

Sl. No. 22 of Table 6.1: Extract from Geotechnical Report of 2017- Borelog Data for 21 boreholes for Oil Jetty No. 7, Kandla Creek and Navigational Channel

Sr.No	B.H. No	R.L.,m	Co-ordinates		Depth m Below G.L	Over Burden Thickness ss., m	Rock Thickness., m	UDS S1	S.P.T S2(DS)	S3 DS	Water Sample	Remarks
			E	N								
1	1(OJ7-2)	-12.19	625061	2549082	10.45	5.69	4.76	1	5	7	1	OJ-7
2	2(OJ7-1)	-10.31	625043	2549028	10.45	5.54	4.91	-	6	7	1	
3	3(OJ7-3)	-11.97	625099	2548993	10.45	10.45	-	-	6	15	1	
4	4(OJ7-4)	-12.37	625063	2548939	10.45	3.95	6.5	-	6	6	1	
5	5(OJ7-5)	-12.19	625125	2548887	10.45	10.45	-	-	6	15	1	
6	6(OJ7-6)	-12.06	625109	2548806	10.45	10.45	-	-	7	12	1	
7	7(OJ7-7)	-12.05	625153	2548782	10.45	10.45	-	-	5	14	1	
8	8(OJ7-9)	-12.76	625021	2549095	10.45	10.45	-	-	5	15	1	
9	9(OJ7-8)	-10.55	625053	2548854	31.26	31.26	-	-	16	46	1	
10	10(OPP OJ7-10)	-8.06	625443	2549207	10.45	10.45	-	-	5	15	1	Kandla Creek
11	11(OPP OJ4-11)	-8.99	625963	2547756	10.45	10.45	-	-	5	15	1	
12	123(SC-9)	-11.29	625948	2547850	10.45	10.45	-	3	2	15	1	
13	124(SC-10)	-9.35	626256	2543981	10.45	10.45	-	-	5	15	1	
14	115(SC-1)	-9.94	622459	2534170	10.45	10.45	-	3	2	15	1	Zone - I
15	116(SC-2)	-8.17	624627	2535656	10.45	10.45	-	3	2	15	1	
16	117(SC-3)	-7.1	625920	2536436	10.45	10.45	-	3	2	15	1	
17	118(SC-4)	-3.62	626859	2537324	10.45	10.45	-	3	2	15	1	Zone - II
18	119(SC-5)	-5.02	627774	2538185	10.45	10.45	-	3	2	15	1	
19	120(SC-6)	-8.64	627046	2539892	10.45	10.45	-	3	2	15	1	
20	121(SC-7)	-9.86	626795	2539751	10.45	10.45	-	4	2	15	1	
21	122(SC-8)	-5.15	627592	2539142	10.45	10.45	-	3	2	15	1	



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Borelog  
As per IS 1892 : 2002

Job No : 16-145  
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Project - Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.

Client - Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates : - E - 0625061 m, N - 2549082 m

R. L. : -12.190 m

Location : As per Location Sketch

Bore Hole No. 1 (OJ7-2)

Depth of Bore Hole : 10.45 m

Depth of Casing : 5.69 m

Date of Commencement & completion : 28/12/2016 to 29/12/2016

Depth Scale (m)	Tak (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-12.190		Brownish inorganic clays, gravelly clays, sandy clays, silty clays, lean clays of medium plasticity.	CI	1	DS	0.00	1.40									
1.00	1.85	-14.040				1	UDS	1.40	1.85									
2.00	1.29			Light brownish inorganic silts, silty or clayey fine sands or clayey silts of medium plasticity.	MI	2	DS	1.85	2.14									
3.00		-15.330				3	DS	2.14	2.64									
4.00	2.55			Light brownish silty sands, poorly graded sand-silt mixtures.	SM	4	DS	2.64	3.14									
5.00		-17.880				1	SPT	3.14	3.59	6	10	16	-	26				
6.00				Dark brownish highly weathered fine to medium grained hard alternative banding layer of gravels and pebbles, SANDSTONE TO SILTSTONE.		5	DS	3.59	4.14									
7.00						6	DS	4.14	6.64									
8.00	4.76			Brownish non plastic hard clayey Silts. Brownish completely weathered hard low plasticity clay.		7	DS	6.64	5.24									
9.00				Light brownish hard silty clay. Brownish moderately weathered hard coarse to fine grained alternative banding layer SANDSTONE TO SILTSTONE.		2	SPT	5.24	5.69	15	36	50	-	86				
10.00		-22.640					CORE	5.69	7.24						57.00	0.00	0.00	IV
						3	SPT	7.24	7.69	12	16	19	-	35	21.00	0.00	0.00	V
						4	CORE	7.69	8.74									
						4	SPT	8.74	9.19	14	19	25	-	44	61.00	55.00	31.00	IV
						5	CORE	9.19	10.00									
				Light brownish and dull white medium grained medium dense SAND.		5	SPT	10.00	10.45	9	14	14	-	28				

DS : Disturbed Sample

UDS : Undisturbed Sample

SPT : Standard Penetration Test

WS : Wash Sample

CR : Core Recovery

RQD : Rock Quality Designation

PR : Rate of Penetration

VST : Vane Shear Test

K : Permeability Test

PT : Packer Permeability Test

Site Engg.  
Mahesh  
Mandape

Drawn By  
Reema

Checked By  
Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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Borelog

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tokra, Navigational Channel and Creek areas of Kandla Port.  
 Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co-ordinates :- E - 0625043 m, N - 2549028 m

Bore Hole No. 2 (OF7-1)

