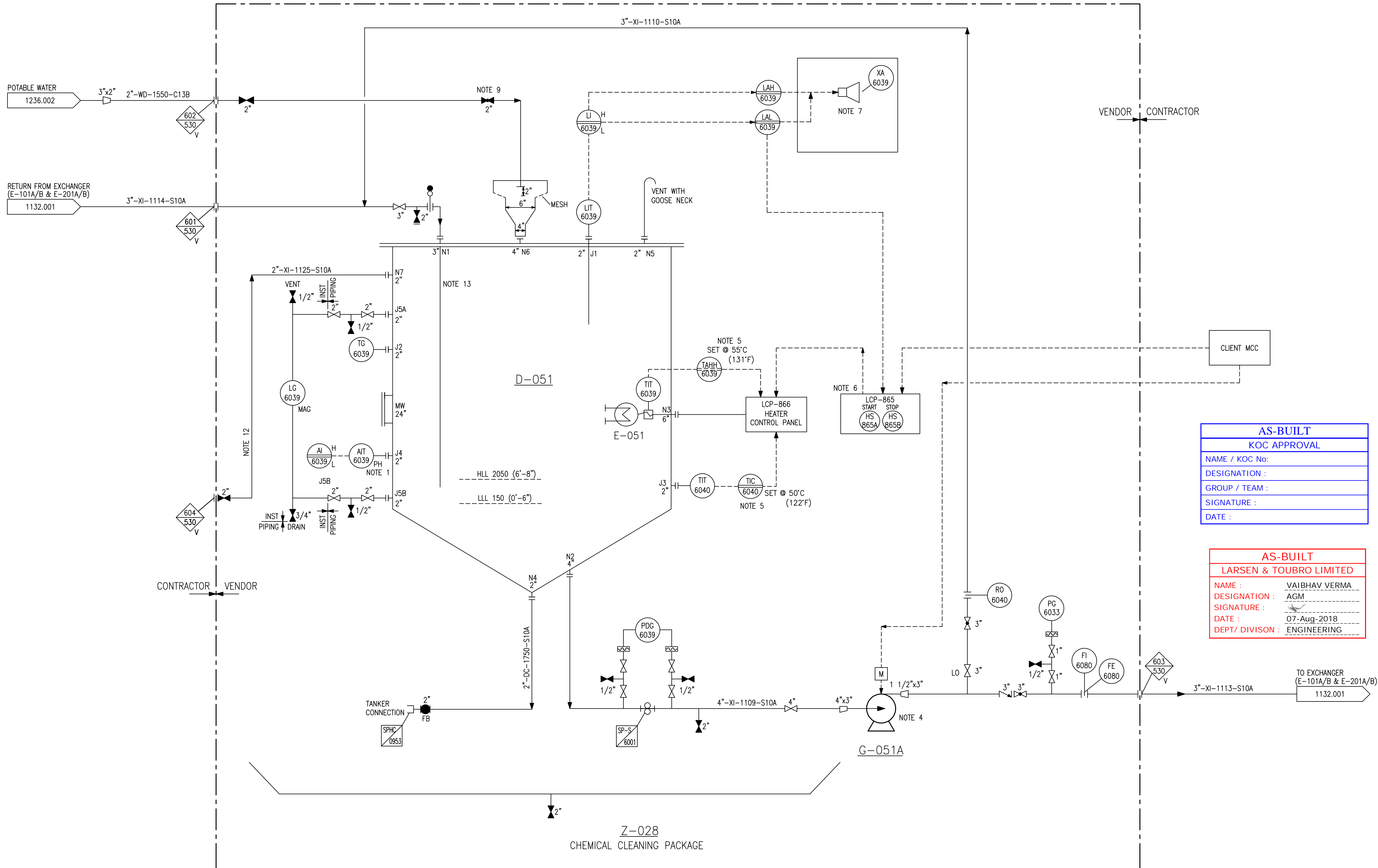


Z-028
CHEMICAL CLEANING PACKAGE
CLEANING CHEMICAL PROPRIETARY CLEANING FLUID.
NOTE 2,8

D-051
CHEMICAL CLEANING TANK
CAPACITY m3 (BBLS) : 4 (25)
ID mm (ft.-in) : 1650 (5'- 4.10")
HEIGHT mm (ft.-in) : 2350 (7'-8.5")
OP PRESS /DES PRESS MMWG (IN WG) : ATM/ATM+FULL OF LIQUID
OP TEMP/DESIGN TEMP °C (°F) : 15~55/93/-3 (51~131/200/27)
UTC NO. :
TRIM NO. : DT-D051-S30A/S10A-HC

