



Metals X Limited

Wingellina Nickel Project

Proposed Borefield Drill Line Targeted
Flora Assessment

November 2011

DRAFT REPORT



METALS X LIMITED


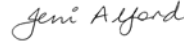
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Proposed Borefield Drill Line Targeted Flora Assessment: Preliminary Results

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1. INTRODUCTION

Metals X Limited (Metals X) commissioned Outback Ecology to perform a Targeted Flora Assessment (the Survey) for a proposed drill line, set of proposed drill pads and associated access track within the Wingellina borefield (Survey area) (**Appendix A**). The main objective of the Survey was to establish the presence or absence of Threatened (Declared Rare) Flora and Priority Flora within 50 m and 10m respectively of the proposed drill pads, drill line track and access track. In particular, the survey targeted the Priority 1 species *Neurachne lanigera* (**Figure 1**) and the new undescribed species *Goodenia* sp. affin. *quasilibera* (**Figure 2**) both previously found along Tjuntjuntjarra Track within Miscellaneous Lease L69/12 (**Figure 3**), during a Flora and Vegetation Survey by Outback Ecology in May 2011 (Davies *et al.* 2011). This present survey has been conducted in accordance with Condition 4 of a Clearing Permit granted to Metals X by the Department of Mines and Petroleum (DMP) on 6 October 2011 (Clearing Permit 4523/1). Condition 4 of this permit states that:

(a) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a botanist, in accordance with Guidance Statement No. 51 to inspect that area for the presence of rare flora listed in the Wildlife Conservation (Rare Flora) Notice 2010(2) and priority flora.

(b) Where rare flora or priority flora are identified in relation to Condition 4(a) of this Permit, the Permit Holder shall ensure that:

(i) no clearing occurs within 50 metres of identified rare flora, unless approved by the CEO; and

(ii) no clearing of identified priority flora occurs and no clearing occurs within 10 metres of identified priority flora, unless approved by the CEO.

This preliminary report provides a brief account of the key findings of the survey, relevant to Condition 4 of the aforementioned Clearing Permit. A full report, containing comprehensive background information and a detailed account of all the findings of the Survey, is forthcoming.

2. MATERIALS AND METHODS

The Survey was performed from 19 to 22 October 2011 by botanists Dr Richard Davies and Ashleigh Chapman (Outback Ecology). A visual inspection of the entire Survey area was undertaken in order to detect the presence of conservation significant flora. Each of the approved proposed drill pads (a total of 11), was surveyed by walking a spiral transect of radius 65 metres (m) extending from the centre of the proposed pad. The proposed drill and access tracks were surveyed by walking a parallel linear transect on both sides of each track, and by using a vehicle to drive a slow-speed linear transect along the proposed track alignments themselves. Special attention was paid to habitats known to support species of conservation interest. Coordinates of located individuals of significant species were measured using a GPS.



Figure 1: *Neurachne lanigera* along Tjuntjuntjarra Track



Figure 2: *Goodenia* sp. affin. *quasilibera* (L. Ransom 868) along Drill Line Track

