
SIGNATURE:	
DATE:	

  

AS-BUILT	
LARSEN & TOUBRO LIMITED	
NAME : VAIBHAV VERMA	
DESIGNATION : AGM	
SIGNATURE :	
DATE : 08-Oct-2018	
DEPT/ DIVISION : ENGINEERING	

Z1	ISSUED FOR AS-BUILT	BAK/VSA	AKG	SRA	RAK	08.10.18
Z0	ISSUED FOR AS-BUILT	BAK/VSA	AKG	SRA	RAK	09.08.18
0	ISSUED FOR CONSTRUCTION	BAK/VSA	AKG	SRA	RAK	10.10.16
C	ISSUED "INCORPORATED CLIENT COMMENTS"	HSH/ABY	AKG	SRA	RAK	07.09.16
B	ISSUED "INCORPORATED CLIENT COMMENTS"	HSH/ABY	AKG	SRA	RAK	02.07.16
A	ISSUED FOR APPROVAL	HSH/ABY	AKG	SRA	RAK	08.04.16
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE

CONTRACTOR REVISION

**KUWAIT OIL CO.**  
**K. S. C.**

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CONTRACTOR DETAILS:-			
<b>LARSEN &amp; TOUBRO LIMITED</b> FARIDABAD			
PROJECT TITLE:- NEW GATHERING CENTRE GC-30 IN NORTH KUWAIT			
DOCUMENT TITLE:- PIPING & INSTRUMENTATION DIAGRAM AUTO SAMPLER SYSTEM FOR Z-041A			
PROJECT NO.	DRAWING NO.		
EF1902	CONTRACTOR DRG. NO.	REV.	KOC DRG. NO.
	50489-530-020-PID-1276.001	Z1	
	SHEET NO. 1 OF 2		SHEET NO.
	COMPANY DRG. NO.	REV.	
		A4	
SHEET NO.			