INCO - LAB

FOR TESTING MATERIALS, SOIL, SURVEYING & ENVIRONMENTAL RESEARCH





BOREHOLE LOG

BH No.: BH-06

Ground Level: 117.60

Page: 1/2

Coordinates:

P.O Box: 21073, Safat 13071, Kuwait, Tel (965)4710780, Fax (965)4716526

Soil Investigation for Cross Country Pipeline (CCP) Project:

Owner: Kuwait National Petroleum Co. (KNPC) - Local Marketing

Contractor: Vision International Gen. Trading & Cont. Co.

Consultant: AMEC - Foster Wheeler

Location: KNPC MAA, SHU to Al Mutla Depot, State of Kuwait N 3,248,735.535 , E 751,239.342

Location: Bet. Rd.70 & Rd.80 Drill Rig No.: D-50MB Boring Diameter: 125mm Boring Method: Augering

Date Started: 21/11/2015 Job Order No.: 15-928 Date Completed: 21/11/2015 Operator: Syed

cale			mp	ies			T Reco	ius	SYME	JOLO		Elovetic	Gro n Wa
(m) - 0	Туре	Number		Depth (m)	0-15 cm	Field Reco 15-30 cm	30-45 cm	N Blows	Legend	uscs	Description	Elevation (m)	L
U											Note: No groundwater was encountered down to end of boring		
	SPT	1	C	0.5 - 0.95	5	5	6	11		SM	Medium dense, pale brown, fine to coarse silty SAND , strong reaction with dilute hydrochloric acid, moist.	117	
1	SPT	2		1 - 1.45	4	7	6	13					
	SPT	3	1	.5 - 1.95	6	10	11	21				116	
2	SPT	4		2 - 2.45	10	10	12	22		SC-SM	Medium dense, pale brownish yellow, fine to coarse silty/clayey SAND, strong reaction with dilute hydrochloric acid, moist.	115.0	.65
,	SPT	5	2	2.5 - 2.95	11	14	21	35			Becomes dense.	- 115 -	
3	SPT	6		3 - 3.45	10	15	23	38					
4												114	6
-	SPT	7	4	4 - 4.38	15	28	22/8	50/23		SM	Very dense, pale brownish yellow, fine to coarse silty SAND , strong reaction with dilute hydrochloric acid, moist.		
5		_										- 113 -	
3	SPT	8	4	5 - 5.34	18	32	18/4	50/19					
6												1112	
	SPT	9	4	6 - 6.45	11	15	22	37		sc	Dense, pale brownish yellow, fine to coarse clayey SAND , strong reaction with dilute hydrochloric acid, moist.		
.7												1111	6
•	SPT	10	4	7 - 7.45	10	11	16	27		SM	Medium dense, pale yellow, fine to coarse silty SAND , strong reaction with dilute hydrochloric acid, moist.		
8												110	
	SPT	11	4	8 - 8.45	13	14	21	35			Becomes dense.		
.9												- 109 - -	
	SPT	12		9 - 9.45	10	13	19	32				-	
-10												- 108 - -	

Dilute HCL Testing Per ASTM D2488, Clauses 10.6 &14.2.5 for checking the presence of CaCO3 which may indicate false soil strength

: Bulk Sample ■ CORE : Core Sample

Checked By: R.Q.V. Logged By: M.E.T

E.E.L.: Existing Excavation Level

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CAMBOLC

	Samples			SPT Records			SYMB	OLS			Grou	
cale (m)	Туре	Number Symbol	Depth (m)	0-15	Field Rec 15-30	ords 30-45	N Blows	Legend	USCS	Description	Elevation (m)	Le
-10	SPT	14	10 - 10.45	cm 12	cm 15	<u>cm</u> 24	39		SM	Dense, pale yellow, fine to coarse silty SAND , strong reaction with dilute hydrochloric acid, moist.	-	1)
	JF 1	13	10 - 10.45	12	15	24	39		SIVI			,
										Bottom of borehole.	107	
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Note	<u>e:</u>								SAMPLE	EKEY ■ Ground W	ater Table	
The	mea		.W.L. is app		and has b	een reco	rded after a	t least	SPT	: Standard Penetration Test G.W.L.: Ground W		
24 ł	nours	from co	mpletion of	drilling.						1 : Dames & Moore Sampler		.l

Dilute HCL Testing Per ASTM D2488, Clauses 10.6 &14.2.5 for checking the presence of CaCO3 which may indicate false soil strength

■ D & M : Dames & Moore Sampler : Bulk Sample

■ CORE : Core Sample Logged By: M.E.T

G.W.L.: Ground Water Level E.G.L.: Existing Ground Level E.E.L.: Existing Excavation Level

Checked By: R.Q.V.