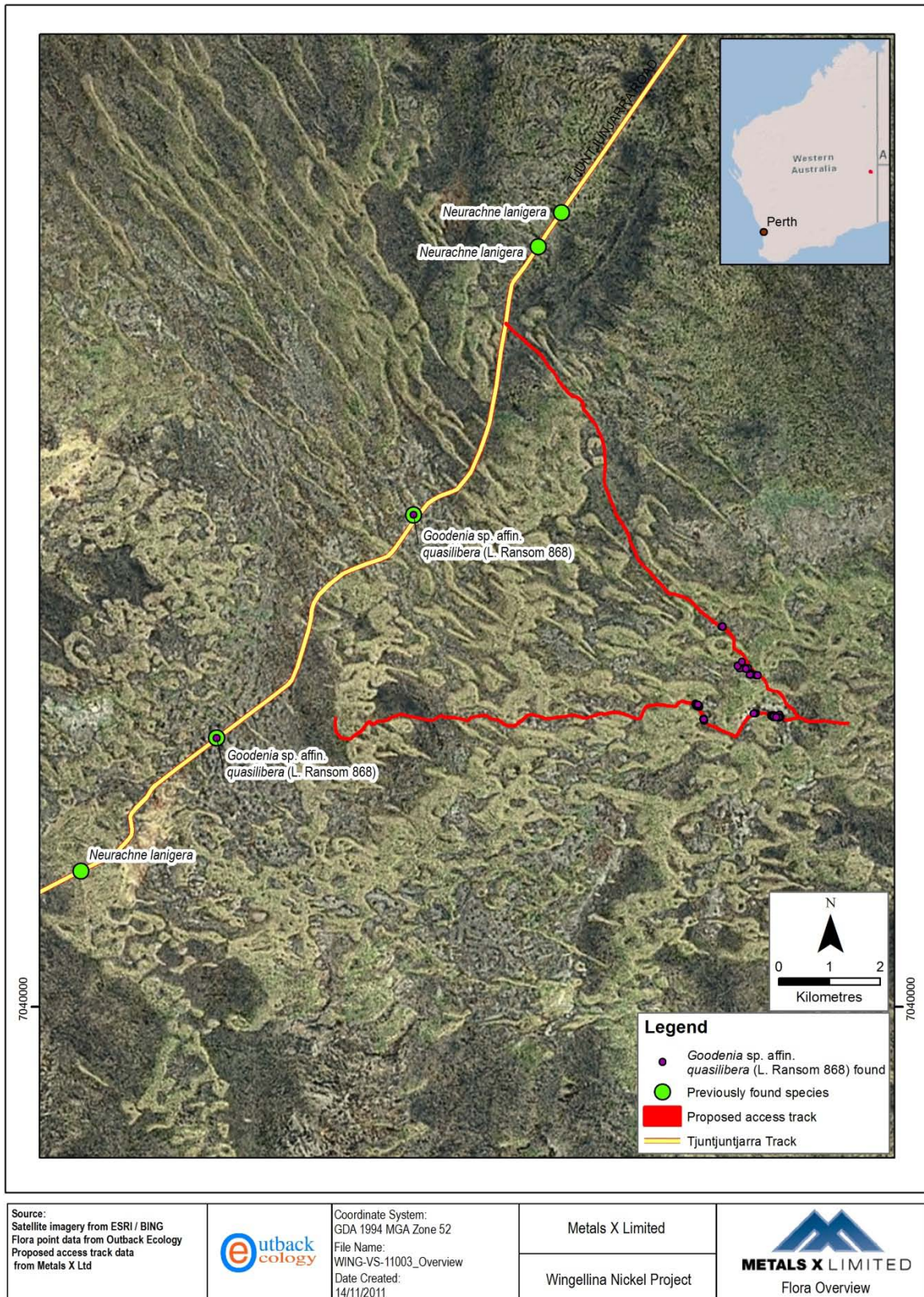


Figure 3: Locations of *Neurachne lanigera* and *Goodenia sp. affin. quasilibera* (L. Ransom 868) recorded during surveys by Outback Ecology.

3. RESULTS AND RECOMENDATIONS

Five populations (totalling 98 plants) of the new undescribed species *Goodenia* sp. affin. *quasilibera* (L. Ransom 868) were found within 10 metres of the proposed drill pad access road (as defined by Waypoints 001 to 336) (**Table 1; Figures 3-4**). No individuals were found within 10 metres of any of the proposed drill pads. This species is not listed as Threatened (Declared Rare) Flora or as Priority Flora (since it was only first discovered the May 2011 survey; Davies *et al.* 2011) but it is being treated in the current report as Priority Flora since it is as yet unknown outside of the Wingellina Borefield Tenement (L69/12) and has not yet been subject to comprehensive searches. Therefore, while on site we surveyed five minor variations to the proposed access road and drill line which would avoid (be more than 10 metres from) these populations (**Table 2; Figures 4-8**). It is recommended that the proposed access road and drill line be realigned according to these proposed route variations.

The Priority 1 species *Neurachne lanigera* which was previously found along the Tjuntjuntjarra Track during the May 2011 survey (Davies *et al.* 2011)(**Figure 3**) was not found on or within 10 metres of the proposed drill pads, drill line or access road. Additionally, other Priority Flora recorded within 100km of the Survey area (literature and database search reported in Davies *et al.* 2011), were similarly not found. This also applied to Threatened (Declared Rare) Flora.

4. REFERENCES

Davies. R., Alford, J. & Jasper. D. (2011). *Level 1 Flora and Vegetation Assessment of the Wingellina Borefield*. Report prepared for Metals X Ltd Wingellina Nickel Project by Outback Ecology.

