2016

MINING MANAGEMENT PLAN

FOR

CHARLEY CREEK PROJECT

ELs 24281 25230 25657 27283 27358 27359 28154 28155 28224 28226 28434 28795 28796 28866 29789 29853 30058 30486 30487

Authorisation 0483-03
Variation 5

[redacted]
[redacted]
[redacted]
[redacted]
[redacted]
[redacted], 8 December 2016.

[redacted]
[redacted]
8 December [redacted]

Table of Contents

AMENDMENTS

Section	Amendment
Section 2.0 Project Details	Surrender of EL 27284, 4 February 2016
	New JV Partner : Essential Mining Resources Pty Ltd (EMR)
	Transfer of EL25657 to Crossland Nickel Pty Ltd and Essential Mining
	Resources Pty Ltd. WDR Base Metals Pty Ltd (in receivership) retains
	20 % interest
	Since the due date of this MMP (27 may 2016) a further two ELs have
	Been surrendered : EL28964 and EL28965 on 25 July 2016
Sections 2 and 4	Updated 7 November 2016 in accord with request of 6 October 2016
Various Sections as per Compliance request 24 November re. amended work program for 2017	Updated 8 December. Inclusion of further activities involving excavation of 13 small test pits for sample collection

1.0 OPERATOR DETAILS

Operator Name:	Crossland Strategic Metals Limited (Crossland)
Key Contact Person/s:	Eric Vesel- Executive Director/ CEO
Postal Address:	Suite 6, 61 Robinson St. Dandenong VIC 3175
Street Address:	Level 2, 470 Collins Street, Melbourne VIC 3000, AUSTRALIA
Phone:	+60199887931, +61407007371
Fax:	+61 3 9867 8587
Email:	asxcux@gmail.com, vesel.eric@gmail.com

	Author	Reviewed by	Approved by
Date	8 December 2016	8 December 2016	8 December 2016
Name	P. Melville	Eric Vesel	Eric Vesel
Signature			

I ..... Eric Vesel, Chief Executive Officer and DIrector **declare that to the best of my knowledge the information contained in this mining management plan is true and correct and commit to undertake the works detailed in this plan in accordance with all the relevant Local, Northern Territory and Commonwealth Government legislation.**

SIGNATURE: .....

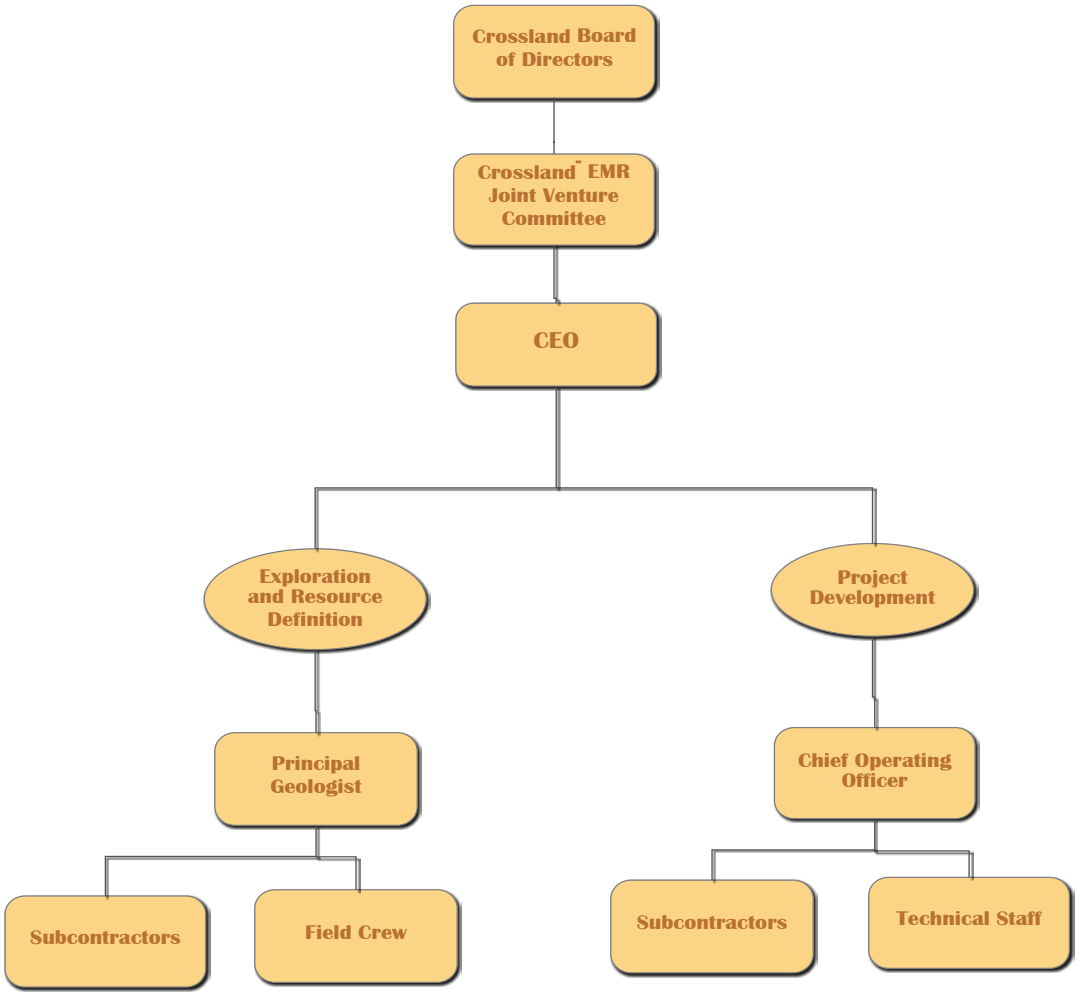
DATE:..... 8 December 2016

1.1 ORGANISATIONAL STRUCTURE / CHART

CROSSLAND
STRATEGIC METALS LIMITED

CHARLEY CREEK PROJECT

ORGANISATION CHART, 2016



1.2 WORKFORCE

[illegible]

2.0 PROJECT DETAILS

Project Name:	[illegible]
Location:	[illegible]
Site Access:	[illegible]
Mining Interests	[illegible]
Title holder/s:	[illegible]

