SR.NO.	EQUIPMENT NUMBER	P&ID NO.	PUMP TYPE	PUMP SUCTION DRAIN LINE	PUMP DISCHARGE DRAIN LINE	CASING DRAIN DISCHARGE LINE	BASE PLATE DRAIN LINE	DRAIN COLLECTION HEADER LINE	CASING VENT LINE
1	530-G-001A	50489-530-020-PID-1150	2	3/4"-DD-0521-Q15B	3/4"-DD-0522-Q15B	3/4"-DD-0523-Q15B	2"-DD-0524-Q15B	2"-DD-0526-Q15B / 2"-DD-0525-F10B	N/A
2	530-G-001B	50489-530-020-PID-1150	2	3/4"-DD-0527-Q15B	3/4"-DD-0528-Q15B	3/4"-DD-0529-Q15B	2"-DD-0530-Q15B	2"-DD-0532-Q15B / 2"-DD-0532-F10B	N/A
3	530-G-002A	50489-530-020-PID-1150	2	3/4"-DD-0533-Q15B	3/4"-DD-0534-Q15B	3/4"-DD-0535-Q15B	2"-DD-0536-Q15B	2"-DD-0538-Q15B / 2"-DD-0538-F10B	N/A
4	530-G-007A	50489-530-020-PID-1152	2	3/4"-DD-0541-Q15B	3/4"-DD-0542-Q15B	3/4"-DD-0543-Q15B	2"-DD-0544-Q15B	3/4"-DD-0545-Q15B / 2"-DD-0545-F10B	N/A
5	530-G-007B	50489-530-020-PID-1152	2	3/4"-DD-0547-Q15B	3/4"-DD-0548-Q15B	3/4"-DD-0549-Q15B	2"-DD-0550-Q15B	3/4"-DD-0551-Q15B / 2"-DD-0551-F10B	N/A
6	530-G-007C	50489-530-020-PID-1152	2	3/4"-DD-0553-Q15B	3/4"-DD-0554-Q15B	3/4"-DD-0555-Q15B	2"-DD-0556-Q15B	3/4"-DD-0557-Q15B / 2"-DD-0557-F10B	N/A
7	530-G-101A	50489-530-020-PID-1130.001	2	3/4"-DD-0401-C35B	3/4"-DD-0402-C35B	3/4"-DD-0403-C35B	2"-DD-0404-C15B	3/4"-DD-0406-C35B / C15B 2"-DD-0406-F10B	N/A
8	530-G-101B	50489-530-020-PID-1130.001	2	3/4"-DD-0407-C35B	3/4"-DD-0408-C35B	3/4"-DD-0409-C35B	2"-DD-0410-C15B	3/4"-DD-0412-C35B / C15B 2"-DD-0412-F10B	N/A
9	530-G-101C	50489-530-020-PID-1130.001	2	3/4"-DD-0413-C35B	3/4"-DD-0414-C35B	3/4"-DD-0415-C35B	2"-DD-0416-C15B	3/4"-DD-0418-C35B / C15B 2"-DD-0418-F10B	N/A
10	530-G-102A	50489-530-020-PID-1131.001	2	N/A (Note-2)	N/A (Note-2)	3/4"-DD-0423-Q15A	2"-DD-0424-Q15A	N/A	N/A
11	530-G-102B	50489-530-020-PID-1131.001	2	N/A (Note-2)	N/A (Note-2)	3/4"-DD-0429-Q15A	2"-DD-0430-Q15A	N/A	N/A
12	530-G-102C	50489-530-020-PID-1131.001	2	N/A (Note-2)	N/A (Note-2)	3/4"-DD-0435-Q15A	2"-DD-0436-Q15A	N/A	N/A
13	530-G-103A	50489-530-020-PID-1138.001	2	3/4"-DD-0441-N30B	3/4"-DD-0454-N30B	3/4"-DD-0443-N30B	2"-DD-0444-N10B / 2"-DD-0444-F10B	3/4"-DD-0445-N30B / N10B	N/A (Note-3)
14	530-G-103B	50489-530-020-PID-1138.001	2	3/4"-DD-0447-N30B	3/4"-DD-0448-N30B	3/4"-DD-0449-N30B	2"-DD-0450-N10B / 2"-DD-0450-F10B	3/4"-DD-0451-N30B / N10B	N/A (Note-3)
15	530-G-103C	50489-530-020-PID-1138.001	2	3/4"-DD-0453-N30B	3/4"-DD-0442-N30B	3/4"-DD-0455-N30B	2"-DD-0456-N10B / 2"-DD-0456-F10B	3/4"-DD-0457-N30B / N10B	N/A (Note-3)
16	530-G-201A	50489-530-020-PID-1130.002	2	3/4"-DD-0461-C35B	3/4"-DD-0462-C35B	3/4"-DD-0463-C35B	2"-DD-0464-C15B	2"-DD-0466-C35B / C15B 2"-DD-0466-F10B	N/A
17	530-G-201B	50489-530-020-PID-1130.002	2	3/4"-DD-0467-C35B	3/4"-DD-0468-C35B	3/4"-DD-0469-C35B	2"-DD-0470-C15B	2"-DD-0472-C35B / C15B 2"-DD-0472-F10B	N/A