E-051
TANK HEATER NOTE 5
DUTY kw (hp) : 72 (98)
TYPE : ELECTRICAL
ELEMENT MATERIAL : INCOLOY800



G-051A/B NOTE 4
CHEMICAL CLEANING PUMP
FLOWRATE m3/h (BPD) : 14 (2113) + 5.7 (860.4)
DIFFERENTIAL HEAD m : 26.37
DRIVER POWER KW (HP) : 5.5 (7.37)
SP GRAVITY @ OP/OT : 0.98~1.15
FLUID VISCOSITY @ PT CP : 0.5
OP PRESS/DES PRESS barg (PSIG) : 2.63 (38.14)/4.03 (58.45)
OP TEMP/DESIGN TEMP °C (°F) : 15~55/93/-3 (51~131/200/27)
TRIM NO. :

GENERAL NOTES:

- FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
- ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 530--.
- ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 030--.
- FOR TYPICAL INSTRUMENT CONNECTION SBDV, XV, MOV & ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.002, .003, .004, .005, .006 & .007.
- 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.
- 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.
- FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
- DETAIL NUMBERING FOR CI, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
- PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
- LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
- FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
- FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

NOTES:

- RETRACTABLE PH PROBE.
- AS RECOMMENDED BY PLATE HEAT EXCHANGER VENDOR.
- DELETED.
- ADDITIONAL PUMP (TAG NO. G-051B) ARE KEPT AS A SPARE AT WARE HOUSE.
- SELF REGULATORY ELECTRIC HEATER. HEATER WILL TRIP AUTOMATICALLY AT 55°C AND START AT 50°C.
- AT LOW LEVEL OF TANK (LAL-6039) HEATER AND PUMP WILL TRIP AUTOMATICALLY.
- AUDIBLE ALARM ARE PROVIDED NEAR CHEMICAL CLEANING SKID FOR HIGH & LOW ALARM OF TANK LAH & LAL-6039 RESPECTIVELY.
- CONCENTRATION OF CHEMICAL USED FOR CLEANING :-
GLYCOLIC ACID : 1-5%
CITRIC ACID MONOHYDRATE : 5-30%
SULPHAMIC ACID : <3%
METHOXYACETIC : <0.1%
- LEVEL OF TANK IS VISIBLE FROM THIS GLOBE VALVE.
- DELETED.
- REFERENCE DOCUMENT FOR DESALTER FEED/DRY CRUDE EXCHANGER CLEANING PROCEDURE 50489-530-020-PHL-1013.
- FILLING CONNECTION FOR CHEMICAL THROUGH PORTABLE PUMP.
- INLET LINE TO THE TANK IS PROVIDED WITH ANTI SYPHON.

TERMINATION POINT LIST		
TP NO.	SIZE/TYPE	DESCRIPTION
601	3"-150#	CHEMICAL INLET TO CHEMICAL SKID
602	2"-150#	POTABLE WATER INLET TO CHEMICAL SKID
603	3"-150#	CHEMICAL OUTLET FROM CLEANING SKID
604	2"-150#	CHEMICAL FILLING CONNECTION

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

AS-BUILT	
LARSEN & TOUBRO LIMITED	
NAME :	VAIBHAV VERMA
DESIGNATION :	AGM
SIGNATURE :	
DATE :	07-Aug-2018
DEPT/ DIVISION :	ENGINEERING

REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
ZO	ISSUED FOR AS-BUILT	HSJ/JCP	AKG	SRA	DER	07.08.18
O	ISSUED FOR CONSTRUCTION	HSJ/JCP	AKG	SRA	DER	11.01.17
H	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	12.12.16
G	ISSUED INCORPORATED CLIENT COMMENTS	BAK/AGK	AKG	SRA	RAK	26.10.16
F	ISSUED INCORPORATED CLIENT COMMENTS	HSJ/VSA	AKG	SRA	RAK	05.05.16
E	ISSUED INCORPORATED CLIENT COMMENTS	PAK/VSA	AKG	SRA	RAK	18.03.16
D	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	02.01.16
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	10.09.15
B	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	21.02.15
A	ISSUED FOR APPROVAL	BAK/ABY	AKG	SRA	RAK	12.12.14

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
PLATE HEAT EXCHANGER CLEANING SKID (Z-028)

PROJECT NO.	DRAWING NO.		
EF1902	CONTRACTOR DRG. NO.	REV.	KOC DRG. NO.
	50489-530-020-PID-1201	Z0	
	SHEET NO. 1 OF 1		SHEET NO.
	COMPANY DRG. NO.	REV.	
	EF1902-530-DCO-PID-0201.001	A1	
	SHEET NO.		