PROJECT: Old Crow Water Supply | **HOLE NO.:** WW 2 | **PROJECT NO.:** 209-3546

LOCATION: Old Crow, Yukon | **SURFACE ELEVATION:**

DRILL: Schramm Rotadrill

SAMPLE TYPE: ■ THIN WALLED TUBE ☒ SPLIT SPOON ▤ DISTURBED ▨ NO RECOVERY ⊞ CORE ☐ OTHER

DEPTH (m.)	SOIL DESCRIPTION	UNIFIED SOIL CLASS.	SAMPLE	DEPTH (ft.)
1–4	SILT AND CLAY - frozen, trace of wood, olive brown, to grey			2–14
5	SAND AND SILT - frozen, brown			16
6–10	GRAVEL - possibly unfrozen, silty, some sand, medium grained			18–32
11–17	CLAY - frozen, silty, grey			34–58
18–24	SILT - frozen, clayey, grey, ice lenses			60–80

WATER CONTENT-% : ●
PLASTIC LIMIT (W_P) ⟷ LIQUID LIMIT (W_L)
20 40 60 80

COMPRESSIVE STRENGTH
Unconfined..... ▲
Pocket Penetrometer..... △
TSF 1 2 3 4 5
kPa 100 200 300 400

WET UNIT $\frac{kN}{m^3}$ 16 18 20 22
WEIGHT-O P.C.F. 100 110 120 130 140 150

20 40 60 80
STANDARD PENETRATION: N- ■

DEPTH TO WATER: ▼
DEPTH TO SLOUGH: —

COMPLETION DEPTH: 121.9 m

DATE DRILLED: 1982 02 18, 19, 20

LOGGED BY: PKG

DRAWING NO.:

PROJECT: Old Crow Water Supply	HOLE NO.: WW 2	PROJECT NO.: 209-3546
LOCATION: Old Crow, Yukon	SURFACE ELEVATION:	
	DRILL: Schramm Rotadrill	

SAMPLE TYPE: ■ THIN WALLED TUBE ☒ SPLIT SPOON ▤ DISTURBED ▨ NO RECOVERY ⊞ CORE ☐ OTHER

DEPTH (m.)	SOIL DESCRIPTION	UNIFIED SOIL CLASS.	SAMPLE	DEPTH (ft.)
25	SILT - as above, frozen			80
26				82
27				84
	CLAY - some silt, grey, frozen			86
28				88
29				90
	SAND - frozen, clayey, trace of gravel, fine grained, brown			92
30				94
31				96
32	- silty from 32.0 to 33.5 m			98
33				100
34				102
35				104
				106
36	SANDSTONE - frozen, trace of pebbles, fine grained, uniform, brown			108
37				110
38				112
39				114
40				116
41				118
42				120
43				122
44				124
45				126
46				128
47				130
48				132
				134
				136
				138
				140
				142
				144
				146
				148
				150
				152
				154
				156
				158
				160

WATER CONTENT-% : ●
PLASTIC LIMIT (W_P) — LIQUID LIMIT (W_L)
20 40 60 80

COMPRESSIVE STRENGTH
Unconfined..... ▲
Pocket Penetrometer..... △
TSF 1 2 3 4 5
kPa 100 200 300 400

WET UNIT WEIGHT: kN/m³ 16 18 20 22 — P.C.F. 100 110 120 130 140 150

STANDARD PENETRATION: N- ■ 20 40 60 80

DEPTH TO WATER: ▼

DEPTH TO SLOUGH: —

COMPLETION DEPTH: 121.9 m	DATE DRILLED: 1982 02 18, 19, 20
LOGGED BY: PKG	DRAWING NO.:

This log is a compilation of subsurface conditions and soil or rock classification obtained from the field as well as from laboratory testing of samples from the borehole. Soil zones have been interpreted according to commonly accepted practice. The change from one zone to another, as indicated on the log, may be transitional and approximate in nature. Groundwater conditions refer only to those observed at the times and places indicated and they may vary with time, geologic conditions, and construction activity.

PROJECT: Old Crow Water Supply	HOLE NO.: WW 2	PROJECT NO.: 209-3546
LOCATION: Old Crow, Yukon	SURFACE ELEVATION:	
	DRILL: Schramm Rotadrill	

SAMPLE TYPE: ■ THIN WALLED TUBE ☒ SPLIT SPOON ▤ DISTURBED ▨ NO RECOVERY ▦ CORE ☐ OTHER

DEPTH (m.)	SOIL DESCRIPTION	UNIFIED SOIL CLASS.	SAMPLE	DEPTH (ft.)
49	SANDSTONE - as above, frozen			158 160 162
50				164
51				166 168
52				170 172
53				174 176
54				178
55				180 182
56				184
57				186 188
58				190 192
59				194 196
60				198
61				200 202
62				204
63				206 208
64	SILTSTONE AND SHALE - highly weathered, faulted(?), fractured, grey, trace of biotite			210 212
65				214
66				216 218
67				220
68				222 224
69				226 228
70				230
71				232 234
72				236 238

BOTTOM OF PERMAFROST?

