










PROJECT: Old Crow Water Supply		HOLE NO.: WW 1		PROJECT NO.: 209-3546									
LOCATION: Old Crow, Yukon		SURFACE ELEVATION:											
DRILL: Schramm Rotadrill													
SAMPLE TYPE: <input type="checkbox"/> THIN WALLED TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> DISTURBED <input type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE <input type="checkbox"/> OTHER													
DEPTH (m.)	SOIL DESCRIPTION	UNIFIED SOIL CLASS.	SAMPLE DEPTH (ft.)	WATER CONTENT-%				COMPRESSIVE STRENGTH					
				PLASTIC LIMIT (W _p)	LIQUID LIMIT (W _L)		kPa						
				20	40	60	80	Unconfined..... ▲	1	2	3	4	5
								Pocket Penetrometer..... Δ					
								TSF	100	200	300	400	
1	SNOW												
	SILT (Nbe) - some clay, trace of wood chips, olive-brown		2										
	CLAY (Nbe) - silty, trace of wood, gray		4										
2			6										
	SILT (Vs, Vx, Vr 10%) - clayey, trace to some fine sand lenses, trace of wood		8										
3			10										
			12										
	SAND - frozen, fine grained, brown		14										
5			16										
	SILT - frozen, sandy, brown		18										
6			20										
	GRAVEL - sandy, medium grained, moist to damp, olive brown, probably unfrozen		22										
7			24										
	GRAVEL - possibly unfrozen, silty, medium grained, some fine grained sand, moist to wet, brown, very dirty		26										
8			28										
9			30										
10	- frozen at 10 m		32										
			34										
11			36										
	CLAY (Vs 15%) - silty, some silt and fine grained sand lenses, grey		38										
12			40										
13			42										
14			44										
15			46										
16			48										
17			50										
18			52										
	SILT (Vr, Vs, 15%) - clayey, occasional ice lenses to 10 mm thick, grey		54										
18			56										
			58										
19			60										
20			62										
	SILT - (Vr, Vx, Vs, 20%) - clayey, brown, horizontal and vertical ice lenses with crystalline ice to 10 mm thick, some lenses at 45° also with crystalline ice		64										
21			66										
22			68										
23			70										
24			72										
			74										
24			76										
			78										
25			80										


	DEPTH TO WATER: 	WET UNIT $\frac{kN}{m^3}$	16	18	20	22	20	40	60	80
	DEPTH TO SLOUGH: —	WEIGHT-O P.C.F.	100	110	120	130	140	150	STANDARD PENETRATION: N- <input checked="" type="checkbox"/>	
COMPLETION DEPTH: 79.3 m		DATE DRILLED: 1982 02 17		LOGGED BY: PKG		DRAWING NO.:				

PROJECT: Old Crow Water Supply		HOLE NO.: WW 1		PROJECT NO.: 209-3546										
LOCATION: Old Crow, Yukon		SURFACE ELEVATION:												
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DEPTH (m.)	SOIL DESCRIPTION	UNIFIED SOIL CLASS.	SAMPLE DEPTH (ft.)	WATER CONTENT-%				COMPRESSIVE STRENGTH						
				PLASTIC LIMIT (W _p)	LIQUID LIMIT (W _L)		TSF							
				20	40	60	80	1	2	3	4	5	▲	▲
24	SILT - as above, frozen		80											
25			82											
26			84											
27	CLAY - silty to some silt, grey		86											
28			88											
29	SAND - frozen, clayey, trace of gravel and cobbles, quartz-rich, fine grained, brown, ice lenses		90											
30			92											
31	SILT AND SAND - frozen, trace of clay, brown		94											
32			96											
33	SILT AND SAND - frozen, trace of clay, medium grained sand, brown, ice crystals		98											
34			100											
35	SAND - frozen, fine grained, uniform, grey		102											
36			104											
37	SAND - frozen, fine grained, uniform, golden brown, ice crystals		106											
38			108											
39	SANDSTONE - small quartz/quartzite pebbles, fine grained, uniform, dense, well indurated, brown		110											
40			112											
41	- possibly siltstone		114											
42			116											
43			118											
44			120											
45			122											
46			124											
47			126											
48	- dark brown, trace of mafic minerals		128											
49			130											
			132											
			134											
			136											
			138											
			140											
			142											
			144											
			146											
			148											
			150											
			152											
			154											
			156											
			158											
			160											
		DEPTH TO WATER:  DEPTH TO SLOUGH: 		WET UNIT $\frac{kN}{m^3}$ 16 18 20 22 WEIGHT-O P.C.F. 100 110 120 130 140 150				STANDARD PENETRATION: N- <input checked="" type="checkbox"/>						
COMPLETION DEPTH: 79.3 m				DATE DRILLED: 1982 02 17, 18										
LOGGED BY: PKG				DRAWING NO.:										

