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**Assessment Report
On the Airborne Radiometric Survey
D2 Property (Dixie West)
Red Lake Mining Division
Northern Ontario
Canada**

**Prepared for
D2 Gold Inc.
810-789 West Pender St.
Vancouver, B.C. V6C 1H2**

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Consulting Geologist

Effective Date: August 5, 2022

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ILLUSTRATIONS

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1.0 SUMMARY

D2 Gold Inc. (“**D2**” or “**D2 Gold**” or the “**Company**”) contracted Precision GeoSurveys of Langley B.C. to complete a detailed Helicopter Airborne Radiometric Survey covering the D2 Property (the “**Property**” or “**Dixie West**”), which is being explored for precious metals (principally gold) and other metals that may be of economic interest. The Property is located in western Ontario in the Red Lake Mining District, extending from 15 to 35 km south of the town of Red Lake. The survey totaled 3015 line kilometres on north – south (heading of 000°/180°) lines spaced at 42 metres apart. Tie lines were flown east-west (heading of 090°/270°) at 420 m spacing.

The radiometrics survey was completed between May 26th and May 29th, 2022. The airborne radiometric data was collected to serve in geological mapping and exploration for mineral deposits and the survey was designed to be approximately perpendicular to the dominant strike of the known rocks and structures. The total exploration expenditure for the program was \$170,000 (on a pre-tax basis).

The Property is located in the area of the Red Lake Mining Division in northwestern Ontario, approximately 15 – 35 km south of the community of Red Lake and 2 kilometres south of Highway 105. The UTM co-ordinates for the approximate centre of the claim block are 442500E, 5627000 N (NAD 83, Zone 15). The Property consists of 523 cells under MLAS, for a total area of ~ 10,673 hectares. The claims are presently held 100% by D2 Gold Inc. (subject to a 2% gross royalty).

The Property is accessible by a series of logging roads and trails that extend west from Highway 105 near Era Falls and Red Lake. Access to areas away from the logging roads is by floatplane and helicopter in the summer and additionally by snowmobile in winter.

The Property lies within the Red Lake Greenstone Belt of the Uchi Subprovince of the Archean Superior Province of the Canadian Shield. The most comprehensive geology description of the belt is provided by Sanborn-Barrie *et al.* (2001; 2004) compilations of Geological Survey of Canada (Open File 4256), and the Ontario Geological Survey (Preliminary Map P3460).

The geology of the Property is mostly defined from geophysics. The Property is 50% underlain by foliated tonalite dominantly in the north. There is an ellipsoid of migmatized supracrustal rocks within the foliated tonalites. The southern western tail of the Property is interpreted to be underlain by a northeast trending mafic to intermediate volcanics encompassed in a diorite-monzodiorite-granodiorite suite.

The Property has not been explored on the ground by D2 Gold. Most of the historic geological interpretation derived from widely spaced government magnetic surveys and regional mapping. D2 completed a detailed magnetic survey in 2020 that defined specific magnetic features not interpreted in the less detailed government surveys.

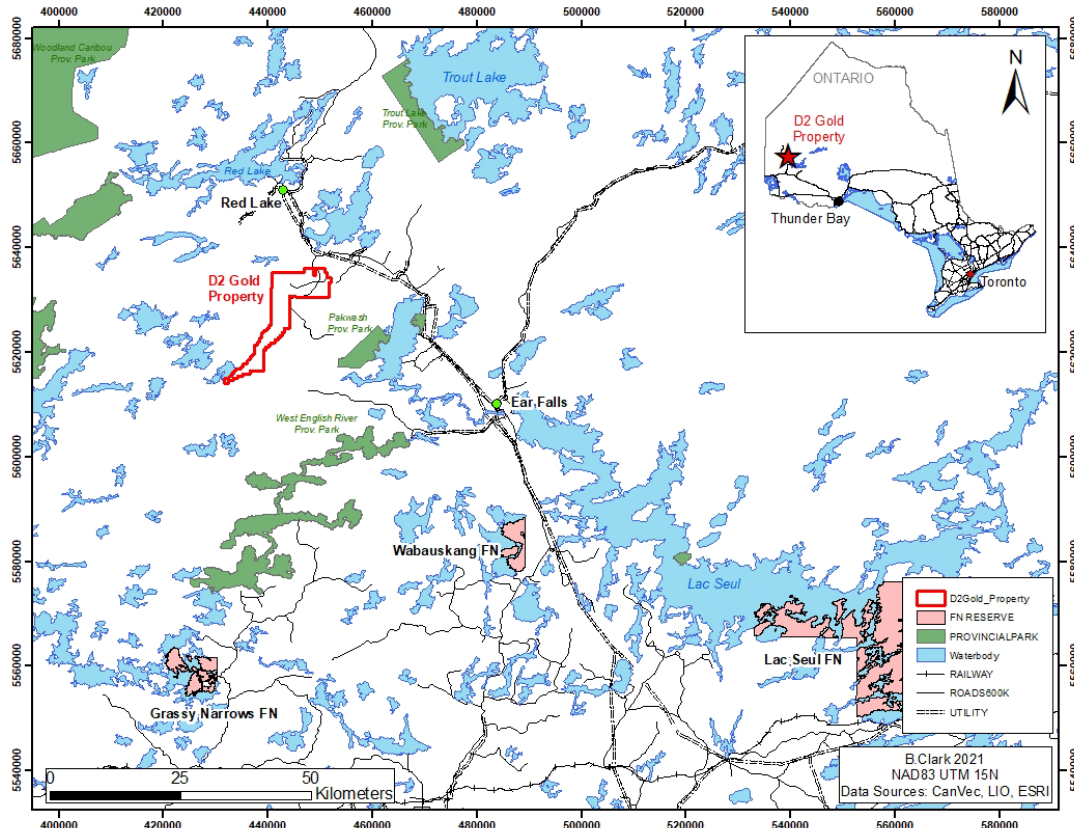
D2 Gold's recently completed radiometric survey adds further detail to the geological understanding of the Property. Notably, there is a first order relationship observable between the various element and ratio maps and the Digital Terrane Model, where elevated topography is consistently higher in detected elements, probably reflecting relatively thin sedimentary cover. However, a low eTh/K anomaly occurs in the southern

part of the Property, where it corresponds to an onshore Digital Terrain Model [DTM] high. Further detailed interpretation of the radiometric data is likely to yield more potential target anomalies, and is recommended, as discussed in the next section.

2.0 INTRODUCTION

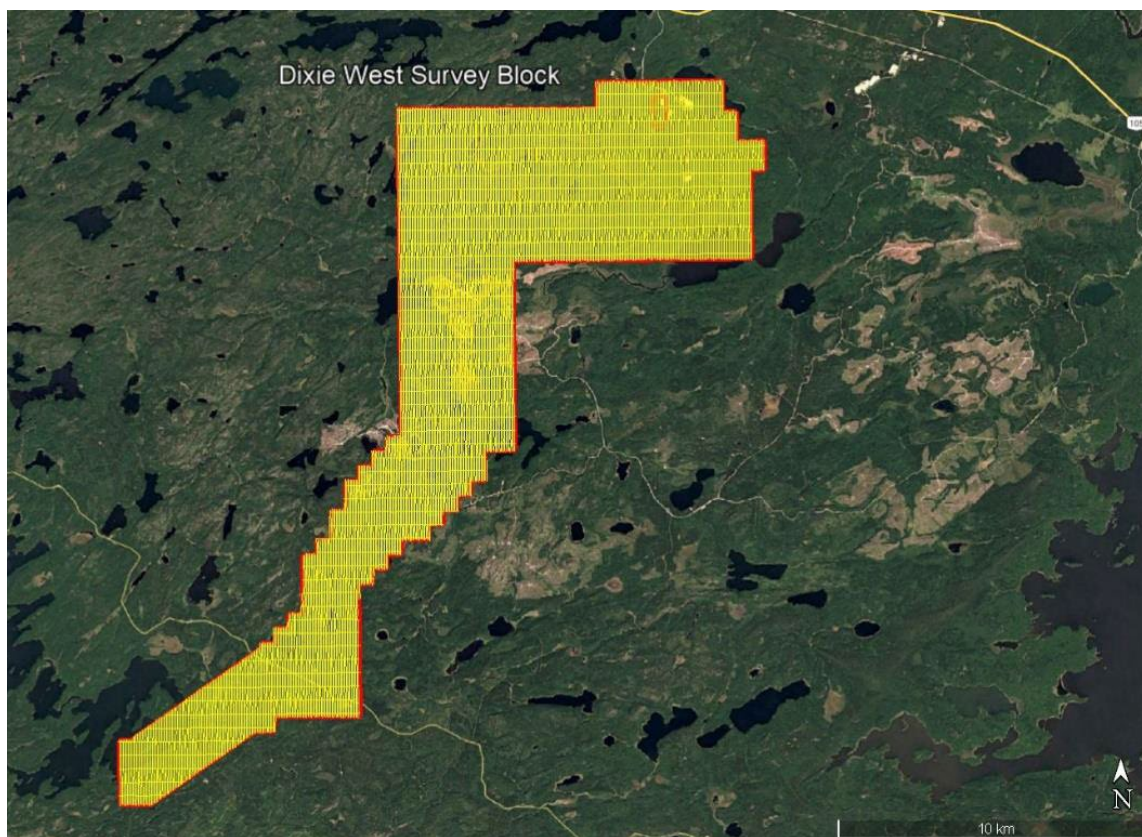
D2 Gold Inc. (“D2” or “D2 Gold” or the “Company”) contracted Precision GeoSurveys of Langley B.C. to complete a detailed Helicopter Airborne Radiometric Survey covering the D2 Gold Property (the “Property” or “Dixie West”), which is being explored for precious metals (principally gold) and other metals that may be of economic interest. The Property is located in western Ontario in the Red Lake Mining District, extending from 15 to 35 km south of the town of Red Lake (Fig. 1). The survey totaled 3015 line kilometres flown on north – south (heading of 000°/180°) lines spaced at 42 metres apart, and with tie lines flown east-west (heading of 090°/270°) at 420 m spacing. (Figure 2).

Figure 1: Location of the D2 Gold Property near Red Lake Ontario.



The survey was completed between May 26th and May 29th, 2022. The airborne radiometric data was collected to serve in geological mapping and exploration for mineral deposits and the survey was designed to be approximately perpendicular to the dominant strike of the known rocks and structures. The total exploration expenditure for the program was \$170,000 (excluding tax).

Figure 2: D2 Gold survey block with actual flight lines in yellow and survey block boundary in red



The radiometric survey follows a previous magnetic survey flown on the Property by Precision Geo Surveys and filed for assessment credit by D2 Gold Inc (Clark, 2020). This report describes the airborne radiometric survey, and references significantly the Clark report (2020) regarding Property descriptions, history of exploration, geologic setting and deposit types

3.0 PROPERTY DESCRIPTION AND LOCATION

The D2 Gold Property is located in the Red Lake Mining Division in western Ontario, approximately 15 – 35 km south of the community of Red Lake and 2 kilometres south of Highway 105. UTM co-ordinates for the approximate centre of the claim block are 442500E, 5627000 N (NAD 83, Zone 15). The Property consists of 523 cells under MLAS, for a total area of ~ 10,673 hectares (Figure 3). The claims list and due dates are provided in Table 1. The claims are presently held 100% by D2 Gold Inc. (subject to a 2% gross royalty).

Mining claims in Ontario are legally defined by their cell position on the grid and coordinate location in the Mining Land Administration System (“MLAS”) map viewer.

The Property consists of 523 cells under MLAS, for a total area of ~ 10,673 hectares (Figure 2). The claims, areas and due dates are listed in Table 1. The claims are presently held in D2 Gold Inc. (subject to a 2% gross royalty).

The Government of Ontario requires expenditures of \$400 per year per cell for staked claims, prior to expiry, to keep the claims in good standing for the following year. The Assessment report describing the work done by the company must be submitted by the anniversary date of the claims to which the work is to be applied. There are no boundary claims on the the Property. There are no known environmental liabilities associated with the Property, and there are no other known factors or risks that may affect access, title, or the right or ability to perform work on the Property. The mining claims do not give the claim holder title to or interest in the surface rights on those claims. The land is Crown land, and legal access to the claims is available by public roads which cross the Property.

Figure 3: Property mineral claims.

