		RENUKA CONSULTANTS, SHOP NO. 1, MEERA MOHAN, OPP. KRANTI TOWER, SECTOR NO. 3, SHREE NAGAR, THANE - 400 604.		Borelog As per IS 1892 : 2002		Job No : 16-145 Page No : 1 of 1							
		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
		0.00	-12.190					From To	15 30 45 60 N				
0.00				Dark brownish inorganic clays of high plasticity, fat clays.		1	DS	0.00 0.50					
						2	DS	0.50 1.00					
1.00	2.00				CH	3	DS	1.00 1.50					
				Brownish inorganic clays of high plasticity, fat clays.		1	SPT	1.50 1.73	20 50 - - R				
2.00			-14.190			4	DS	1.73 2.00					
				Dark brownish silty sands, poorly graded sand-silt mixtures.	SM	5	DS	2.00 2.50					
	1.00		-15.190			6	DS	2.50 3.00					
3.00				Dark brownish inorganic clays of high plasticity, fat clays.		2	SPT	3.00 3.37	10 23 50 - R				
						7	DS	3.37 4.00					
4.00				Light grayish and brownish inorganic clays of high plasticity, fat clays.	CH	8	DS	4.00 4.50					
	3.70					8	DS	4.50 5.00					
5.00				Light brownish inorganic clays of high plasticity, fat clays.		3	SPT	5.00 5.34	10 19 50 - R				
						9	DS	5.34 5.50					
6.00						10	DS	5.50 6.00					
			-18.890			11	DS	6.00 6.70					
				Light brownish silty sands, poorly graded sand-silt mixtures.	SM	4	SPT	6.70 7.15	6 13 18 - 31				
7.00	1.00					12	DS	7.15 7.70					
			-19.890										
8.00				Light brownish inorganic clays of high plasticity, fat clays.		5	SPT	7.70 8.15	5 14 17 - 31				
						13	DS	8.15 8.50					
						14	DS	8.50 9.00					
9.00	2.75				CH	15	DS	9.00 10.00					
10.00				Light brownish and dull white inorganic clays of high plasticity, fat clays.		6	SPT	10.00 10.45	12 19 21 - 40				
			-22.640										
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									



RENUKA CONSULTANTS,
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SHREE NAGAR, THANE - 400 604.

Boring

Job No : 16-145

As per IS 1892 : 2002

Page No : 1 of 1

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

R. L. :- 12.060 m

Location :- As per Location Sketch

Bore Hole No. 5 (0J7-6)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

Date of Commencement & completion : 05/01/17 to 06/01/17

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
	0.00	-12.060						From To	15 30 45 60 N				
0.00				Light brownish 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					
	3.00			Brownish inorganic clays of high plasticity, fat clays.	CH	1	SPT	1.50 1.95	6 13 18 - 31				
2.00						4	DS	1.95 3.00					
		-15.060											
3.00				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						6	DS	3.50 4.00					
	3.00			Dark brownish silty sands, poorly graded sand-silt mixtures.	SM	7	DS	4.00 4.50					
5.00						3	SPT	4.50 4.95	8 10 12 - 22				
						8	DS	4.95 5.50					
6.00		-18.060		Light brownish silty sands, poorly graded sand-silt mixtures.		9	DS	5.50 6.00					
				Brownish inorganic clays of high plasticity, fat clays.		4	SPT	6.00 6.45	6 8 10 - 18				
7.00						10	DS	6.45 7.50					
				Dark brownish and dull white inorganic clays of high plasticity, fat clays.		5	SPT	7.50 7.75	30 50 - R				
8.00	4.45					11	DS	7.75 9.00					
9.00					CH	6	SPT	9.00 9.45	9 20 19 - 39				
						12	DS	9.45 10.00					
10.00		-22.510		Brownish inorganic clays of high plasticity, fat clays.		7	SPT	10.00 10.45	2 6 8 - 14				

