

Sl. No.	Scope of Work	Length of pipes in mtrs.	OD of pipes in mtrs.	Surface area in Sq. m.
<b>A. COMMON PIPELINES FOR IOCL AND COPA</b>				
1	450 mm Tower and Hydrant line header with valves	318	0.4627	462.0
2	350 mm line from pumps to header with Gate valves and NRVs, Barge Jetty/Booster area hydrant line through FP room, Tower monitor line from service platform start to BDs.	103	0.3627	117.3
3	300 mm hydrant line from MULT trestle to DG station with valves (including line to booster area)	292	0.3127	286.7
4	250 mm tower line from BD's to tower monitor's, hydrant line for MULT Jumbo Curtain and U/DECK with Gate valves and DVs	163	0.2627	134.5
5	200 mm drain line from 450 mm header line, U/D line with Gate valves, DVs and double hydrant post	10	0.2127	6.7
6	150 mm Jockey line to header, MULT hydrant posts, hydrant line from BDs to MDs, fuel station and DG station with valves and double hydrant posts	323	0.1627	165.0
7	100 mm hydrant line to FEH and IFSC with Gate valves and DVs	17	0.1127	6.0
8	80 mm SS engine cooling lines and FEH line with valves with valves and DVs	59	0.08	14.8
9	50 mm SS engine cooling lines, tower curtain line and drain line at BD(1/2) with valves	51	0.05	8.0
10	25 mm SS engine cooling lines	36	0.025	2.8
11	SS Under deck berth protection lines (network) 80mm dia-12m (6 nos) X 30m (2 nos)	132	0.08	33.2
12	100 mm Foam line from Foam tank to Foam pump and from Foam pump to MULT approach trestle with Gate valves and NRVs	38	0.1	11.9
13	80 mm Foam line from MULT approach trestle to Service platform	101	0.08	25.4
14	50 mm Foam return line and inline balance proportionator line at BD1/2, BD3/4	109	0.05	17.1
15	25 mm Foam filling line with tank fittings, Foam line to Ground water / foam monitors at MULT	77.5	0.025	6.1
16	150 mm Potable water line valves (galvanized carbon steel A 53 GR-B #150)	250	0.15	117.8
17	80 mm Potable water line with IFSC	7	0.08	1.8
18	80 mm Fuel oil line from Filling point to UG tanks with valves and fittings( CS #150 API 5L GR-B)	17	0.08	4.3

19	40 mm Fuel oil line from UG tank to DG set tanks and FP tanks with valves and fittings ( CS #150 API 5L GR. B)	322	0.04	40.4
20	25 mm Fuel oil return line to UG tanks and Fuel oil distribution line to FP Diesel sub tanks and Engines with valves and fittings (CS #150 API 5L Gr. B)	130	0.025	10.2
	<b>TOTAL AREA</b>			<b>1471.9</b>

**B. EXCLUSIVE PIPELINES FOR COPA**

Sl. No.	Scope of Work	Length of pipes in mtrs.	OD of pipes in mtrs.	Surface area in Sq. m.
1	300 mm WO line with valves and fittings (CS #300 API 5L Gr. B, Wall thickness 9.53 mm, OD 323.9 mm, ID 304.8 mm)	257	0.3239	261.4
2	100 mm rain water/spillage line to slope tank with valves	1	0.1	0.3
3	80 mm drain line to stripper pump with valves and fittings	14	0.08	3.5
4	50 mm Pig launcher drain to stripper pump with valves and NRVs, TRV line, Stripper pump delivery line to slop tank with valves and fittings and Slop return line with valves and NRVs to Manifold 1	286	0.05	44.9
5	100 mm Pig receiver drain line to slope tank with valves and NRVs	44	0.1	13.8
6	80 mm drain line to slop tank line and slop transfer line to outside with valves	33	0.08	8.3
7	50 mm TRV overflow to slop tank line with valves and fittings	5	0.05	0.8
8	ND 300 mm WO line with valves and fittings (CS #300 API 5L Gr. B, Wall thickness 9.53 mm, OD 323.9 mm, ID 304.8 mm)	229	0.3239	232.9
9	100 mm rain water/spillage line to slope tank with	14	0.1	4.4
10	80 mm drain line to stripper pump with valves and	13	0.08	3.3
11	50 mm Pig launcher drain to stripper pump with valves and NRVs, TRV line, Stripper pump delivery line to slop tank with valves and fittings and Slop return line with valves and NRVs to Manifold 2.	318	0.05	49.9
12	100 mm Pig receiver drain line to slope tank with valves and NRVs	31	0.1	9.7
13	80 mm drain line to slop tank and Slop transfer line to outside with valves	31	0.08	7.8
14	50 mm TRV overflow to slop tank line with valves and fittings	5	0.05	0.8
15	150 mm Compressed air line with valves (Galvanized carbon steel A 53 Gr. B #150 )	250	0.15	117.8

16	80 mm Compressed air line	7	0.08	1.8
17	25 mm Nitrogen line with valves and fittings (carbon steel ERW A 106 Gr. B #150)	302	0.025	23.7
18	Underground 25 mm Nitrogen line inside Manifold 1	11	0.025	0.9
19	150 mm Potable water line with valves (galvanized carbon steel A 53 Gr. B #150)	146	0.15	68.8
20	100 mm Compressor line with valves (galvanized carbon steel A 53 Gr. B #150)	246	0.1	77.2
21	80 mm Potable water line with IFSC and Compressed air line	4	0.08	1.0
22	25 mm Nitrogen line with valves and fittings (carbon steel ERW A 106 Gr. B #150)	253	0.025	19.9
23	Underground 25 mm Nitrogen line inside Manifold 2	11	0.025	0.9
24	300 mm hydrant line from DG station to Barge jetty with valves	324	0.3127	318.1
25	250 mm line in Barge Jetty with Gate valves	119	0.2627	98.2
26	200 mm hydrant line to Manifold 2 with Gate Valves and Double hydrant posts	50	0.2127	33.4
27	150 mm line in Manifolds and Barge jetty with valves and double hydrant posts	180	0.1627	92.0
28	80mm barge jumbo curtain line with valves and DVs	10	0.08	2.5
29	40 mm Foam line to Barge Jetty	629	0.04	79.0
30	40 mm Underground Foam line to Barge Jetty in front of Fuel storage area and DG station	52	0.04	6.5
31	25 mm Foam line at Barge Jetty	6.5	0.025	0.5
	<b>TOTAL AREA</b>			<b>1583.8</b>

### C. COMMON STRUCTURES FOR IOCL AND COPA

Sl. No.	Scope of Work	Surface Area in Sq. m.
1	MULT Jetty Tower Monitors, Hand Rails, Walkway Bridge, Cross over platforms, Cable tray support, Firewater line support, Pipeline support, Fire pump room structures, MULT Jetty road cross over, DG station, Fuel station	3850.0
2	Renewal of corroded steps and landing sheets with 8mm MS checker sheet provided in the Cross Over Platform in between Central Platform and Berthing Dolphins and over the Fire Water Lines in Berthing Dolphin 1/2 and	30.0
	<b>TOTAL AREA</b>	<b>3880.0</b>

### D. EXCLUSIVE STRUCTURES FOR COPA

Sl. No.	Scope of Work	Surface Area in Sq. m.
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1	Barge Jetty Tower Monitor, Hand Rails, Cable tray support, Firewater line support, Pipeline support, Barge Jetty road cross over, Manifold 1, Manifold 2	2380.0
	<b>TOTAL AREA</b>	<b>2380.0</b>
		9315.7