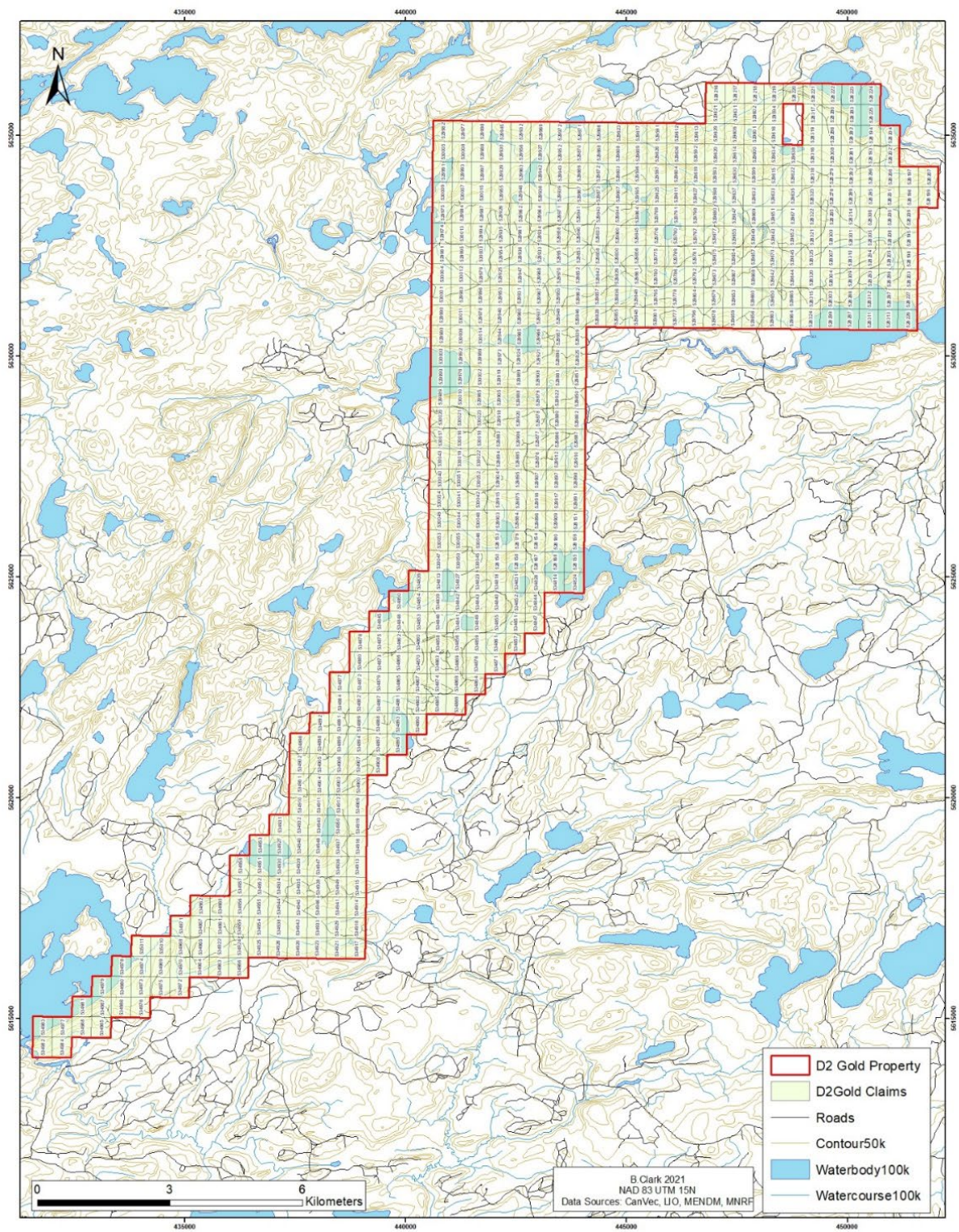


Table 1: Claims titles

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
DEDEE LAKE AREA	528150	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528151	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528153	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528154	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528155	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528158	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528159	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528167	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528168	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528179	2022-08-23	Active	100	400	0	0
DEDEE LAKE AREA	528180	2022-08-23	Active	100	400	0	0
DIXIE LAKE AREA	528193	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528194	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528195	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528196	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528197	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528198	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528199	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528200	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528201	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528202	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528203	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528204	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528205	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528206	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528207	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528208	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528209	2022-08-23	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA,FAULKENHAM LAKE AREA,SOUTH OF BYSHE AREA	528216	2022-08-23	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA,FAULKENHAM LAKE AREA,SOUTH OF BYSHE AREA	528217	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA,SOUTH OF BYSHE AREA	528218	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA,SOUTH OF BYSHE AREA	528219	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA,SOUTH OF BYSHE AREA	528220	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA,SOUTH OF BYSHE AREA	528221	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA,SOUTH OF BYSHE AREA	528222	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA,SOUTH OF BYSHE AREA	528223	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA,SOUTH OF BYSHE AREA	528224	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528225	2022-08-23	Active	100	400	0	209

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
DIXIE LAKE AREA	528226	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528227	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528278	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528279	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528280	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528281	2022-08-23	Active	100	400	0	209
DIXIE LAKE AREA	528282	2022-08-23	Active	100	400	0	209
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DIXIE LAKE AREA	528286	2022-08-23	Active	100	400	0	209
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DIXIE LAKE AREA	528304	2022-08-23	Active	100	400	0	209
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DIXIE LAKE AREA	528322	2022-08-23	Active	100	400	0	209

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
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DEDEE LAKE AREA	529591	2022-08-27	Active	100	400	0	209
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DEDEE LAKE AREA	529604	2022-08-27	Active	100	400	0	209
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DEDEE LAKE AREA,DIXIE LAKE AREA	529629	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529630	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529631	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529632	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529633	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529634	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529635	2022-08-27	Active	100	400	0	209

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
DEDEE LAKE AREA	529636	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529637	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529638	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529642	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529643	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529644	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529645	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529647	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529649	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529650	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529651	2022-08-27	Active	100	400	0	209
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DEDEE LAKE AREA,DIXIE LAKE AREA	529653	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529654	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529655	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529656	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529657	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529659	2022-08-27	Active	100	400	0	210
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DIXIE LAKE AREA	529663	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529664	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529665	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529667	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529668	2022-08-27	Active	100	400	0	209
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DIXIE LAKE AREA	529670	2022-08-27	Active	100	400	0	209
DIXIE LAKE AREA	529671	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529673	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529675	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529677	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529678	2022-08-27	Active	100	400	0	210
DEDEE LAKE AREA,DIXIE LAKE AREA	529679	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA,DIXIE LAKE AREA	529680	2022-08-27	Active	100	400	0	209
DEDEE LAKE AREA	529775	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529776	2022-08-28	Active	100	400	0	209
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DEDEE LAKE AREA	529778	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529780	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529781	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529786	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529789	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529790	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529791	2022-08-28	Active	100	400	0	209

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
DEDEE LAKE AREA	529792	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529795	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529796	2022-08-28	Active	100	400	0	210
DEDEE LAKE AREA	529797	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529798	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529799	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529801	2022-08-28	Active	100	400	0	210
DEDEE LAKE AREA	529804	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529825	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529828	2022-08-28	Active	100	400	0	210
DEDEE LAKE AREA	529829	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529830	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529833	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529836	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529839	2022-08-28	Active	100	400	0	83
DEDEE LAKE AREA	529840	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529841	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529842	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529843	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529844	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529845	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529846	2022-08-28	Active	100	400	0	210
DEDEE LAKE AREA	529848	2022-08-28	Active	100	400	0	210
DEDEE LAKE AREA	529849	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529850	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529851	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529852	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529853	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529855	2022-08-28	Active	100	400	0	210
DEDEE LAKE AREA	529856	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529857	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529858	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529860	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529861	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529862	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529864	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529866	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529867	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529868	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529869	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529870	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529871	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529872	2022-08-28	Active	100	400	0	209

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
DEDEE LAKE AREA	529873	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529875	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529876	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529877	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529878	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529879	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529880	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529881	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529882	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529883	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529884	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529885	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529886	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529887	2022-08-28	Active	100	400	0	14
DEDEE LAKE AREA	529888	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529889	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529890	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529891	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529894	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529895	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529896	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529897	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529898	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529903	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529904	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529905	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529906	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529907	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529908	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529909	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529910	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529912	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529915	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529916	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529917	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529918	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529919	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529920	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529921	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529922	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529924	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529925	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529926	2022-08-28	Active	100	400	0	0

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
DEDEE LAKE AREA	529927	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529929	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529930	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529931	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529932	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529933	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529934	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529935	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529936	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529937	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529938	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529939	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529940	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529942	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529943	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529944	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529945	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529947	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529948	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529949	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529950	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529951	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529952	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529953	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529954	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529955	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529956	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529957	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529958	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529960	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529961	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529962	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529963	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529964	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529965	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529966	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529967	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529968	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529969	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529970	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529971	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529972	2022-08-28	Active	100	400	0	209
DEDEE LAKE AREA	529973	2022-08-28	Active	100	400	0	0

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
DEDEE LAKE AREA	529974	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	529975	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	529976	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529977	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529978	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529979	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	529980	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529981	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	529982	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529983	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	529984	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	529985	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529986	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529987	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529988	2022-08-28	Active	100	400	0	2
DEDEE LAKE AREA	529989	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529990	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529991	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529992	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	529993	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529994	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	529995	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	529996	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	529997	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529998	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	529999	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	530000	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	530001	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	530002	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	530003	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	530004	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	530005	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	530006	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	530007	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	530008	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	530009	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	530010	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	530011	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	530012	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	530013	2022-08-28	Active	100	400	0	19
DEDEE LAKE AREA	530014	2022-08-28	Active	100	400	0	20
DEDEE LAKE AREA	530015	2022-08-28	Active	100	400	0	0
DEDEE LAKE AREA	530016	2022-08-28	Active	100	400	0	20

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
DEDEE LAKE AREA	534854	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534855	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534856	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534857	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534858	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534859	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534860	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534861	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534862	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534863	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534864	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534865	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534866	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534867	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534868	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534869	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534870	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534871	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534872	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534873	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534874	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534875	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534876	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534877	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534878	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534879	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA	534880	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA, LONGLEGGED LAKE AREA	534881	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA, LONGLEGGED LAKE AREA	534882	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA, LONGLEGGED LAKE AREA	534883	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA, LONGLEGGED LAKE AREA	534884	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA, LONGLEGGED LAKE AREA	534885	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA, LONGLEGGED LAKE AREA	534886	2022-11-14	Active	100	400	400	0
DEDEE LAKE AREA, LONGLEGGED LAKE AREA	534887	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534888	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534889	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534890	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534891	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534892	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534893	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534894	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534895	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534896	2022-11-14	Active	100	400	400	0

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
LONGLEGGED LAKE AREA	534897	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534898	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534899	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534900	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534901	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534902	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534903	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534904	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534905	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534906	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534907	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534908	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534909	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534910	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534911	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534912	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534913	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534914	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534915	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534916	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534917	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534918	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534919	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534920	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534921	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534922	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534923	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534924	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534925	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534926	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534927	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534928	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534929	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534930	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534931	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534932	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534933	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534934	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534935	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534936	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534937	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534938	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534939	2022-11-14	Active	100	400	400	0

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
LONGLEGGED LAKE AREA	534940	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534941	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534942	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534943	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534944	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534945	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534946	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534947	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534948	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534949	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534950	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534951	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534952	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534953	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534954	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534955	2022-11-14	Active	100	400	400	0
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LONGLEGGED LAKE AREA	534957	2022-11-14	Active	100	400	400	0
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LONGLEGGED LAKE AREA	534960	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534961	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534962	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534963	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534964	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534965	2022-11-14	Active	100	400	400	0
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LONGLEGGED LAKE AREA	534973	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534974	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534975	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534976	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534977	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534978	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534979	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534980	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534981	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534982	2022-11-14	Active	100	400	400	0

Township / Area	Tenure ID	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Exploration Reserve
LONGLEGGED LAKE AREA	534983	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534984	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534985	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534986	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534987	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	534988	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	535010	2022-11-14	Active	100	400	400	0
LONGLEGGED LAKE AREA	535011	2022-11-14	Active	100	400	400	0

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Property is accessible by a series of logging roads and trails that depart south and wester from Highway 105 between Ear Falls and Red Lake, Ontario. Floatplane and helicopter in the summer and snowmobile or air in the winter allows access to the areas away from logging roads.

The town of Red Lake is accessed by the all-weather paved highway 105 that extends north for 175 km from the Trans-Canada Highway 17 at Vermilion Bay, Ontario to Red Lake. Red Lake airport is serviced by commercial scheduled air services from Thunder Bay, Ontario and Winnipeg, Manitoba.

The climate in the Red Lake area is described as warm-summer humid continental (climate type Dfb according to the Köppen climate classification system). Mean daily temperatures range from -18°C in January to +18°C in July. Annual precipitation averages 70 cm, mainly occurring as summer rain showers, and total annual precipitation includes approximately two metres of snow. Snow usually starts falling during late October and starts melting during March but is not normally fully melted until late April. Fieldwork and drilling are possible year-round on the property some swampy areas are more easily accessible in the winter when frozen.

Red Lake is a municipality with a population of 4,107 (2016 Census) and includes the smaller communities of Red Lake, Balmertown, Cochenour, Madsen, McKenzie Island and Starratt-Olsen, all of which are built around operating or former gold mines. Evolution Mining Limited currently operates the Red Lake Gold Mine that comprises the former

Dickenson, Campbell and Cochenour mines. Since production commenced in 1949, the combined Red Lake Operation has produced more than 25M oz of gold at an average grade in excess of 20 g/t gold (<https://evolutionmining.com.au/red-lake/> accessed July 31, 2022).

In 1946, Highway 105 connected Red Lake to the Trans-Canada Highway, opening up the area to mining activity as well as logging, hunting and fishing tourism.

Gold mining is the area's primary economic activity. The Municipality of Red Lake offers a full range of services and supplies for mineral exploration and mining, including both skilled and unskilled labour, bulk fuels, freight, heavy equipment, groceries, hardware and mining supplies.

Timber extraction also contributes to the Red Lake economy.