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

 RENUKA CONSULTANTS, SHOP NO. 1, MEERA MOHAN, OPP. KRANTI TOWER, SECTOR NO. 3, SHREE NAGAR, THANE - 400 604.										Borelog As per IS 1892 : 2002		Job No : 16-145 Page No : 1 of 1	
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 - 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) From To	SPT 'N' Value 15 30 45 60 N	TCR (%)	SCR (%)	RQD (%)	Rock ratings
0.00	0.00	-12.050		Dull light and light yellowish inorganic clays of high plasticity, fat clays.		1	DS	0.00 0.50					
1.00						2	DS	0.50 1.00					
2.00	3.50			Light brownish inorganic clays of high plasticity, fat clays.	CH	3	DS	1.00 1.50					
						4	SPT	1.50 1.95	4	11	46	-	57
3.00				Reddish brown inorganic clays of high plasticity, fat clays.		5	DS	1.95 2.50					
						6	DS	2.50 3.00					
4.00	1.00	-15.550		Light brownish to dark brown silty sands, poorly graded sand-silt mixtures.	SM	7	SPT	3.00 3.50					
						8	DS	3.50 3.95	18	46	50	-	96
5.00				Brownish inorganic clays of high plasticity, fat clays.		9	DS	3.95 4.50					
						10	DS	4.50 5.00					
6.00				Light brownish inorganic clays of high plasticity, fat clays.		11	DS	5.00 5.50					
						12	SPT	5.50 5.95	10	16	23	-	39
7.00				Dull white and light brownish inorganic clays of high plasticity, clays.		13	DS	5.95 6.50					
						14	DS	6.50 7.00					
8.00	5.95			Light brownish inorganic clays of high plasticity, fat clays.	CH	15	DS	7.00 7.50					
						16	SPT	7.50 7.95	6	12	16	-	28
9.00						17	DS	7.95 8.50					
						18	DS	8.50 9.00					
10.00						19	DS	9.00 10.00					
						20	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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SHREE NAGAR, THANE - 400 604.

Borelog

As per IS 1892 : 2002

Job No : 16-145

Page No : 1 of 1

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

R. L. :- -12.760 m

Location :- As per Location Sketch

Bore Hole No. 8 (O17-9)

Depth of Bore Hole : 10.45 m

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
	0.00	-12.760						From To	15 30 45 60 N				
0.00				Silty sands, poorly graded sand-silt mixtures.		1	DS	0.00 0.50					
						2	DS	0.50 1.00					
1.00	2.50					3	DS	1.00 1.50					
				Light yellowish and dull white silty sands, poorly graded sand-silt mixtures.	SM	1	SPT	1.50 1.95	4 6 19 - 25				
						4	DS	1.95 2.50					
2.00		-15.260											
				Inorganic clays of high plasticity, fat clays.		5	DS	2.50 3.00					
	1.00				CH								
3.00		-16.260				6	DS	3.00 3.50					
				Light yellowish and dull white silty sands, poorly graded sand-silt mixtures.		2	SPT	3.50 3.75	21 50 - - R				
					SM	7	DS	3.75 4.50					
4.00	1.00	-17.260											
				Light brownish inorganic clays of high plasticity, fat clays.		8	DS	4.50 5.00					
						9	DS	5.00 5.50					
				Dark brown and light brown inorganic clays of high plasticity, fat clays.		3	SPT	5.50 5.95	2 7 11 - 18				
						10	DS	5.95 6.50					
				Light brownish and dull white inorganic clays of high plasticity, fat clays.		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				
						13	DS	7.95 8.50					
8.00						14	DS	8.50 9.00					
						15	DS	9.00 10.00					
9.00													
		-22.760											
10.00				Reddish brown inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with none to low plasticity.		5	SPT	10.00 10.45	4 9 12 - 21				
	0.45				ML								
		-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.