R. L. :- -10.310 m

Depth of Bore Hole : 10.45 m

Location :- As per Location Sketch

Depth of Casing : 5.54 m

Date of Commencement & completion : 26/12/016 to 28/12/016

Depth/ Scale (m)	Tbk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-10.310		Brownish inorganic clays of high plasticity, fat clays.	CH	1	DS	0.00	1.00									
1.00				Light brownish inorganic clays of high plasticity, fat clays.		2	DS	1.00	1.50									
2.00						1	SPT	1.50	1.85	19	26	30	-	R				
						3	DS	1.85	2.50									
						4	DS	2.50	3.00									
3.00		5.54				5	DS	3.00	4.00									
4.00				Light brownish and dull white inorganic clays of high plasticity, fat clays.		2	SPT	4.00	4.34	12	29	30	-	R				
						6	DS	4.34	5.00									
5.00		-15.850				7	DS	5.00	5.50									
						3	SPT	5.50	5.54	30	-	-	-	R				
6.00			W W	Dark brownish completely weathered fine to medium grained hard slightly cavity structure SILTSTONE.			CORE	5.54	7.00					15.00	3.00	0.00	V	
			W W															
			W W															
			W W															
			W W															
7.00			W W	Dark brownish fine to medium grained highly dense silty sand.		4	SPT	7.00	7.19	18	30	-	-	R				
			W W	Dark brownish completely weathered fine grained slightly cavity structure SILTSTONE.			CORE	7.19	8.50					17.00	8.00	0.00	V	
8.00		4.91	W W															
			W W	Dark brownish fine grained silt with gravels and pebbels.		5	SPT	8.50	8.70	13	30	-	-	R				
			W W	Dark brownish highly weathered fine grained slightly cavity structure cobbels and pebbels present SILTSTONE.			CORE	8.70	10.00					48.00	21.00	21.00	IV	
			W W															
			W W															
10.00			W W	Brownish medium plasticity hard clay with sand.		6	SPT	10.00	10.45	10	14	18	-	32				
		-20.760	W W															

DS : Disturbed Sample      CR : Core Recovery      K : Permeability Test  
 UDS : Undisturbed Sample      RQD : Rock Quality Designation      PT : Packer Permeability Test  
 SPT : Standard Penetration Test      PR : Rate of Penetration  
 WS : Wash Sample      VST : Vane Shear Test

Site Engg. : Mahesh Mandape      Drawn By : Reena      Checked By : Sundip S. Deshpande      Client Rept.      Bore Termination Depth: 10.45 m



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 As per IS 1892 : 2002

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.

Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370001.

Co - ordinates :- E - 0625099 m, N - 2548993 m

R. L. :- -11.970 m

Location :- As per Location Sketch

Bore Hole No. 3 (C17-3)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

Date of Commencement & completion : 30/12/016 to 31/12/016

Depth/ Scale (m)	Thk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-11.970		Light brownish inorganic clays of high plasticity, fat clays.		1	DS	0.00	0.50									
						1	SPT	0.50	0.95	20	33	55	-	88				
						2	DS	0.95	1.50									
1.00				Light brownish and dull white inorganic clays of high plasticity, fat clays.		3	DS	1.50	2.00									
2.00				Reddish brown inorganic clays of high plasticity, fat clays.		2	SPT	2.00	2.45	11	15	21	-	36				
						4	DS	2.45	3.00									
3.00						5	DS	3.00	3.50									
						6	DS	3.50	4.00									
4.00				Brownish inorganic clays of high plasticity, fat clays.		3	SPT	4.00	4.45	7	20	37	-	57				
						7	DS	4.45	5.00									
5.00				Brownish and dull white inorganic clays of high plasticity, fat clays.		8	DS	5.00	5.50									
	10.45				CII	9	DS	5.50	6.00									
6.00				Light yellowish inorganic clays of high plasticity, fat clays.		4	SPT	6.00	6.45	11	22	32	-	54				
						10	DS	6.45	7.00									
7.00				Dull white brown inorganic clays of high plasticity, fat clays.		11	DS	7.00	7.50									
						12	DS	7.50	8.00									
8.00				Light brownish and dull white inorganic clays of high plasticity, fat clays.		5	SPT	8.00	8.45	13	19	27	-	46				
						13	DS	8.45	9.00									
9.00				Light brownish inorganic clays of high plasticity, fat clays.		14	DS	9.00	9.50									
						15	DS	9.50	10.00									
10.00				Light brownish and dull white inorganic clays of high plasticity, fat clays.		6	SPT	10.00	10.45	17	22	24	-	46				
		-22.420																

DS : Disturbed Sample  
 UDS : Undisturbed Sample  
 SPT : Standard Penetration Test  
 WS : Wash Sample

CR : Core Recovery  
 RQD : Rock Quality Designation  
 PR : Rate of Penetration  
 VST : Vane Shear Test

K : Permeability Test  
 PT : Packer Permeability Test

Site Engg. Mahesh Mandape	Drawn By Reena	Checked By Sandip S. Deshpande	Client Rept.	Bore Termination Depth: 10.45 m
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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 0625063 m, N - 2548939 m

Bore Hole No. 4 (OJ7-4)

R. L. :- -12.370 m

Depth of Bore Hole : 10.45 m

Location : As per Location Sketch

Depth of Casing : 3.95 m

Date of Commencement & completion : 01/01/017 to 02/01/017

Depth/ Scale (m)	Thk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample Nos	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-12.370		Light brownish inorganic clays of high plasticity, fat clays.		1	DS	0.00	0.50									
1.00	1.95				CH	2	DS	0.50	1.00									
		-14.320				3	DS	1.00	1.50									
						1	SPT	1.50	1.95	10	19	30	-	49				
2.00	2.00			Light brownish silty sands, poorly graded sand-silt mixtures.		4	DS	1.95	2.50									
						5	DS	2.50	3.00									
3.00				Dark brownish silty sands, poorly graded sand-silt mixtures.		2	SPT	3.00	3.45	10	21	42	-	63				
		-16.320				6	DS	3.45	3.95									
4.00				Yellowish brown and dull white fresh medium to fine grained slightly cavity structure alternative banded layer SILTSTONE.			CORE	3.95	4.50						100.0	58.00	0.00	I
5.00																		
				Light brownish-yellow very fine grained SILTSTONE.		3	SPT	4.50	4.59	30	-	-	-	R				
6.00				Light yellowish brown highly weathered fine to very fine grained slightly cavity structure alternative banded layer SILTSTONE.			CORE	4.59	6.00						28.00	11.00	0.00	IV
				Dark brownish fine grained very dense silty sand.		4	SPT	6.00	6.45	9	21	37	-	58				
7.00				Light brownish yellow highly weathered very fine to fine grained slightly cavity structure alternative banding layer of clayey silt to SILTSTONE.			CORE	6.45	7.50						46.00	22.00	0.00	IV
		6.50				5	SPT	7.50	7.75	19	40	-	-	R				
8.00				Light brownish yellow fine grained silt.			CORE	7.75	9.00						45.00	22.00	0.00	IV
				Light brownish yellow highly weathered hard fine grained banded layer of sand and silty clay.														
9.00				Light brownish yellow hard very fine grained silty clay.			CORE	9.00	10.00						80.00	80.00	73.00	II
10.00						6	SPT	10.00	10.45	18	25	32	-	57				
		-22.820																

