

CANADIAN EMPIRE EXPLORATIONS LTD.  
YUKON OLYMPIC PROJECT

Yukon territory  
Canada

GEOLOGIC DRILL LOG

Drilled By: CARLOW DRILLING  
VIC / Gerry

DRILL HOLE NO. 02 YO1 - 002

Logged By: B. Thurston

Date: Nov 18/02

UTM Northing (m): UTM 7216616  
UTM Easting (m): 07W 634798  
Elevation (m):  
Total Length (m): 210.46m  
Collar Core Size: HQ  
Reduction Depth: 51.82m NQ  
Proposed Hole No.:

Area: Hwy Showing  
Date Started: Nov 16/02  
Date Completed: Nov 21/02  
Data Entry:  
Checked By:  
Casing Depth (m): 8.23  
Casing (In/Out): Out.

Survey:	Depth	Azimuth		Dip	
		Rd.	Cor.	Rd.	Cor.
Compass	<u>Ø</u>	338		45	
ALID	210m	—			

Sample Series: 13454-13476

Assay Certificate No(s):

Graphic Log  
(m) Z L S M

Interval (m)		Zone Code	Rock Code	Sulph Code	Structure						Alteration				Mineralization									
From	To				From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%		
0	1	OVB	OVB		0.00	8.23					He	S			Dis	Tr					Mag	Tr		
1	2																							
2	3																							
3	4																							
4	5																							
5	6																							
6	7																							
7	8.23		BX		8.23	22.00			Bx		Fe	W					LOS	Tr			Gn	Sp?		
8.23	9																							
9	10																							

Breccia Heterolithic Bx w banded-laminated Fragments of very weakly carbonaceous siltstone? Pores. Fragments are mostly angular w sharp, clear edges → range from mar-size to 10cm. \*Clust supported w ~75% frags in a Black to Green-Grey v.f.g. matrix ± Py secondary. \*Fragments are grey to Black & heavy

Logged By: B. Thurston

Date: Nov 18/02

(m)	Graphic Log				Interval (m)	Zone Code	Rock Code	Sulph Code	Structure					Alteration			Mineralization																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Z	L	S	M					From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
11					10	11																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

Logged By: B. Thurston  
Date: Nov 18/02

Graphic Log					Interval (m)	Zone Code	Rock Code	Sulph Code	Structure					Alteration				Mineralization								
(m)	Z	L	S	M					From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%
26					25	26		Bx		22.66	32.35					Ksp	W	Si	M		LoS	Tr				
7					26	27										Fe	vw.									
28					27	28																				
29					28	29																				
30					29	30																				
31					30	31																				
32					31	32.35																				
33					32.35	33A																				
34					33	34																				
35					34	35																				
36					35	36																				
37					36	37																				
38					37	38		ARGL		32.35						Fe	vw			Fr	<1					
39					38	39																				
40					39	40																				

Core is soft to scratch, Broken surfaces are very irregular but show Bedding (slaty cleavage?) on a 2 mm-scale b/w 15-25°.

Logged By: B. Thurston  
Date: Nov 18/02

Graphic Log					Interval (m)		Zone Code	Rock Code	Sulph Code	Structure						Alteration				Mineralization													
(m)	Z	L	S	M	From	To				From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%						
41					40	41				#Py is common as irregular flat patches on Fractures +1% total.																							
										# Tr white carb fracture fill is very rare w assoc Py & v. rxn to HCL																							
2					41	42				# Fe stain on Fractures is observed every 3-5m - Very weak.																							
										UC. 32.35 Ck 35																							
43					42	43				34.0 34.5 Bed 12 *colour laminations																							
										35.1 35.2 Bed 15																							
					43	44				38.0 39.0 Bed 25																							
44										# Core Fractures @ 25-35° & a platyness is observed almost shaley.																							
					44	45				Core also fractures @ 60-80° against Bedding Planes.																							
45										43.9 44.30 Bed 15°																							
					45	46																											
46																																	
					46	47																											
47																																	
					47	48				47.0 47.3 Bed 10'																							
48																																	
					48	49																											
9																																	
					49	50		TRANS		50.0 51.00 * MAG+Qtz+He+Py+CPy Van Fragments in SH Transition to																							
50										50.80 51.00 Bed/SH 10-15°																							
					50	51		ARG		51.00 65.7 He m chl w 40.5 Tr MAG 40.5																							
51										ARGILLITE continued but w Qtz+He+Py+CPy+MAG veinlets (to																							
					51	52				rare veins) w irregular He envelopes to veins & microfractures.																							
52										# Fractures 20mm have He envelopes up to 5mm - larger fract's																							
					52	53				have envelopes up to 2 cm red grey colour. He in veins is																							
53										Bright Red. * Core is still as above only w minz & CPy+chl grey																							
					53	54				Veins 10-25cm Ave down to 1cm less common. No Py?																							
54																																	
					54	55			*	51.00 51.20 CTC 35° *Green Grey aphanitic mud? marking SH? w																							
55										51.60 51.61 CTC 25° Bedding/Flow? @ 35° * He-Envelopes start																							