2.1 Map of Site Location and Layout

Figure 1 [illegible]

2.2 HISTORY OF DEVELOPMENT AND CURRENT STATUS

Historical Mining/Exploration

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Table 1. All Drilling and Associated Activities 2008-2015 Inclusive

Mining Interests (i.e. titles)	EL24281	EL25230	EL27358	EL28155
Number of holes drilled - Diamond core	None	15	0	0
Number of holes drilled – Air Core	86 #	936	30	14
Number of holes drilled – Auger (Bobcat mounted)	0	65	0	0
Maximum depth of holes (m) – Diamond core	n/a	186.5	n/a	n/a
Maximum depth of holes (m) – Air Core	106	129	30	6
Maximum depth of holes (m) – Auger	n/a	9 (av. 2)	n/a	n/a
Number of drill pads cleared (Length: 50 x Width: 50 m)	n/a	15 (3.75ha)	n/a	n/a
Number of sumps cleared (Length: 3 x Width: 2 x Depth: 1.5 m)	n/a	28 (0.034 ha)*	n/a	n/a
Length of track cleared (Kilometres: x Width: m)	n/a	8.5 x 3	n/a	n/a
Length of track driven /stick raked (Not cleared or "prepared"). (Kilometres: x Width: m)	2.6 x 3	127 x 3	1.6 x 3	All holes on existing access
Number of costeans excavated (Length: x Width: x Depth: m)	n/a	n/a	None	None
Total sites where large sample collected – no excavations. (Length: x Width: x Depth: m)	None	10 sites**	None	None
Camp area/s cleared (hectares)	None	Two camps x 0.5 ha each (no clearing)	None	None
Total area substantial disturbance (hectares)	None	6.334 ha	None	None
Total area driven/stick-raked (hectares)	1.58 ha	38.1 ha	0.48 ha	n/a
Drill holes capped / plugged /backfilled	82	931	21	14
Total area requiring rehabilitation (hectares)	None	None	None	n/a

Original EL

***** Some sites had two shallow sumps

****** Surficial scrapes with hand implements

Table 1 (cont). All Drilling Activities 2008-2015 Inclusive

Mining Interests (i.e. titles)	EL28434	EL25657	EL27283	29853
Number of holes drilled - Diamond core	None	None	None	None
Number of holes drilled – Air Core	41	38	9	4
Number of holes drilled – Auger (Bobcat mounted)	None	None	None	None
Maximum depth of holes (m) – Diamond core	n/a	n/a	n/a	n/a
Maximum depth of holes (m) – Air Core	20	28	73.3	60
Maximum depth of holes (m) – Auger	n/a	n/a	n/a	n/a
Number of drill pads cleared (Length: 50 x Width: 50 m)	n/a	n/a	n/a	n/a
Number of sumps cleared (Length: 3 x Width: 2 x Depth: 1.5 m)	n/a	n/a	n/a	n/a
Length of track cleared (Kilometres: x Width: m)	n/a	n/a	n/a	n/a
Length of track driven /stick raked (Not cleared or "prepared"). (Kilometres: x Width: m)	All Holes on existing track	18.8 x 3	All Holes on existing track	4.1 x 3
Number of costeans excavated (Length: x Width: x Depth: m)	n/a	n/a	n/a	n/a
Total sites where large sample collected – no excavations. (Length: x Width: x Depth: m)	None	None	None	None
Camp area/s cleared (hectares)	None	None	None	None
Total area substantial disturbance (hectares)	None	None	None	None
Total area driven/stick-raked (hectares)	None	5.64 ha	None	1.23
Drill holes capped / plugged /backfilled	41	38	9	4
Total area requiring rehabilitation (hectares)	None	None	None	None

2.2 PROPOSED ACTIVITIES

Table 2. 2017 Planned Activities : Aircore Resource Drilling

Mining Interests	EL25230	EL25657	EL27283	EL27358
What time of the year will exploration occur?	August-Sept	August-Sept	August-Sept	August-Sept
How long is exploration expected to occur?	4 days	1 day	1 day	1 day
Type of drilling (i.e. RAB, RC, Diamond, Air Core)	Aircore	Aircore	Aircore	Aircore
Target commodity	REE	REE	REE	REE
Is drilling likely to encounter radioactive material?	No	No	No	No
Number of proposed drill holes (preliminary)	40	5	10	15
Planned maximum depth of holes (m)	12	12	12	12
Number of drill pads.	None	None	None	None
Is drilling likely to encounter groundwater? (Y, N, unsure)	N	N	N	N
Number of sumps	None	None	None	None
Length of line / track clearing (Kilometres: Width: 3.0 m)	Use existing access - station tracks / fencelines	Use existing access - station tracks / fencelines	Use existing access - station tracks / fencelines	Use existing access - station tracks / fencelines
Will topsoil be removed for rehabilitation purposes?	No	No	No	No
Previous disturbance yet to be rehabilitated on title (ha) if known	None	None	None	None
Camp(Length: x Width: m)	n/a	n/a	n/a	n/a
Total area to be disturbed (ha)	none	none	none	none
Other:				

Table 2 (cont.) 2017 Planned Activities Aircore Resource Drilling

Mining Interests	EL28155	EL28224	EL28434	EL30487
What time of the year will exploration occur?	August-Sept	August-Sept	August-Sept	August-Sept
How long is exploration expected to occur?	1 day	1 day	1 day	2 days
Type of drilling (i.e. RAB, RC, Diamond, Air Core)	Aircore	Aircore	Aircore	Aircore
Target commodity	REE	REE	REE	REE
Is drilling likely to encounter radioactive material?	No	No	No	No
Number of proposed drill holes	4	8	6	10
Planned maximum depth of holes (m)	12	12	12	12
Number of drill pads.	None	None	None	None
Is drilling likely to encounter groundwater? (Y, N, unsure)	N	N	N	N
Number of sumps	None	None	None	None
Length of line / track clearing (Kilometres: Width: 3.0 m)	Use existing access - station tracks / fencelines	Use existing access - station tracks / fencelines	Use existing access - station tracks / fencelines	Use existing access - station tracks / fencelines
Will topsoil be removed for rehabilitation purposes?	No	No	No	No
Previous disturbance yet to be rehabilitated on title (ha) if known	None	None	None	None
Camp(Length: x Width: m)	n/a	n/a	n/a	n/a
Total area to be disturbed (ha)	none	none	none	none
Other:				

