

063

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

SHEET No. 1
TENEMENT NAME TENTH LEGION No. 53M/75
PLAN - MAP REFERENCE TASH 2 TASH 13
DEPTH 163.0m HOLE No. TLC9
DPO No(s) 30105
30106

4982.3 N
CO-ORDINATES 5261. E AZIMUTH 180° GRID DRILLERS S. RIMAK COMMENCED 7.5.81
RL COLLAR 249.3m INCLINATION -48.5° DRILL TYPE BOYLES 37 COMPLETED 19.5.81

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 ANA LABS)								
From (M)	To (M)										Cu	Pb	Zn	Ag	Sn	W	Au		
0.0	1.5	1.4	HQ		0-1.8 Surface rubble - magnetite and limonite scree.														
1.5	2.0	0.3	to 24m																
2.0	5.0	3.0			1.8 - QUARTZITES AND SILTSTONES	1.8-2.5 Yellow soft puggy clay with siltstone													
5.0	8.5	3.5			Yellow - brown weathered impure quartzite, fine bedding laminations with thin siltstone interbeds.	lags - highly weathered. No mineralisation.													
8.5	12.0	3.5			3.5 ? Bedding 60°	2.5-7.5 Quartzite beds weak qtz veinlets may have been same py, but now leached, bleached, fractured and weathered.													
12.0	15.0	3.0			4.3 Bedding 75°	7.5 - 21.0 Minor qtz veins, pitted, leached and weathered.													
15.0	18.0	3.0			7.7 Bedding 50°														
18.0	21.0	3.0			9.1 Bedding 45° ; 13.0 Bedding 60°														
21.0	23.5	2.5			Mostly quartzite to 7.5m														
23.5	25.5	2.0			then mostly siltstones with some thin shale laminae and thin qtzite interbeds														
25.5	28.5	3.0			to 14.2														
28.5	31.5	2.9			14.2-16.7 Massive pinkish brown quartzite														
31.5	34.5	3.0			16.7-18.5 Siltstones etc as for 7.5-14.2														
34.5	37.5	2.9			18.5 - Thinly bedded fgn. quartzites	21.0 - 21.6 Epidote - qtz veining at low angles to core, pronounced bleached/brown alteration haloes around veinlets 2-3 mm.													
					21.6 - 30.4 Gtz veins and segregations to 6 mm thick, traces py.														
			Change to HQ core 24m		30.4-30.9 Rhodochrosite - py veining to 32.1m	30.4-30.9 Gtz stockwork in breccia zone - 27 1-2% some chlorite	932201	30.4	30.9	0.6	50	25	75	7.5	65	20			
					32.1 - 35.6 highly altered, minor veining of the above with magnetite rich intervals that have been partially altered to haematite.	30.9-31.35 Vein - gtz, with pitted rhodochrosite, greenish chloritic material and 10% crystalline py to 5x5mm.	202	30.9	32.1	1.2	25	25	75	2.5	80	x			
						31.6-32.1 Vein - calcite - gtz - pink rhodochrosite, and green chloritic material with py in coarse crystals 10%.													