after this point. @ 51.60 Very sharp 25° contact of green w Parallel Fracts w He envelopes against unaltered Arzillite.

Logged By: B. Thurston

Date: Nov 20/02

Graphic Log					Interval (m)		Zone Code	Rock Code	Sulph Code	Structure						Alteration				Mineralization							
(m)	Z	L	S	M	From	To				Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%		
56					55	56																		* Actually the He envelopes on Fracts w Mag + Qtz + He ± Py in Veins. & Fracts is in another Rock that is intruded within the Argillite.			
7					56	57																		* sharp contacts usually sheared mark the zones & often the zones run almost parallel to C.A. @ 5-20°. The Host Rock is slightly more med grey than the dark grey argillite & has 0.1mm whitish specs? in the aphanitic host. * often the argillite will show a whitish envelope to fractures near contacts to ~ 1m.			
58					57	58																					
59					58	59																					
60					59	60																		51.00 51.62 U.C. 35° * He envelopes + Mg + He + Py + Qtz veinlets/fracts L.C. 25° sharp			
61					60	61																		52.3 52.85 Fr 20° * Fract's in Argillite @ ~ 20° w Green-Grey envelopes 52.85 52.86 22° U.C. 22° * Sharp u.c. shear w He veinlets/fractures < 1mm -			
62					61	62																		52.99 53.00 40° * 1cm shear - sharp @ 40° Hem continues			
63					62	63																		53.00 54.35 He 5° * He + Mag envelopes ~ 5° to C.A. 54.35 54.40 25-30° CTC 25°			
64					63	64																		* Argillite - slaty - dark grey to black. 55.55 55.85 * Qtz (80%) + Chl (20%) ± Cpy Tr			
4					64	65																		56.10 56.20 * Qtz + Chl + Cpy (Tr) + Black? 10cm // white black banding @ 45° 56.2 59.0 * Argillite - slaty - dark grey to black Homogeneous			
65					65	66																		59.0 60.9 Fr 20° * He on Fracts @ 20° strong No Envelopes. white specs at Fr 60.9 60.95 Vn 55° * Qtz + Chl + Cpy + Carb. L.C. 55° w Shatter Fract's @ 55° P.			
66					66	67																		60.95 61.35 Fr 20° * Core Alt'd green-grey w He + Mag. * Envelope of Qtz + Carb. 62.00 62.45 L.C. 70° * Qtz + Chl + Carb + Cpy + Aphanitic Green Mud			
67					67	68																		62.45 63.40 Alt'd light green aphanitic w He rare. 63.40 64.55 U.C. 5° * He Envelopes pervasive 1-2cm w white specs to Host R.			
68					68	69																		L.C. 10° + carb			
69					69	70																		* only true He + Mag + spec He + Qtz + Py Vn. sharp @ 50° 64.25 64.27 Vn 50° * Qtz + Carb + Chl + Cpy Vn. L.C. assoc w St. 65.25 65.38 Vn 60° * Qtz + Carb + Chl + Cpy Vn. as Frag's in St? Shear is			
70					70	71																		65.38 65.65 L.C. 65° * Qtz + Carb + Chl + Cpy Vn. as Frag's in St? Shear is			
																								fractured & No Angle. He Envs Here.			
																								66.40 66.41 Vn 60° * 1cm Qtz + Chl + Cpy Vn. cutting α Py + He Vn.			