Table 3. 2017 Planned Activities : PW Core Drilling (Twinning)

Mining Interests	EL25230	EL27358	EL28155	EL25657
What time of the year will exploration occur?	August-Sept	August-Sept	August-Sept	August-Sept
How long is exploration expected to occur?	4 days	1 day	1 day	1 day
Type of drilling (i.e. RAB, RC, Diamond, Air Core)	PW core	PW core	PW core	PW core
Target commodity	REE	REE	REE	REE
Is drilling likely to encounter radioactive material?	No	No	No	No
Number of proposed drill holes (preliminary)	16	8	4	5
Planned maximum depth of holes (m)	12	12	12	12
Number of drill pads.	16	8	4	5
Size of pads (length m x width m) – surficial clear only; no excavations	25x20	25x20	25x20	25x20
Is drilling likely to encounter groundwater? (Y, N, unsure)	N	N	N	N
Number of sumps	No in-ground sumps	No in-ground sumps	No in-ground sumps	No in-ground sumps
Length of line / track clearing (Kilometres: Width: 3.0 m)	Use existing access - station tracks / fencelines	Use existing access - station tracks / fencelines	Use existing access - station tracks / fencelines	Use existing access - station tracks / fencelines
Will topsoil be removed for rehabilitation purposes?	No	No	No	No
Previous disturbance yet to be rehabilitated on title (ha) if known	None	None	None	None
Camp(Length: x Width: m)	n/a	n/a	n/a	n/a
Total area to be disturbed (ha)	0.8	0.4	0.2	0.45
Other:				

Table 4. 2017 Planned Activities : RC Probe Holes and Water Bore

Mining Interests	**ELs 27359, 28795, 28796, 28866 and 30058**
What time of the year will exploration occur?	September
How long is exploration expected to occur?	20 days
Type of drilling (i.e. RAB, RC, Diamond, Air Core)	RC
Target commodity	Water
Is drilling likely to encounter radioactive material?	No
Number of proposed drill holes (preliminary)	10 including Bore
Planned maximum depth of holes (m)	200
Number of drill pads.	10
Size of pads (length m x width m) – surficial clear only; no excavations	25x20
Is drilling likely to encounter groundwater? (Y, N, unsure)	Y
Number of sumps	n/a
Length of line / track clearing (Kilometres: Width: 3.0 m)	Plan on using existing access - station tracks / fencelines
Will topsoil be removed for rehabilitation purposes?	No
Previous disturbance yet to be rehabilitated on title (ha) if known	None
Camp(Length: x Width: m)	n/a
Total area to be disturbed (ha)	0.5
Other:	

Table 5. 2017 Planned Activities : Test Pits

Mining Interests	**ELs 24281, 25230, 27358 and 28434**
What time of the year will exploration occur?	March
How long is exploration expected to occur?	5 days
Type of drilling (i.e. RAB, RC, Diamond, Air Core)	n/a
Target commodity	REE
Is drilling likely to encounter radioactive material?	n/a
Number of proposed test pits	13
Planned dimensions of pits (m)	3m long, 0.7m wide, 4m deep (8.4m^3)
Number of drill pads.	n/a
Size of pads (length m x width m) – surficial clear only; no excavations	n/a
Is drilling likely to encounter groundwater? (Y, N, unsure)	n/a
Number of sumps	n/a
Length of line / track clearing (Kilometres: Width: 3.0 m)	Most pits are on existing access. No access tracks will be constructed
Will topsoil be removed for rehabilitation purposes?	Yes.
Previous disturbance yet to be rehabilitated on titles (ha) if known	None
Camp(Length: x Width: m)	n/a
Total area to be disturbed (m^2)	27 square metres
Other:	

Summary of Proposed Works 2017

[illegible]

[illegible] **Figures 2a, 2b and 2c** [illegible]

[illegible]

[illegible]

[illegible] **Table 5 and Figure 3** [illegible]

Table 5: Proposed Locations of Test Pits

TESTPIT_NO	EAST_GDA94z53(m)	NORTH_GDA94z53(m)
TP1	289,900	7,394,900
TP2	292,908	7,400,176
TP3	294,064	7,399,735
TP4	294,700	7,396,000
TP5	315,536	7,391,700
TP6	317,081	7,391,342
TP7	350,308	7,398,476
TP8	272,280	7,401,909
TP9	281,330	7,399,067
TP10	282,601	7,398,752
TP11	285,236	7,399,253
TP12	282,142	7,401,999
TP13	289,290	7,401,866

[illegible]