The Property has gentle to moderate topographic relief with elevations ranging from 360 to just over 380 m. Topography is dominated by glacially outwash covered with jack pine and mature poplar trees. Bedrock exposure is limited as low ridges or exposures near rivers or creeks. Swamps, marshes, small streams, and small to moderate-size lakes are widespread. Glacial overburden depth is generally shallow, rarely exceeding 20m, and primarily consists of ablation till, minor basal till, minor outwash sand and gravel, and silty-clay glaciolacustrine sediments.

The elevation of Red Lake is 357 m asl and is in the Arctic watershed. Red Lake drains into the Chukuni River which flows initially south east into the English River, then west to the Winnipeg River, and north to the Nelson River before discharging into Hudson Bay.

Vegetation consists of thick second growth boreal forest composed of black spruce, jack pine, poplar, and birch.

5.0 HISTORY

The Red Lake area hosts one of the most prolific and highest-grade gold camps in Canada, with historical production of more than 25 million ounces of gold. The majority of production has come from four mines: Campbell; Red Lake; Cochenour-Willans; and Madsen. There has been additional production from ten smaller mines (Andrews et. al., 1986).

Recent exploration completed by Great Bear Resources Ltd. on their Dixie Project southeast of the Town of Red Lake, which is located adjacent to D2 Gold's Property, has encountered a gold mineralized environment not previously identified in the RLGB.

The town of Red Lake was founded on gold discoveries made in 1925 by Ray and Lorne Howey and George McNeely. The discoveries led to a gold rush peaking in 1926 with a subsequent mining boom in the 1930s and 1940s that resulted in 12 producing gold mines in the Red Lake area. The Property is also 75 km west-southwest of the past producer (1971 to 1981) South Bay Mine (Cu, Zn, Ag; 1.45 million tons of ore grading 2.3% copper, 14.7% zinc and 120 g/t silver).

The Property has had limited historic exploration completed. Table 2 lists historic work and the percentage area covered of the Property.

Table 2. D2 Property Previous Exploration

AFRI_FID	YEAR	PERFORMED BY	AREA	WORK_DESCR	Coverage %
52K13SW0004	1984	Noranda Exploration Co	Deedee Lake Area	Airborne Magnetometer	21.69%

52K13SE0057	1969	Caravelle Mines Ltd	Dixie Lake Area	Airborne Electromagnetic, Airborne Magnetometer, Compilation and Interpretation - Airborne Geophysics, Compilation and Interpretation - Geology	9.71%
52K13NW0053	1985	Golden Terrace Resc Corp	Dixie Lake Area	Airborne Electromagnetic, Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer	0.07%

Noranda Exploration Co. described the section of the magnetics that covered the area to the southwest of the present claim block. The description was on the Long Legged claim group the magnetics vary from 60250 to 60900 nts. The main features on the group are the two main mag highs. Other minor highs exist and there appears to be a northeast trending fault as defined by the mag low cutting through the center of the property.

The Caravelle Mines Ltd. coverage was only Airborne Electromagnetic and Magnetics in the very southeast of the corner of the claim block under Dixie Lake.

Golden Terrace Resources Corp. just touched the northern portion of the present claim block.

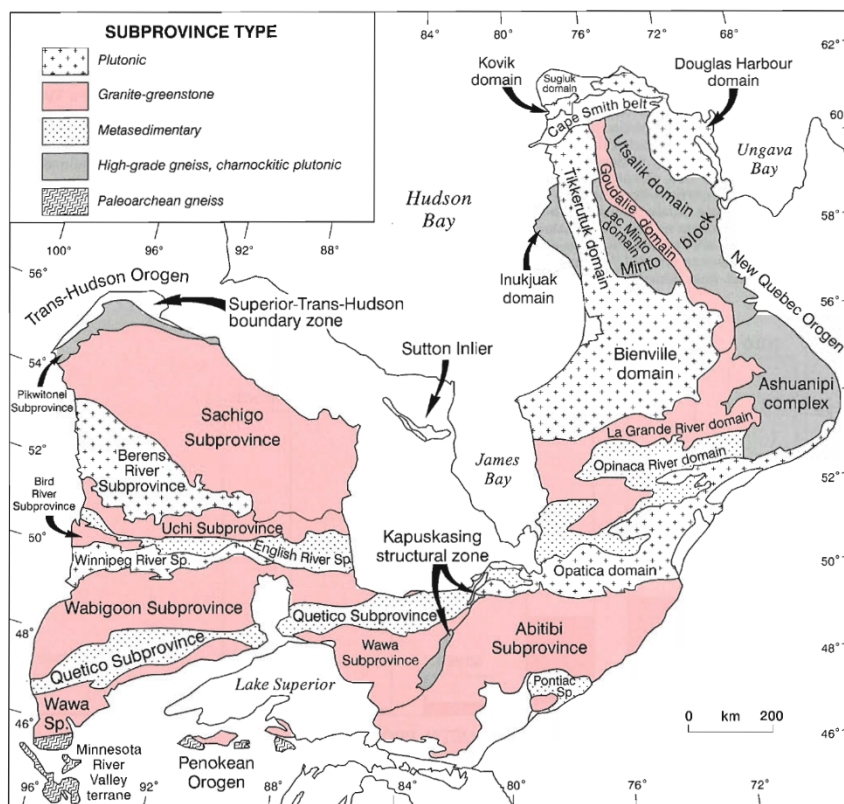
6.0 GEOLOGICAL SETTING AND MINERALIZATION

The Property is located within the western Superior Craton, which is one of the largest ancient Archean continental blocks comprising North America (Card, 1990; Card and Poulsen, 1998). The craton is comprised of Archean greenstone belts and intrusive granitoids, separated locally by shear zones and regionally significant faults.

6.1 Regional Geology

The Property lies within the Red Lake Greenstone Belt (RLGB) of the Uchi Subprovince of the Archean Superior Province of the Canadian Shield (Figure 4; Card and Poulsen, 1998).

Figure 4: The Red Lake district in the Uchi sub-province of the western Superior Craton.



The most comprehensive geology description of the belt is provided by Sanborn-Barrie et al. (2001; 2004), compilations of Geological Survey of Canada (Open File 4256), and the Ontario Geological Survey (Preliminary Map P3460). It is briefly summarized here.

Red Lake greenstone belt has 300 MY history of tectono-magmatic deformation with episodes of magmatism, sedimentation and intense hydrothermal activity (Sanborn-Barrie et al., 2001). The rocks of Red Lake (east trending) and Birch-Confederation (north trending) greenstone belts, two coherent belts comprising Uchi Subprovince, are interpreted to have evolved by eruption and deposition of volcanic sedimentary sequences on the active continental margin (the North Caribou Terrane, 3.0 to 2.7 Ga), followed by subduction related arc volcanism (Figure 5). Continental collision with Winnipeg River terrain at 2.71-2.7 Ga led to subsequent crust thickening and metamorphism (Stott and Corfu, 1991; Sanborn-Barrie et al. 2000, 2001). Both greenstone belts in the Red Lake District are dominated by the Balmer and Confederation Lake assemblages (Sanborn-Barrie et al., 2004).

Balmer assemblage (2989-2964 Ma) – tholeiitic and komatiitic basalt, with minor felsic volcanic rocks, iron formation and fine-grained clastic meta-sediments. Assemblage is the host to majority of Red Lake's lode gold deposits.

The Woman Assemblage (2858 Ma) is also a primarily Fe-tholeiitic sequence of mafic volcanic strata, with minor interbeds of banded chemical sediments and pyritic siltstones and shales. This assemblage is unconformable or Para conformable on the Balmer assemblage and occurs along the western edge of the Birch-Uchi Belt stratigraphically above the Balmer Assemblage.

The Confederation Lake Assemblage (2750-2700Ma) is by far the most aerially extensive assemblage in the belt. It comprises an assemblage of intermediate to felsic flows and pyroclastic strata, which are unconformably overlain by conglomeratic to argillaceous rift-related sediments. The Confederation Lake Assemblage also has minor interbeds or banded iron formation.

At least 3 phases of regional deformation affected the area resulting in the widespread development of folds, axial planar fabrics, and ductile shear zones. D1 deformation involved NW-SE shortening, the development of NE to N-striking folds and faults. Evidence for this D1 event is best preserved in the southern part of the belt in the Confederation Lakes area. D2 deformation involved NE-SW to N-S shortening and the development of ~E-W to WNWSE striking regional folds, faults and fabrics. This event is manifested to varying degrees throughout the belt from the Casummit Lake area in the north to the Slate Lake area in the south. D3 deformation appears to have involved renewed E-W shortening and is restricted to the northern part of the belt in the Mink Lake/Casummit Lake area. This shortening event resulted in the buckling of the regional S2 foliation into N-S folds. This event was accompanied by N-S striking S3 crenulation cleavage and ENE plunging F3 fold development.

The RLGB records a volcanic history that spans 300 Ma and is represented by seven volcano-sedimentary assemblages (Sanborn-Barrie et al, 2001). From oldest to youngest these include:

- 1) The Balmer Assemblage (2.99-2.97 Ga), that is the host to the majority of current and past-producing gold mines, consists of submarine tholeiitic and komatiitic flows, ultramafic

intrusive rocks, and intercalated calc-alkaline felsic volcanic rocks, fine-grained clastic rocks and iron-formation.

- 2) The Ball Assemblage (2.94–2.92 Ga) is comprised of calc-alkalic basalt, andesite, dacite, and rhyolite intercalated with minor komatiite and komatiitic basalt flows, conglomerate, quartzite, and locally stromatolitic marble.
- 3) The Slate Bay Assemblage (<2.93 Ga) is a dominantly clastic assemblage that disconformably overlies the Balmer Assemblage. The Slate Bay Assemblage is composed of feldspathic wacke interbedded with lithic wacke, argillite, and lenses of conglomerate, and compositionally mature conglomerate, grit, and quartzose arenite. Quartz-rich rocks contain clasts of vein quartz, felsic volcanic rocks, and fuchsitic material indicating derivation from felsic and ultramafic sources.
- 4) The Bruce Channel Assemblage (2.89 Ga) comprises intermediate volcanoclastic fragmental rocks locally overlain by a sequence of chert-pebble conglomerate, wacke, siltstone, and quartz-magnetite iron-formation.
- 5) The Trout Bay assemblage (approximately 2.85 Ga) consists of basalt overlain by clastic rocks, intermediate tuff and chert-magnetite iron-formation.
- 6) The Huston assemblage (<2.89 Ga and >2.74 Ga) consists of a regionally extensive unit of polymictic conglomerate, locally associated with wacke and argillite, that marks an angular unconformity between Mesoarchean and Neoarchean strata.

The uppermost stratigraphic package, the Confederation assemblage (2.75 – 2.73 Ga), consists of calc-alkaline and tholeiitic felsic, intermediate, and mafic volcanic rocks, which locally exhibit volcanogenic-massive-sulphide-style alteration and mineralisation.

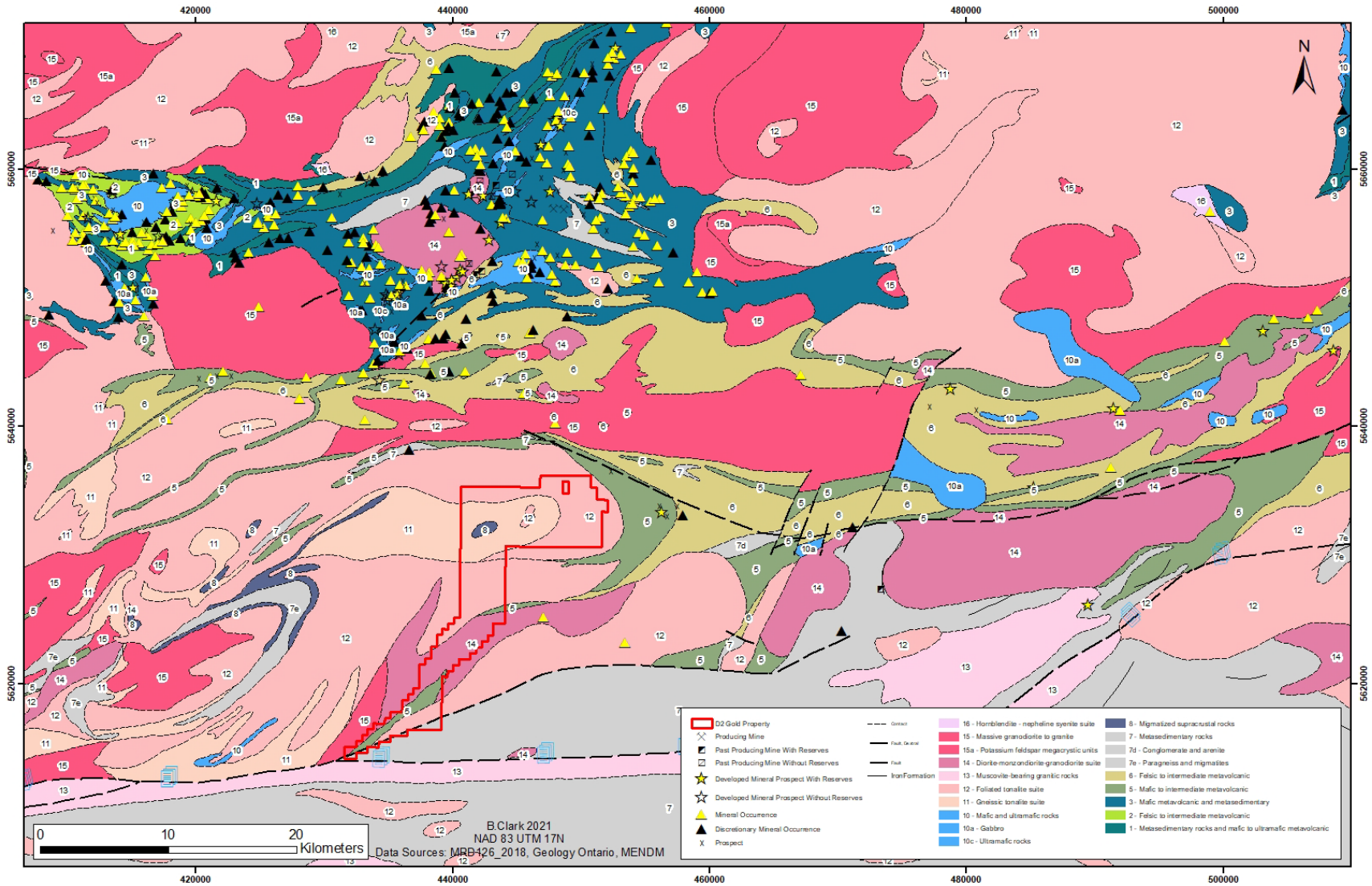


Figure 5: Regional Geology

Felsic plutons that are syn-volcanic with Confederation metavolcanic rocks intrude all the major assemblages. The weakly to moderately foliated Dome stock (2.72 Ga), which occupies the core of the RLGB, provides a minimum age for timing of the last penetrative deformation event (Sanborn-Barrie et al, 2001). Post tectonic batholiths were intruded along the margins of the RLGB ca 2.70 Ga.