18	530-G-201C	50489-530-020-PID-1130.002	2	3/4"-DD-0473-C35B	3/4"-DD-0474-C35B	3/4"-DD-0475-C35B	2"-DD-0476-C15B	2"-DD-0478-C35B / C15B 2"-DD-0478-F10B	N/A
19	530-G-202A	50489-530-020-PID-1131.002	2	N/A (Note-2)	N/A (Note-2)	3/4"-DD-0483-Q15A	2"-DD-0484-Q15A	N/A	N/A
20	530-G-202B	50489-530-020-PID-1131.002	2	N/A (Note-2)	N/A (Note-2)	3/4"-DD-0489-Q15A	2"-DD-0490-Q15A	N/A	N/A
21	530-G-202C	50489-530-020-PID-1131.002	2	N/A (Note-2)	N/A (Note-2)	3/4"-DD-0495-Q15A	2"-DD-0496-Q15A	N/A	N/A
22	530-G-203A	50489-530-020-PID-1138.002	2	3/4"-DD-0501-N30B	3/4"-DD-0514-N30B	3/4"-DD-0503-N30B	2"-DD-0504-N10B / 2"-DD-0504-F10B	3/4"-DD-0505-N30B / N10B	N/A (Note-3)
23	530-G-203B	50489-530-020-PID-1138.002	2	3/4"-DD-0507-N30B	3/4"-DD-0508-N30B	3/4"-DD-0509-N30B	2"-DD-0510-N10B / 2"-DD-0510-F10B	3/4"-DD-0511-N30B / N10B	N/A (Note-3)
24	530-G-203C	50489-530-020-PID-1138.002	2	3/4"-DD-0513-N30B	3/4"-DD-0502-N30B	3/4"-DD-0515-N30B	2"-DD-0516-N10B / 2"-DD-0516-F10B	3/4"-DD-0517-N30B / N10B	N/A (Note-3)
25	530-G-006A	50489-530-020-PID-1154.002	2	3/4"-DD-6485-Q15B	3/4"-DD-6482-Q15B	3/4"-DD-6483-Q15B	2"-DD-6484-Q15B	3/4"-DD-6481-Q15B / 2"-DD-6481-F10B	N/A
26	530-G-006B	50489-530-020-PID-1154.002	2	3/4"-DD-6495-Q15B	3/4"-DD-6492-Q15B	3/4"-DD-6493-Q15B	2"-DD-6494-Q15B	3/4"-DD-6491-Q15B / 2"-DD-6491-F10B	N/A
27	530-G-008A	50489-530-020-PID-1235.001	2	3/4"-DD-0576-C13B	3/4"-DD-0577-C13B	3/4"-DD-0578-C13B	2"-DD-0579-C15B	3/4"-DD-0580-C13B (Note-2)	N/A
28	530-G-008B	50489-530-020-PID-1235.001	2	3/4"-DD-0582-C13B	3/4"-DD-0583-C13B	3/4"-DD-0584-C13B	2"-DD-0585-C15B (Note-2)	3/4"-DD-0586-C13B(Note-2)	N/A
29	530-G-009A	50489-530-020-PID-1235.002	2	3/4"-DD-0588-C13B	3/4"-DD-0589-C13B	3/4"-DD-0590-C13B	2"-DD-0591-C15B (Note-2)	3/4"-DD-0592-C13B(Note-2)	N/A
30	530-G-009B	50489-530-020-PID-1235.002	2	3/4"-DD-0594-Q15B	3/4"-DD-0595-C13B	3/4"-DD-0596-C13B	2"-DD-0597-C15B (Note-2)	3/4"-DD-0598-C13B (Note-2)	N/A
31	530-G-004A	50489-530-020-PID-1126.001	6	3/4"-DD-6307-C65B	3/4"-DD-6308-C65B	3/4"-DD-6301-C65B	2"-DD-6305-C15B/F10B 2"-DD-6306-C15B	2"-DD-6309-C65B / C15B 2"-DD-6309-F10B	3/4"-DD-6310-C65B
32	530-G-004B	50489-530-020-PID-1126.001	6	3/4"-DD-6316-C65B	3/4"-DD-6317-C65B	3/4"-DD-6311-C65B/C15B	2"-DD-6314-C15B/F10B 2"-DD-6315-C15B	2"-DD-6318-C65B / 2"-DD-6318-F10B	3/4"-DD-6320-C65B
33	530-G-004C	50489-530-020-PID-1126.002	6	3/4"-DD-6326-C65B	3/4"-DD-6327-C65B	3/4"-DD-6321-C65B	2"-DD-6324-C15B/F10B 2"-DD-6325-C15B	2"-DD-6328-C65B / 2"-DD-6328-F10B	3/4"-DD-6330-C65B
34	530-G-005A	50489-530-020-PID-1153.003	6	3/4"-DD-6347-Q95B /Q15B 2"-DD-6347-F10B	3/4"-DD-6348-Q95B /	3/4"-DD-6331-Q95B	2"-DD-6332-Q15B / 2"-DD-6332-F10B	3/4"-DD-6349-Q95B/Q15B 2"-DD-6348-F10B	2"-DD-6333-Q95B / 2"-DD-6399-Q95B