-----Casing Originally Set To This Depth-----
 Reset to 78 m (256 feet) on March 24, 1982

PROJECT: Old Crow Water Supply		HOLE NO.: WW 1		PROJECT NO.: 209-3546																	
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DRILL: Schramm Rotadrill																					
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				PLASTIC LIMIT (W _p)	LIQUID LIMIT (W _L)		Unconfined..... ▲ Pocket Penetrometer..... Δ TSF 1 2 3 4 5 kPa 100 200 300 400														
48	SANDSTONE-as above, frozen		158																		
49			160																		
50			162																		
51			164																		
52			166																		
53			168																		
54			170																		
55	- finer grained, light golden brown		172																		
56	- ice lenses up to approximately 250 mm thick from 56.4m to 57.9 m		174																		
57			176																		
58			178																		
59	- possible unfrozen zones		180																		
60			182																		
61	- more pebbles to 8 mm diameter, frozen from 61.0 m to 64.0 m, darker brown colour		184																		
62			186																		
63	- medium grained quartzitic sandstone		188																		
64			190																		
65	SHALE - appears unfrozen, some sandstone lenses, friable, platy, grey, graphitic		192																		
66			194																		
67	SILTSTONE AND SHALE - unfrozen, uniform, dry to damp, feels "talc", grey		196																		
68	- interbeds of fine, brown, uniform sand and some graphite (?) from 67.1m to 71.6m		198																		
69			200																		
70			202																		
71	- poorly lithified		204																		
72	SANDSTONE - trace shale, fine grained, uniform, damp to moist, brown, thin shale interbeds		206																		
73			208																		
			----- BOTTOM OF PERMAFROST ? -----																		
			210																		
			212																		
			214																		
			216																		
			218																		
			220																		
			222																		
			224																		
			226																		
			228																		
			230																		
			232																		
			234																		
			236																		
			238																		
 DEPTH TO WATER:  DEPTH TO SLOUGH: 		WET UNIT $\frac{KN}{m^3}$		16	18	20	22	20	40	60	80										
		WEIGHT-O P.C.F.		100	110	120	130	140	150	STANDARD PENETRATION: N- 											
COMPLETION DEPTH:		79.3 m				DATE DRILLED: 1982 02 17, 18															
LOGGED BY:		PKG				DRAWING NO.:															

