

036

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1

TENEMENT NAME TENTH REGION No. 51M/75

PLAN - MAP REFERENCE TASH 2 TASH 14

CO-ORDINATES 3669.9N 5180.11E AZIMUTH 360° grid DRILLERS S. RIMAK COMMENCED 6.3.81 DEPTH 142.0m HOLE No. TLC3
 RL COLLAR 244.5m INCLINATION -50° DRILL TYPE BOYLES 37 COMPLETED 13.3.81 CASING LEFT 3x3m NW rods. 26667/26668 DPO No(s)

DEPTH		Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ANALABS...)														
From (M)	To (M)										Cu	Pb	Zn	Ag	Sn	W	Am								
					TRICONED TO 6.0m - NO CORE																				
2.0	13.5	0.5	NQ	M	6.0-13.5 MAGNETITE	Highly weathered to 6.0m.	877578	0	3.0m				50	15	420	0.5	10	x							
13.5	16.2	1.2	to		Very poor recovery; mostly black granular magnetite 80-90%, with some interstitial clay.	6.0-13.5 Soft crumbly puggy clay matrix - rock was originally calc silicate material	877579	3.0	6.0				40	15	335	0.5	15	x							
16.2	19.3	2.5	68M				877580	6.0	9.0				35	15	320	1.0	15	x	x						
19.3	22.5	3.0			13.5-16.1 CALC SILICATE ROCK	with much dissem. mag. and discrete lenses																			
22.5	25.5	2.8			Pale green fibrous skarn rock - tremolite	& massive mag.	877582	6.0	13.5	0.5			790	20	3200	2.0	20	x							
25.5	28.5	3.0			diopside with patches of green chlorite		583	13.5	15.5	0.2			1700	70	1.3%	1.0	30	x							
28.5	31.3	2.8			and epidote with 5-7% mag and trace sp		584	15.5	16.1	0.6			2750	45	6.0%	2.0	35	x	0.017						
31.3	34.3	3.0			veining.																				
34.3	37.0	2.1			16.1-19.6 CALC SILICATE ROCK WITH MAGNETITE.	Mag 25-30%, with 2.3% intergranular py	585	16.1	16.35	0.25			1350	90	3.0%	2.0	6	x							
37.0	40.0	2.7			As above, mag dissem and in massive	and 1-2% blebs of sp.	586	16.35	18.1	0.85			920	85	7.4%	3.0	20	x							
40.0	43.5	3.5			bands to 10cm, 2-5%.		587	18.1	19.0	0.9			180	15	2.5%	0.5	20	x							
43.5	46.5	3.0			Gradual Change.		588	19.0	19.5	0.5			365	25	2.6%	1.5	15	x	0.017						
46.5	49.5	3.0		CSS	19.6-27.1 CALC SILICATE SKARN ROCK.	Mag dissem in narrow alteration zones	589	19.5	21.0	1.5			175	20	3.3%	0.5	20	x							
					As above, but magnetite decreases to 2-3%.	and small veinlets. 3-5%. Strong trace	590	21.0	22.4	1.4			40	15	2.2%	1.0	25	x							
					Some green actinolite? and ? hornblende.	Sp.	591	22.4	23.4	1.0			510	15	11.5%	0.5	3	x							
					22.4-23.1 Green epidote rock with mag 3-5% and	sphalerite 10-15%.	592	23.4	24.4	0.7			25	5	1.8%	0.5	10	x	0.008						
					23.1-24.4 Green epidote rock alternating with	23.1-24.4 Sp dissem 1-2% throughout	593	24.4	26.0	1.6			200	15	2.7%	1.0	7	x							
					bands of massive magnetite to 30cm		594	26.0	27.1	1.1			610	10	1.4%	1.0	10	x							
					24.4-27.1 Massive granular pale green rock	24.4-26.0 2-3% Sp throughout in small veinlets	595	27.1	28.5	1.3			220	10	1.4%	1.0	20	x							
					- diopside/tremolite, with 10-20% crystalline	with mag 1-2%. Trace py.	596	28.5	29.9	1.4			50	15	8000	1.0	20	x	x						
					dark green chlorite and abundant epidote	26.0-27.1 Mag dissem throughout as small	597	29.9	30.9	1.0			155	5	4700	1.0	15	x							
					alteration.	stringers 5-10% with trace sp. py.	598	30.9	32.9	2.0			35	5	3200	0.5	4	x							
					Contact irregular.		599	32.9	34.9	1.8			35	10	3450	0.5	15	x							
				CSS	27.1-47.7 CALC SILICATE ROCK	Traces py, po and sp.	600	34.9	36.9	1.4			15	5	1550	0.5	15	x	x						
					Mottled white and green f.g. matrix -	Thoroughly brecciated fabric which has been	601	36.9	38.9	1.5			30	5	1800	0.5	15	x							
					tremolite/diopside, with major later dark	altered/metamorphosed, giving the unusual	602	38.9	40.0	1.1			35	10	2200	0.5	9	x							
					green chloritic alteration, some epidote	spotted texture and crude irregular banding	603	40.0	40.5	0.5			250	35	7250	x	6	x							
					veining and small patches of brown ? idocrase.	Extensive fracturing and brown dendritic staining.	604	40.5	42.5	2.0			15	15	1050	x	10	25	x						
						From 44.3 Gradually reverts to a more massive	605	42.5	44.5	2.0			20	15	1850	x	15	x							
						fabric reminiscent of 24.4-27.1 m.	606	44.5	46.0	1.5			25	40	1950	0.5	6	x							