Table 1: Coordinates of *Goodenia* sp. affin. *quasilibera* (L. Ransom 868) plants located along the access track and drill line¹

Waypoint	Zone	Easting	Northing	Waypoint	Zone	Easting	Northing
Good1	52 J	433667	7045956	Good51	52 J	434203	7047463
Good2	52 J	433673	7045950	Good52	52 J	434179	7047473
Good3	52 J	433672	7045951	Good53	52 J	434202	7047486
Good4	52 J	433668	7045963	Good54	52 J	434695	7046663
Good5	52 J	433667	7045962	Good55	52 J	435336	7045701
Good6	52 J	433675	7045945	Good56	52 J	433666	7045939
Good7	52 J	433670	7045938	Good57	52 J	434536	7046656
Good8	52 J	433699	7045943	Good58	52 J	434498	7046702

Waypoint	Zone	Easting	Northing	Waypoint	Zone	Easting	Northing
Good9	52 J	433712	7045941	Good59	52 J	428122	7049678
Good10	52 J	433742	7045920	Good60	52 J	424248	7045288
Good11	52 J	433744	7045919	Good61	52 J	434817	7045765
Good12	52 J	433723	7045919	Good62	52 J	433818	7045662
Good13	52 J	433723	7045919	Good63	52 J	434839	7045781
Good14	52 J	433740	7045898	Good64	52 J	434839	7045779
Good15	52 J	433716	7045899	Good65	52 J	434841	7045780
Good16	52 J	433692	7045915	Good66	52 J	434845	7045773
Good17	52 J	433692	7045916	Good67	52 J	434848	7045770
Good18	52 J	433687	7045911	Good68	52 J	434854	7045774
Good19	52 J	433843	7045620	Good69	52 J	435209	7045731
Good20	52 J	433838	7045621	Good70	52 J	435204	7045736
Good21	52 J	433819	7045656	Good71	52 J	435204	7045738
Good22	52 J	433816	7045660	Good72	52 J	435182	7045709
Good23	52 J	433816	7045660	Good73	52 J	435200	7045710
Good24	52 J	433816	7045660	Good74	52 J	435205	7045710
Good25	52 J	433836	7045619	Good75	52 J	435205	7045713
Good26	52 J	435188	7045726	Good76	52 J	435317	7045693
Good27	52 J	435185	7045723	Good77	52 J	435312	7045690
Good28	52 J	435183	7045721	Good78	52 J	435311	7045690
Good29	52 J	435151	7045728	Good79	52 J	435310	7045691
Good30	52 J	435150	7045728	Good80	52 J	435308	7045692
Good31	52 J	435173	7045738	Good81	52 J	435306	7045691
Good33	52 J	435200	7045697	Good82	52 J	435306	7045692
Good34	52 J	435202	7045697	Good83	52 J	435308	7045694
Good35	52 J	435204	7045697	Good84	52 J	435308	7045694
Good36	52 J	435205	7045697	Good85	52 J	435306	7045698
Good37	52 J	435323	7045710	Good86	52 J	435251	7045702
Good38	52 J	435320	7045712	Good87	52 J	434579	7046790
Good39	52 J	435316	7045746	Good88	52 J	434202	7047484
Good40	52 J	434870	7046521	Good89	52 J	434817	7045767
Good41	52 J	434760	7046559	Good90	52 J	434827	7045770

Waypoint	Zone	Easting	Northing	Waypoint	Zone	Easting	Northing
Good42	52 J	434849	7046528	Good91	52 J	434837	7045783
Good43	52 J	434883	7046521	Good92	52 J	434837	7045781
Good44	52 J	434729	7046535	Good93	52 J	433816	7045662
Good45	52 J	434495	7046713	Good94	52 J	434658	7046649
Good46	52 J	434504	7046713	Good95	52 J	434826	7045774
Good47	52 J	434508	7046709	Good96	52 J	433829	7045666
Good48	52 J	434555	7046694	Good97	52 J	433824	7045654
Good49	52 J	434620	7046664	Good98	52 J	434809	7045769
Good50	52 J	434686	7046638				

¹ also supplied to Metals X as Excel file

Table 2: Recommended changes to access track and drill line to avoid *Goodenia* sp. affin. *quasilibera* (L. Ransom 868) populations¹