WATER CONTENT-% : ●
PLASTIC LIMIT (W_P) — LIQUID LIMIT (W_L)
20 40 60 80

COMPRESSIVE STRENGTH
Unconfined..... ▲
Pocket Penetrometer..... △
TSF 1 2 3 4 5
kPa 100 200 300 400

WET UNIT $\frac{kN}{m^3}$ 16 18 20 22
WEIGHT-O P.C.F. 100 110 120 130 140 150

20 40 60 80
STANDARD PENETRATION: N- ■

eba

DEPTH TO WATER: ▼

DEPTH TO SLOUGH: —

COMPLETION DEPTH: 121.9 m	DATE DRILLED: 1982 02 18, 19, 20
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PROJECT: Old Crow Water Supply	HOLE NO.: WW 2	PROJECT NO.: 209-3546
LOCATION: Old Crow, Yukon	SURFACE ELEVATION:	
	DRILL: Schramm Rotadrill	

SAMPLE TYPE: ■ THIN WALLED TUBE ☒ SPLIT SPOON ▤ DISTURBED ▨ NO RECOVERY ⊞ CORE ☐ OTHER

DEPTH (m.)	SOIL DESCRIPTION	UNIFIED SOIL CLASS.	SAMPLE	DEPTH (ft.)
72				238
73	SILTSTONE AND SHALE - as above			240
74				242
75				244
76				246
77				248
78	ROCK FLOUR - silty, clayey, damp, orange-brown, no free water, may be fault gouge or an erosional surface, mylonite?			250
79	- water at 79.3 m			252
80	LIMESTONE - grey, lithology uncertain, little water			254
81				256
82				258
83	LIMESTONE - shaley, fractured, grey, water bearing but little water to 83.8 m			260
84				262
85	- grey brown, thinly bedded, dolomitic			264
86				266
87				268
88	DOLOMITE - dark grey-green, clayey bands approximately 5 - 10 mm thick that contain numerous rock fragments and could possibly be called mylonite zones, extensively fractured, fractures are water bearing but mylonite debris is preventing proper well development and keeping a high sediment load in the water			270
89				272
90				274
91				276
92	- interbedded clayey bands and shale from 91.4 m			278
93				280
94	- fractured, appears weathered			282
95				284
96				286
				288
				290
				292
				294
				296
				298
				300
				302
				304
				306
				308
				310
				312
				314
				316

WATER CONTENT-% : ●
PLASTIC LIMIT (W_P) 20 40 60 80 LIQUID LIMIT (W_L)

COMPRESSIVE STRENGTH
Unconfined..... ▲
Pocket Penetrometer..... Δ
TSF 1 2 3 4 5
kPa 100 200 300 400

WET UNIT $\frac{kN}{m^3}$ 16 18 20 22
WEIGHT-O P.C.F. 100 110 120 130 140 150

20 40 60 80
STANDARD PENETRATION: N- ■

eba

DEPTH TO WATER: ▼
DEPTH TO SLOUGH: —

COMPLETION DEPTH: 121.9 m	DATE DRILLED: 1982 02 18, 19, 20
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PROJECT: Old Crow Water Supply	HOLE NO.: WW 2	PROJECT NO.: 209-3546
LOCATION: Old Crow, Yukon	SURFACE ELEVATION:	
	DRILL: Schramm Rotadrill	

SAMPLE TYPE: ■ THIN WALLED TUBE ☒ SPLIT SPOON ▤ DISTURBED ▨ NO RECOVERY ⊞ CORE ☐ OTHER

DEPTH (m.)	SOIL DESCRIPTION	UNIFIED SOIL CLASS.	SAMPLE	DEPTH (ft.)
97	DOLOMITE - as above			316
				318
98				320
				322
				324
99				326
100				328
	- occasional "mylonite like" layers up to 250 mm thick, from 100.6 m			330
101				332
102				334
				336
103				338
104				340
				342
105				344
				346
106				348
107				350
				352
108				354
				356
109				358
110				360
				362
111				364
				366
112				368
113				370
				372
114				374
				376
115				378
				380
116				382
117				384
				386
118				388
119				390
				392
120				394
				396

WATER CONTENT-% : ●
PLASTIC LIMIT (W_P) — LIQUID LIMIT (W_L)
20 40 60 80

BOTTOM OF CASING

COMPRESSIVE STRENGTH
Unconfined..... ▲
Pocket Penetrometer..... Δ
TSF 1 2 3 4 5
kPa 100 200 300 400

WET UNIT $\frac{kN}{m^3}$ 16 18 20 22
WEIGHT-O P.C.F. 100 110 120 130 140 150

20 40 60 80
STANDARD PENETRATION: N- ■

DEPTH TO WATER: ▼
DEPTH TO SLOUGH: —

COMPLETION DEPTH: 121.9 m	DATE DRILLED: 1982 02 18, 19, 20
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LOCATION: Old Crow, Yukon	SURFACE ELEVATION:	
	DRILL: Schramm Rotadrill	