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

TENEMENT NAME TENTH LEGION No 53M/15

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. TLC9

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		
58.5	64.5	6.0			44.7-45.9 ^{hornblende, actinolite?} Green (chlorite) alteration; matrix is pink and white, hard and silicified.	44.7-45.9 Qtz-epidote veining, trace py	932210	44.7	45.9	1.2	x	25	175	2.5	140	x	0.025		
64.5	67.5	3.0			45.9-46.6 Black serpentinite with dissem mag and sediment inclusions - originally an impure carbonate rich shale?	45.9-46.6 Mag, dissem, and in veins with dark green serpentinite, 10%+5%	211	45.9	46.6	0.7	25	x	850	2.5	160	x	*		
					Contact 75° 46.6-47.5 See 44.7-45.9, above Contact 55°, irregular. 47.5-52.9 Pinkish brown and pale brown qtz-sericite rock. Totally altered, schistose fabric, disrupted	46.6-47.5 Dark green crystalline? hornblende -chlorite-? actinolite alteration and veining	212	46.6	47.5	0.9	x	x	125	5.0	200	x	0.383		
					47.5-52.9 Bedding 62° and brecciated; some weak bedding visible.	47.5-52.9 Traces very fine dissem. py. talcy material on sheared partings.	GRIND SAMPLES												
					Contact 75° 54.8-85.2 MAGNETITE	52.9-54.8 As above 46.6-47.5, lesser dark green minerals, 1% py in veins.	932785	47.5	50.0		98	13	103	1.3	5	170			
					54.8-55.1 Pale green serpentinised carbonates with 10-15% mag.		786	50.0	52.9		49	12	73	0.9	10	110			
					Contact 75° 55.1-59.1 Massive magnetite with 3-5% interstitial dark green serpentinite and traces of white refractory minerals as small remnant dots.		CUT SAMPLES												
					59.1-60.5 Yellow-green serpentinite with white refractory minerals and magnetite dissem throughout 40%	59.1-60.5 Trace interstitial pyrite.	932213	52.9	54.2	1.3	x	50	100	2.5	60	x	0.032		
					60.5-62.8 Massive mag. with grey and green serpentinite 3-5%.	60.5-62.8 Py dissem throughout, 3% some fine interstitial pyrrhotite?	214	54.2	55.1	0.9	x	50	150	5.0	230	x	0.042 0.008		
					62.8-64.1 Black shaly-looking serpentinite with 10-10% dissem mag and white speckles and bands of calcite														
					64.1-64.9 Yellow ^{green} serpentinised refractory residual minerals, with 30% mag dissem in bands and as clasts		932310	56.2m	Minerographic Sample.										
							215	55.1	56.6	1.5	25	75	350	5.0	5350	x	0.008		
							216	56.6	58.1	1.5	x	100	450	5.0	310	x	0.017 0.008		
							217	58.1	59.1	1.0	x	50	450	7.5	240	x	0.008		
							218	59.1	60.5	1.4	50	50	525	5.0	700	x	0.008		
							219	60.5	61.9	1.4	100	50	3250	5.0	1550	x	0.008		
							220	61.9	62.8	0.9	250	50	800	5.0	1750	x	0.035 0.008		
							221	62.8	64.1	1.3	75	25	375	2.5	2600	x	x		
							932311	63.4m	Minerographic Sample										
							222	64.1	64.9	0.8	25	300	625	2.5	210	x	0.008		

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From (M)	To (M)										Cu	Pb	Zn	Ag	Sn	W	Au		
67.5	70.5	3.0			64.9-65.9 Mag 70% in dark green serpentinite; trace white calcite.		223	64.9	65.9	1.0	50	100	500	2.5	480	x	0.008		
70.5	73.5	3.0			65.9-67.2 Massive mag 95% small veinlets grey ssp(?) py, magnetite as veinlets in last 30 cm, 20%.	- hard veinlets bluish grey f.gr. material - associated with Sn mineralisation? Present through most of the interval to 72.6 m.	224	65.9	67.2	1.3	150	75	500	2.5	9100	x	0.017		
73.5	76.5	3.0			67.2-67.7 Mag 35% in crystalline white calcite		932312	66.1m			Mineragraphic Sample.								
76.5	79.5	3.0			67.7-68.1 Yellow green serpentinised calc silicate minerals, white residual minerals, and py, disse, 5-7%.		225	67.2	67.7	0.5	100	75	800	2.5	2250	x	x		
					68.1-70.6 Mag 40-50% in crystalline white calcite mottled in places with minor green serpentinite. Py 1-2%, patchy.		226	67.7	68.1	0.4	250	150	3500	2.5	320	x	x		
					70.6-71.65 Mag 60-65% in acidic gangue which has been partially serpentinised; 1% py; 3-5% sp throughout	Some unusual fine bluish-grey material along fractures - f.gr. mag? with calcite.	227	68.1	69.6	1.5	150	25	1450	2.5	2700	x	0.008		
					71.65-72.0 Yellow-green serpentinised carbonates + residual minerals; mag 40%		228	69.6	70.6	1.0	175	75	5500	2.5	1400	x	0.008		
					72.0-72.6 Mag 50-60% disse in grey gtz - carbonate matrix.		932313	70.0			Mineragraphic Sample.								
					72.6-73.9 Residual calc silicate minerals and yellowish-green serpentinite alteration; mag disse 30-40% in places; overall 10-20% po with grey calc silicates 2-3%, traces py, sp.		229	70.6	71.65	1.05	100	150	1.5%	2.5	2600	x	x		
					73.9-77.0 Mag 30-40% in a grey and green serpentinite matrix, with white clots of residual carbonates and gtz. Irregularly banded fabric, greyish colour due to incomplete serpentinisation.		230	71.65	72.0	0.35	25	200	1925	2.5	310	x	x		
							231	72.0	72.6	0.6	25	175	3025	5.0	2750	x	x		
							232	72.6	73.9	1.3	225	150	5050	2.5	490	x	0.033		
							233	73.9	75.5	1.6	475	75	2150	2.5	350	x	x		
							234	75.5	77.0	1.5	175	50	2175	2.5	540	x	x		