Figure 2a Designated Drilling Areas

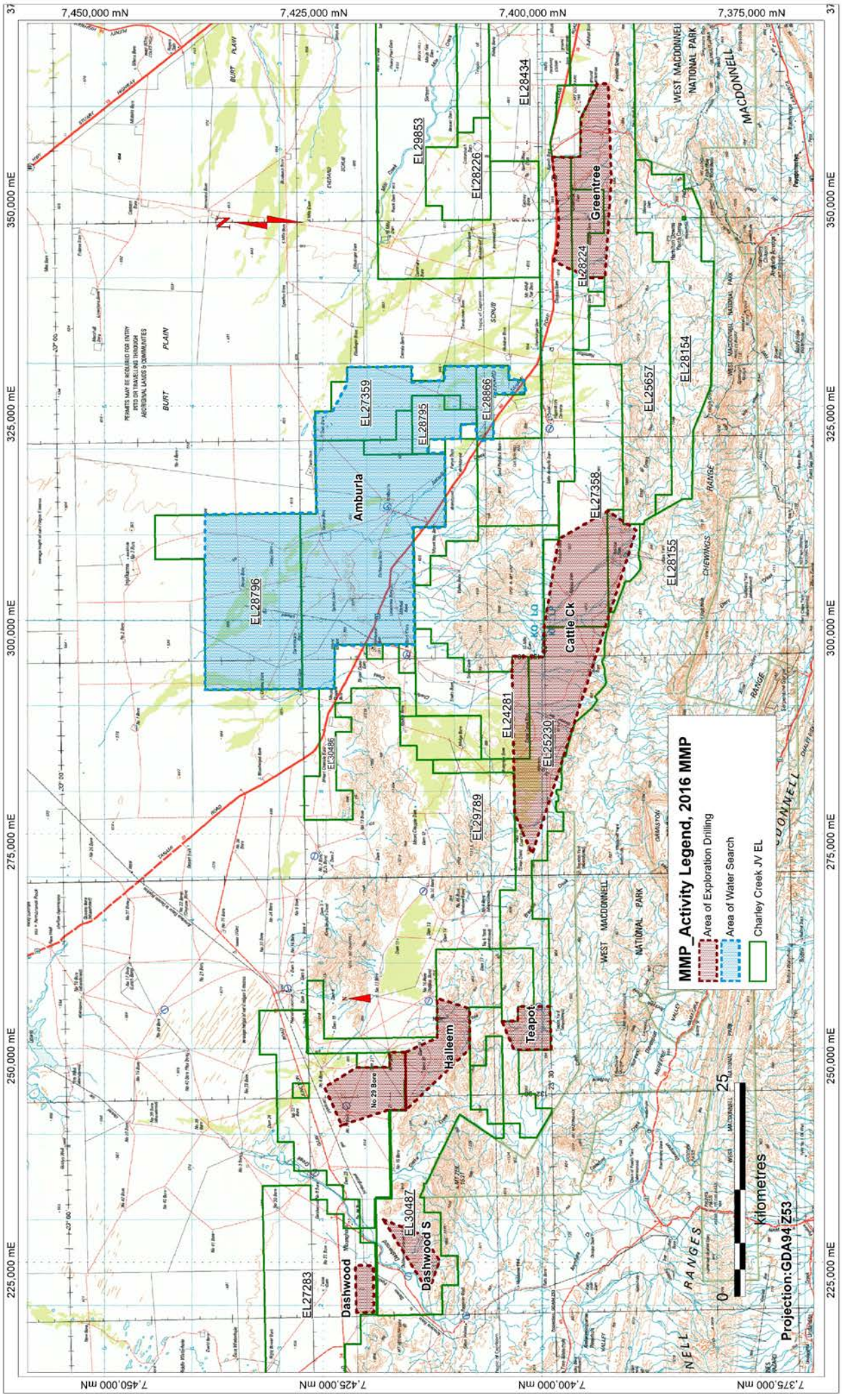


Figure 2b Enlargement Western Area of Charley Creek Project

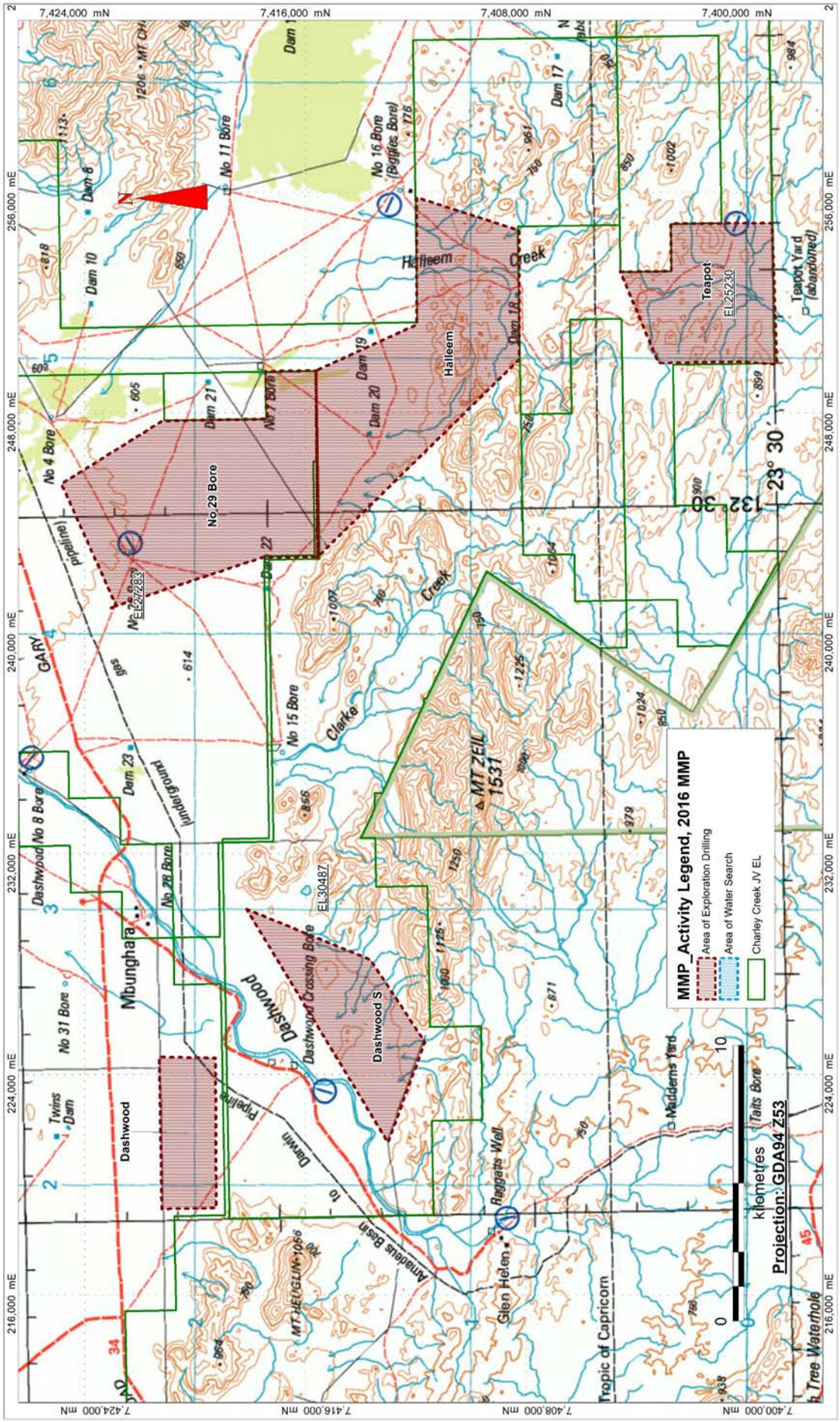