DS : Disturbed Sample

UDS : Undisturbed Sample

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PR : Rate of Penetration

VST : Vane Shear Test

K : Permeability Test

PT : Packer Permeability Test

Site Engg.  
Mahesh  
Mandape

Drawn By  
Reena

Checked By  
Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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Borelog  
 As per IS 1892 : 2002

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Project : Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client : Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 0625125 m, N - 2548887 m  
 R. L. :- -12.190 m  
 Location : As per Location Sketch

Bore Hole No. 5 (OF-5)  
 Depth of Bore Hole : 10.45 m  
 Depth of Casing : 10.45 m  
 Date of Commencement & completion : 03/01/017 to 04/01/017

Depth Scale (m)	Thk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value				TCR (%)	SCR (%)	RQD (%)	Rock ratings		
								From	To	15	30	45	60						
0.00		-12.190		Dark brownish inorganic clays of high plasticity, fat clays.	CH	1	DS	0.00	0.50										
						2	DS	0.50	1.00										
1.00	2.00					3	DS	1.00	1.50										
						1	SPT	1.50	1.73	20	50	-	-	R					
2.00		-14.190		Brownish inorganic clays of high plasticity, fat clays.	CH	4	DS	1.73	2.00										
						5	DS	2.00	2.50										
	1.00	-15.190		Dark brownish silty sands, poorly graded sand-silt mixtures.	SM	6	DS	2.50	3.00										
3.00						2	SPT	3.00	3.37	10	23	50	-	R					
4.00				Light grayish and brownish inorganic clays of high plasticity, fat clays.	CH	7	DS	3.37	4.00										
						8	DS	4.00	4.50										
5.00	3.70					8	DS	4.50	5.00										
						3	SPT	5.00	5.34	10	19	50	-	R					
6.00				Light brownish inorganic clays of high plasticity, fat clays.	CH	9	DS	5.34	5.50										
						10	DS	5.50	6.00										
						11	DS	6.00	6.70										
						4	SPT	6.70	7.15	6	13	18	-	31					
7.00		-18.890		Light brownish silty sands, poorly graded sand-silt mixtures.	SM	12	DS	7.15	7.70										
	1.00					5	SPT	7.70	8.15	5	14	17	-	31					
8.00		-19.890		Light brownish inorganic clays of high plasticity, fat clays.	CH	13	DS	8.15	8.50										
						14	DS	8.50	9.00										
9.00	2.75					15	DS	9.00	10.00										
						6	SPT	10.00	10.45	12	19	21	-	40					
10.00		-22.640		Light brownish and dull white inorganic clays of high plasticity, fat clays.	CH														

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 PT : Packer Permeability Test

Site Engg. : Mahesh Mandape  
 Drawn By : Reena  
 Checked By : Sandip S. Deshpande  
 Client Rept.  
 Bore Termination Depth: 10.45 m



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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 0625109 m, N - 2548866 m

Bore Hole No. 6 (OJ7-6)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

Date of Commencement & completion : 05/01/017 to 06/01/017

R. L. :- 12.060 m

Location : As per Location Sketch

Depth/ Scale (m)	T&L (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-12.060		Light brownish inorganic clays of high plasticity, fat clays.		1	DS	0.00	0.50									
						2	DS	0.50	1.00									
1.00		3.00		Brownish inorganic clays of high plasticity, fat clays.	CH	3	DS	1.00	1.50									
						1	SPT	1.50	1.95	6	13	18	-	31				
2.00						4	DS	1.95	3.00									
		-15.060		Dark brownish and dull white silty sands, poorly graded sand-silt mixtures.		2	SPT	3.00	3.37	13	20	50	-	R				
				Light brownish silty sands, poorly graded sand-silt mixtures.		5	DS	3.37	3.50									
4.00		3.00		Dark brownish silty sands, poorly graded sand-silt mixtures.	SM	3	SPT	4.50	4.95	8	10	12	-	22				
				Light brownish silty sands, poorly graded sand-silt mixtures.		8	DS	4.95	5.30									
5.00						9	DS	5.30	6.00									
		-18.060		Brownish inorganic clays of high plasticity, fat clays.		4	SPT	6.00	6.45	6	8	10	-	18				
						10	DS	6.45	7.50									
7.00				Dark brownish and dull white inorganic clays of high plasticity, fat clays.		5	SPT	7.30	7.75	30	50	-	-	R				
		4.45				11	DS	7.75	9.00									
8.00						6	SPT	9.00	9.45	9	20	19	-	39				
						12	DS	9.45	10.00									
9.00						7	SPT	10.00	10.45	2	6	8	-	14				
10.00		-22.510		Brownish inorganic clays of high plasticity, fat clays.														

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PR : Rate of Penetration  
VST : Vane Shear Test

K : Permeability Test  
PT : Packer Permeability Test

Site Engg.  
Mahesh  
Mandape

Drawn By  
Reena

Checked By  
Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co-ordinates :- E - 0625153 m, N - 2548782 m

R. L. :- -12.050 m

Location :- As per Location Sketch

Bore Hole No. 7 (OJ7-7)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

Date of Commencement & completion : 18/01/017 to 19/01/017

Depth/ Scale (m)	Tsk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-12.050		Dull light and light yellowish inorganic clays of high plasticity, fat clays.		1	DS	0.00	0.50									
						2	DS	0.50	1.00									
1.00						3	DS	1.00	1.50									
	3.50			Light brownish inorganic clays of high plasticity, fat clays.	CH	1	SPT	1.50	1.95	4	11	46	-	57				
2.00						4	DS	1.95	2.50									
				Reddish brown inorganic clays of high plasticity, fat clays.		5	DS	2.50	3.00									
3.00						6	DS	3.00	3.50									
		-15.550				7	SPT	3.50	3.95	18	46	50	-	96				
4.00	1.00			Light brownish to dark brown silty sands, poorly graded sand-silt mixtures.	SM	7	DS	3.95	4.50									
		-16.550				8	DS	4.50	5.00									
5.00				Brownish inorganic clays of high plasticity, fat clays.		9	DS	5.00	5.50									
				Light brownish inorganic clays of high plasticity, fat clays.		3	SPT	5.50	5.95	10	16	23	-	39				
6.00						9	DS	5.95	6.50									
				Dull white and light brownish inorganic clays of high plasticity, clays.		10	DS	6.50	7.00									
7.00						11	DS	7.00	7.50									
	5.95			Light brownish inorganic clays of high plasticity, fat clays.	CH	4	SPT	7.50	7.95	6	12	16	-	28				
8.00						12	DS	7.95	8.50									
						13	DS	8.50	9.00									
9.00						14	DS	9.00	10.00									
10.00						5	SPT	10.00	10.45	12	16	21	-	37				
		-22.500																