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

TENEMENT NAME TENTH LEGION No. 63M/75

PLAN - MAP REFERENCE

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. T.L.C. 9

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		
79.5	82.1	2.6			77.0-78.2 Crystalline mag with dark and pale green serpentinite;	mag 60%, py 1-2%	932235	77.0	78.2	1.2	175	50	2025	2.5	1600	x	x		
82.1	85.0	2.9					932314	78.5			Mineragraphic Sample.								
85.0	88.5	3.0			78.2-79.5 Fine grained bluish green mag in a bottle green serpentinite matrix, some white and brown residual minerals.	py/muscovite 1-2%	236	78.2	79.5	1.3	25	75	1925	x	3750	x	0.050	x	
88.5	91.5	3.0					237	79.5	80.6	1.1	125	25	2600	2.5	1000	x	x		
91.5	94.5	3.4					238	80.6	82.1	1.5	25	50	2025	2.5	2350	x	x		
94.5	97.5	3.0			79.5-85.2 Massive crystalline mag.	Weak calcite veins; minor bluish grey magnetite/carbonate veining; trace py.	239	82.1	83.4	1.3	150	100	1450	2.5	4100	x	x		
97.5	100.5	2.9			90% interstitial green translucent serp. Contact to 85.2-91.2 GREY SILTSTONES/SHALES.	85.2-88.1 Carbonate - gk stockwork	240	83.4	84.4	1.0	50	75	1075	2.5	2400	x	0.017	x	
				ss/sh	Dark grey f.g. silt rich rock, deformed and brecciated with carbonate veining and minor pale coloured calc silicate intervals	88.1-91.2	241	84.4	85.2	0.8	50	50	700	2.5	6000	x	x		
					Contract 40°		242	85.2	86.3	1.1	50	25	9400	2.5	150	x	x		
							243	86.3	88.1	1.8	25	25	125	x	120	x	x		
							244	88.1	89.5	1.4	75	325	75	x	x	x	0.017	x	
							245	89.5	91.2	1.7	75	200	125	2.5	x	x	x		
							GRIND SAMPLE												
					Cst 91.2-95.2 CALC SILICATE ROCK.	91.2-94.4 Broken, slightly weathered Pale pink and white crystalline tremolite rock with patches of calcite and minor interbeds to 0.3m of grey siltstone as above.	94.4-95.2 Epidote 50-60%, vein swarm and dissem. throughout.	932787	91.2	94.4		81	22	113	1.1	30	100		
											CUT SAMPLES								
							932246	94.4	95.2	0.8	25	50	150	5.0	220	x			
							932315	84.0m			Mineragraphic Sample.								
					Css 95.2-96.3 CALC SILICATE SKARN	95.2-96.3 f.g. dissem mag. Grey granular rock with abundant epidote, some pink Mn silicates, partially serpentinized.	10-15%, also in crystalline patches with serpentinite; py, po 2-3%.	247	95.2	95.5	0.3	175	250	1200	5.0	190	x		
							248	95.5	96.3	0.8	200	500	5600	5.0	330	x	0.042		
					M/S 96.3-98.0 MAGNETITE/SERPENTINITE.	96.3-98.0 Mag 50%, traces py as blebs to 6 mm. Crystalline magnetite with bottle green serpentinite and yellowish partially serpentinized material.		249	96.3	98.0	1.7	125	125	400	2.5	80	x		
					Cst 98.0-99.9 CALC SILICATE ROCK	As above 91.2-95.2, some greenish patches epidote - calcite veining.	traces pinkish? garnets, minor	250	98.0	99.9	1.9	25	75	2025	5.0	120	x		