Regionally, the rocks which comprise the RLGB have undergone poly-phase deformation. This involved an early non-penetrative deformation (D0), which uplifted pre-Confederation and Huston age rocks, and at least two episodes of post-Confederation-age ductile deformation (D1 and D2) reflected in folds and fabrics of low to moderate finite strain (Sanborn-Barrie et al., 2001). The main penetrative structures recognized throughout the Red Lake belt are attributed to D2 deformation (Figure 5). These include sets of northeast-striking, moderately to steeply plunging F2 folds.

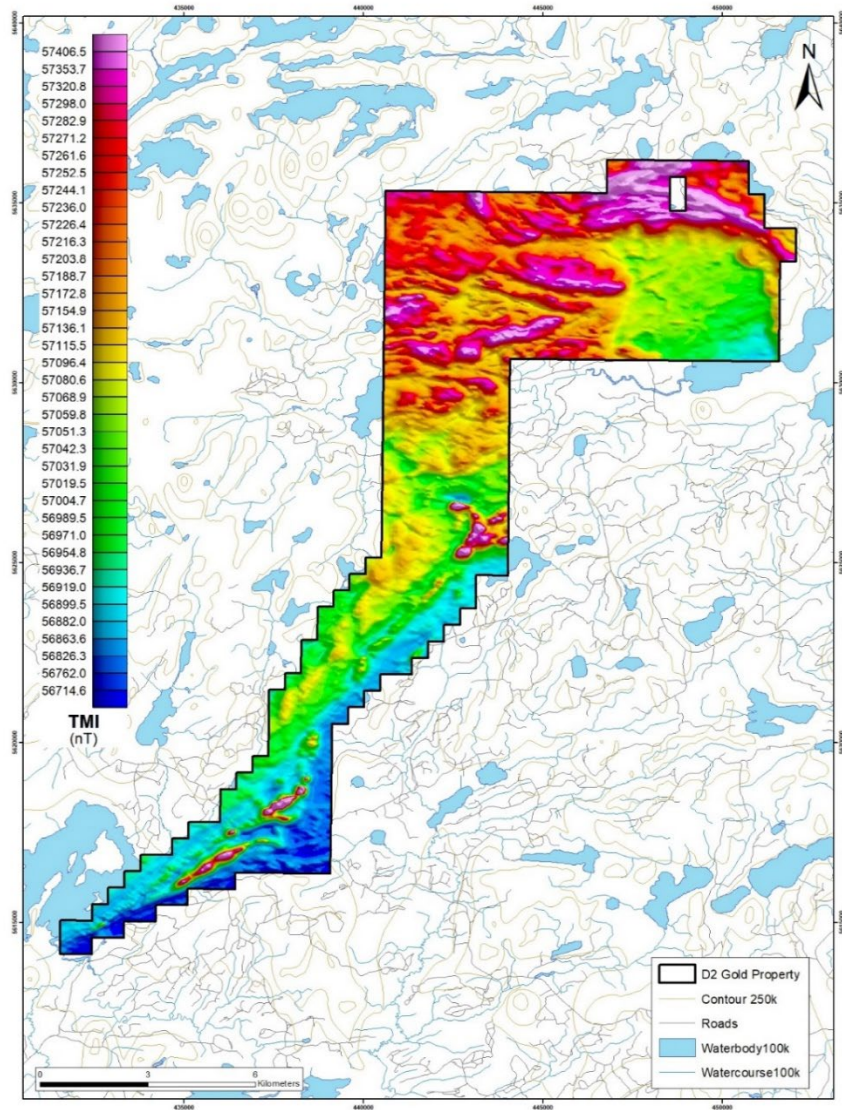
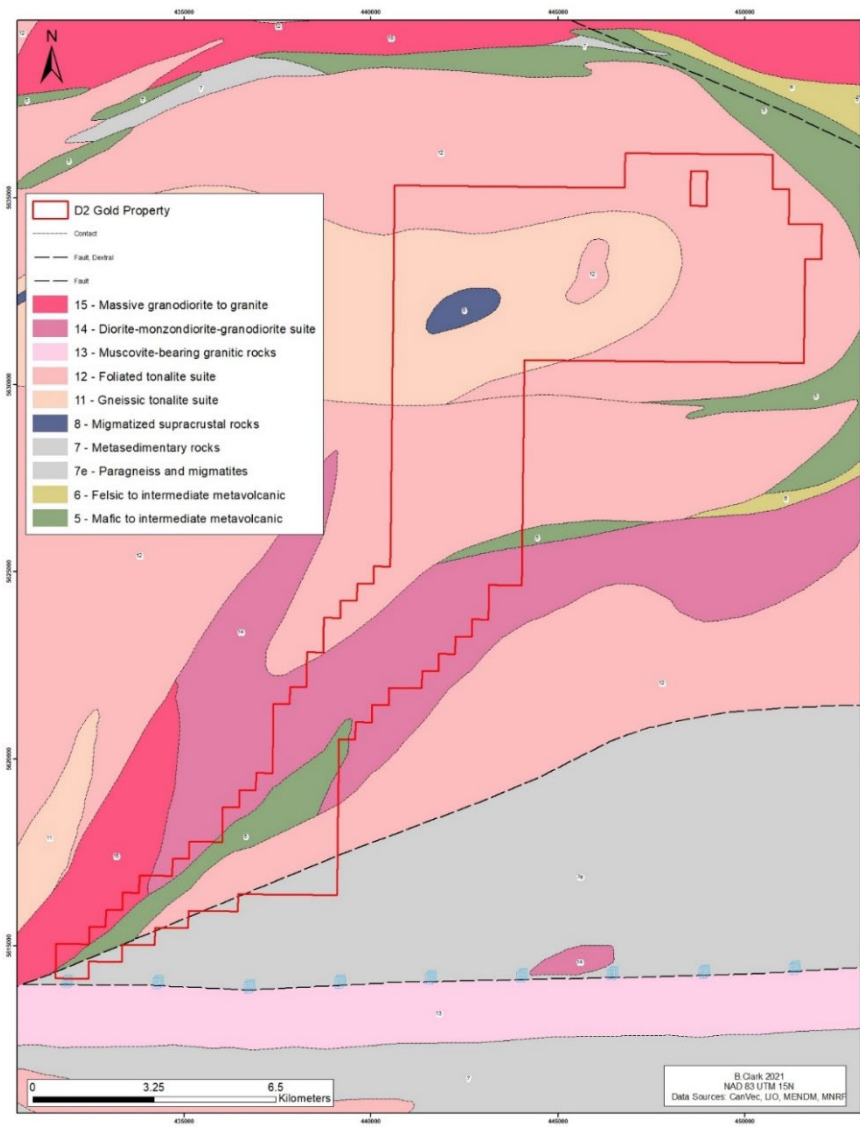
6.2 Local and Property Geology

The geology of the Property is perhaps best defined from geophysics (Figure 6), in part due to extensive glacial sedimentary cover.

The Property is 50% underlain by foliated tonalite dominantly in the north. There is an ellipsoid of migmatized supracrustal rocks within the foliated tonalites. The southern western tail of the Property is interpreted to be underlain by a northeast trending mafic to intermediate volcanics encompassed in a diorite-monzodiorite-granodiorite suite.

Magnetic features defined by the recent detailed airborne magnetics indicate that there are east west trending features in the north half of the Property with a distinctive northeast-southwest feature in the southwestern tail of the Property.

Figure 6: D2 Property Geology and Magnetics.



6.3 Mineralization

There are no records of any gold or sulphide mineralization being found on the Property as of the date of this assessment report, although this could be due in part to the fact that previous work suggests there is nominal outcrop in the project area.

The dominant target is gold mineralization similar to that located on the adjacent Kinross Gold (Great Bear Resources) Dixie Property (Figure 7). A newly discovered gold trend on that Kinross/Great Bear Dixie Property named the LP Fault Zone is described by Adamova (2020):

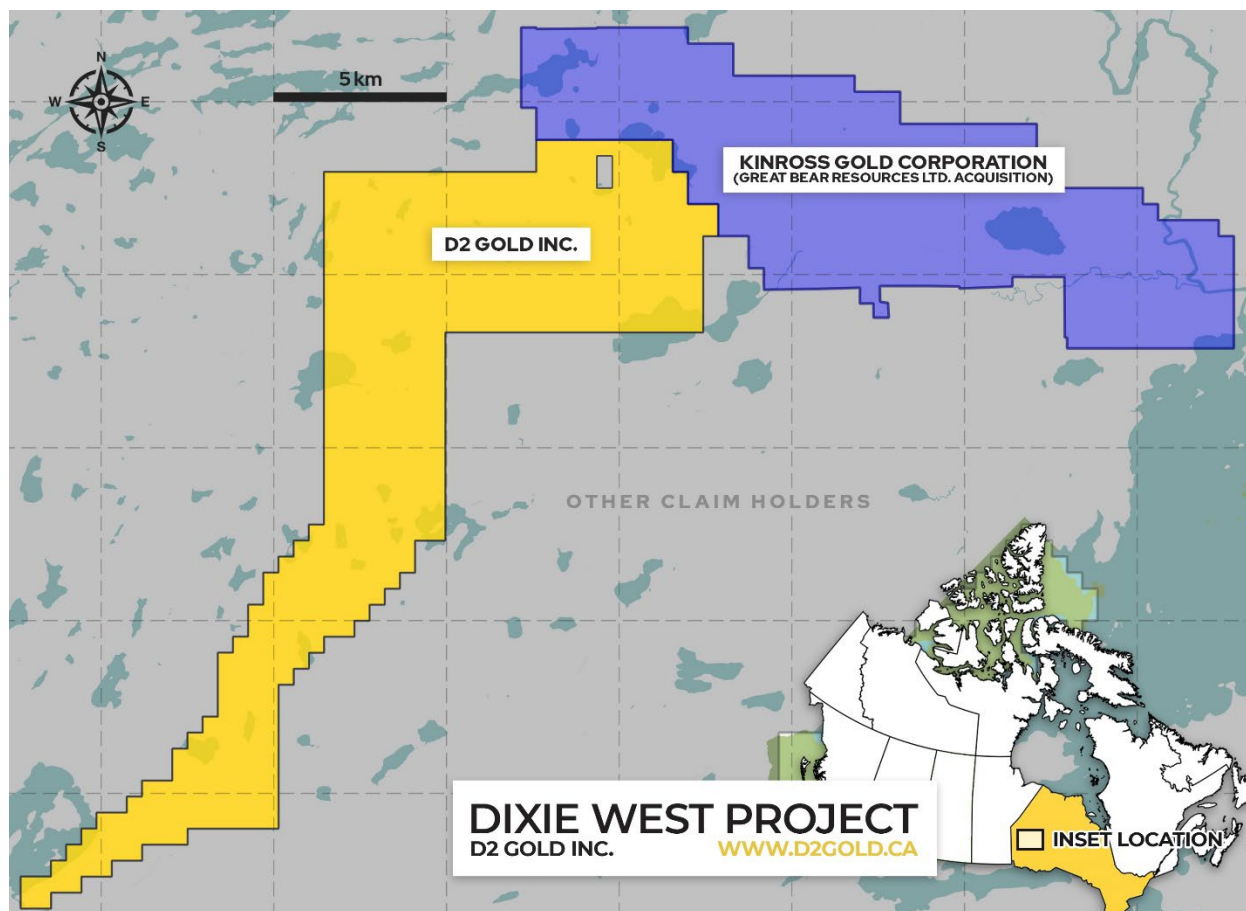
“.....a style of mineralization not observed in other parts of the Red Lake Greenstone Belt. The zone is associated with a high degree of deformation, widespread alteration, and transposition of primary textures as well as a complete flattening of stratigraphy.