Original proposed route				Recommended variation to route			
Waypoint	Zone	Easting	Northing	Waypoint	Zone	Easting	Northing
247	52 J	434826	7046545	Alt247	52 J	434846	7046575
248	52 J	434740	7046591	Alt248	52 J	434772	7046640
249	52 J	434657	7046651	Alt249	52 J	434727	7046687
250	52 J	434575	7046686	Alt250&2 51&252	52 J	434684	7046770
251	52 J	434475	7046721				
252	52 J	434566	7046784				
261	52 J	434204	7047464	ALT261	52 J	434234	7047512
28	52 J	435333	7045703	ALT28	52 J	435342	7045744
29	52 J	435285	7045719	ALT29	52 J	435321	7045760
30	52 J	435232	7045724	ALT30	52 J	435241	7045785
31	52 J	435179	7045734	ALT31	52 J	435174	7045792
63	52 J	433840	7045619	ALT63	52 J	433830	7045604
64	52 J	433826	7045646	ALT64	52 J	433804	7045636
65	52 J	433822	7045703	ALT65	52 J	433790	7045700
69	52 J	433727	7045884	ALT69	52 J	433719	7045863
70	52 J	433700	7045925	ALT70	52 J	433680	7045897
71	52 J	433655	7045950	ALT71	52 J	433638	7045939