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

TENEMENT NAME TENTH REGION No. SIM/15

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. T.h.C.3

RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s).....

DEPTH		Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by.....)									
From (M)	To (M)										Cu	Pb	Zn	Ag	Sn	W	Au			
49.5	52.5	3.0			Contact 47°		877607	46.0	47.4	1.4	70	15	2750	x	10	x				
52.5	55.5	3.0			47.7-51.4 MAGNETITE WITH SERPENTINITE.	Mag. 40-60% ; sp dissem throughout 1-2%	552	47.4	49.0	1.6	890	25	2.8%	1.0	6	x	x			
55.5	58.5	3.0			Black crystalline magnetite, crudely banded	py as blebs to 20mm, 1% ; po as rare	553	49.0	49.8	0.8	270	25	2.55%	0.5	6	x				
58.5	61.5	3.0			± 40° WCA. The matrix is dark muddy green	interstitial blebs and in small veinlets with	554	49.8	51.4	1.6	285	30	2.95%	0.5	6	x				
					serpentinite, with some remnants of greyish	py in greyish corestone material, 1-2%.	932288	26.0												
					calc silicate rock and small white blebs of		289	28.4												
					refractory minerals (residuals from serpentinite		290	52.6												
					alteration?)															
					Contact 35°															
					51.4-54.0 CALC SILICATE WITH MAGNETITE	Banded 40° in upper 1m.														
					Yellowish grey crystalline tremolite-dioptase-	Mag 15-25% dissem throughout with	555	51.4	54.0	2.6	185	30	2.5%	0.5	4	x				
					epidote (?) matrix with heavily dissem. mag 20-25%	serpentinite; sp 1-2% in veinlets and stringers														
					The yellowish colour is due to incipient	; po 1-2% as interstitial blebs ; trace														
					serpentinisation - small stringers of translucent	py as interstitial blebs.														
					serp. 10-15%.															
				S/M	54.0-56.4 SERPENTINITE WITH MAGNETITE.	54.0-55.2 Mag 40-50% ; sp 5-7% ; py 2-3%														
					Almost black massive serpentinite with bands	55.2-56.4 po 50-60%, virtually massive	556	54.0	55.2	1.2	390	30	1.45%	0.5	x	x	0.017			
					of fine grained magnetite, or heavily dissem	55.5-55.9, with py/marcasite 2-3%, sp	557	55.2	56.4	1.2	2450	25	1.45%	0.5	x	x				
					pyrrhotite.	1-2%, trace cp?														
					Gradual Change															
				CSS/M	56.4-64.9 ALTERNATING CALC SILICATE															
					SKARN ROCK AND MAGNETITE/SERPENTINITE.															
					56.4-57.2 Massive granular pale green rock	56.4-57.2 po 5-7%, dissem along	558	56.4	57.2	0.8	200	25	4000	0.5	10	x				
					- diopside/tremolite, with dark green chlorite?	weak breccia cracks at approx 50° WCA														
					and abundant epidote alteration	, traces sp, py.														
					Contact 60°															
					57.2-57.8 CALC SILICATE WITH SERPENTINITE	57.2-57.8 po 10-15%, mag 10%, py, sp	559	57.2	57.8	0.6	640	25	7700	0.5	3	x				
					See above 51.4-54.0.	1-2%. Dissem; some 3-5 cm bands of														
					57.8-59.1 Mottled grey rock - tremolite, with	magnetite. py/marcasite appears to be after po.														
					clots of serpentinite and much po.	57.8-59.1 po 30-35% ; sp 1-2%, traces py.	560	57.8	60.0	2.2	565	20	6150	x	x	x	x			
					Contact 40°															
					59.1-59.5 Magnetite 30-35%, associated	59.1-59.5 po 20-25% ; mag 30-35% ; sp 1-2%														
					with black serpentinite.															