35	530-G-005B	50489-530-020-PID-1153.003	6	3/4"-DD-6364-Q95B /Q15B 2"-DD-6364-F10B	3/4"-DD-6365-Q95B /	3/4"-DD-6351-Q95B	2"-DD-6352-Q15B / 2"-DD-6352-F10B	3/4"-DD-6366-Q95B/Q15B 2"-DD-6365-F10B	2"-DD-6353-Q95B / 2"-DD-6409-Q95B
36	530-G-005C	50489-530-020-PID-1153.003	6	3/4"-DD-6384-Q95B /Q15B 2"-DD-6384-F10B	3/4"-DD-6385-Q95B /	3/4"-DD-6371-Q95B	2"-DD-6372-Q15B / 2"-DD-6372-F10B	3/4"-DD-6386-Q95B/Q15B 2"-DD-6385-F10B	2"-DD-6373-Q95B / 2"-DD-6419-Q95B
37	530-G-011A	50489-530-020-PID-1153.006	2	3/4"-DD-6396-Q35B	3/4"-DD-6397-Q35B / 2"-DD-6397-F10B	3/4"-DD-6392-Q35B	2"-DD-6394-Q15B	3/4"-DD-6398-Q35B /Q15B 2"-DD-6398-F10B	N/A
38	530-G-011B	50489-530-020-PID-1153.009	2	3/4"-DD-6406-Q35B	3/4"-DD-6407-Q35B / 2"-DD-6407-F10B	3/4"-DD-6402-Q35B	2"-DD-6404-Q15B	3/4"-DD-6408-Q35B /Q15B 2"-DD-6408-F10B	N/A
39	530-G-011C	50489-530-020-PID-1153.012	2	3/4"-DD-6416-Q35B	3/4"-DD-6417-Q35B / 2"-DD-6417-F10B	3/4"-DD-6412-Q35B	2"-DD-6414-Q15B	3/4"-DD-6418-Q35B /Q15B 2"-DD-6418-F10B	N/A
40	530-G-003A	50489-530-020-PID-1125.001	3	3/4"-DD-0561-C15B	3/4"-DD-0563-C15B	3/4"-DD-0562-C15B	N/A (Note-4)	3/4"-DD-0564-C15B / 2"-DD-0564-F10B	N/A (Note-4)
41	530-G-003B	50489-530-020-PID-1125.001	3	3/4"-DD-0566-C15B	3/4"-DD-0568-C15B	3/4"-DD-0567-C15B	N/A (Note-4)	3/4"-DD-0569-C15B / 2"-DD-0569-F10B	N/A (Note-4)
42	530-G-003C	50489-530-020-PID-1125.002	3	3/4"-DD-0571-C15B	3/4"-DD-0573-C15B	3/4"-DD-0572-C15B	N/A (Note-4)	3/4"-DD-0574-C15B / 2"-DD-0574-F10B	N/A (Note-4)
43	530-G-016A	50489-530-020-PID-1179	3	3/4"-DD-6421-N10B		3/4"-DD-6422-N10B	N/A (Note-4)	3/4"-DD-6424-N10B / 2"-DD-6424-F10B	N/A (Note-4)
44	530-G-016B	50489-530-020-PID-1179	3	3/4"-DD-6431-N10B		3/4"-DD-6432-N10B	N/A (Note-4)	3/4"-DD-6434-N10B / 2"-DD-6434-F10B	N/A (Note-4)
45	530-G-017A	50489-530-020-PID-1176	3	3/4"-DD-6441-N10B		3/4"-DD-6442-N10B	N/A (Note-4)	3/4"-DD-6445-N10B / 2"-DD-6445-F10B	N/A (Note-4)
46	530-G-017B	50489-530-020-PID-1176	3	3/4"-DD-6451-N10B		3/4"-DD-6452-N10B	N/A (Note-4)	3/4"-DD-6455-N10B / 2"-DD-6455-F10B	N/A (Note-4)
47	530-G-010A	50489-530-020-PID-1210	4	3/4"-DD-6501-C13A	3/4"-DD-6503-C13A	3/4"-DD-6502-C13A	N/A (Note-4)	3/4"-DD-6504-C13A / 2"-DD-6504-F10B	N/A (Note-4)
48	530-G-010B	50489-530-020-PID-1210	4	3/4"-DD-6511-C13A	3/4"-DD-6513-C13A	3/4"-DD-6512-C13A	N/A (Note-4)	3/4"-DD-6514-C13A / 2"-DD-6514-F10B	N/A (Note-4)
49	530-G-097A	50489-530-020-PID-1205.003	3	3/4"-DD-6461-Q15B	3/4"-DD-6463-Q15B	3/4"-DD-6462-Q15B	N/A (Note-4)	2"-DD-6465-Q15B / 2"-DD-6465-F10B	N/A (Note-4)
50	530-G-097B	50489-530-020-PID-1205.003	3	3/4"-DD-6471-Q15B	3/4"-DD-6473-Q15B	3/4"-DD-6472-Q15B	N/A (Note-4)	2"-DD-6475-Q15B / 2"-DD-6475-F10B	N/A (Note-4)