¹ also supplied to Metals X as Excel file

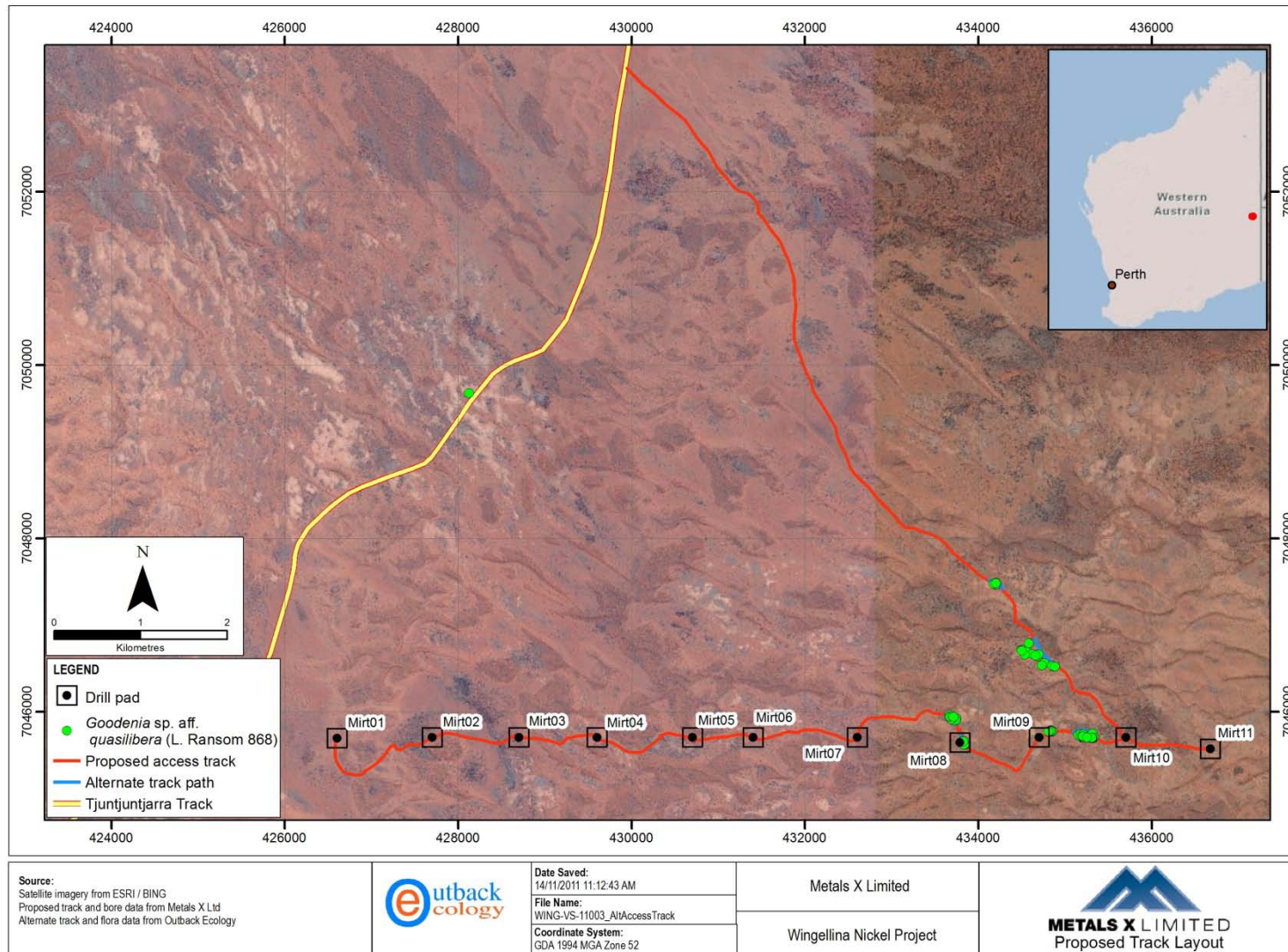


Figure 4: *Goodenia sp. aff. quasilibera* (L. Ransom 868) found during the current survey along the proposed drill line and access road