Figure 2c Enlargement Eastern Area of Charley Creek Project

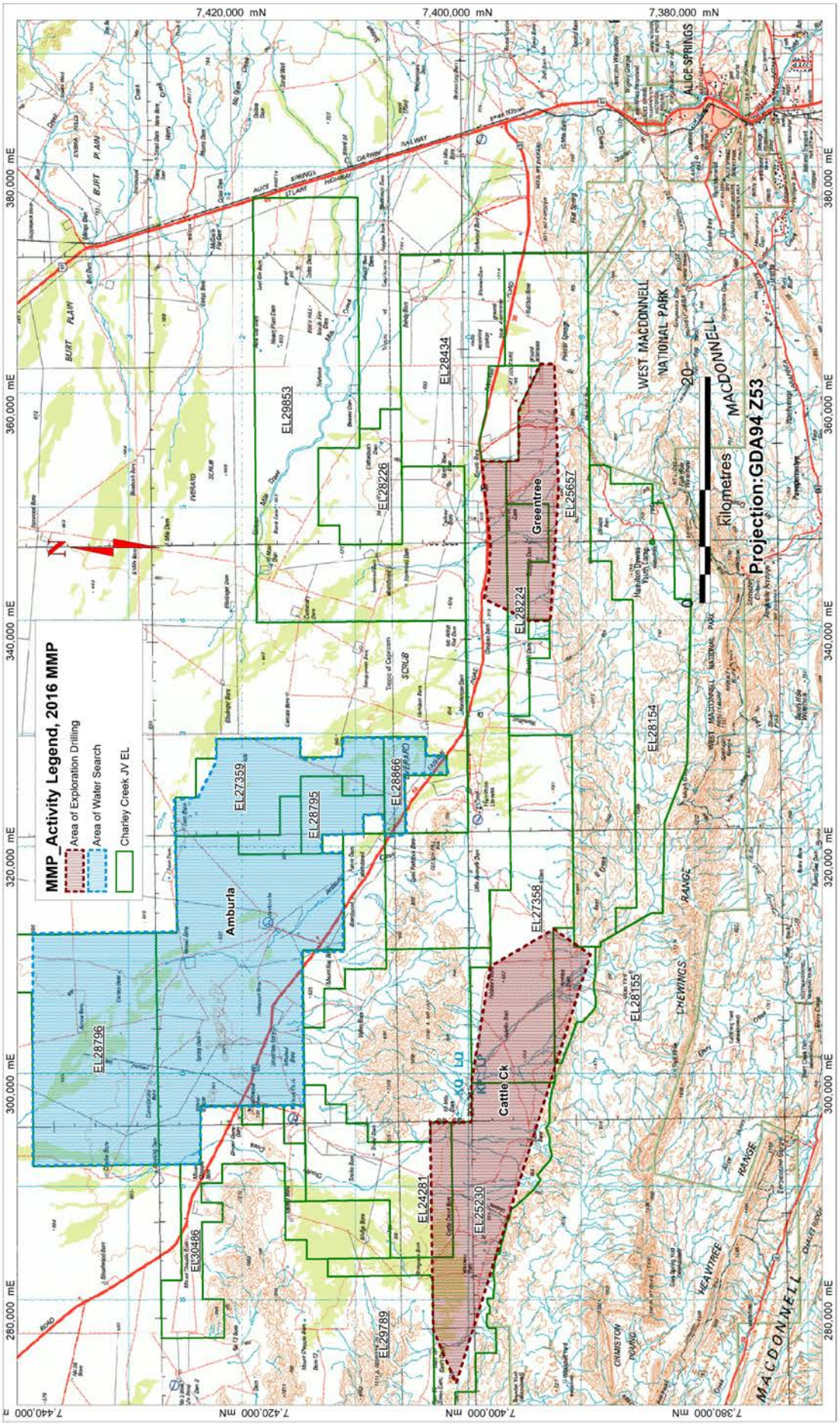
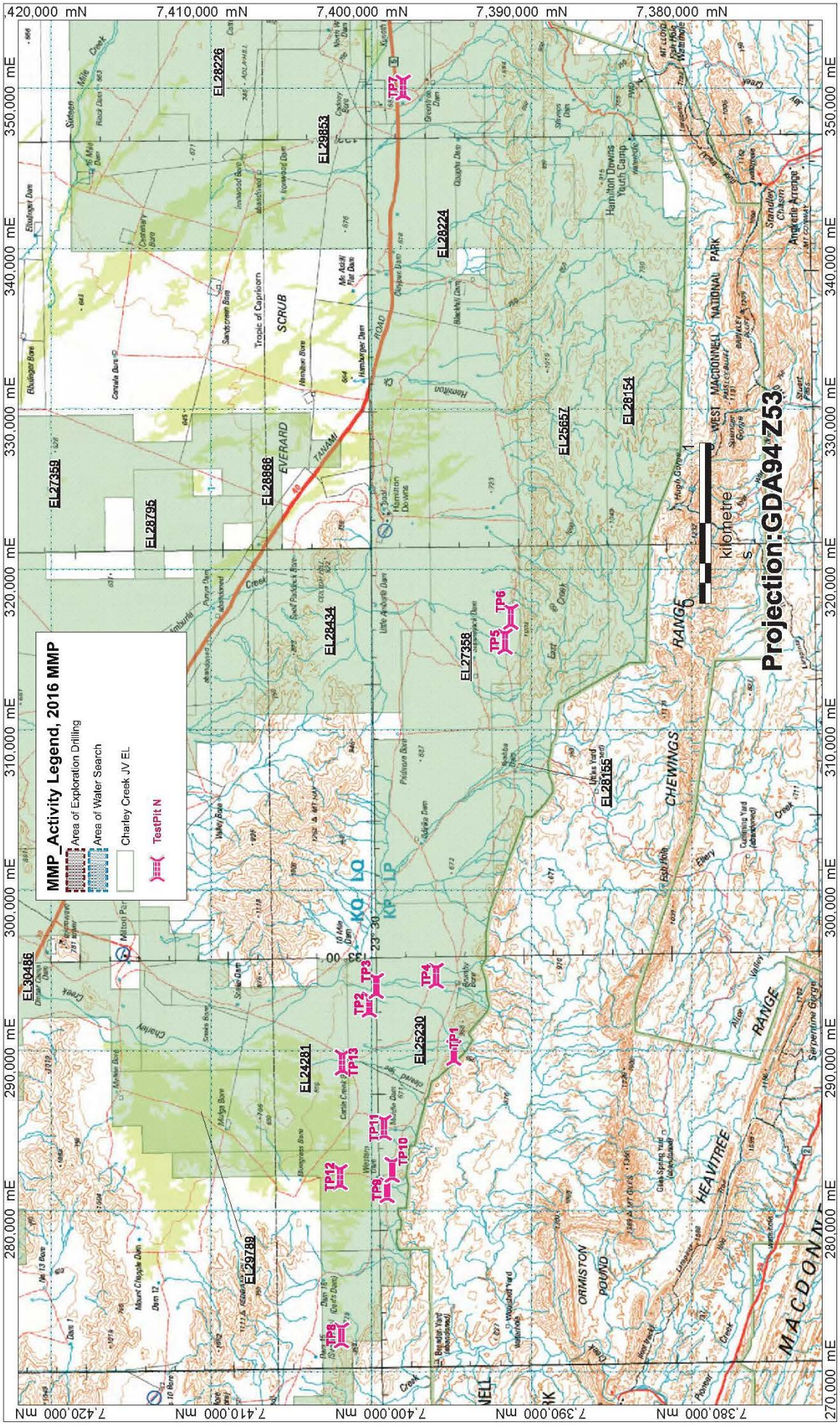