DS : Disturbed Sample  
UDS : Undisturbed Sample  
SPT : Standard Penetration Test  
WS : Wash Sample

CR : Core Recovery  
RQD : Rock Quality Designation  
PR : Rate of Penetration  
VST : Vane Shear Test

K : Permeability Test  
PT : Packer Permeability Test

Site Engg.  
Mahesh  
Mandape

Drawn By  
Reema

Checked By  
Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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Borelog

Job No : 16-145

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co-ordinates :- E - 0625021 m, N - 2549095 m

Bore Hole No. 8 (O17-9)

R. L. :- -12.760 m

Depth of Bore Hole : 10.45 m

Location : As per Location Sketch

Depth of Casing : 10.45 m

Date of Commencement & completion : 24/01/17 to 25/01/17

Depth/ Scale (m)	Thk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00		-12.760		Silty sands, poorly graded sand-silt mixtures.		1	DS	0.00	0.30									
1.00	2.50			Light yellowish and dull white silty sands, poorly graded sand-silt mixtures.	SM	2	DS	0.50	1.00									
2.00			3			DS	1.00	1.50										
			1			SPT	1.50	1.95	4	6	19	-	25					
			4			DS	1.95	2.50										
		-15.260		Inorganic clays of high plasticity, fat clays.	CH	5	DS	2.50	3.00									
3.00	1.00			6		DS	3.00	3.50										
		-16.260		Light yellowish and dull white silty sands, poorly graded sand-silt mixtures.	SM	2	SPT	3.50	3.75	21	50	-	-	R				
4.00	1.00					7	DS	3.75	4.50									
		-17.260		Light brownish inorganic clays of high plasticity, fat clays.	CH	8	DS	4.50	5.00									
5.00						9	DS	5.00	5.50									
				Dark brown and light brown inorganic clays of high plasticity, fat clays.	CH	3	SPT	5.50	5.95	2	7	11	-	18				
6.00						10	DS	5.95	6.30									
				Light brownish and dull white inorganic clays of high plasticity, fat clays.	CH	11	DS	6.50	7.00									
7.00	5.50					12	DS	7.00	7.50									
				Light brownish inorganic clays of high plasticity, fat clays.	CH	4	SPT	7.50	7.95	4	11	22	-	33				
8.00						13	DS	7.95	8.50									
					CH	14	DS	8.50	9.00									
9.00						15	DS	9.00	10.00									
		-22.760		Reddish brown inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with none to low plasticity.	ML	5	SPT	10.00	10.45	4	9	12	-	21				
10.00	0.45																	
		-23.210																

DS : Disturbed Sample  
 UDS : Undisturbed Sample  
 SPT : Standard Penetration Test  
 WS : Wash Sample

CR : Core Recovery  
 RQD : Rock Quality Designation  
 PR : Rate of Penetration  
 VST : Vane Shear Test

K : Permeability Test  
 PT : Packer Permeability Test

Site Engg.  
 Mahesh  
 Mandape

Drawn By  
 Reena

Checked By  
 Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 0625053 m, N - 2548854 m  
R. L. :- -10.550 m  
Location :- As per Location Sketch

Bore Hole No. 9 (OJ7-8)  
Depth of Bore Hole : 31.26 m  
Depth of Casing : 31.26 m  
Date of Commencement & completion : 20/01/017 to 24/01/017

Depth/ Scale (m)	Tbk (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-10.550		Silty sands, poorly graded sand-silt mixtures.		1	DS	0.00	1.00									
1.00	2.00			Brownish silty sands, poorly graded sand-silt mixtures.	SM	2	DS	1.00	1.50									
2.00		-12.550		Dull white and light grayish inorganic clays of high plasticity, fat clays.		3	DS	1.50	2.00									
					CH	4	DS	2.45	3.00									
3.00	1.00	-13.550		Light brown to brown silty sands, poorly graded sand-silt mixtures.		5	DS	3.00	3.50									
						6	DS	3.50	4.00									
4.00	2.00			Brownish silty sands, poorly graded sand-silt mixtures.	SM	2	SPT	4.00	4.45	11	12	17	-	29				
						7	DS	4.45	5.00									
5.00		-15.550		Brownish inorganic clays of high plasticity, fat clays.		8	DS	5.00	5.50									
						9	DS	5.50	6.00									
6.00				Dark brownish inorganic clays of high plasticity, fat clays.		3	SPT	6.00	6.45	6	10	20	-	30				
						10	DS	6.45	7.00									
7.00				Brownish inorganic clays of high plasticity, fat clays.		11	DS	7.00	7.45									
						12	DS	7.45	8.00									
8.00	26.26			Dark brownish inorganic clays of high plasticity, fat clays.	CH	4	SPT	8.00	8.45	12	14	18	-	32				
						13	DS	8.45	9.00									
9.00				Brownish inorganic clays of high plasticity, fat clays.		14	DS	9.00	9.50									
						15	DS	9.50	10.00									
10.00						5	SPT	10.00	10.45	12	16	24	-	40				
						16	DS	10.45	11.00									
		-20.550																