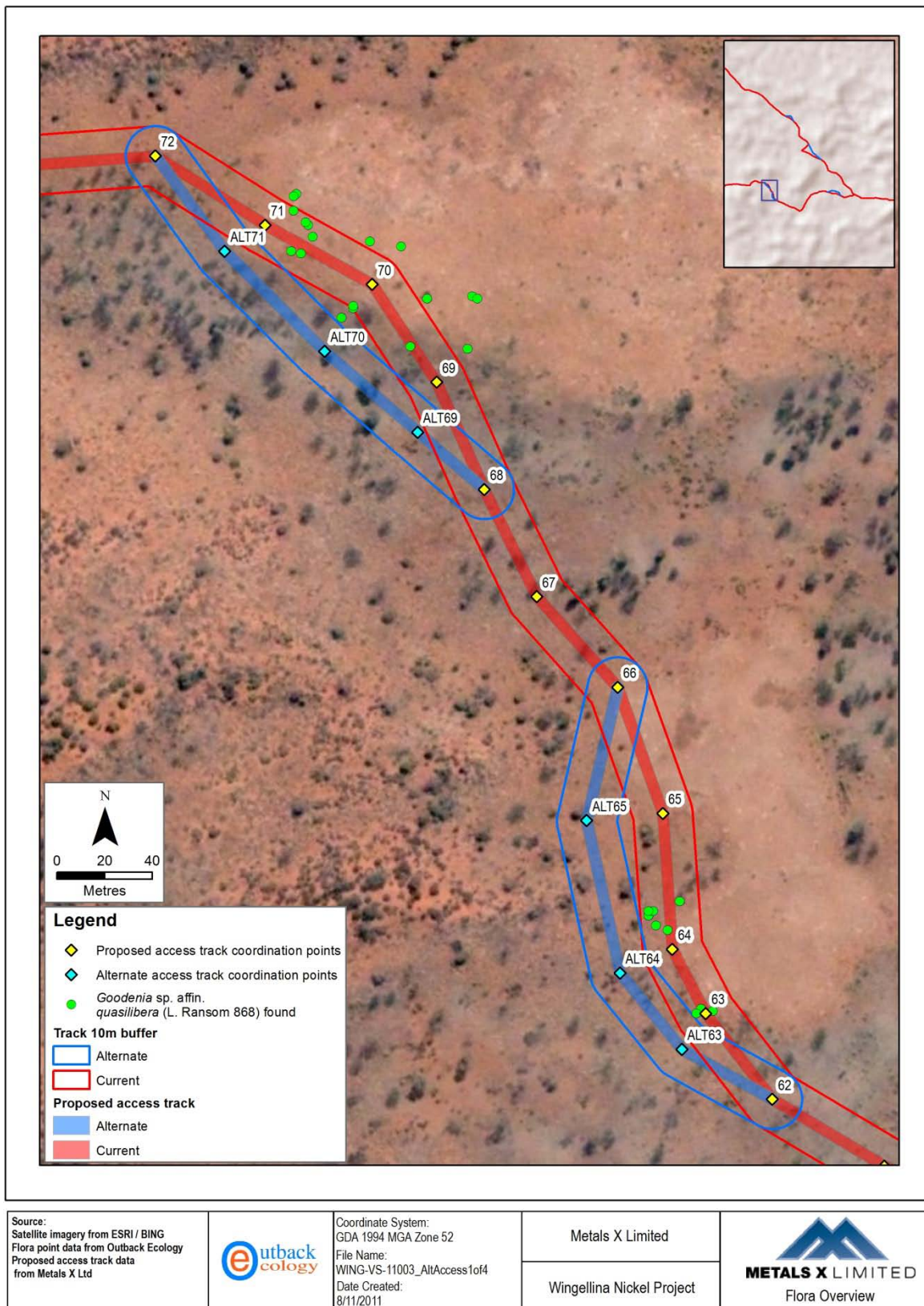


Figure 5: Details of recommended changes to access track and drill line to avoid *Goodenia* sp. aff. *quasilibera* (L. Ransom 868) populations (Map 1)

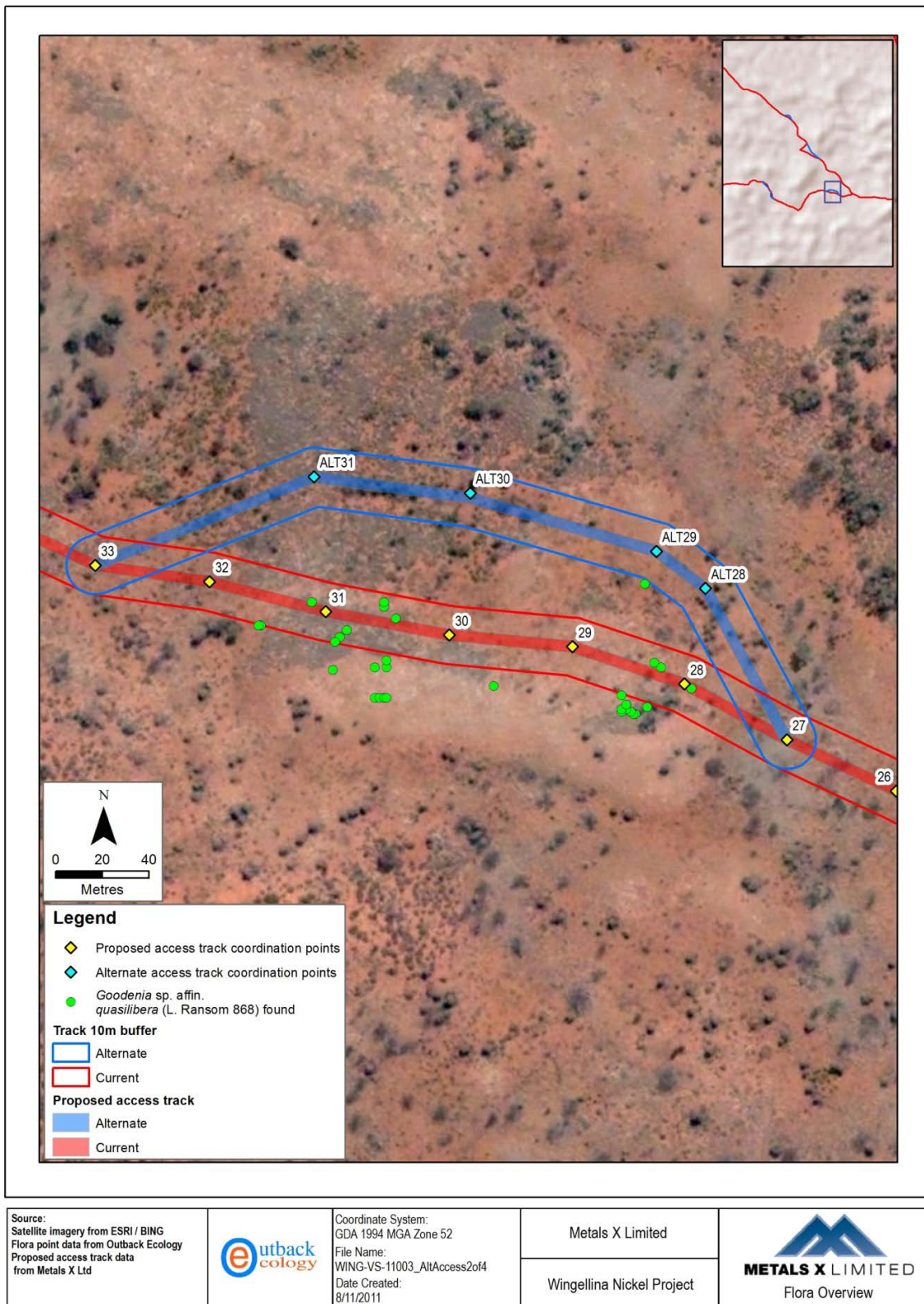


Figure 6: Details of recommended changes to access track and drill line to avoid *Goodenia* sp. aff. *quasilibera* (L. Ransom 868) populations (Map 2)