038

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 3

TENEMENT NAME TENTH LEGION No. SIM/75

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. TLC 3

RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s).....

DEPTH		Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by.....)								
From (M)	To (M)										Cu	Pb	Zn	Ag	Sn	W	Au		
61.5	64.5	3.0			Contact 40° 59.5-60.0 As above, 57.8-59.1														
64.5	67.5	3.0			60.0-60.4 Massive magnetite	60.0-60.4 Mag 70-80%, po 1-2%, sp 1-2%.	877561	60.0	61.3	1.3	1350	20	8500	0.5	4	x			
67.5	70.5	3.0			60.4-61.3 Pyrrhotite in black serpentinite.	60.4-61.3 po 70-80%; sp 3-5%; py 1-2%.													
70.5	76.5	6.0			Contact 45° 61.3-62.6 As above 57.8-59.1	61.3-62.0 po 10%; sp 1-2% 62.0-63.6 po 10-15%; sp 1%; py 1%; some bands of black sep to 15 cm, 40° LCA.	562	61.3	62.0	0.7	500	20	6200	x	8	x			
					Contact 70° 63.6-64.0 Pyrrhotite in serpentinite	63.6-64.0 po 70-80%; py 2-3%.	564	63.6	64.0	0.4	1800	25	1350	1.0	3	x	0.008		
					Contact 70° 64.0-64.9 Transition zone - serpentinite and mag, po gradually decrease - a banded calc silicate rock becomes dominant (see below)	64.0-64.9 po 5-7%; patchily distributed and finely banded; strong trace sp. Weak py-serpentinite-calcite veinlets.	565	64.0	64.9	0.9	515	45	5950	x	x	x			
					Contact 65° Cst 64.9-67.6 CALC SILICATE ROCK	po 1%, dissem and in small veinlets. Strong trace sp, py.	566	64.9	66.2	1.3	70	30	1800	x	4	x			
					Crudely banded bone coloured mottled ? tremolite - diopside skarn rock.		567	66.2	67.6	1.4	185	40	4800	x	4	x			
					Lst 67.6-70.8 LIMESTONE	Banded 30-35° - recrystallisation or ? bedding. Trace py in calcite/serpentinite zones.	568	67.6	69.3	1.7	15	80	250	0.5	9	x	0.008		
					Grey crystalline impure limestone with minor serpentinite zones and tremolite/diopside with white calcite segregations.		877608	69.3	70.8	1.5	170	210	1500	1.0	6	x	x		
					Contact 55° Cst 70.8-71.5 CALC SILICATE ROCK		877347	70.8	71.5	0.7	25	30	100	1.0	25	20			
					Green epidote - tremolite - diopside rock with 30% pink crystalline garnets.														
					Lst 71.5-73.9 LIMESTONE	Mag dissem. throughout Lst or in crystalline patches with serp. and calcite	877609	71.5	73.0	1.5	90	195	1600	1.0	8	x			
					Gray crystalline limestone with serpentinite alteration and some finely dissem. mag. minor crystalline mag intervals with serp. and calcite, minor garnets.	3-5%. Po finely dissem. 1-2%; py in blebs 1%; trace sp.	610	73.0	73.9	0.9	510	410	5600	4.5	5	x			
					Cst 73.9-75.2 CALC SILICATE ROCK		611	73.9	75.2	1.3	170	80	1200	1.5	x	x			
					See 64.9 - 67.6 for description.														