Page 5 of 15

Logged By: B. Thurston

Date: Nov 20/02

Graphic Log					Interval (m)		Zone Code	Rock Code	Sulph Code	Structure						Alteration				Mineralization													
(m)	Z	L	S	M	From	To				From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%						
					70	71		ARGL		65.7	70.00									Tr					GA	? Tr							
71																																	
					71	72				Argillite	Slaty, dark gray to black, w Injections? Intrusions of a med grey, aphanitic Rock often as small 1cm veins? but at times parallel to core Axis. This grey rock is not Sil! but is much harder than the Argillite.																						
73					72	73																											
					73	74																											
74										73.7	73.71			Int 25°	* Intrusive? Irregular fold like.																		
					74	75				73.8	73.82			Vn 60°	* 3-12mm Veinlets of Qtz w Tr Cpy																		
75										73.9	75.4			Int 5°	* Intrusive? // to C.A.																		
					75	76				74.8	74.81			Vn 60°	* 4mm Veinlets of Qtz.																		
76										80.40	80.41			Vn 50°	* 5mm + 1mm Qtz Veins w Tr Cpy																		
					76	77				75.75	75.76			Int 25°	* Intrusive? ~1cm irregular Band.																		
77										80.3	80.301			Fr 15°	+ Cpy in Qtz Fract @ ~15°.																		
					77	78				82.50	90.0			Int 5°	* King the Hole down Intrusive. in 2' out of Ang.																		
78																																	
					78	79				* Note in some instances i.e. 93.-94m looks like bedding not intrusion. other contacts are definitely structural either shear - fault most intrusive. Sharp but irregular boundaries generally 5-15° i 25-35° to C.A.																							
80																																	
					79	80																											
81																																	
					80	81																											
82										79.35				Fr 50°	* 2mm veinlets ~ 4 of them 45-50°																		
					81	82				83.				GA?	* grey metallic w Cpy blebs on Fract 2mm.																		
83										85.05	85.08			Fr 50°	* Qtz																		
					82	83				86.6				Fr 60°	* Qtz																		
84										87.2	89.22			Vn 50°	* 2cm Intrusion?																		
					83	84				90.				Fr 20°																			
85																																	
					84	85																											



Logged By: B. Thurston

Date: Nov 21/02

Graphic Log					Interval (m)		Zone Code	Rock Code	Sulph Code	Structure						Alteration				Mineralization							
(m)	Z	L	S	M	From	To				From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%
					100	101							99.4														
101													99.65														
					101	102							99.75														
2													100.7														
					102	103							100.8														
103													101.2														
					103	104							101.25														
104																											
105					104	105							* Qtz fract's are in Both rock types but seem to favor the harder md grey Rock. (Brittle Fracture?)														
					105	106																					
106													102.5														
					106	107							104.2	104.25													
107													104.5	104.7													
					107	108																					
108													105.45	105.5													
					108	109							105.92														
9													105.92	106.5													
					109	110																					
110													107.4														
					110	111							109.65	109.7													
111																											
					111	112							110.1	110.2													
112																											
					112	113																					
113													110.35	110.4													
					113	114							110.6	110.7													
114																											
					114	115							113.1	115.													
115																											



CANADIAN EMPIRE EXPLORATIONS LTD.  
YUKON OLYMPIC PROJECT

GEOLOGIC DRILL LOG

DRILL HOLE NO. 02 Y01 - 002

Logged By: B. Thurston  
Date: Nov 21/02

Graphic Log					Interval (m)		Zone Code	Rock Code	Sulph Code	Structure						Alteration				Mineralization							
(m)	Z	L	S	M	From	To				From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%
116					115	116						U.L	35°	* Intensive?	Paralleling	C.A											
7												M.L	30°														
					116	117						M.L	5°														
												L.L	45°														
118					117	118						Fr	45°	* 3-4 Qtz. + Cpy													
					118	119						U.L	5°	* Intensive.													
119												CR	5°														
120					119	120						Blk															
					120	121			*			Fr	45	2# 2mm Cpy in Qtz + Carb Vain													
121												Fr	60	3 multiple Fracts.													
122					121	122																					
												120.85		Fr	45	* Qtz + Carb.											
123					122	123						121.3	121.45	Fr	40	* Qtz + Carb.											
												122.4		Fr	25	* Carb. 1											
4					123	124						123.1		Fr	40	* Carb + Qtz											
												123.5		Fr	65°	* SH? 1cm Carb ± Qtz.											
125					124	125																					
												126.5	128	U.L	10°	Intensive?											
126					125	126							128	L.L	10°	* 20cm Strong Banding											
												128	132.8	U.L	10°	IN & out along contact											
127					126	127							132.8	L.L	10°												
												129.1		Fr	30°	* Carb ± Qtz.											
128					127	128																					
												132.9	133.25	Fr	25	* Qtz + Carb 2-3 0.1mm.											
129					128	129																					
130					129	130																					