A wide zone of high strain and increased metamorphic grade defines the area of mineralization for the LP Fault Zone. This strain zone is very continuous for over 4 km and is slightly oblique to stratigraphy, intersecting multiple lithologies including the porphyritic felsic volcanic, metasediment 2, felsic volcanic 2, and metasediment 3. The deformation zone is up to 500 m wide. The higher-grade gold mineralization appears to be controlled by the intersection of this strain zone and the metasediment 2 unit. Ongoing LP Fault drilling has demonstrated that most of the greater than 5 g/t gold intercepts and nearly all of the greater than 10 g/t gold intercepts drilled along the LP Fault to-date occur within 50 to 100 m of the metasedimentary/felsic volcanic contact (Figure 33). Gangue mineralization is variable across the zone and locally ranges from 0% to any amount of

the following: 1-15% disseminated pyrite, 1-10% arsenopyrite (blebby and matted), 1-5% red and yellow sphalerite, 1-5% pyrrhotite, 1-5% chalcopyrite, 1-5% galena, and 1-3% scheelite.

At least three gold mineralizing events have been recognized, including foliation parallel free gold in host rock, transposed quartz veins, and a later gold event with visible gold in quartz veins that are slightly oblique to foliation.”

Figure 7: D2 Property Adjacent Kinross Gold (Great Bear) Dixie Project



7.0 DEPOSIT TYPES

D2 Gold is focused on identifying and delineating potential Archean-aged orogenic gold deposits on the Property (Groves et. al., 1998). Following Kerrich et. al. (2000), orogenic gold deposits are typically associated with crustal-scale fault structures, although the most abundant gold mineralization is hosted by lower-order splays from these major structures. Deposition of gold is generally syn-kinematic, syn- to post-peak metamorphism and is largely restricted to the brittle-ductile transition zone. However, deposition over a much broader range of 200–650°C and 1–5 kbar has been demonstrated. Host rocks are highly variable, but typically include mafic and ultramafic volcanic rocks, banded iron formation, sedimentary rocks and rarely granitoids. Alteration mineral assemblages are dominated by quartz, carbonate, mica, albite, chlorite, pyrite, scheelite and tourmaline, although there is much inter-deposit variation.

Dubé et. al. (2004) have documented that the main stage of Red Lake gold mineralization postdates volcanism of the Balmer assemblage at 2990 to 2960 Ma and is contemporaneous with emplacement of the ca. 2718 Ma Dome and McKenzie stocks. The <2747 Ma conglomerate from the Huston assemblage in the Red Lake mine occurs at an important interface between Mesoarchean and Neoproterozoic strata and highlights the proximity of the Campbell-Red Lake deposit to a folded regional unconformity, supporting the empirical, spatial and possible genetic relationship between large gold deposits and regional unconformities in the district. They propose that areas of high potential for gold exploration in Red Lake occur in rocks within 500 m to 1 km of the unconformity.

Parker (2000) describes the Red Lake greenstone belt being affected by a large-scale (10's of kilometres) hydrothermal alteration system, resulting in approximately contemporaneous strong to intense, distal calcite carbonatization that affects rocks of all ages, and less extensive (kilometre), proximal, strong to intense ferroan-dolomite and potassic alteration, found in almost all areas hosting gold mineralization.

8.0 EXPLORATION

D2 Gold Inc. has now completed two airborne surveys on the Property, one covering radiometrics and the other geophysics. Both were helicopter surveys flown by contractor Precision GeoSurveys of Langley, B.C. and cover the entire Property. The first survey was magnetics completed in 2020, and is described in Walker (2020). The more recent radiometric survey totaled 3015 line kilometres and was flown on north – south (heading of 000°/180°) lines spaced 42 metres apart, with tie lines flown east-west (heading of 090°/270°) at 420 m spacing.

The contractor's survey report is included as Appendix 1, along with 11 Plates displaying the potassium (K), uranium (U) and thorium (Th) levels detected, as well as various ratios between elements, flight lines and a Ternary image combining all three measured elements. Plates are also included for reference in the report at page size over the next 11 pages.

The digital data were represented as grids as listed below:

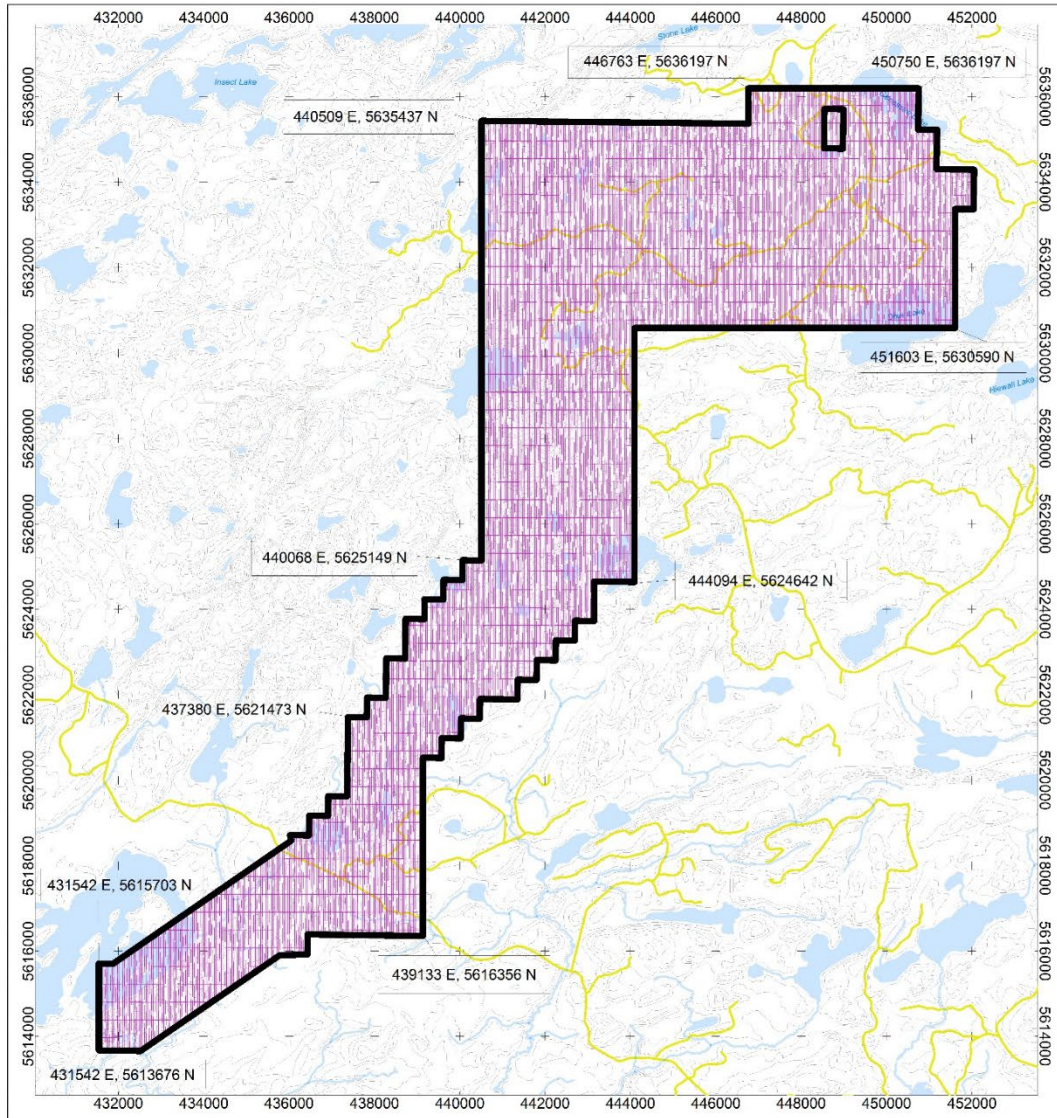
Plates

D2 Property Survey Block

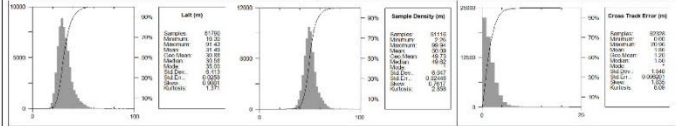
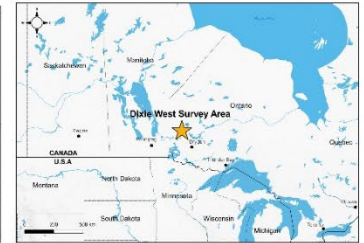
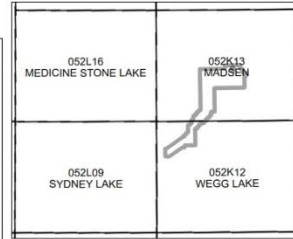
- Plate 1: Actual Flight Lines (FL)
- Plate 2: Digital Terrain Model (DTM)
- Plate 3: Potassium - Percentage (%K)
- Plate 4: Thorium - Equivalent Concentration (eTh)
- Plate 5: Uranium - Equivalent Concentration (eU)
- Plate 6: Total Count (TC)
- Plate 7: Total Count - Exposure Rate (TCexp)
- Plate 8: Potassium over Thorium Ratio (%K/eTh)
- Plate 9: Potassium over Uranium Ratio (%K/eU)
- Plate 10: Thorium over Uranium Ratio (eTh/eU)
- Plate 11: Ternary Image (TI)

The total exploration expenditure for the program was \$170,000 (on a pre-tax basis), which is filed along with this assessment report for assessment credit.

Notably, there is a first order relationship observable between the various element and ratio maps and the Digital Terrain Model (DTM; Plate 2). Elevated topography is consistently higher in detected elements, probably reflecting relatively thin sedimentary cover. Low areas tend to be lakes or ponds, and therefore have very low radiometric levels. The element ratio and Ternary Image maps (Plates 8 – 11) may minimize the association with elevation.



National Topographic System



MAP PROJECTION
 Projection: Universal Transverse Mercator Zone 15N
 Datum: WGS 84
 Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZHK
Total Line km:	3015 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	090°/270°

AIRBORNE SURVEY SYSTEM

Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz

Legend



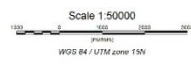
TOPOGRAPHIC REFERENCE
 National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
 URL <[<http://ftp.geogratis.gc.ca/pub/nrcan_mcan/vector/ntdb_bndt/>](http://ftp.geogratis.gc.ca/pub/nrcan_mcan/vector/ntdb_bndt/)[2007]

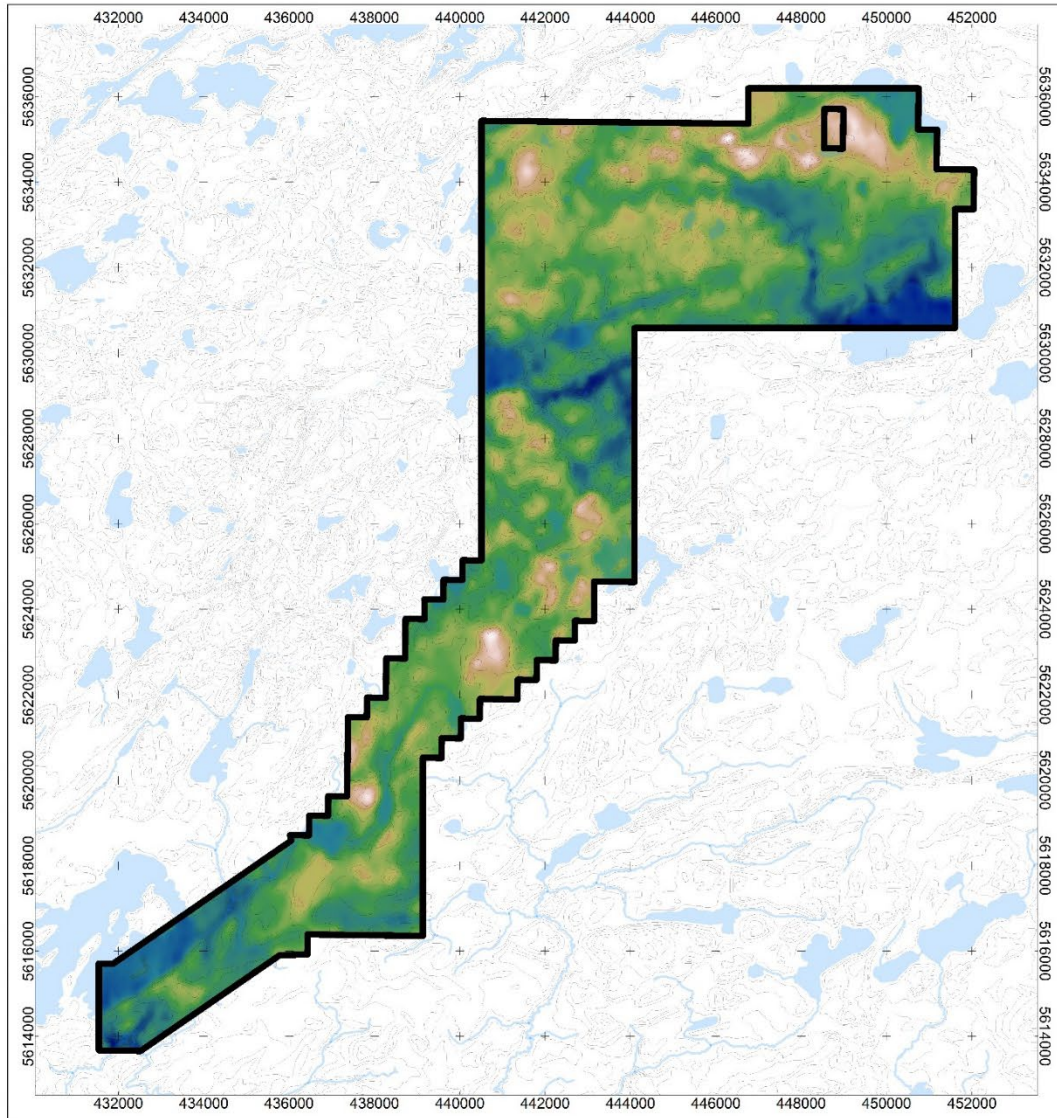
D2 Gold Inc.
 Dixie West
 Overview Map
 Actual Flight Lines
Precision
 GeoSurveys