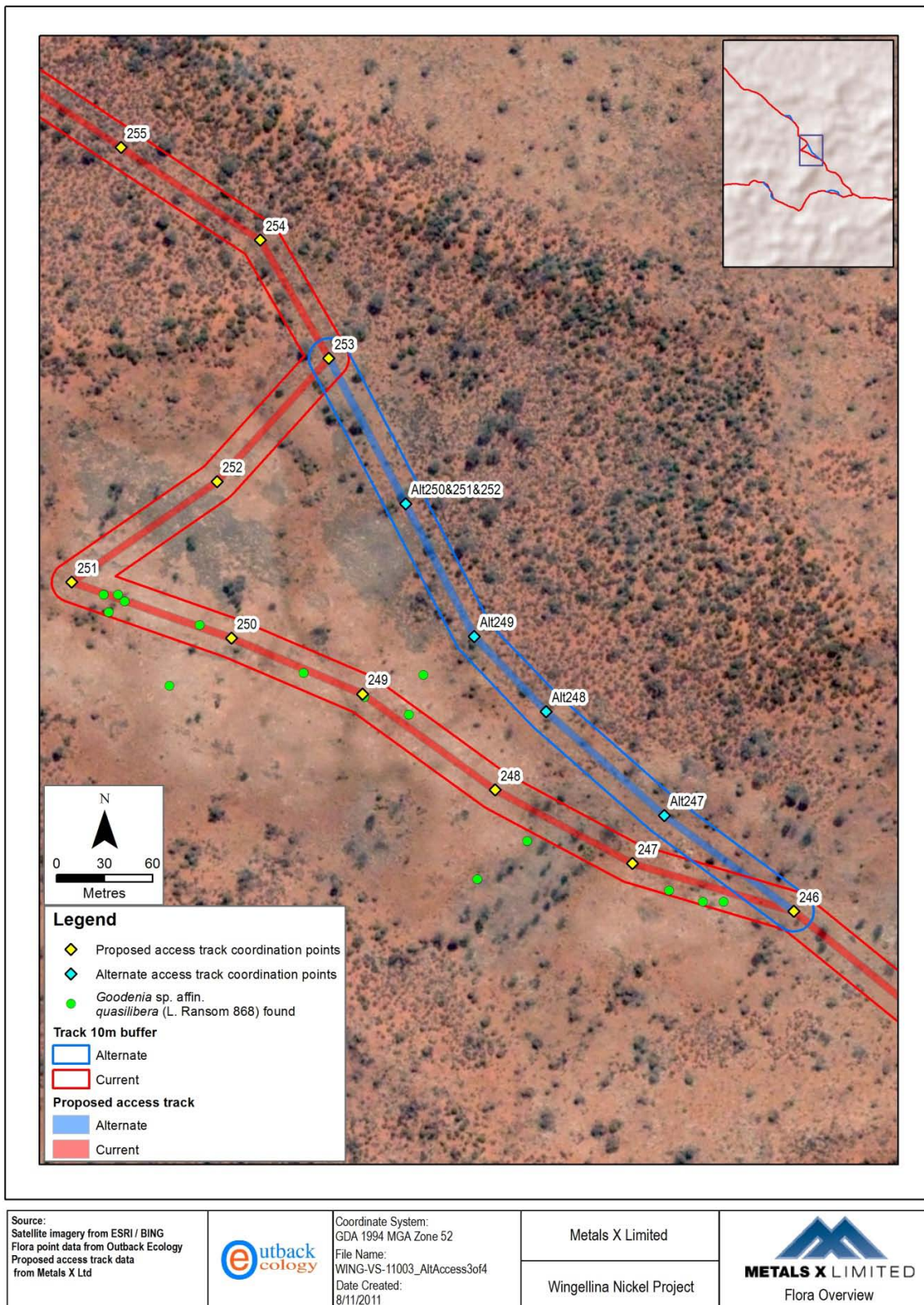


Figure 7: Details of recommended changes to access track and drill line to avoid *Goodenia* sp. affinis *quasilibera* (L. Ransom 868) populations (Map 3)