Logged By: B. Ilmungen

Date: Nov 21/02

(m)	Graphic Log				Interval (m)	Zone Code	Rock Code	Sulph Code	Structure					Alteration				Mineralization										
	Z	L	S	M					From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%		
131					130				Argillite	Black - stony - soft, w med grey																		
									Rock often	10-20° or Paralling L.A., Often																		
					131				contacts (Flow Banding?)	11 the angle of contact.																		
									142.7	147.85 m																		
133					132				* @ 142.70 m Parallel Pebble Dyke or Cong Bed to 143.1 m @ 0-15° u.c.																			
									then L.C. is irregular & intrusive against a 35cm Sil. Dyke / sil																			
134					133				L.C. Sharp @ 20° w Argillite, 35cm Arg 20° L.C. more sil grey																			
									to 144.07m L.C. Sharp Dyke-like w Arg w rounded fragments																			
135					134				of grey material u.c. sharp & undulating ~ 35° L.C. sharp @ 45°																			
									& Buck into sil grey w Banding to 145.35 L.C. ~ 20° w Black																			
136					135				Arg. w a couple rounded grey frags in Argillite. Arg to																			
									145.95m Bx-sh-contact w Grey sil. But 41cm Pebble-like cong. (Kimmer																		Peb)	
137					136				at contact. to 146.40m where mixing of Arg & Grey occurs																			
									for ~ 50cm w contacts of 10-35° sharp but undulating. to 146.8m																			
138					137				146.8m to 147.4m Argillite Then a 5cm undulating but sharp																			
									Boundaries eg Pebble bed or dyke? Then Argillite to 147.6m in																			
9					138				sharp contact w Sil Grey Rock @ 20° u.c. to 147.85, L.C. obscure																			
									w Argillite.																			
140					139																							
									133.25 - 142.7m																			
141					140																							
									133.25 - 135.80 - In & out Arg. & sil. grey 10-15°																			
142					141				135.8 136.40 - sil. grey 15° u.c.																			
									136.4 - 137.2m - Argillite w some sil grey																			
143					142				137 - 137.30m - sil. grey w Banding - Bedding strong w u.c. & L.C. @ 10°																			
									137.3 - 139.8 - Grey Argillite.																			
144					143				139.8 - 140.4 - sil. grey L.C. 12° Banding 12° L.C. ~ 12° getting less;																			
									140.4 - 142.7 - Mostly Arg. w less sil. grey @ 10°																			
145					144																							
									* 40.1% Carb + Qtz Hard Fractures 75% in sil. grey 25% in Arg. + Cr.																			

Logged By: B. Thurston  
Date: Nov 21/02

Graphic Log					Interval (m)	Zone Code	Rock Code	Sulph Code	Structure					Alteration				Mineralization								
(m)	Z	L	S	M					From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%
146					145	146				147.85																
7					146	147				147.85 - 151.6																
										151.6 - 152.2																
148					147	148																				
										152.1	153.2															
149					148	149				153.2	153.86															
										153.86	154.3															
150					149	150																				
										154.3	154.5															
151					150	151				154.5 - 156.06																
152					151	152																				
										156.06	157.95															
153					152	153				157.95	158.75															
4					153	154																				
										158.75	161.09															
155					154	155																				
156					155	156																				
157					156	157																				
158					157	158																				
159					158	159																				
160					159	160																				

CANADIAN EMPIRE EXPLORATIONS LTD.  
YUKON OLYMPIC PROJECT

GEOLOGIC DRILL LOG

DRILL HOLE NO. 02 YO1 - 002

Logged By: B. Thurston

Date: Nov 21/02

Graphic Log					Interval (m)		Zone Code	Rock Code	Sulph Code	Structure					Alteration			Mineralization							
(m)	Z	L	S	M	From	To				From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv
161					160	161				161.0	163.8				- Sil. Grey	- multiple Fracts w	Carb + Qtz								
2					161	162				163.8	164.2				- Cong. Bed ~ 16° to C. A.										
163					162	163									the bed is only 1/2 core at the thickest part.										
															Pebbles are rounded & sil. some Elongate 1cm x 3cm max. - Contact undulating parallel to C. A.										
164					163	164				164.2	170m				- Paralleling Beds of Argillite & Sil. Grey contacts										
165					164	165									0-20° Banding - Bedding? in 1/2 Sil Grey Rock.										
166					165	166									L.L. at crush zone of fault. Last solid core @ ~ 16°										
167					166	167									- White Carb + Qtz or Qtz + Carb veins mostly in										
															Grey Sil. but also in some Arg.										
168					167	168				170	178				- Fault Zone. Blocky to Crush Zones 25%										
9					168	169									Solid Pieces of core of Arg & Sil. Grey. Rare										
															Angles are observed but 5°-15° are seen @										
170					169	170									176-176.4m										
										178	182.3				- Heald Fault Zone or Edge of Fault zone w										
171					170	171									increase in Grey Qtz & White Qtz irregular										
															Section in core - Not veins but part of Healing										
172					171	172									of Shear/Fault Zone. Irregular boundaries &										
															inconsistent 2cm wide pinching to nothing.										
173					172	173									* Some Siliceous areas w irregular Qtz Stock										
															work w fuzzy boundaries										
174					173	174				181.93	181.95				Un 30° * Qtz + Carb + Chl vein sharp boundaries										
175					174	175																			