Plate 1
 FL

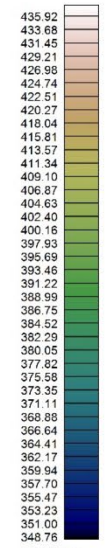
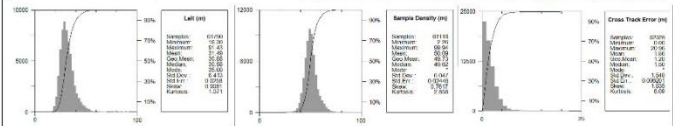
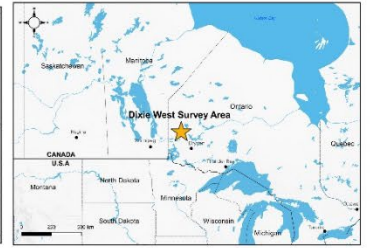
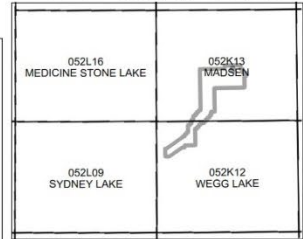
D2 Gold Inc.

Job #22157
 June 8, 2022





National Topographic System



DTM
(m)

MAP PROJECTION

Projection: Universal Transverse Mercator Zone 15N
Datum: WGS 84
Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZHK
Total Line km:	3015 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	090°/270°

AIRBORNE SURVEY SYSTEM

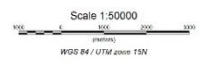
Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz

Legend



TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada. Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL <http://ftp.geogratis.gc.ca/pub/nrcan_mcan/vector/ntdb_bndt/>[2007]

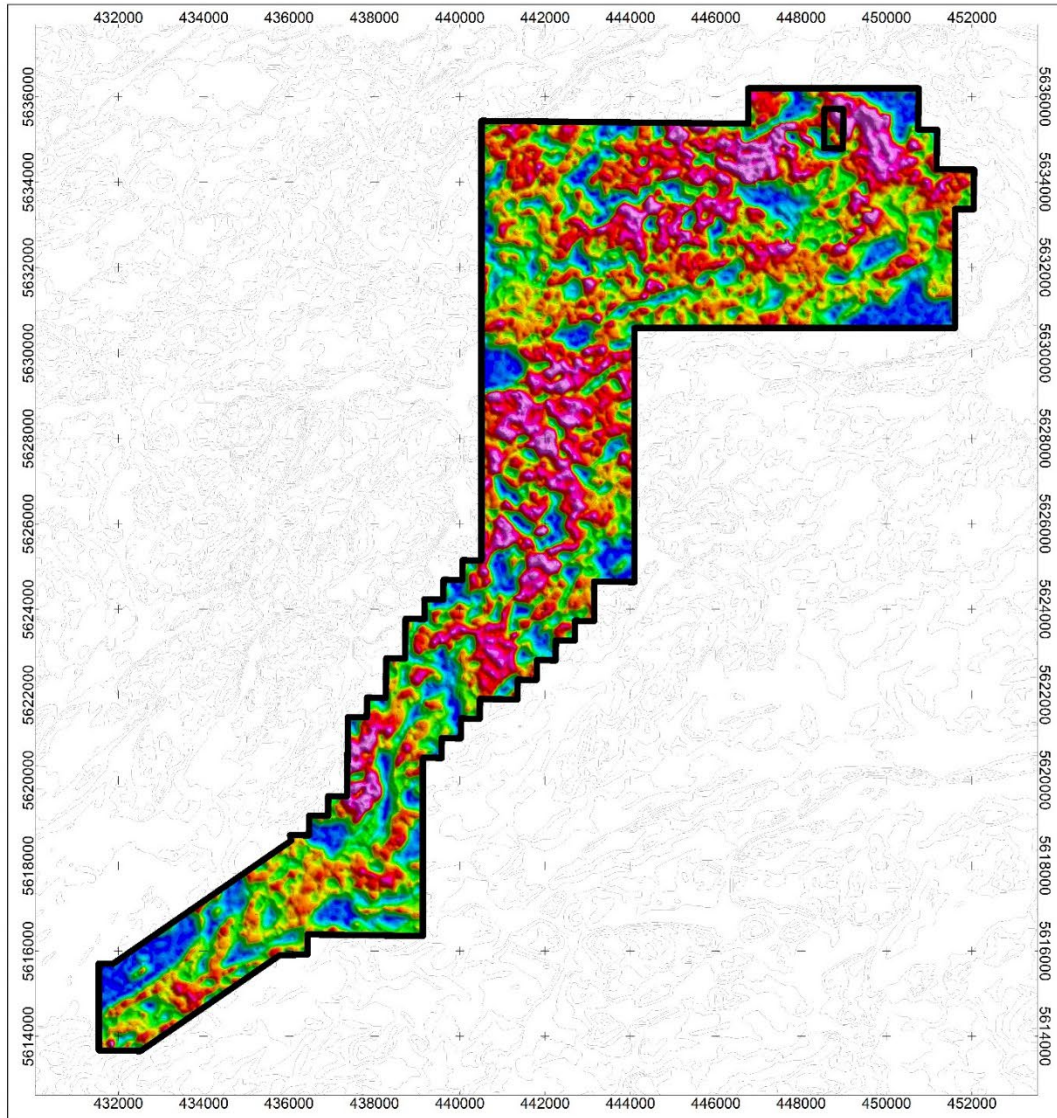


Job #22157
June 8, 2022

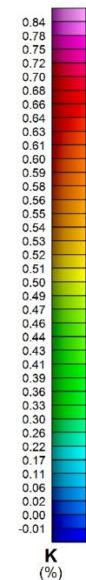
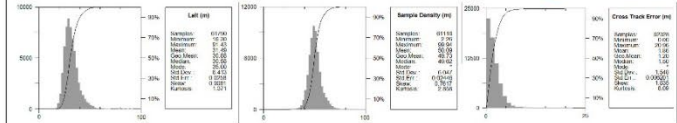
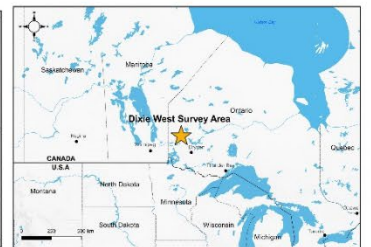
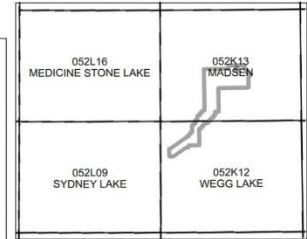
D2 Gold Inc.
Dixie West
Overview Map
Digital Terrain Model
Precision
GeoSurveys

Plate 2
DTM

D2 Gold Inc.



National Topographic System



MAP PROJECTION
 Projection: Universal Transverse Mercator Zone 15N
 Datum: WGS 84
 Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZH-K
Total Line km:	3015 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	090°/270°

AIRBORNE SURVEY SYSTEM

Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz

Legend

Elevation Contours, 10 m Intervals.....

Dixie West Survey Block Boundary.....

DATA REFERENCE
 Radiometric data have been corrected for effective height, lag, aircraft, cosmic, slippage ratios, and atmospheric, and then converted to apparent radiometric concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade, sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE
 National Topographic Data Base (NTDB), Canada, Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
 URL - http://ftp.geogratis.gc.ca/pub/nrcan_mean/vector/ntdb_bndr/ [2007]

D2 Gold Inc.
 Dixie West
 Radiometric Map
 Potassium - Percentage



Job #22157
 June 8, 2022

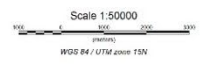
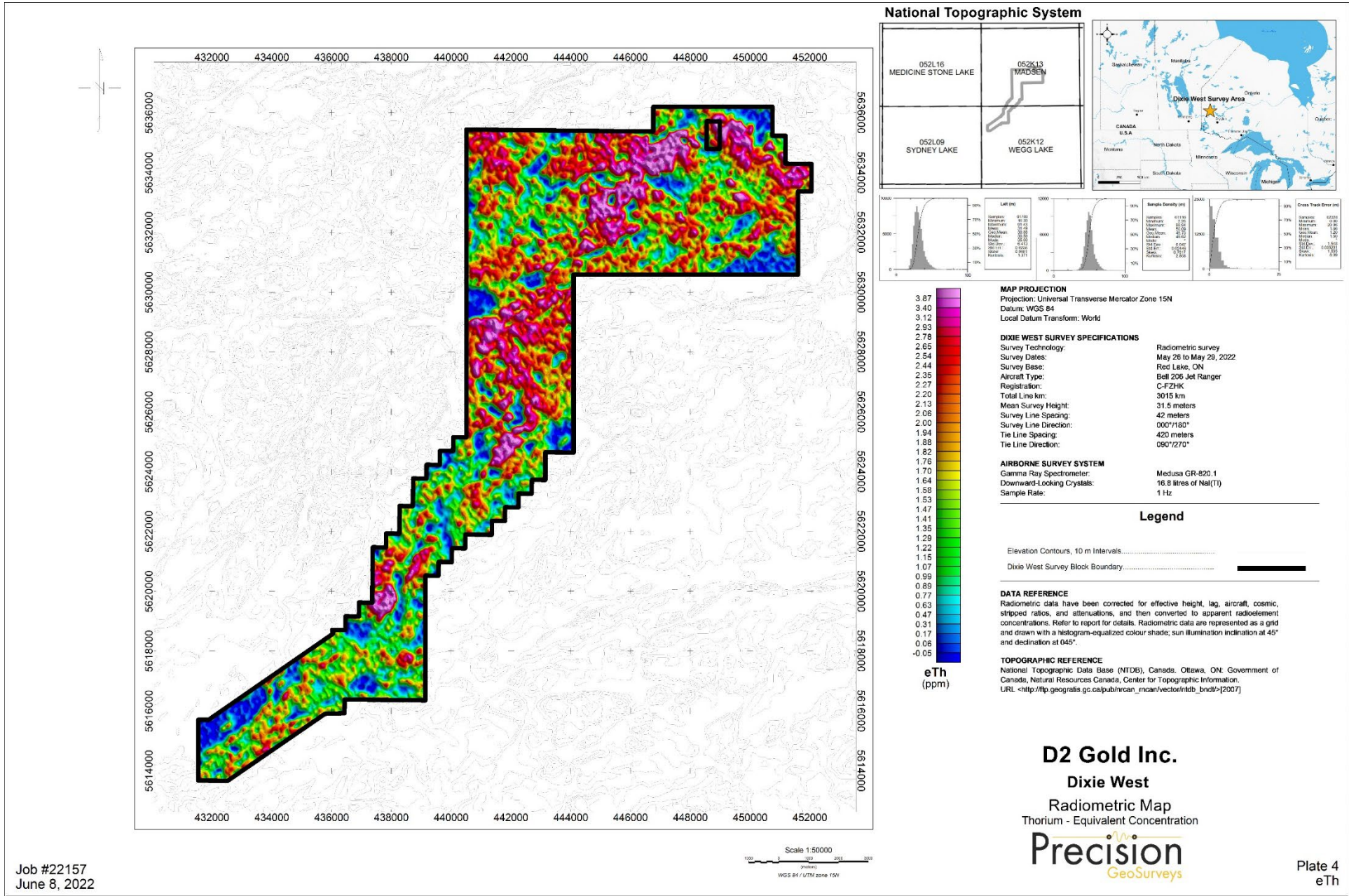
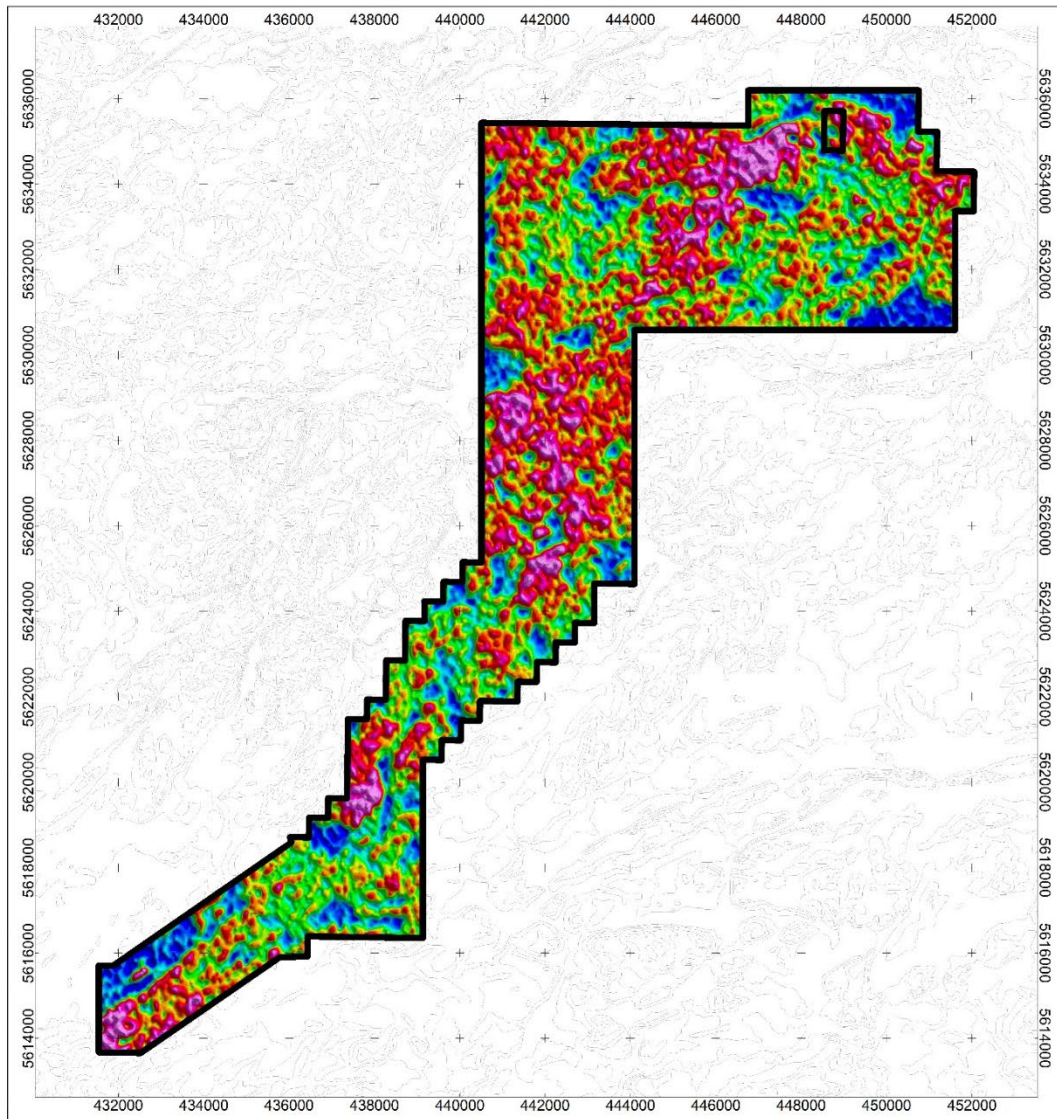