Figure 3 Proposed Test Pit Locations



3.0 CURRENT PROJECT SITE CONDITIONS

Site Conditions	Description
Geology and Landform	The project area, which extends east to west for approximately 200 kilometres, (from Bond Springs Station), skirts the northern foothills of the MacDonnell Ranges and extends northwards into the Burt Plain. The southern extent of the project area adjoins the boundary of the West MacDonnell Ranges National Park. The majority of the Charley Creek ELs are located on the Hermannsburg 1:250000 scale geological map sheet (SF 53-13). Exceptions include the most eastern, western and northern portions of the project which are located on Alice Springs (SF53-14), Mount Liebig (SF 52-16) and the Napperby (SF 53-9) 1:250000 geological map sheets respectively. The project lies within the Central Province of the Arunta Block on the southern margin of the North Australian Craton. The southern margin is marked by a high strain zone, the Redbank Thrust Zone, which contains several mapped units. Most of the Central Province is granulite facies metamorphic grade with some retrograde zones of amphibolite facies. The oldest exposed rocks exposed are the Adla Granulite which belongs to the Strangways Metamorphic Complex (1820 - 1780 Ma). Also present are units of the Narwietooma Metamorphic Complex, which includes the Mt Hay Granulite and the laterally equivalent Bunghara Metamorphics and Illyabba Metamorphics (+1780 Ma). The Teapot Granite Complex (1140 Ma) outcrops mainly within EL 25230, forming a part of the foothills of the MacDonnell Ranges. The complex intrudes the older mesoproterozoic gneissic basement of the Madderns Yard Metamorphic Complex (1650-1680 Ma), which is represented in this location by the Glen Helen Metamorphics. The granite was the initial focus of Crossland's exploration activities. Present throughout the project are Quaternary and to a lesser degree Tertiary sediments. The underlying Tertiary sediments comprise sands, clays, siltstone, and conglomerate with some lignitic horizons. Important aquifers are located in these sediments. The Quaternary sediments are characterised by shallow alluvial fans of coarse gravels, sandy ephemeral creek deposits, sand and clay with a surficial covering of aeolian silts and sand +/- minor calcrete and carbonate deposits. The degree of cover formed by these sediments is highly variable. Crossland's main area of activity is now confined to these alluvial areas. The foothills country, which is principally in EL 25230, average around 800 m ASL; the plains country immediately to the north is around 600 m ASL. Rock outcrops form the majority of topographic relief, being composed of granite, gneiss and schist. Flat sand covered country stretches into the Burt Plain. Mount Hay's summit is 1,252 m ASL and is the highest point within the bounds of the Charley Creek Project area. Other notable high peaks in the region are Mount Zeil (1,531m), Mount Sonder (1,380m) & Mount Razorback (1,274m), all within the MacDonnell Ranges National Park. In the foreseeable future, Crossland will be confining its assessment operations (i.e. drilling and sampling) to specific zones within the broad area covered by the alluvial fans.. Beneath the soil cover,variable depths of alluvium are present. Within the area of most interest to Crossland, the alluvium overlies metamorphic rocks and possibly granite. The Saprolitic horizon has

	elevated concentrations of REE and therefore represents an additional exploration target. Historical holes drilled north of Hamilton Downs homestead and elsewhere in the west of the project area intersected up to 100 m of alluvium. Soil types consist of Kandosols (massive earths), Rudosols (Loams), Tenosols (Sands), Calcarosols (Loams) and Vertosols (cracking clay) (See Appendix 035). In the deeper alluvial areas, A, B and C soil horizons are encountered.
Hydrology	The West MacDonnell Ranges are drained by broad creeks with rocky and sandy channels in their headwaters. These creeks form outwash channels at the base of the range and these in turn create broad complex channel systems as they drain further northwards onto the Burt Plain. The drainage divide between north-flowing (Halleem Creek) and south-flowing streams (Crawford, Redbank, and Breaden Creeks) bisects the western part of the project area. Elsewhere all streams drain to the north, such as Derwent, Dashwood and Charley Creeks and the Amburla and Hamilton drainage systems. None of the above mentioned creeks contain water for large periods of time; they represent flash drainage systems. No work has or is planned to be carried out in the near vicinity of any of these drainage systems, apart from the installation of hydrological monitoring equipment and sample sites as part of the surface hydrology study. There are a number of bores in the region that draw water from both the outwash formations adjacent to the base of the ranges and the aquifers that underlie the Burt Plain. As part of the pre-feasibility, a detailed Hydrological study was undertaken and a report prepared (GHD). That report recommended a drilling program to assess the regional water resources. The GHD report included a data collation of all NRETAS Registered water bores in the region. Maps showing the locations of these bores are contained in the abovementioned report. As per this MMP, Crossland is proposing a drilling program to locate a water supply. The locations of the holes will be determined following an 'in-house' interpretation of airborne EM data. That work is currently being carried out.
Flora	Flora comprises Triodia low hummock grassland, Astrebla low tussock grassland, Acacia low open woodland, Eucalyptus low open woodland and Melaleuca low woodland. Grasses, spinifex and mulga are widespread. Watercourses in places were lined with eucalypt. Along the base of the ranges and further north into the plains country there is a mix of open grassland and areas where thicker woodlands comprising small trees predominate, including ironwood, beefwood etc. Scattered larger trees are present including Desert Oak and Bloodwood. Large eucalypts line stream channels such as Charley Creek. Known introduced vegetation species that are endemic throughout the region are Calotrope, Saffron and Mexican Poppy. There are also local infestations of introduced species as at Narwietooma Homestead, and include Athel, Mimosa and Khaki (information supplied by pastoralist at Narwietooma). In 2012-2013, Crossland's consultants GHD completed baseline flora and fauna surveys for the Charley Creek project. This baseline survey is more accurate and detailed than the data contained on government websites. The GHD flora report was previously supplied to DME.