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Project : Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port. Client : Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.																			
Co - ordinates : - E - 0625053 m, N - 2548854 m R. L. : +10.550 m Location : As per Location Sketch					Bore Hole No. 9 (QJ7-8) Depth of Bore Hole : 31.26 m Depth of Casing : 31.26 m Date of Commencement & completion : 20/01/017 to 24/01/017														
Depth/ Scale (m)	Thk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No	Type	Depth (m)		SPT 'N' Value				TCR (%)	SCR (%)	RQD (%)	Rock ratings		
30.00	26.26	-40.550		Grayish inorganic clays of high plasticity, fat clays.	CH	15	SPT	30.00	30.30	40	50	-	-	R					
		46				DS	30.30	31.00											
31.00		16				SPT	31.00	31.26	27	50	-	-	R						
		-41.810																	
DS : Disturbed Sample UDS : Undisturbed Sample SPT : Standard Penetration Test WS : Wash Sample					CR : Core Recovery RQD : Rock Quality Designation PR : Rate of Penetration VST : Vane Shear Test					K : Permeability Test PT : Packer Permeability Test									
Site Engg. Mahesh Mandape		Drawn By Reena		Checked By Sandip S. Deshpande			Client Rept.		Bore Termination Depth: 31.26 m										



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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co-ordinates :- E - 0625443 m, N - 2549207 m  
R. L. :- -8.060 m  
Location :- As per Location Sketch

Bore Hole No. 10 (OPP OJ7-10)  
Depth of Bore Hole : 10.45 m  
Depth of Casing : 10.45 m  
Date of Commencement & completion : 28/01/017 to 29/01/017

Depth Scale (m)	TK (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-8.060		Inorganic silts and very fine sands rock flour, silty or clayey fine sands or clayey silts with none to low plasticity.	ML	1	DS	0.00	1.00									
1.00	2.00		Brownish inorganic silts and very fine sands rock flour, silty or clayey fine sands or clayey silts with none to low plasticity.	2		DS	1.00	1.50										
2.00	-10.060		Dull white silty sands, poorly graded sand-silt mixtures.	3		DS	1.50	2.00										
3.00					SM	4	DS	2.45	3.00									
4.00	4.00		Light brownish and dull white silty sands, poorly graded sand-silt mixtures.	5		DS	3.00	3.50										
5.00				6		DS	3.50	4.00										
6.00	-14.060		Brownish and dull white silty sands, poorly graded sand-silt mixtures.	7		DS	4.45	5.00										
7.00				8		DS	5.00	5.50										
8.00				9		DS	5.50	6.00										
9.00				Light brownish inorganic clays of high plasticity, fat clays.	CH	3	SPT	6.00	6.45	4	14	30	-	44				
10.00	1.00			10		DS	6.45	7.00										
11.00				Dull white silty sands, poorly graded sand-silt mixtures.	SM	11	DS	7.00	7.50									
12.00				12		DS	7.50	8.00										
13.00				Brownish silty sands, poorly graded sand-silt mixtures.		4	SPT	8.00	8.45	9	18	42	-	60				
14.00	3.45			13		DS	8.45	9.00										
15.00				14		DS	9.00	9.50										
16.00					15	DS	9.50	10.00										
17.00				Dark brownish silty sands, poorly graded sand-silt mixtures.	SM	5	SPT	10.00	10.45	10	12	18	-	30				
18.00	-18.510																	

DS : Disturbed Sample  
UDS : Undisturbed Sample  
SPT : Standard Penetration Test  
WS : Wash Sample

CR : Core Recovery  
RQD : Rock Quality Designation  
PR : Rate of Penetration  
VST : Vane Shear Test

K : Permeability Test  
PT : Packer Permeability Test

Site Engg.  
Mahesh  
Mandape

Drawn By  
Reena

Checked By  
Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.

Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 0625963 m, N - 2547756 m

Bore Hole No. 11 (OPP OJ4-11)

R. L. :- -8.990 m

Depth of Bore Hole : 10.45 m

Location : As per Location Sketch

Depth of Casing : 10.45 m

Date of Commencement & completion : 01/02/017 to 03/02/017

Depth/ Scale (m)	Tik. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-8.990		Inorganic clays of high plasticity, fat clays.		1	DS	0.00	1.00									
1.00	2.00			Brownish inorganic clays of high plasticity, fat clays.	CH	2	DS	1.00	1.50									
2.00		-10.950				3	DS	1.50	2.00									
3.00				Dull white silty sands, poorly graded sand-silt mixtures.		4	SPT	2.00	2.25	12	50	-	-	R				
4.00	4.00				SM	5	DS	3.00	3.50									
5.00						6	DS	3.50	4.00									
6.00		-14.990		Brownish silty sands, poorly graded sand-silt mixtures.		7	SPT	4.00	4.45	4	7	23	-	30				
7.00						8	DS	4.45	5.00									
8.00				Brownish inorganic clays of high plasticity, fat clays.		9	DS	5.00	5.50									
9.00	2.00				CH	10	SPT	6.00	6.45	6	17	27	-	44				
10.00		-16.990		Dull white inorganic clays of high plasticity, fat clays.		11	DS	6.45	7.00									
						12	DS	7.00	7.50									
				Brownish silty sands, poorly graded sand-silt mixtures.		13	SPT	7.50	8.00									
					SM	14	DS	8.00	8.45	12	22	50	-	72				
						15	DS	8.45	9.00									
						14	DS	9.00	9.50									
						15	DS	9.50	10.00									
		-18.990		Light to dark brownish inorganic clays of high plasticity, fat clays.		5	SPT	10.00	10.45	8	10	13	-	23				
	0.45				CH													
		-19.440																

DS : Disturbed Sample  
 UDS : Undisturbed Sample  
 SPT : Standard Penetration Test  
 WS : Wash Sample

CR : Core Recovery  
 RQD : Rock Quality Designation  
 PR : Rate of Penetration  
 VST : Vane Shear Test

K : Permeability Test  
 PT : Packer Permeability Test

Site Engg.  
 Mahesh  
 Mandge

Drawn By  
 Reena

Checked By  
 Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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 SHREE NAGAR, THANE - 400 604.