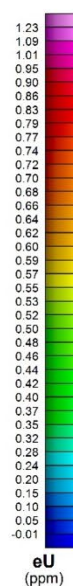
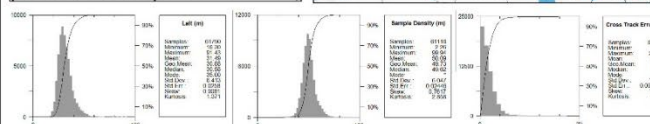
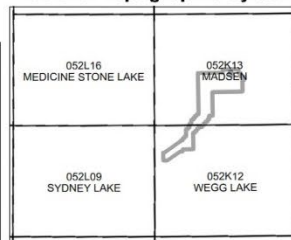
Plate 3
 %K

D2 Gold Inc.





National Topographic System



MAP PROJECTION

Projection: Universal Transverse Mercator Zone 15N
Datum: WGS 84
Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZH-K
Total Line km:	3015 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	090°/270°

AIRBORNE SURVEY SYSTEM

Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz

Legend

Elevation Contours, 10 m Intervals.....
Dixie West Survey Block Boundary.....

DATA REFERENCE

Radiometric data have been corrected for effective height, lag, aircraft, cosmic, slippage, raticos, and atmospheric, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade, sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada, Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
URL - http://ftp.geogratis.gc.ca/pub/nrcan_mean/vector/ntdb_bndr/ [2007]

D2 Gold Inc.

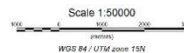
Dixie West

Radiometric Map
Uranium - Equivalent Concentration

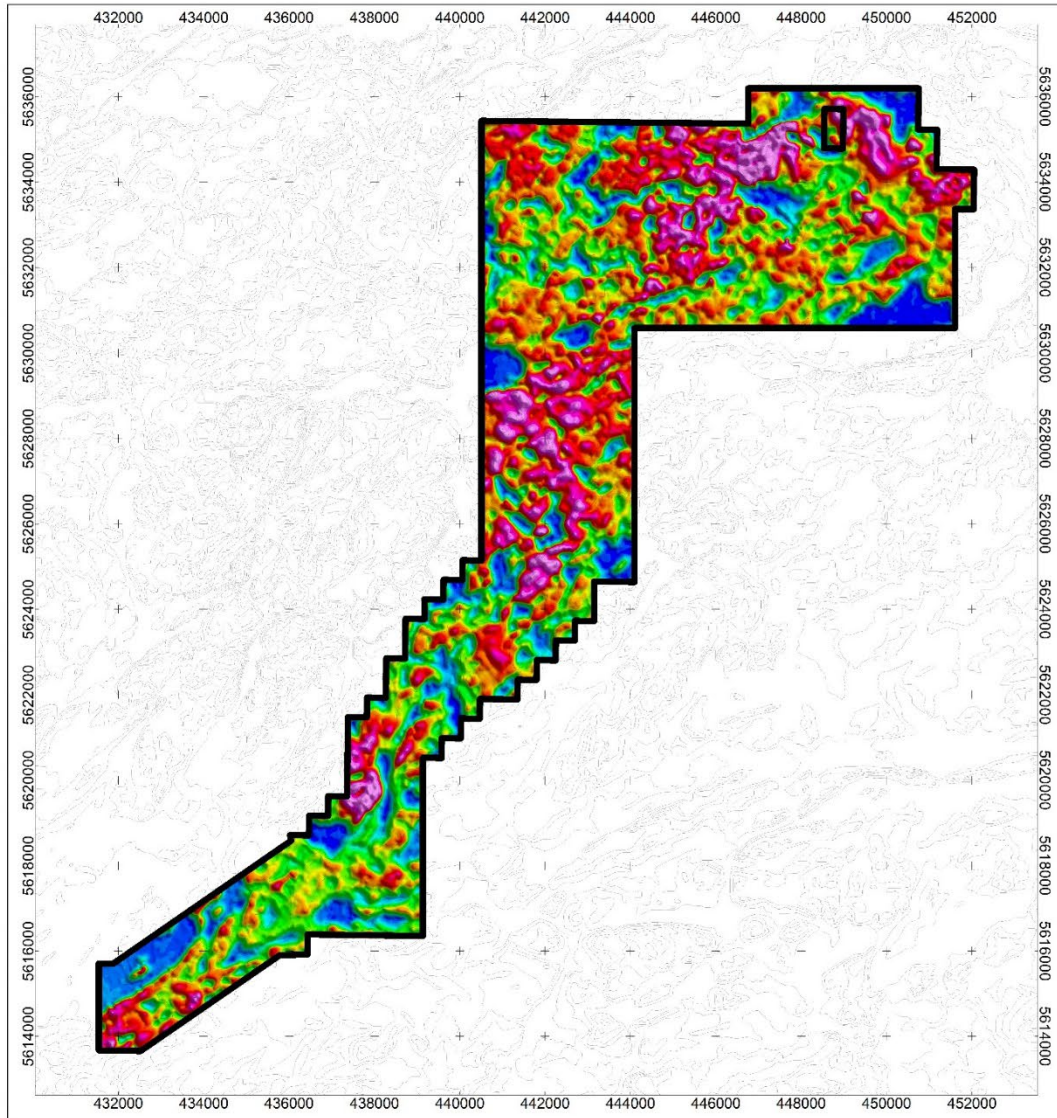
Precision
GeoSurveys

Plate 5
eU

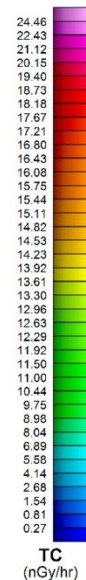
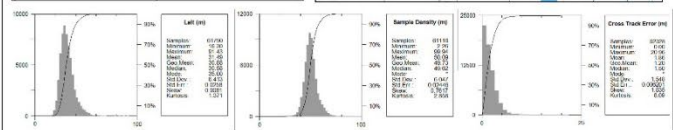
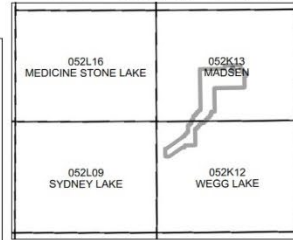
Job #22157
June 8, 2022



D2 Gold Inc.



National Topographic System



MAP PROJECTION
 Projection: Universal Transverse Mercator Zone 15N
 Datum: WGS 84
 Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZH-K
Total Line km:	3015 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	090°/270°

AIRBORNE SURVEY SYSTEM

Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz

Legend



DATA REFERENCE
 Radiometric data have been corrected for effective height, lag, aircraft, cosmic, slippage, rain, and atmospheric, and then converted to apparent radioelement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade, sun illumination inclination at 45° and declination at 045°.

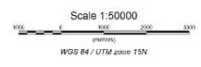
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 National Topographic Data Base (NTDB), Canada, Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
 URL: <http://ftp.geogratis.gc.ca/pub/nrcan_mean/vector/ntdb_bndr/2007>

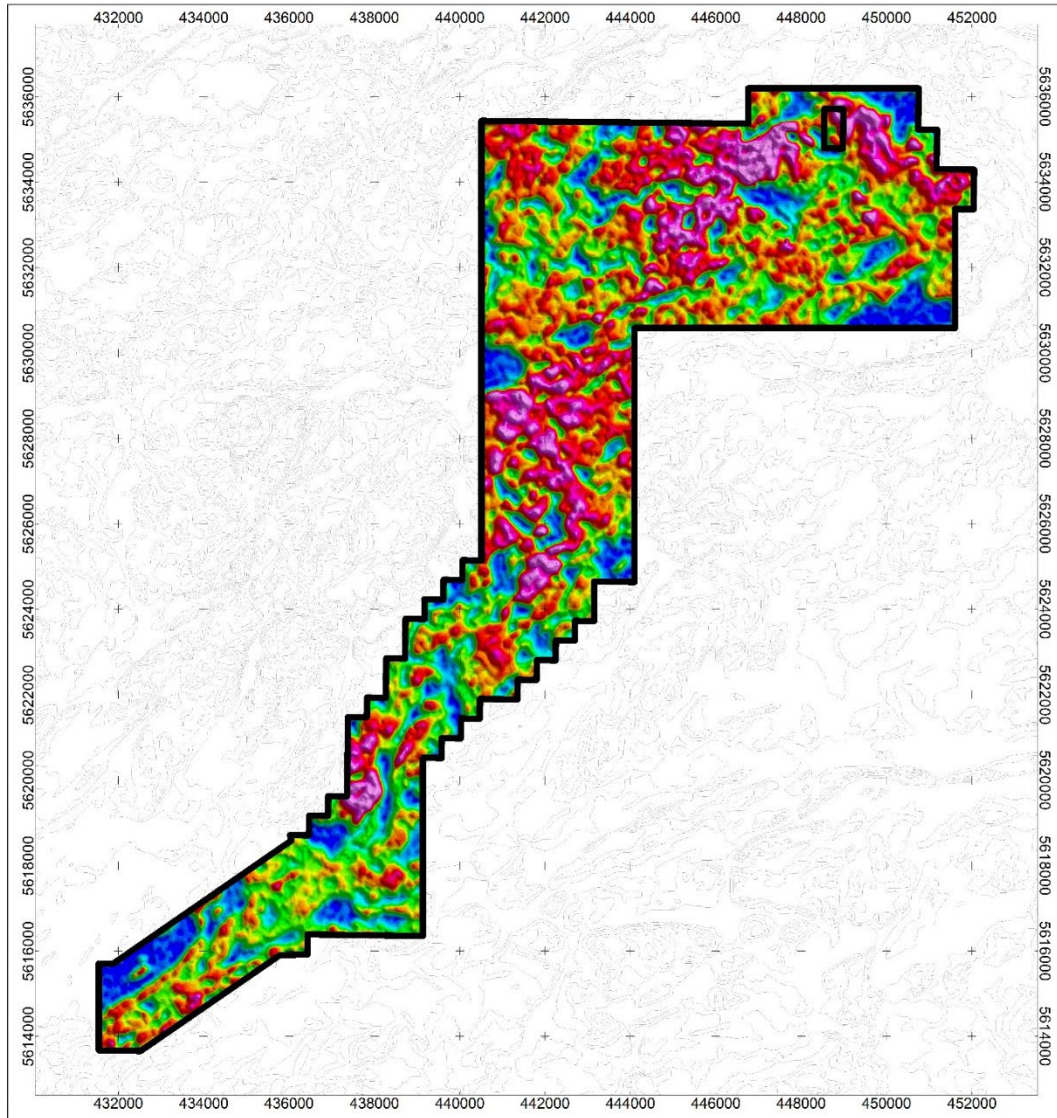
D2 Gold Inc.
 Dixie West
 Radiometric Map
 Total Count
 Precision
 GeoSurveys

Plate 6
 TC

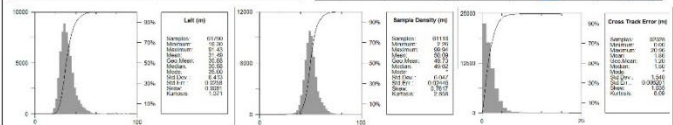
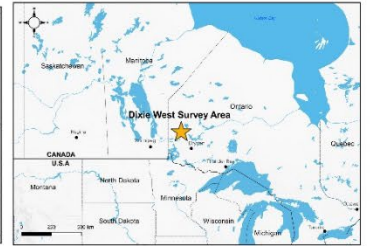
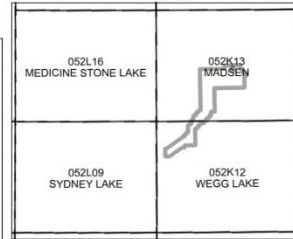
D2 Gold Inc.