202039

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 4
TENEMENT NAME Tenth Legion No. 51M/75
PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. T.L. C.3.
RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s).....

DEPTH		Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by.....)									
From (M)	To (M)										Cu	Pb	Zn	Ag	Sn	W	Au			
					Contact 35°															
76.5	79.5	3.0		Css	75.2-75.8 CALC SILICATE SKARN		877612	75.2	75.8	0.6	35	40	120	1.0	20	130	X			
79.5	82.5	3.0			See 70.8-71.5 for description.															
82.5	85.5	3.0		Lst	Contact 35° 75.8-76.9 LIMESTONE WITH SERPENTINITE	Mag 2-3% weak trace sp. po.	613	75.8	76.9	1.1	20	95	270	1.5	3	X				
85.5	88.5	3.0			Grey lst with olive green drab serpentine															
88.5	91.8	3.3			30% banded															
91.8	94.5	2.7			Contact 50°															
94.5	97.5	3.0		Csd.	76.9-78.5 CALC SILICATE ROCK	Fine serpentine veining.	614	76.9	78.5	1.6	15	60	250	0.5	10	20				
97.5	100.4	2.9			Green massive diopside rock with qtz segregations, minor garnets.															
100.4	103.5	3.1			Contact 40°															
103.5	106.5	3.0			Contact 40°															
106.5	109.5	3.0		Lst	78.5-79.4 LIMESTONE WITH SERPENTINITE	Banded 45° LCA; 10-12% serpentine	615	78.5	79.4	0.9	35	80	525	1.0	X	15				
109.5	112.1	2.5			See 75.8-76.9 for description	1-2% finely dissem. mag. trace py, sp.														
				Cst	79.4-80.4 CALC SILICATE ROCK	Traces po near contacts; weak calcite	616	79.4	80.4	1.0	75	40	390	0.5	8	65	X			
					See 73.9-75.2 for description.	veinlets with rare blebs py.														
					Contact 60°															
				Lst	80.4-90.1 LIMESTONE, altered.	80.4-81.7 Po dissem in lst 3-5%; sp 1%	617	80.4	81.7	1.3	240	650	6400	8.5	4	X				
					Grey crystalline rock with olive green serpentine banding 40-60° LCA. Very altered, with patches of bone white calc silicates, and more rarely green diopside rocks up to 0.8m thick throughout the interval with irregular contacts.	Patches dark green sep with calcite and garnets. Mag. dissem. up to 2% for the interval 81.7-85.8 Mag dissem in grey lst 2-3% trace po, trace py in fine calcite veining.	932292	86.1			THIN SECTION SAMPLE.									
					85.8-87.4 White calc silicate rock with brown serpentine alteration	85.8-87.4 Mag 2-3%, locally 10% dissem with brown sep alteration; po 1-2%, locally 20%, py in veinlets with mag 1-2%.	618	81.7	82.2	0.5	10	190	310	0.5	X	X				
					Contact 60°		619	82.2	83.8	1.6	15	65	150	0.5	3	X				
					87.4-89.5 po, finely dissem 3-7%	87.4-89.5 po, finely dissem 3-7%	620	83.8	84.2	0.4	20	430	770	2.5	X	X	X			
					Contact 60°		621	84.2	85.8	1.6	20	50	70	0.5	X	X				
					89.5-90.1 po, finely dissem 10%, banded.	89.5-90.1 po, finely dissem 10%, banded.	622	85.8	86.5	0.7	90	1200	2150	5.5	X	X				
					Contact 60°		623	86.5	87.4	0.9	70	825	450	4.0	X	30				
				Lst/Lst	90.1-111.5 CALC SILICATES WITH LIMESTONE.	90.1-98.5 Po dissem. in discrete intervals	624	87.4	89.0	1.6	70	150	210	1.0	9	X	X			
					Banded rock - alternating 10-20 cm intervals of yellow (serp alteration) and bone white calc silicates, finely banded 35-45°, and grey and white limestone intervals - finely banded 1-5mm white and black reagent segregated carbonated.	assoc. with silicified zones. Traces ultraline mag. in black fine bands in carbonate.	625	89.0	89.5	0.5	20	125	35	0.5	X	X				
					Contact 60°		626	89.5	91.2	1.7	30	45	235	0.5	X	X				
					111.5-104.2 Traces po with serp. in discrete zones.	111.5-104.2 Traces po with serp. in discrete zones.	627	91.2	92.0	0.8	55	25	50	1.0	9	X				
					Contact 60°		628	92.0	92.7	0.7	215	25	50	0.5	X	20	0.008			
					Contact 60°		629	92.7	93.6	0.9	25	65	690	1.0	7	20				
					Contact 60°		630	93.6	95.1	1.5	20	15	150	X	X	X				