SAMPLE TYPE: ■ THIN WALLED TUBE ☒ SPLIT SPOON ▤ DISTURBED ▨ NO RECOVERY ⊞ CORE ☐ OTHER

DEPTH (m.)	SOIL DESCRIPTION	UNIFIED SOIL CLASS.	SAMPLE	DEPTH (ft.)
121	DOLOMITE - as above			394
				396
	- increased water flow noted at 121.3 m			398
122				400
	END OF HOLE (121.9 m)			402
123				404
124	NOTE: No more drill stem; artesian water conditions encountered. Flow from top of casing approximately 2.3 L/s at time of drilling.			
125				
126				
128				
129				
130				
131				
132				
133				
134				
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142				
143				
144				
145				

WATER CONTENT-% : ●
PLASTIC LIMIT (Wp) — LIQUID LIMIT (W_L)
20 40 60 80

COMPRESSIVE STRENGTH
Unconfined..... ▲
Pocket Penetrometer..... △
TSF 1 2 3 4 5
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WET UNIT $\frac{kN}{m^3}$ 16 18 20 22
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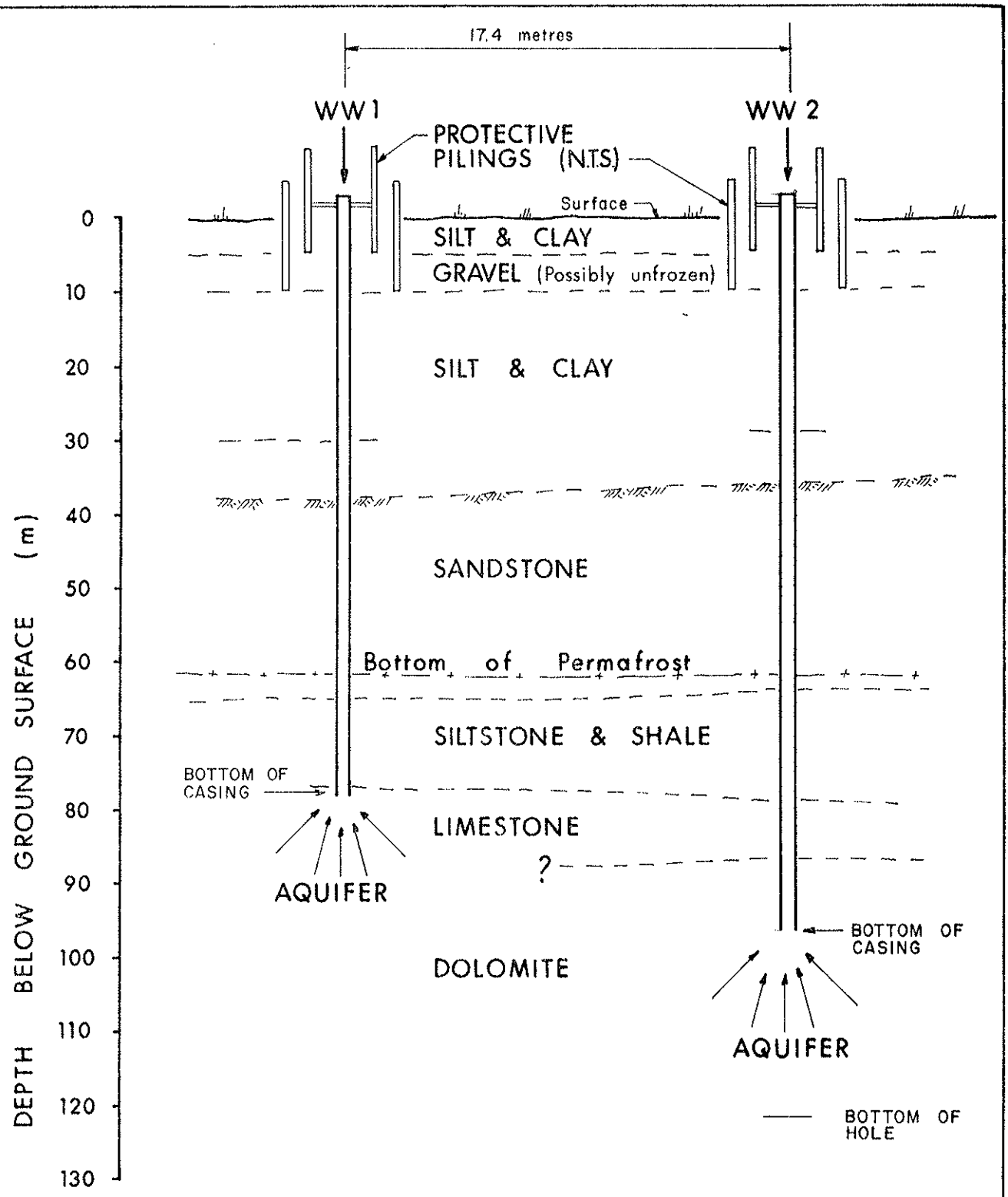

GENERALIZED SUBSURFACE CONDITIONS
WATER WELL SITE
OLD CROW, YUKON

NOTE
HORIZONTALLY N.T.S.

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