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

TENEMENT NAME Tenth Legion No 53 M/75

PLAN - MAP REFERENCE

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. TL C9

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	
100.5	103.5	3.0		CSS	99.9-101.2 CALC SILICATE SKARN		932251	99.9	101.2	1.3	25	25	225	2.5	250	x		
03.5	106.5	3.0			Grey crystalline rock, greasy feeling													
106.5	109.5	3.4			soft, talcy and chloritic, minor calcite stringers.													
09.5	112.5	3.0			contact 70°													
12.5	115.5	3.0																
				M/S	101.2-105.7 MAGNETITE/SERPENTINITE	Patches of brownish interstitial Crystalline mag 60% in a matrix of bottle green serpentinite, with some paler grey-green incompletely serpentinised patches. 104.6-104.8 grey-green CSS		252	101.2	101.9	0.7	25	50	150	2.5	100	x	0.017
						? idocrase, fine calcite veins, 1-2% pg in lower 1.5m.		253	101.9	102.6	0.7	25	75	250	2.5	50	x	
								254	102.6	104.2	1.6	25	50	225	5.0	120	x	
								255	104.2	104.8	0.6	125	x	6800	2.5	270	x	
								256	104.8	105.7	0.9	225	50	4800	2.5	80	x	0.100
								GRIND SAMPLES										
				CST	105.7-106.6 CALC SILICATE ROCK	patches green epidote and dark green ? hornblende		932788	105.7	110.2		31	30	118	0.7	35	35	
					Bone coloured f-gr rock with greenish epidote veins, and pinkish patches of ? idocrase - vesuvianite.													
				qs	106.6-110.1 QUARTZ-SERICITE ROCK	Weak trace pyrite, in small stringers. Pinkish brown, grey and cream highly altered? sedimentary rock. Finely banded (? bedding), disrupted and contorted with qtz segregations and pale buff coloured ? sericite rich patches to 10 cm.												
					Contact ? 60°													
				M	110.1-112.0 MAGNETITE	110.1-111.2 Mag 30-40%, sp 1-2%; pg 1-2% in yellowish green matrix. 111.2-111.5 f-gr mag 10%, sp 2%, pg <1% in hard grey matrix		932257	110.2	112.0	1.8	275	500	1.58%	2.5	220	x	
					111.2-111.5 f-gr mag 10%, sp 2%, pg <1% in hard grey matrix													
					Contact 70°													
					111.5-112.0 As above 110.1-111.2.													
				CSS	112.0-113.8 CALC SILICATE SKARN	112.0-113.8 Mottled grey due to finely dissem. chloritic and serpentinite alteration		258	112.0	112.7	0.7	25	50	1750	x	100	x	
					Hard grey massive fibrous tremolite - actinolite, weak black serpentinite veining	1-2% dissem pg, weak trace sp.		259	112.7	113.8	1.1	50	25	2825	x	170	x	

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TENEMENT NAME TENTH LEGION No 53M/75

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. TLC9.

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	As
15.5	118.5	3.0		S/M	113.8-115.4 SERPENTINITE WITH MAGNETITE	113.8-114.8 Sphalerite 20% coarsely crystalline and intergrown with magnetite	932260	113.8	114.8	1.0	550	25	14.1%	x	180	x	0.017
118.5	121.2	2.7			Dark green serpentinite, with dissem mag	py 1-2% dissem throughout.											
121.2	124.0	2.7			15-20% and abundant sphalerite.												
24.0	127.0	3.0			Some minor grey calc-silicate interbeds at base of interval.	114.8-115.4. Mag 10-15%, sp 1-2%, in dark green serpentinite. Transition zone to next type.	261	114.8	115.4	0.6	75	75	2525	x	130	x	
127.0	129.9	2.9			Contact ? 65°	-overall only 50% mag-supp in interval.	GRIND SAMPLES										
129.9	133.0	3.1					932789	115.4	118.1		15	21	89	0.4	35	15	
133.0	136.0	3.0		ss	115.4-116.2 SILTSTONES	Brown hard hornfelsed sediment, disrupted and contorted with some green calc-silicate patches to 2x1 cm.											
						Weak trace pyrite as thin stringers	CUT SAMPLES										
				Cst/sss	116.2-135.6 CALC SILICATE ROCK	116.2-118.1 Weak epidote gtz veining.	932262	118.1	119.4	1.3	25	250	1000	x	30	x	
					White and pink rock, exceedingly altered, with minor greenish (diopside?) patches. The pink mineral is ? Mn silicate (rhodonite?). Crudely banded structure - alteration has proceeded along brecciation fractures. Bedding is recognisable but not measurable - too brecciated.	118.1-119.4 Stockwork of dark green grey chloritic alteration - no obvious min.	263	119.4	121.2	1.8	25	125	600	x	15	x	
					Contact ? 60°												
					121.2-122.2 Dark green chlorite-serpentinite zone.	121.2-122.2 Mag 1-2%, py-muscovite 2-3%, trace sp.	264	121.2	122.2	1.0	200	75	625	x	25	x	0.017
					122.2-135.6 Rock becomes more greyish green and massive - pink Mn minerals disappear. - tremolite - diopside assemblage?	122.2-124.7 Po 2-3%, mag 1%, py 1% associated with green sep. alteration in small clots to 2x1 cm throughout the rock.	265	122.2	123.1	0.9	175	x	575	x	45	x	
						124.7-126.5 Epidote stockwork 10%, minor garnets.	266	123.1	124.7	1.6	25	25	300	2.5	45	x	
						126.5-135.6 Weak veinlets epidote and rare pinkish garnets.	267	124.7	126.5	1.8	25	25	150	x	80	x	
					Contact = 60°		268	126.5	127.7	1.2	25	50	150	x	50	x	x
							269	127.7	128.5	0.8	25	25	75	x	15	x	
				g/s	135.6-136.5 ALTERED SILTSTONE/CLAY	135.6-136.5	932790	128.5	131.4		11	65	139	0.3	50	x	
					Brown and white finely bedded altered sediment - segregations of gtz, sericite in discrete bands to 5mm		791	131.4	134.4		6	43	75	0.4	65	x	
							792	134.4	137.4		31	21	90	0.4	9	15	

GRIND SAMPLES