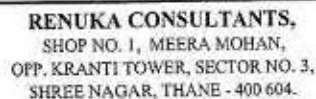
Bore Termination Depth: 10.45 m

 RENUKA CONSULTANTS, SHOP NO. 1, MEERA MOHAN, OPP. KRANTI TOWER, SECTOR NO. 3, SHREE NAGAR, THANE - 400 604.								Borelog As per IS 1892 : 2002				Job No : 16-145 Page No : 1 of 4							
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)	Thk (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)		SPT N' Value					TCR (%)	SCR (%)	RQD (%)	Rock ratings	
	0.00	-10.550						From	To	15	30	45	60	N					
0.00	2.00			Silty sands, poorly graded sand-silt mixtures.	SM	1	DS	0.00	1.00										
1.00				Brownish silty sands, poorly graded sand-silt mixtures.		2	DS	1.00	1.50										
						3	DS	1.50	2.00										
2.00	1.00	-12.550		Dull white and light grayish inorganic clays of high plasticity, fat clays.	CH	1	SPT	2.00	2.45	13	42	49	-	91					
						4	DS	2.45	3.00										
3.00						-13.550													
	2.00			Light brown to brown silty sands, poorly graded sand-silt mixtures.	SM	5	DS	3.00	3.50										
4.00						6	DS	3.50	4.00										
				Brownish silty sands, poorly graded sand-silt mixtures.		2	SPT	4.00	4.45	11	12	17	-	29					
5.00		-15.550				7	DS	4.45	5.00										
	26.26			Brownish inorganic clays of high plasticity, fat clays.	CH	8	DS	5.00	5.50										
6.00						9	DS	5.50	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				Dark brownish inorganic clays of high plasticity, fat clays.		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					
		-20.550				16	DS	10.45	11.00										

		RENUKA CONSULTANTS, SHOP NO. 1, MEERA MOHAN, OPP. KRANTI TOWER, SECTOR NO. 3, SHREE NAGAR, THANE - 400 604.				Borelog As per IS 1892 : 2002				Job No : 16-145 Page No : 4 of 4							
		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									

 RENUKA CONSULTANTS, SHOP NO. 1, MEERA MOHAN, OPP. KRANTI TOWER, SECTOR NO. 3, SHREE NAGAR, THANE - 400 604.		Boring As per IS 1892 : 2002		Job No : 16-145 Page No : 1 of 1									
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 OF 7-10) 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)	TLK (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)	SPT 'N' Value	TCR (%)	SCR (%)	RQD (%)	Rock ratings
	0.00	-8.060						From To	15 30 45 60 N				
0.00				Inorganic silts and very fine sands rock flour, silty or clayey fine sands or clayey silts with none to low plasticity.		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.	ML	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					
						4	DS	2.45 3.00					
3.00						5	DS	3.00 3.50					
						6	DS	3.50 4.00					
4.00	4.00			Light brownish and dull white silty sands, poorly graded sand-silt mixtures.	SM	2	SPT	4.00 4.45	12 12 15	-	27		
5.00				Brownish and dull white silty sands, poorly graded sand-silt mixtures.		8	DS	5.00 5.50					
		-14.060				9	DS	5.50 6.00					
6.00				Light brownish inorganic clays of high plasticity, fat clays.		3	SPT	6.00 6.45	4 14 30	-	44		
	1.00				CH	10	DS	6.45 7.00					
7.00		-15.060		Dull white silty sands, poorly graded sand-silt mixtures.		11	DS	7.00 7.50					
						12	DS	7.50 8.00					
8.00				Brownish silty sands, poorly graded sand-silt mixtures.		4	SPT	8.00 8.45	9 18 42	-	60		
	3.45					13	DS	8.45 9.00					
9.00					SM	14	DS	9.00 9.50					
						15	DS	9.50 10.00					
10.00				Dark brownish silty sands, poorly graded sand-silt mixtures.		5	SPT	10.00 10.45	10 12 18	-	30		
		-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 Reema		Checked By Sandip 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 As per IS 1892 : 2002					Job No : 16-145 Page No : 1 of 1				
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 R. L. :- -8.990 m Location :- As per Location Sketch										Bore Hole No. 11 (OPP QJ4-11) Depth of Bore Hole : 10.45 m 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		
	0.00	-8.990						From To	15	30	45	60	N						
0.00				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											
		-10.990				3	DS	1.50 2.00											
2.00				Dull white silty sands, poorly graded sand-silt mixtures.		4	SPT	2.00 2.25	12	50	-	-	R						
						5	DS	2.25 3.00											
3.00						6	DS	3.00 3.50											
	4.00				SM	7	SPT	4.00 4.45	4	7	23	-	30						
4.00						8	DS	4.45 5.00											
5.00				Brownish silty sands, poorly graded sand-silt mixtures.		9	DS	5.00 5.50											
		-14.990				10	DS	5.50 6.00											
6.00				Brownish inorganic clays of high plasticity, fat clays.		11	SPT	6.00 6.45	6	17	27	-	44						
	7.00				CH	12	DS	6.45 7.00											
		-16.990		Dull white inorganic clays of high plasticity, fat clays.		13	DS	7.00 7.50											
8.00						14	DS	7.50 8.00											
				Brownish silty sands, poorly graded sand-silt mixtures.		15	SPT	8.00 8.45	12	22	50	-	72						
					SM	16	DS	8.45 9.00											
9.00	2.00					17	DS	9.00 9.50											
		-18.990				18	DS	9.50 10.00											
10.00				Light to dark brownish inorganic clays of high plasticity, fat clays.		19	SPT	10.00 10.45	8	10	13	-	23						
	0.45				CH	20	DS	10.45 10.90											
		-19.440				21	DS	10.90 11.40											
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 Mandoge		Drawn By Reena		Checked By Sandip S. Deshpande			Client Rept.		Bore Termination Depth: 10.45 m										