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 0622459 m, N - 2534170 m  
 R. L. :- -9.940 m  
 Location :- As per Location Sketch

Bore Hole No. 115 (SC-1)  
 Depth of Bore Hole : 10.45 m  
 Depth of Casing : 10.45 m  
 Date of Commencement & completion : 21/01/018 to 21/01/018

Depth/ Scale (m)	Thk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT N <sup>o</sup> Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-9.940		Grayish inorganic clays of high plasticity, fat clay	CH	1	DS	0.00	1.00									
1.00						2	DS	1.00	1.50									
						3	DS	1.50	2.00									
2.00						1	UDS	2.00	2.45									
						4	DS	2.45	3.00									
3.00						5	DS	3.00	3.50									
						6	DS	3.50	4.00									
4.00						2	UDS	4.00	4.45									
						7	DS	4.45	5.00									
5.00						8	DS	5.00	5.50									
		10.45				9	DS	5.50	6.00									
6.00						3	UDS	6.00	6.45									
						10	DS	6.45	7.00									
7.00						11	DS	7.00	7.50									
						12	DS	7.50	8.00									
8.00				1	SPT	8.00	8.45	1	2	3	-	5						
				13	DS	8.45	9.00											
9.00				14	DS	9.00	9.50											
				15	DS	9.50	10.00											
10.00				2	SPT	10.00	10.45	1	3	3	-	6						

DS : Disturbed Sample      CR : Core Recovery      K : Permeability Test  
 UDS : Undisturbed Sample      RQD : Rock Quality Designation      PT : Packer Permeability Test  
 SPT : Standard Penetration Test      PR : Rate of Penetration  
 WS : Wash Sample      VST : Vane Shear Test

Site Engg. : Mahesh Mandape      Drawn By : Reena      Checked By : Sandip S. Deshpande      Client Rept.      Bore Termination Depth: 10.45 m



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Borelog

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 0624627 m, N - 2535656 m

Bore Hole No. 116 (SC-2)

R. L. :- -8.170 m

Depth of Bore Hole : 10.45 m

Location : As per Location Sketch

Depth of Casing : 10.45 m

Date of Commencement & completion : 21/01/2018 to 21/01/2018

Depth/ Scale (m)	Tsk (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT N Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings		
								From	To	15	30	45	60	N						
0.00	0.00	-8.170		Grayish inorganic clays of high plasticity, fat clay	CH	1	DS	0.00	1.00											
1.00						2	DS	1.00	1.50											
						3	DS	1.50	2.00											
2.00						4	UDS	2.00	2.45											
						5	DS	2.45	3.00											
3.00						6	DS	3.00	3.50											
						7	DS	3.50	4.00											
4.00						8	UDS	4.00	4.45											
						9	DS	4.45	5.00											
5.00	10.45					10	DS	5.00	5.50											
						11	DS	5.50	6.00											
6.00						12	UDS	6.00	6.45											
						13	DS	6.45	7.00											
7.00						14	DS	7.00	7.50											
						15	DS	7.50	8.00											
8.00				16	SPT	8.00	8.45	1	2	3	-	5								
				17	DS	8.45	9.00													
9.00				18	DS	9.00	9.50													
				19	DS	9.50	10.00													
10.00				20	SPT	10.00	10.45	1	3	4	-	7								

DS : Disturbed Sample  
 UDS : Undisturbed Sample  
 SPT : Standard Penetration Test  
 WS : Wash Sample

CR : Core Recovery  
 RQD : Rock Quality Designation  
 PR : Rate of Penetration  
 VST : Vane Shear Test

K : Permeability Test  
 PT : Packer Permeability Test

Site Engg.  
 Mahesh  
 Mandape

Drawn By  
 Reena

Checked By  
 Santip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



**RENUKA CONSULTANTS,**  
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 OPP. KRANTI TOWER, SECTOR NO. 3,  
 SHREE NAGAR, THANE - 400 604.

Borelog

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co-ordinates :- E - 0625920 m, N - 2536436 m

Bore Hole No. 117 (SC-3)

R. L. :- -7.100 m

Depth of Bore Hole : 10.45 m

Location :- As per Location Sketch

Depth of Casing : 10.45 m

Date of Commencement & completion : 21/01/018 to 21/01/018

Depth Scale (m)	Tik. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT N° Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-7.100		Grayish inorganic clays of high plasticity, fat clay		1	DS	0.00	1.00									
1.00							2	DS	1.00	1.50								
							3	DS	1.50	2.00								
2.00							1	UDS	2.00	2.45								
							4	DS	2.45	3.00								
3.00							5	DS	3.00	3.50								
							6	DS	3.50	4.00								
4.00							2	UDS	4.00	4.45								
							7	DS	4.45	5.00								
5.00		10.45					8	DS	5.00	5.50								
						CH	9	DS	5.50	6.00								
6.00							3	UDS	6.00	6.45								
							10	DS	6.45	7.00								
7.00							11	DS	7.00	7.50								
							12	DS	7.50	8.00								
8.00						1	SPT	8.00	8.45	1	2	3	-	5				
						13	DS	8.45	9.00									
9.00						14	DS	9.00	9.50									
						15	DS	9.50	10.00									
10.00						2	SPT	10.00	10.45	1	3	3	-	6				

DS : Disturbed Sample

CR : Core Recovery

K : Permeability Test

UDS : Undisturbed Sample

RQD : Rock Quality Designation

PT : Packer Permeability Test

SPT : Standard Penetration Test

PR : Rate of Penetration

WS : Wash Sample

VST : Vane Shear Test

Site Engg.  
Mahesh  
Mundaje

Drawn By  
Reena

Checked By  
Sundip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



**RENUKA CONSULTANTS,**  
 SHOP NO. 1, MEERA MOHAN,  
 OPP. KRANTI TOWER, SECTOR NO. 3,  
 SHREE NAGAR, THANE - 400 604.

Borelog

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 0626859 m, N - 2537324 m

Bore Hole No. 118 (SC-4)

R. L. :- -3.620 m

Depth of Bore Hole : 10.45 m

Location : As per Location Sketch

Depth of Casing : 10.45 m

Date of Commencement & completion : 22/01/018 to 22/01/018

Depth/ Scale (m)	Thk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings	
								From	To	15	30	45	60	N					
0.00	0.00	-3.620		Grayish inorganic clays of high plasticity, fat clay	CH	1	DS	0.00	1.00										
1.00						2	DS	1.00	1.50										
						3	DS	1.50	2.00										
2.00						1	UDS	2.00	2.45										
						4	DS	2.45	3.00										
3.00						5	DS	3.00	3.50										
						6	DS	3.50	4.00										
4.00						2	UDS	4.00	4.45										
						7	DS	4.45	5.00										
5.00	10.45					8	DS	5.00	5.50										
						9	DS	5.50	6.00										
6.00						3	UDS	6.00	6.45										
						10	DS	6.45	7.00										
7.00						11	DS	7.00	7.50										
						12	DS	7.50	8.00										
8.00			1	SPT	8.00	8.45	1	2	3	-	5								
			13	DS	8.45	9.00													
9.00			14	DS	9.00	9.50													
			15	DS	9.50	10.00													
10.00			2	SPT	10.00	10.45	1	2	3	-	5								
		-14.070																	