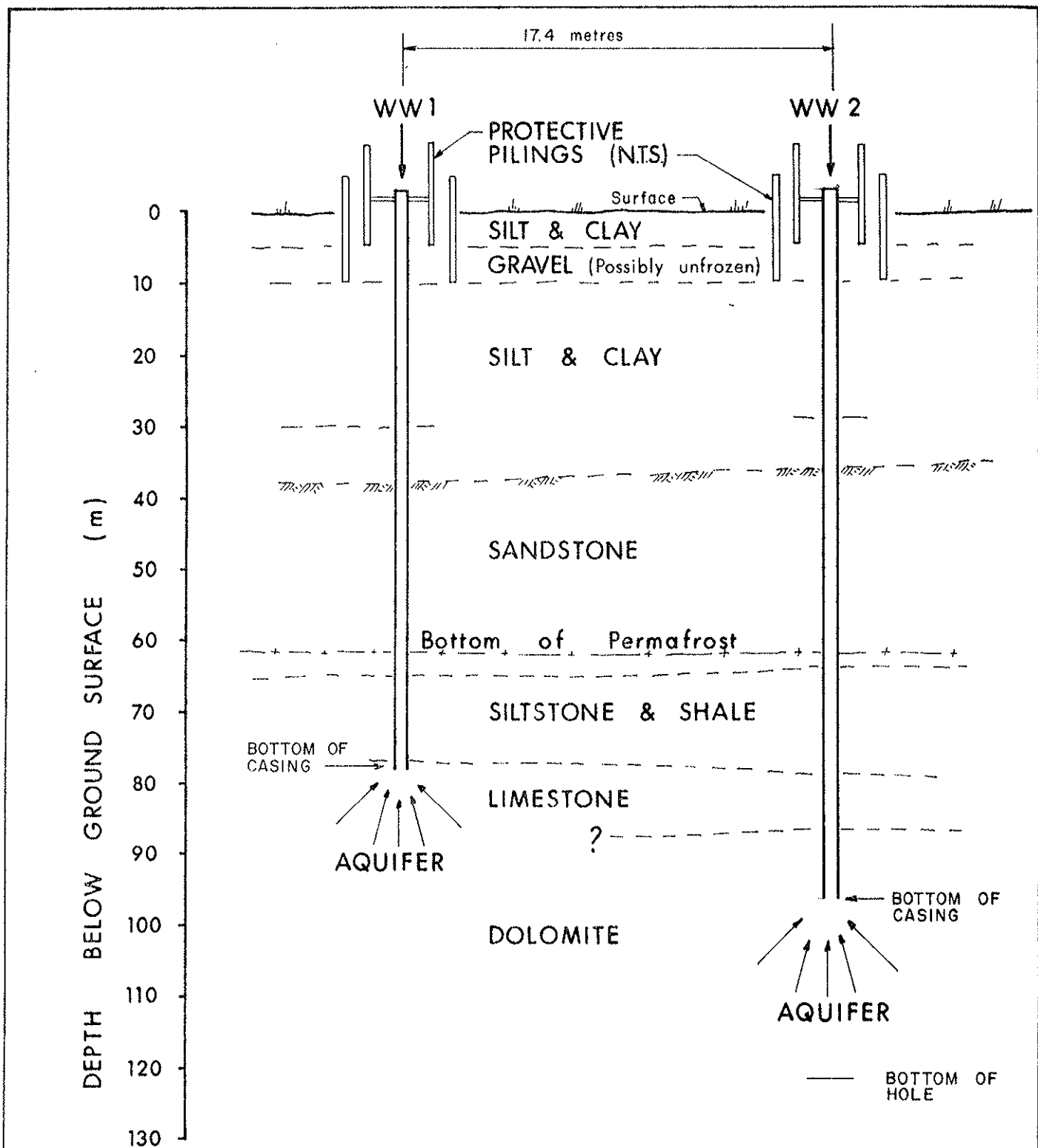
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DRILL: Schramm Rotadrill												
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				PLASTIC LIMIT (W _p)	LIQUID LIMIT (W _L)		Pocket Penetrometer..... Δ					
				20	40	60	80	TSF 1 2 3 4 5				
72	SANDSTONE (as above)		238									
73	SILTSTONE - uniform, light brown to white, sandstone interbeds, quartzitic		240									
			242									
74			244									
75			246									
76			248									
77		250										
78	LIMESTONE - dark grey, crystalline, fractured, water-bearing		252									
			254									
79			256	BOTTOM OF CASING								
			258	(Reset on March 24, 1982)								
80	END OF HOLE (79.3 m)		260									
			262									
81	<u>Note:</u> Artesian water conditions encountered at 78.0 m. Initial flow from top of casing at approximately 6.1 L/s. Could not drill further.		264									
			266									
82			268									
			270									
83			272									
			274									
84			276									
			278									
85			280									
			282									
86		284										
		286										
87		288										
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88		292										
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		298										
90		300										
		302										
91		304										
		306										
92		308										
		310										
93		312										
		314										
94		316										
95												
96												
97												



DEPTH TO WATER: γ



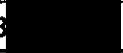
DEPTH TO SLOUGH: —

WET UNIT $\frac{kN}{m^3}$	16	18	20	22	20	40	60	80	
WEIGHT-O P.C.F.	100	110	120	130	140	150	STANDARD PENETRATION: N- <input type="checkbox"/>		
COMPLETION DEPTH:	79.3 m				DATE DRILLED:	1982 02 17, 18			
LOGGED BY:	PKG				DRAWING NO.:				



GENERALIZED SUBSURFACE CONDITIONS
WATER WELL SITE
OLD CROW, YUKON

NOTE
 HORIZONTALLY N.T.S.

EBA Engineering Consultants Ltd. 	
JOB NO.: 209-3546	DATE: 1982-06-07
DRAWN BY: 	DRAWING NO.:
REVIEWED BY: 	3546 - A - 2