DPO 200

041

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 6

TENEMENT NAME TENTH LEGION No. S.M. 75

PLAN - MAP REFERENCE

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. T.L.C. 3

RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s).....

DEPTH		Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by.....)								
From (M)	To (M)										Cu	Pb	Zn	Ag	Sn	W	Au		
33.5	136.5	2.9		Lst	Contact 25° 132.8-139.7 LIMESTONE, altered.	132.8-135.3 Ultrahine magnetite ^{in lct.} 5-10%; trace	87662	127.1	128.6	1.5	45	30	195	0.5	5	x			
136.5	139.5	3.0			See 80.4-90.1 for description. The rock	py in veinlets.	663	128.6	129.0	0.4	15	100	565	1.0	x	x			
139.5	142.0	2.5			has a banded 'striped' appearance - bands	135.3-139.7 Ultrahine mag in grey lst, 5%.	664	129.0	129.5	0.5	25	20	85	1.0	7	x	x		
					of yellow serpanthine with white calc		665	129.5	129.9	0.4	40	20	60	0.5	x	x			
					silicate or remobilised carbonates, mostly		666	129.9	131.3	1.4	30	95	410	1.0	x	10			
					< 1 cm thick.		667	131.3	132.8	1.5	15	50	185	0.5	x	x			
					136.8 Banding 40°		668	132.8	134.7	1.7	35	65	195	1.0	x	x	0.025		
					Contact 40°		669	134.7	135.3	0.6	10	120	700	1.5	x	10			
				Csd	139.7-142.0 CALC SILICATE ROCK.	139.7-142.0 Minor qtz - calcite veining.	670	135.3	136.5	1.2	5	30	250	1.0	x	x			
					Pinkish and greenish grey well banded		671	136.5	138.2	1.7	5	60	290	1.0	x	x			
					silicified ? Diopside-tremolite rock; alteration		672	138.2	139.7	1.5	15	35	155	0.5	x	x	0.017		
					colour bands 5-10mm. Some pink? Mn silicates		673	139.7	141.0	1.3	x	20	105	0.5	4	10			
					141 Banding 15°.		674	141.0	142.0	1.0	x	20	110	0.5	x	x			
					END OF HOLE 142.0 m.		932293	113.0											
							294	114.8											
							295	122											

} THIN SECTION SAMPLES

887042