Logged By: B. Thurston  
Date: Nov 22 / 02 I. Am

Graphic Log					Interval (m)		Zone Code	Rock Code	Sulph Code	Structure						Alteration				Mineralization									
(m)	Z	L	S	M	From	To				From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%		
176					175	176				182.3	185.42			* Argillite & Grey weakly sil. material	50/50														
														Low Angle contacts and sheared contacts															
					176	177																							
										185.42	186.5	-		Arg w 70% sil-Qtz-grey green. w chl & Grey Vein Qtz															
					177	178								or Pebbles (obscure). These are structural															
178														contacts w irregular contacts usually sharp.															
					178	179								w undulating angles. L.C. w banded sil.															
179														material.															
					179	180				186.5	188.75	-		Sil. Gray Banded / Bedded unit.															
180														U.C 55° Banding.															
					180	181								M.C 45° Banding.															
181														Bits & pie irregular Arg. sections look															
					181	182								injected in core or structural Not @ Sed.															
182														unless injected before solidification.															
					182	183																							
183										188.75	197	-		Mix Argillite Black & Sil. Dark-med grey Rock.															
					183	184								25° angles & 11 to C.A. 196-197m Fr P to C.A															
4														Core is split.															
					184	185								* irreg Qtz fract Filling in sil. Rock. Not as veins															
185														but partial irregular veins 0.01% of section.															
					185	186								mostly solid core.															
186																													
					186	187				197	204	-		Mix Argillite & grey sil. w the same irregular															
187														very sil. Qtz (Grey) sections - Intrusion w white															
					187	188								Qtz stock work / Fracture fill Fuzzy Boundaries															
188										198.7	198.73		Un	25°															
					188	189				198.3	198.7		Un	0°															
189										200.75	201.05		Un?	20°															
					189	190								intruded in sil. Grey															
190																													

CANADIAN EMPIRE EXPLORATIONS LTD.  
YUKON OLYMPIC PROJECT

GEOLOGIC DRILL LOG

DRILL HOLE NO. 02 YO1 - 002

Logged By: B. Thurston

Date: Nov 22/02

(m)	Graphic Log				Interval (m)		Zone Code	Rock Code	Sulph Code	Structure						Alteration				Mineralization									
	Z	L	S	M	From	To				From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%		
191					190	191																							
?					191	192																							
193					192	193																							
194					193	194																							
195					194	195																							
196					195	196																							
197					196	197																							
198					197	198																							
9					198	199																							
200					199	200																							
201					200	201																							
202					201	202																							
203					202	203																							
204					203	204				204-208.46 - Solid, mostly Amygdalite to 206.7m * Blocky 206.7-207.50 - 15° to C.A. in Fault related surfaces 0-15° crush. * B Solid 207.5-208.46m - Fractured mod.																			
205					204	205																							

CANADIAN EMPIRE EXPLORATIONS LTD.  
YUKON OLYMPIC PROJECT

GEOLOGIC DRILL LOG

DRILL HOLE NO. 02 Y01 - 002

Logged By: B. Thurston

Date: Nov 22/02

Graphic Log					Interval (m)		Zone Code	Rock Code	Sulph Code	Structure						Alteration				Mineralization							
(m)	Z	L	S	M	From	To				From	To	Shr	Stk	Opn	Ang	Type	Ints	Type	Ints	Type	Py	Cp	Cc	Mc	Cv	Opn	%
206					205	206																					
7					206	207																					
208					207	208																					
209					208	209																					
210					209	210																					
211	E	O	H		210	<del>211</del> 210.46																					
212					211	212																					
213					212	213																					
4					213	214																					
215					214	215																					
216					215	216																					
217					216	217																					
218					217	218																					
219					218	219																					
220					219	220																					