	Crossland has consulted with the Northern Territory Department of Land Resource Management – Flora and Fauna Division; who has informed Crossland that our current practice for track clearing and drilling appears unlikely to adversely impact overall biodiversity values at this stage. Crossland will continue such actions as weed quarantine, avoiding any impacts on large trees, erosion and other actions as outlined in this document. Crossland notes the timing of GHD field survey was after a prolonged period without rainfall. As part of the developing EIS it is Crossland's intention to complete an additional survey after a period with greater rainfall as this would likely identify more species present. A search was completed re. the 22 recently affected species. In regards to the NT, only one plant species is affected. The project area list of relevant species is unchanged
Fauna	The region is stocked with cattle. Camels are commonly encountered. Rabbit and mouse plagues have been experienced. Feral animals predominate. Native wildlife populations are represented although these animals are rarely seen. No significant habitats are known to exist or have been identified within or near work areas. A search of the EPBC Act Register of Threatened Species has identified several fauna, which may exist in the region. These are in the endangered (1 mammal) and vulnerable (1 reptile and 3 mammals) categories. The fauna in question are the Southern Marsupial Mole, the Great Desert Skink, Mulgara, Greater Bilby and Black Footed Rock Wallaby respectively. If habitats of these species are known or identified within the tenements then these areas will be avoided. A full account of Fauna encountered is outlined in the accompanying GHD draft Fauna report located as Appendix 027. Crossland has consulted with the Department of Land Resource Management – Flora and Fauna Division. DLRM informed Crossland that our current practice for track clearing and drilling appears unlikely to adversely impact overall biodiversity values. It was however noted that some threatened species such as the Slaters Skink (*Egernia slateri*) have very restricted habitats which should be avoided. GHD performed a targeted survey in September 2013 for the Slaters Skink (*Egernia slateri*). The results of this survey found no presence of the skink. This report has also been included with a previous MMP. A search was completed re. the 22 recently affected species. In regards to the NT, twenty fauma species are affected. : 1 land snail, 6 mammals and 13 birds. The project area list of relevant animal species is unchanged.
Land Use	The tenements fall within areas utilized for grazing cattle (see Appendix 034). The Tanami Highway traverses the tenements. The southern margins of EL's 25230, 28155 and 28154 border the West MacDonnell Ranges National Park. Traditional land use areas straddle EL's 28434 and 25657 and lie west of EL 27283.

Historical, Aboriginal, Heritage Sites	CLC and AAPA clearances have identified all aboriginal sacred sites and other designated areas; these have been excluded from exploration. The CLC conducts on-going work programme clearances over newly granted ground in company with traditional owners. Sacred sites and other No-Go areas and/or RWAs have been identified during these clearances. Yearly meetings to discuss on-going work programmes are organized by the CLC. We have consulted the Territory and Commonwealth Department of Sustainability, Environment, Water, Population and Communities websites in regard to the presence of non-aboriginal heritage sites. The registers do not list any non-aboriginal heritage sites on Crossland's ELs. As previously requested by DME documents regarding NRETAS Heritage searches were supplied. It is noted this register search was completed through the NT Department of Lands, Planning and the Environment website which was directed to www.ntlis.nt.gov.au/. Crossland completed searches of the individual pastoral leases which are covered by the company's licences. This did not produce any results. The Appendix previously provided is a complete search of the Macdonnell Shire.

4.0 ENVIRONMENTAL MANAGEMENT SYSTEM / PLAN

[illegible]

[illegible] DM[illegible]

4.1 ENVIRONMENTAL POLICY AND RESPONSIBILITIES

[illegible] *Guideline to Responsible Environmental Management'*[illegible]

[illegible]

[illegible] Director[illegible] Manager[illegible]

[illegible]

4.2 STATUTORY REQUIREMENTS

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4.3 NON-STATUTORY REQUIREMENTS

[illegible]

4.4 IDENTIFIED STAKEHOLDERS AND CONSULTATION

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Crossland Strategic Metals Limited
GPO Box 2437
Darwin NT 0801

Att.: Mr. G. Eupene

PERMISSION TO ACCESS PASTORAL LAND, MACDONNELL SHIRE OWNED BY ANTHONY AND PAMELA DAVIS

The undersigned give permission for Crossland Strategic Metals Limited to undertake exploration and more advanced activities on the Perpetual Pastoral Leases which are held by us. No Fencing

These Pastoral Leases are located to the northwest of Alice Springs and comprise:

- NT Portion 241 Derwent
- NT Portion 719 Glen Helen
- NT Portion 727 Narwietooma
- NT Portion 4423 Hamilton Downs
- NT Portion 4443 Amburla

Crossland Strategic Metals Limited have supplied a Mining Management Plan, which contains details of their proposed activities on the subject land. Discussions with Crossland management regarding these activities is ongoing.