Borelog
As per IS 1892 : 2002

Job No : 16-145
Page No : 1 of 1

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

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
Mandapat

Drawn By
Reena

Checked By
Sandip S. Deshpande

Client Rept.

Bore Termination Depth: 10.45 m

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.

R. L. = 7,100 m

Location : As per Location Sketch

Bore Hole No. 117 (SC-3)

Depth of Bare Hole : 10.45 m

Depth of Casing : 10.45 m

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

[illegible]

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

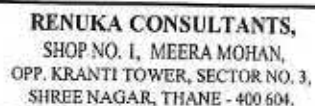
Site Engg.	
Mahesh	
Mundaje	

Drawn By
Reena

Checked By
Sandip S. Deshpande

Client Ref.

Bore Termination Depth: 10.45 m



Borelce

Job No : 16-145

As per IS 1892 : 2002

Page No : 1 of 1

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

Date of Commencement & completion : 22/01/018 to 22/01/018																			
Depth/ Scale (m)	Thk. (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	-3.620		Grayish inorganic clays of high plasticity, fat clay	CH	1	DS	0.00	1.00										
1.00																			
2.00																			
3.00																			
4.00																			
5.00																			
6.00																			
7.00																			
8.00																			
9.00																			
10.00																			
		-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											

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

Co-ordinates: - E - 0627774 m, N - 2538185 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

[illegible]

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

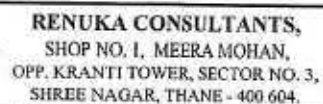
Site Engg.
Mahesh
Mandape

Drawn By
Reena

Checked By
Sandip S. Deshpande

Client Rept

Bore Termination Depth: 10.45 m



Job No : 16-145

As per IS 1892 : 2002

Page No: 1 of 1

Project :- Marine Geo Investigations at Proposed Container Terminal Barge Jetty near Tutu Tekra, Navigational Channel and Creek areas of Kandla Port.
Client :- Kandla Port Trust, Gandhidham, Kutch, GJ - 370001

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

R. L.: -8.640 m

Location : As per Location Sketch

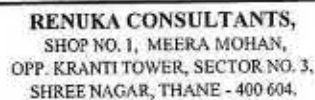
Bore Hole No. 120 (SC-6)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

Date of Commencement & completion : 22/01/08 to 22/01/08

~~SECRET~~



Borelog

Job No : 16-145

As per IS 1892 : 2002

Page No : 1 of 1

Project :- Marine Gas 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

Bore Hole No. 121 (SC-7)

R.L. = -0.860 m

Depth of Bore Hole : 10.45 m

Location : As per Location Sketch.