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. FOR PUMP DRAIN & VENT TYPICAL DETAILS REFER P&ID:- 50489-530-020-PID-1108.004.
2. PUMP DRAIN OF BRACKISH WATER & POTABLE WATER SERVICE IS ROUTED TO GRADE LEVEL.
3. FOR SELF VENT HORIZONTAL CENTRIFUGAL PUMPS (530-G-103A/B/C & 530-G-203A/B/C), CASING VENT CONNECTIONS ARE NOT REQUIRED
4. CASING VENT AND BASE PLATE DRAIN ARE NOT REQUIRED FOR VERTICAL PUMPS.

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

AS-BUILT
LARSEN & TOUBRO LIMITED
NAME : VAIBHAV VERMA
DESIGNATION : AGM
SIGNATURE :
DATE : 23-Sep-2018
DEPT/ DIVISON : ENGINEERING

REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM APPRD.		DATE
Z0	ISSUED FOR AS-BUILT	HSH/CHS	AKG	SRA	RAK		23.09.18
01	ISSUED FOR CONSTRUCTION	HSH/CHS	AKG	SRA	RAK		15.05.17
0	ISSUED FOR CONSTRUCTION	HSH/CHS	AKG	SRA	RAK		05.08.16
B	ISSUED INCORPORATED CLIENT COMMENTS	HSH/VAJ	AKG	SRA	RAK		03.06.16
A	ISSUED FOR APPROVAL	HSH/VAJ	AKG	SRA	RAK		19.04.16

CONTRACTOR REVISION

KUWAIT OIL CO. K. S. C.
شركة نفط الكويت ش.م.ك.
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
PUMP DRAIN & VENT LINE NUMBERS

PROJECT NO. EF1902

DRAWING NO.

CONTRACTOR DRG. NO. 50489-530-020-PID-1108.005 REV. Z0
SHEET NO. 5 OF 20
COMPANY DRG. NO. REV.
SHEET NO.

KOC DRG. NO. REV.
SHEET NO.

A1