Yours faithfully,

for A & F Davis
10 August 2016

4.5 INDUCTION AND TRAINING

[illegible]

[illegible]

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4.6 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS

Aspect	Possible/Probable Impact	Risk Rating	Management measures (prevention)	Management measures (remediation)
Vehicle Operation	Fauna and Flora disturbance; weed and pest spread Dust Noise Hydrocarbon Spill Soil erosion	Low	Monitoring of vehicle use; driver training; wash downs; personnel and contractor awareness of issues. Regular vehicle maintenance. Slow driving in camp and drill areas.	Removal of contaminated soil Disposal of weeds
New tracks as access for Aircore rig.	Vegetation clearing Soil erosion Soil compaction Disturbance to drainage lines	Low	Existing Station roads tracks utilized. New access construction – Bobcat or loader with scrub rake or bucket blade up used. No topsoil disturbance, no windrows	Rehab where necessary – erosion prevention. Allow to naturally re-vegetate
Air core drill holes – on access tracks or just beside if station track.	Vegetation clearing Soil compaction Soil erosion Disturbance to drainage lines. To date very minimal impact	Low	Cleared areas kept to minimal size	Drill holes capped, sites raked over. Topsoil re-spread. Rubbish removed.
Drilling Operation – if Diamond drill or large RC.	Fluid Spills – drill fluids or hydrocarbons. Management of wastes	Low	Operating machinery contained within plastic lined bunded area. All contractor personnel must be trained in fuel transfer procedures and the use of Spill kits. Company personnel to monitor and report. Current drill programmes will not intersect radioactive material.	If spillage occurs – bag and remove all contaminated soil etc. Rehab sites. Sumps infilled.
Drilling Operation – Aircore rig. Drilling conducted along access lines. No dedicated sites prepped.	Noise and Dust. Management of wastes Soil contamination. No radioactive material will be produced from this drilling	Low	Noise and dust suppression mechanisms on drill rigs.	Drillholes plugged and backfilled with drilling material. Removal of all waste from sites

Aspect	Possible/Probable Impact	Risk Rating	Management measures (prevention)	Management measures (remediation)
Waste Management	Pollution of local environment – flora, fauna, surface/ground water, air	Low	Proper management and disposal of non-recyclable/industrial wastes – removal from site.	Inspect all drill sites and monitor disposal procedures.
Fire	Neighboring landowners Flora and fauna Potential injury to personnel. Loss/damage to equipment and infrastructure	Low to Moderate	Induction document covers Crossland's policy on fires in Project Area. (Fires only in designated area with fire break in containment, no fires at drill rig etc).	Back burning if necessary to protect personnel, equipment or infrastructure– Contact / warn / cooperate with landowners. Contact authorities / Bushfire Council
Cultural or Heritage Sites	Discovery of Cultural or Heritage Sites/ Damage of Cultural or Heritage sites	Low	Invasive work is limited to cleared areas by the CLC and/or AAPA.	Reporting of any finding to senior personnel who will notify Crossland management
**Hydrocarbons	Pollution of environment	Low	Proper storage. Bunding	Clean up spills, bag contaminated material. Take to appropriate waste management site.
***Invasive Species	Damage to environment	Low	In the case of weeds, ensure that vehicles have washdown before entering site.	Identify infestation and remove where feasible.

[illegible]

[illegible]

[illegible]

Consequence Rating

Likelihood Rating

	UNKNOWN	1 NEGLIGIBLE	2 MINOR	3 MODERATE	4 MAJOR	5 SEVERE
UNKNOWN	UNKNOWN					
A ALMOST CERTAIN		M	H	H	E	E
B LIKELY		M	M	H	H	E
C POSSIBLE		L	M	M	H	H
D UNLIKELY		L	L	M	M	H
E RARE		L	L	L	M	M

4.7 EMERGENCY PROCEDURES AND INCIDENT REPORTING

[illegible]

[illegible]

[illegible]

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- [illegible]
- [illegible]
- [illegible]
- [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

4.8 ENVIRONMENTAL AUDITS AND INSPECTIONS

4.9 ENVIRONMENTAL PERFORMANCE REPORTING

4.9.1 Water Management

4.9.2 Invasive Species Management

[illegible]

4.9.3 Flora and Fauna Management

[illegible]

[illegible]

[illegible]

4.9.4 Waste Management

- [illegible]
- [illegible]
- [illegible]
- [illegible] *Remote Area Camp Setup and Management* [illegible]
- [illegible]
- [illegible]

4.9.5 Noise and Air Quality Management

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

4.9.6 Culture and Heritage Management

[illegible]

[illegible]

4.9.7 Rehabilitation and Environmental Performance

4.0 TABLE: EXPLORATION REHABILITATION 2008 TO 2016

Disturbance	Rehabilitation Activities	Schedule (Timing)	Closure Objectives / Targets	Monitoring Techniques
Drill holes - Aircore	Air Core – all holes plugged and backfilled	After completion of drilling programmes	All holes/sites completely rehabbed by the end March 2014.	Rehab report (with photos) was provided to DME by end of April 2014. Some further monitoring recommended by DME. Ongoing monitoring while traversing the area.
Drill sites–Diamond core	All sites from 2010 programme rehabilitated. See attached Crossland Environmental Report (April 2011) and DoR inspection report 2010	Rehab complete by April 2011	All sites rehabilitated	Return to Sites in early 2017 and report. Take photos
Sumps	Infilled at time of site rehab	Rehab complete by April 2011	All sumps rehabilitated	Return to Sites in early 2017 and report. Take photos
Costeans	N/A			
Sample pits/ trenches	N/A			
Tracks / Gridlines	Cleared scrapes have been left to revegetate naturally. Results to date indicate that this is successful. See photos from previous MMP and recent Departmental inspection report	Ongoing	If not successful will scarify	Every 6-12 months. Take photos of selected areas for comparison. Ongoing monitoring when traversing the area.
Sample bags	All bags collected from drill sites	Complete January 2014	All bags collected and taken back to homestead base	N/A
Camp	No action taken	N/A	Land returned to natural state.	Sites have been inspected. Photo of drillers camp illustrates zero impact. See Crossland Environmental Report (April 2011)

5.0 COSTING OF CLOSURE ACTIVITIES

6.0 PERFORMANCE OBJECTIVES