Depth of Casing : 10.45 m

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

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.	Maresh Mandape
------------	-------------------

Drawn By
Reens

Checked By
Sandip S. Deshpande

Client Ref.

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

Job No : 16-145

As per IS 1892 : 2002

Page No : 1 of 1

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)	Thk (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)	SPT 'N' Value	TCR (%)	SCR (%)	RQD (%)	Rock ratings
	0.00	-5.150						From To	15 30 45 60 N				
0.00				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						16	SPT	8.00 8.45	1 2 2 - 4				
						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 2 3 - 5				
		-15.600											

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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Borelog

Job No: 16-145

As per IS 1892 : 2002

Page No: 1 of 1

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	
	0.00	-11.290						From To	15	30	45	60	N					
0.00				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 5.00										
5.00						8	DS	5.00 5.50										
				9	DS	5.50 6.00												
6.00		-17.290		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						2	SPT	10.00 10.45	11	15	29	-	44					
		-21.740																
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 Mandane		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

As per IS 1892 : 2002

Page No : 1 of 1

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 - 0626256 m, N - 2543981 m

R. L. :- -9.350 m

Location :- As per Location Sketch

Bore Hole No. 124 (SC-10)

Depth of Bore Hole : 10.45 m

Depth of Casing : 10.45 m

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



















Depth/ Scale (m)	Tab (m)	R.L. (m)	Log	Material Description	Group Symbol	Sample No.	Type	Depth (m)	SPT 'N' Value	TCR (%)	SCR (%)	RQD (%)	Rock ratings
	0.00	-9.350						From To	15 30 45 60 N				
0.00				Grayish silty sands, poorly graded sand-silt mixtures.		1	DS	0.00 1.00					
1.00						2	DS	1.00 1.50					
		3.00			SM	3	DS	1.50 2.00					
2.00						1	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.		5	DS	3.00 3.50					
4.00		2.00			ML	6	DS	3.50 4.00					
						2	SPT	4.00 4.29	20 50 - - R				
						7	DS	4.29 5.00					
5.00		-14.350											
				Grayish silty sands, poorly graded sand-silt mixtures.		8	DS	5.00 5.50					
6.00						9	DS	5.50 6.00					
						3	SPT	6.00 6.45	13 23 28 - 51				
						10	DS	6.45 7.00					
7.00													
						11	DS	7.00 7.50					
						12	DS	7.50 8.00					
8.00		5.45			SM	4	SPT	8.00 8.45	7 12 14 - 26				
						13	DS	8.45 9.00					
9.00													
						14	DS	9.00 9.50					
						15	DS	9.50 10.00					
10.00													
						5	SPT	10.00 10.45	8 15 17 - 32				
		-19.800											
DS : Disturbed Sample				CR : Core Recovery				K : Permeability Test					
UDS : Undisturbed Sample				RQD : Rock Quality Designation				PT : Pocket 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 Rpt.		Bore Termination Depth: 10.45 m					

AII. GPI Results:

Appendix A(3) "Details of Under Water Objects in Kandla Creek & Navigation Channel"

5.1. Side Scan Sonar (SSS) Survey Results

The targets/objects namely SS01 to SS92 were identified through SSS survey and are presented in Figs. 11 to 16 and tiles SS01 to SS50. The SSS survey identified target/objects location details are in Table AII.2 along with its remarks.

		
SS 01	SS 02	SS 03
		
SS 04	SS 05	SS 06
		
SS 07	SS 08	SS 09
		
SS 10	SS 11	SS 12
		
SS 13	SS 14	SSS 15
		
SS 16	SS 17	SS 18