DS : Disturbed Sample  
 UDS : Undisturbed Sample  
 SPT : Standard Penetration Test  
 WS : Wash Sample

CR : Core Recovery  
 RQD : Rock Quality Designation  
 PR : Rate of Penetration  
 VST : Vane Shear Test

K : Permeability Test  
 PT : Packer Permeability Test

Site Engg.  
 Mahesh  
 Mandape

Drawn By  
 Reena

Checked By  
 Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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 SHREE NAGAR, THANE - 400 604.

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 As per IS 1892 : 2002

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.

Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 6627774 m, N - 2558185 m

R. L. :- -5.020 m

Location :- As per Location Sketch

Bore Hole No. 119 (SC-5)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

Date of Commencement & completion : 22/01/018 to 22/01/018

Depth/Scale (m)	Thk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-5.020		Grayish inorganic clays of high plasticity, fat clay		1	DS	0.00	1.00									
1.00					2	DS	1.00	1.50										
					3	DS	1.50	2.00										
2.00					1	UDS	2.00	2.45										
					4	DS	2.45	3.00										
3.00					5	DS	3.00	3.50										
					6	DS	3.50	4.00										
4.00					2	UDS	4.00	4.45										
					7	DS	4.45	5.00										
5.00					8	DS	5.00	5.50										
		10.45			9	DS	5.50	6.00										
6.00					3	UDS	6.00	6.45										
					10	DS	6.45	7.00										
7.00					11	DS	7.00	7.50										
					12	DS	7.50	8.00										
8.00				1	SPT	8.00	8.45	1	2	3	-	5						
				13	DS	8.45	9.00											
9.00				14	DS	9.00	9.50											
				15	DS	9.50	10.00											
10.00				2	SPT	10.00	10.45	2	3	3	-	6						

DS : Disturbed Sample  
 UDS : Undisturbed Sample  
 SPT : Standard Penetration Test  
 WS : Wash Sample

CR : Core Recovery  
 RQD : Rock Quality Designation  
 PR : Rate of Penetration  
 VST : Vane Shear Test

K : Permeability Test  
 PT : Packer Permeability Test

Site Engg.  
 Mahesh  
 Mandape

Drawn By  
 Reena

Checked By  
 Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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Project : Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client : Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates : - E - 0627046 m, N - 253892 m

R. L. : -8.640 m

Location : As per Location Sketch

Bore Hole No. 120 (SC-6)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

Date of Commencement & completion : 22/01/018 to 22/01/018

Depth/ Scale (m)	Tsk. (m)	R.L. (m)	Leg	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-8.640		Grayish inorganic clays of high plasticity, fat clay		1	DS	0.00	1.00									
1.00							2	DS	1.00	1.50								
							3	DS	1.50	2.00								
2.00							4	UDS	2.00	2.45								
							5	DS	2.45	3.00								
3.00							6	DS	3.00	3.50								
							7	DS	3.50	4.00								
4.00							8	UDS	4.00	4.45								
							9	DS	4.45	5.00								
5.00		10.45				CH	10	DS	5.00	5.50								
							11	DS	5.50	6.00								
6.00							12	UDS	6.00	6.45								
							13	DS	6.45	7.00								
7.00							14	DS	7.00	7.50								
							15	DS	7.50	8.00								
8.00						1	SPT	8.00	8.45	1	2	3	-	5				
						2	DS	8.45	9.00									
9.00						3	DS	9.00	9.50									
						4	DS	9.50	10.00									
10.00						5	SPT	10.00	10.45	1	2	3	-	5				

DS : Disturbed Sample  
 UDS : Undisturbed Sample  
 SPT : Standard Penetration Test  
 WS : Wash Sample

CR : Core Recovery  
 RQD : Rock Quality Designation  
 PR : Rate of Penetration  
 VST : Vane Shear Test

K : Permeability Test  
 PT : Packer Permeability Test

Site Engg.  
 Mahesh  
 Mandape

Drawn By  
 Reena

Checked By  
 Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co-ordinates :- E - 0626795 m, N - 2539751 m

R. L. :- -9.860 m

Location :- As per Location Sketch

Bore Hole No. 121 (SC-7)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

Date of Commencement & completion : 23/01/018 to 23/01/018

Depth/ Scale (m)	Tsk. (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-9.860		Grayish inorganic clays of high plasticity, fat clay		1	DS	0.00	1.00									
1.00							2	DS	1.00	1.50								
							3	DS	1.50	2.00								
2.00							1	SPT	2.00	2.45	4	5	9	-	14			
							4	DS	2.45	3.00								
3.00							5	DS	3.00	3.50								
							6	DS	3.50	4.00								
4.00							1	UDS	4.00	4.45								
							7	DS	4.45	5.00								
5.00		10.45				CH	8	DS	5.00	5.50								
							9	DS	5.50	6.00								
6.00							1	UDS	6.00	6.45								
							10	DS	6.45	7.00								
7.00							11	DS	7.00	7.50								
							12	DS	7.50	8.00								
8.00						3	UDS	8.00	8.45									
						13	DS	8.45	9.00									
9.00						14	DS	9.00	9.50									
						15	DS	9.50	10.00									
10.00						2	SPT	10.00	10.45	2	2	3	-	5				

DS : Disturbed Sample

UDS : Undisturbed Sample

SPT : Standard Penetration Test

WS : Wash Sample

CR : Core Recovery

RQD : Rock Quality Designation

PR : Rate of Penetration

VST : Vane Shear Test

K : Permeability Test

PT : Packer Permeability Test

Site Engg.  
Mahesh  
Mandape

Drawn By  
Reena

Checked By  
Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m



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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.

Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co - ordinates :- E - 0627592 m, N - 2539142 m

R. L. :- -5.150 m

Location :- As per Location Sketch

Bore Hole No. 122 (SC-8)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

Date of Commencement & completion : 23/01/018 to 23/01/018

Depth/ Scale (m)	Tbk (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-5.150		Grayish inorganic clays of high plasticity, fat clay	CH	1	DS	0.00	1.00									
1.00						2	DS	1.00	1.50									
						3	DS	1.50	2.00									
2.00						1	UDS	2.00	2.45									
						4	DS	2.45	3.00									
3.00						5	DS	3.00	3.50									
						6	DS	3.50	4.00									
4.00						2	UDS	4.00	4.45									
						7	DS	4.45	5.00									
5.00	10.45					8	DS	5.00	5.50									
						9	DS	5.50	6.00									
6.00						3	UDS	6.00	6.45									
						10	DS	6.45	7.00									
7.00						11	DS	7.00	7.50									
						12	DS	7.50	8.00									
8.00				1	SPT	8.00	8.45	1	2	2	-	4						
				13	DS	8.45	9.00											
9.00				14	DS	9.00	9.50											
				15	DS	9.50	10.00											
10.00				2	SPT	10.00	10.45	1	2	3	-	5						

DS : Disturbed Sample

UDS : Undisturbed Sample

SPT : Standard Penetration Test

WS : Wash Sample

CR : Core Recovery

RQD : Rock Quality Designation

PR : Rate of Penetration

VST : Vane Shear Test

K : Permeability Test

PT : Packer Permeability Test

Site Engg.  
Mahesh  
Mandape

Drawn By  
Reena

Checked By  
Sandip S. Deshpande

Client Repr.

Bore Termination Depth: 10.45 m



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 SHREE NAGAR, THANE - 400 604.

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370201.

Co-ordinates :- E - 0625948 m, N - 2547850 m  
 R. L. :- 11.290 m  
 Location :- As per Location Sketch

Bore Hole No. 123 (SC-9)  
 Depth of Bore Hole : 10.45 m  
 Depth of Casing : 10.45 m  
 Date of Commencement & completion : 23/01/018 to 23/01/018

Depth/Scale (m)	Thk (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings
								From	To	15	30	45	60	N				
0.00	0.00	-11.290	[Hatched pattern]	Grayish inorganic clays of high plasticity, fat clays.	CH	1	DS	0.00	1.00									
1.00						2	DS	1.00	1.50									
						3	DS	1.50	2.00									
2.00						1	UDS	2.00	2.45									
						4	DS	2.45	3.00									
3.00	6.00					5	DS	3.00	3.50									
						6	DS	3.50	4.00									
4.00						2	UDS	4.00	4.45									
						7	DS	4.45	5.80									
5.00			8	DS	5.00	5.50												
			9	DS	5.50	6.00												
6.00		-17.290	[Hatched pattern]	Clayish silty sands, poorly graded sand-silt mixtures.	SM	3	UDS	6.00	6.45									
						10	DS	6.45	7.00									
7.00						11	DS	7.00	7.50									
						12	DS	7.50	8.00									
8.00	4.45					1	SPT	8.00	8.45	7	14	19	-	33				
						13	DS	8.45	9.00									
9.00						14	DS	9.00	9.50									
						15	DS	9.50	10.00									
10.00		-21.740				2	SPT	10.00	10.45	11	15	29	-	44				

DS : Disturbed Sample      CR : Core Recovery      K : Permeability Test  
 UDS : Undisturbed Sample      RQD : Rock Quality Designation      PT : Packer Permeability Test  
 SPT : Standard Penetration Test      PR : Rate of Penetration  
 WS : Wash Sample      VST : Vane Shear Test

Site Engg. : Mahesh Mandape      Drawn By : Reema      Checked By : Sandip S. Deshpande      Client Rept.      Bore Termination Depth: 10.45 m



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 SHREE NAGAR, THANE - 400 604.

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Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tuna Tekra, Navigational Channel and Creek areas of Kandla Port.  
 Client :- Kandla Port Trust, Gandhidham - Kutch, Pin - 370291.

Co - ordinates :- E - 0626256 m, N - 2543981 m

Bore Hole No. 124 (SC-10)

R. L. :- -9.350 m

Depth of Bore Hole : 10.45 m

Location : As per Location Sketch

Depth of Casing : 10.45 m

Date of Commencement & completion : 24/01/018 to 24/01/018

Depth/ Scale (m)	Tak (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT 'N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings	
								From	To	15	30	45	60	N					
0.00	0.00	-9.350		Grayish silty sands, poorly graded sand-silt mixtures.	SM	1	DS	0.00	1.00										
1.00	3.00		2			DS	1.00	1.50											
		3	DS			1.50	2.00												
2.00			4			SPT	2.00	2.45	4	5	8	-	13						
						4	DS	2.45	3.00										
3.00		-12.350		Grayish inorganic silts and very fine sands rock flour, silty or clayey fine sands or clayey silts with none to low plasticity.	ML	5	DS	3.00	3.50										
4.00	2.00		6			DS	3.50	4.00											
		2	SPT			4.00	4.29	20	50	-	-	R							
5.00		-14.350				7	DS	4.29	5.00										
6.00	5.45			Grayish silty sands, poorly graded sand-silt mixtures.	SM	8	DS	5.00	5.50										
		9	DS			5.50	6.00												
7.00						3	SPT	6.00	6.45	13	23	28	-	51					
		10	DS			6.45	7.00												
8.00						11	DS	7.00	7.50										
						12	DS	7.50	8.00										
9.00						4	SPT	8.00	8.45	7	12	14	-	26					
						13	DS	8.45	9.00										
10.00		-19.800				14	DS	9.00	9.50										
						15	DS	9.50	10.00										
						5	SPT	10.00	10.45	8	15	17	-	32					

DS : Disturbed Sample  
 UDS : Undisturbed Sample  
 SPT : Standard Penetration Test  
 WS : Wash Sample

CR : Core Recovery  
 RQD : Rock Quality Designation  
 PR : Rate of Penetration  
 VST : Vane Shear Test

K : Permeability Test  
 PT : Packer Permeability Test

Site Engg.  
 Mahesh  
 Mandape

Drawn By  
 Reena

Checked By  
 Sandip S. Deshpande

Client Rpt.

Bore Termination Depth: 10.45 m