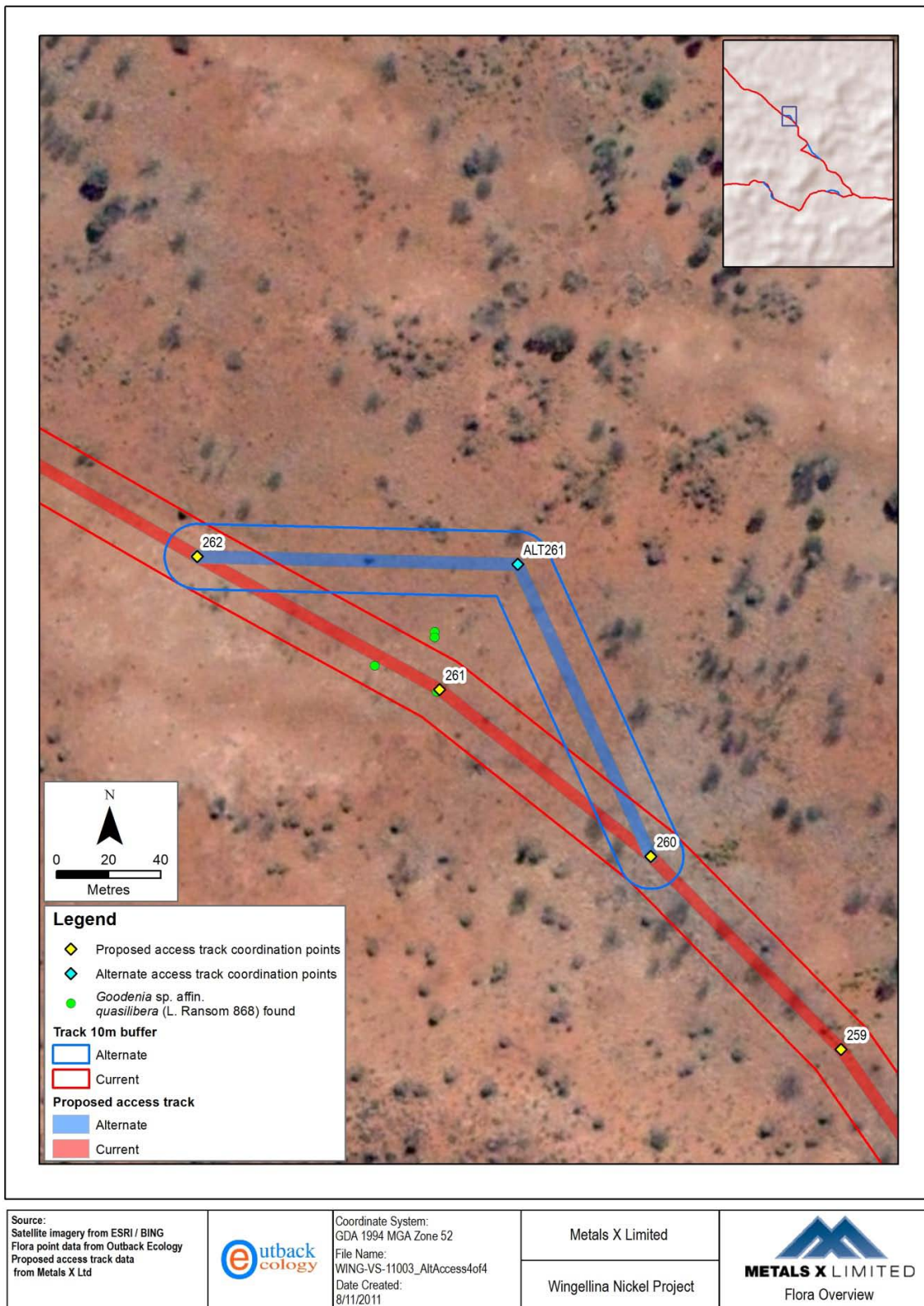


Figure 8: Details of recommended changes to access track and drill line to avoid *Goodenia* sp. affin. *quasilibera* (L. Ransom 868) populations (Map 4)

APPENDIX A

Map of the proposed drill pads, drill line track and associated access track