Job #22157
 June 8, 2022





National Topographic System



TCexp
(µR/hr)

MAP PROJECTION
Projection: Universal Transverse Mercator: Zone 18N
Datum: WGS 84
Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZH-K
Total Line km:	30.15 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	090°/270°

AIRBORNE SURVEY SYSTEM

Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz

Legend



DATA REFERENCE

Radiometric data have been corrected for effective height, lag, aircraft, cosmic, slippage ratios, and attenuations, and then converted to apparent radionuclide concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

National Topographic Data Base (NTDB), Canada, Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information
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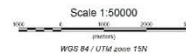
D2 Gold Inc.
Dixie West
Radiometric Map
Total Count - Exposure Rate

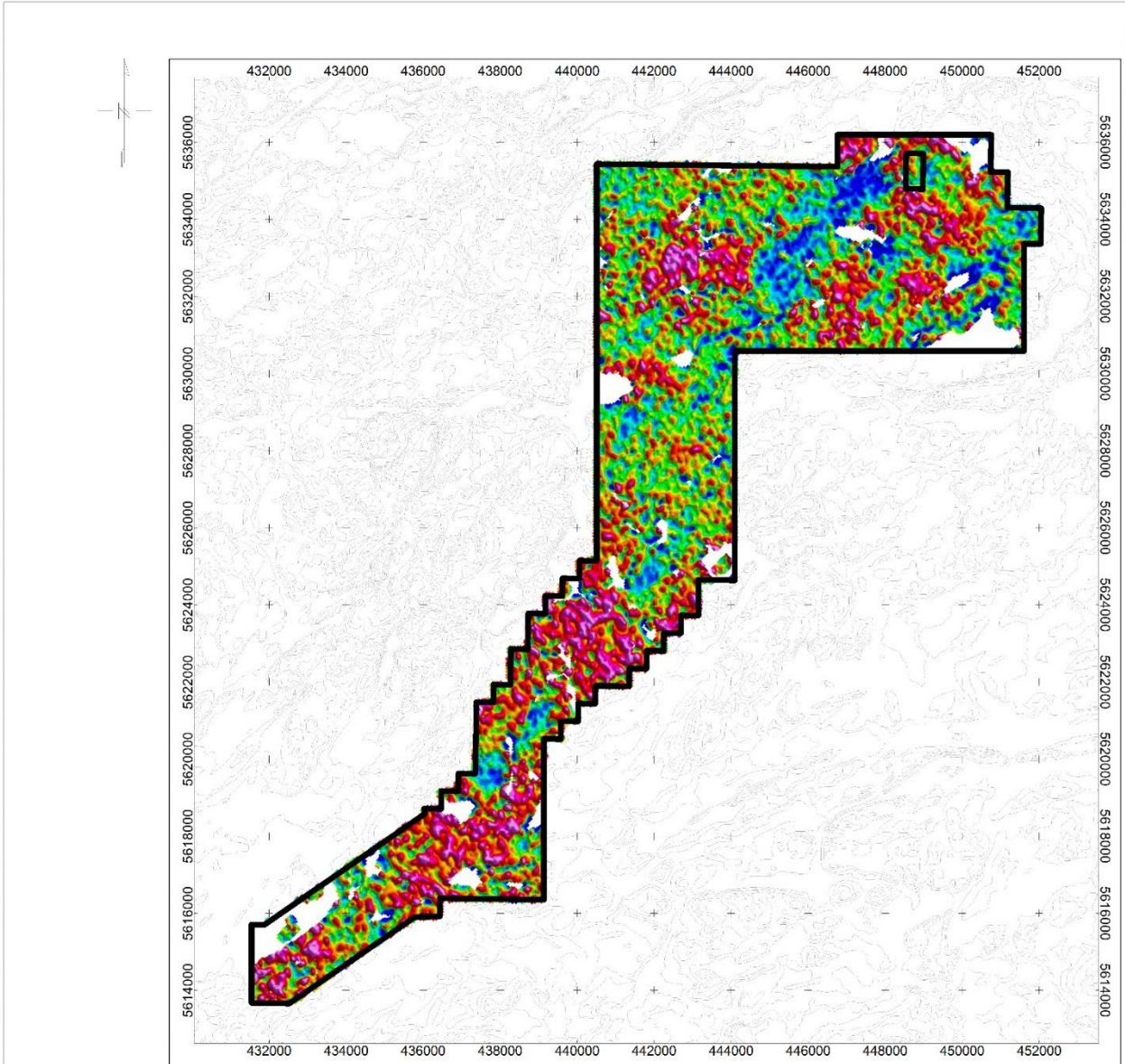


Plate 7
TCexp

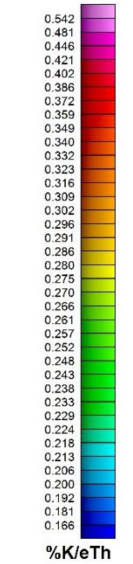
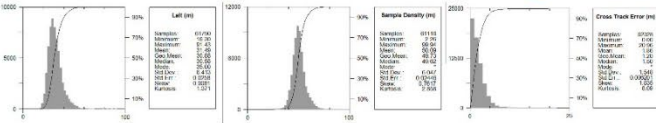
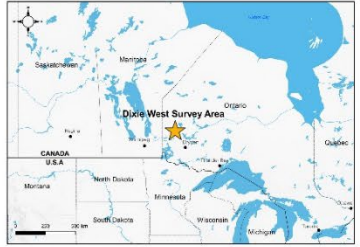
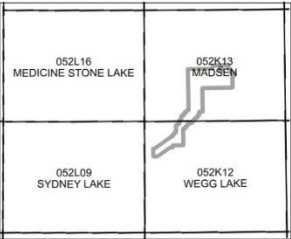
D2 Gold Inc.

Job #22157
June 8, 2022





National Topographic System



MAP PROJECTION
 Projection: Universal Transverse Mercator Zone 15N
 Datum: WGS 84
 Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZH-K
Total Line km:	3015 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	090°/270°

AIRBORNE SURVEY SYSTEM

Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz

Legend

Elevation Contours, 10 m Intervals.....

Dixie West Survey Block Boundary.....

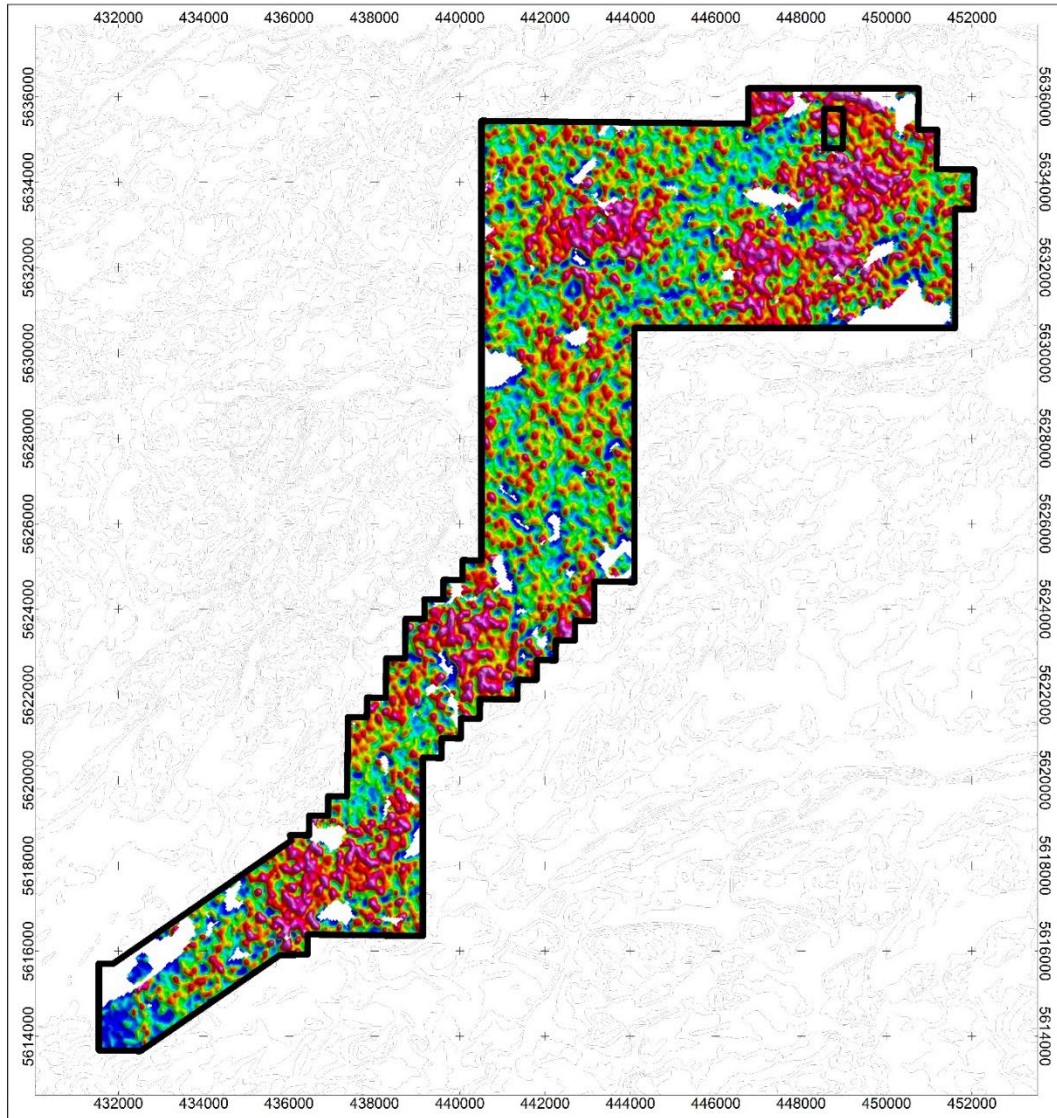
DATA REFERENCE
 Radiometric data have been corrected for effective height, lag, aircraft, cosmic, slippage, ratios, and atmospheric, and then converted to apparent radiometric concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade, sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE
 National Topographic Data Base (NTDB), Canada, Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information.
 URL: <http://ftp.geogratis.gc.ca/pub/nrcan_mean/vector/ntdb_bndr/2007>

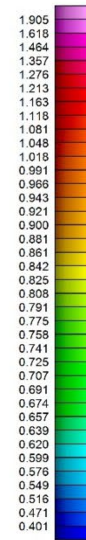
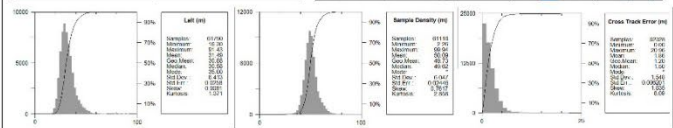
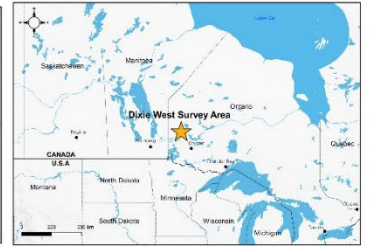
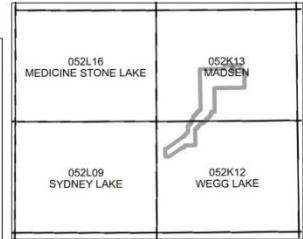
D2 Gold Inc.
 Dixie West
 Radiometric Map
 Potassium over Thorium Ratio
Precision
 GeoSurveys

Plate 8
 %K/eTh

D2 Gold Inc.



National Topographic System



%K/eU

MAP PROJECTION
 Projection: Universal Transverse Mercator: Zone 16N
 Datum: WGS 84
 Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZH-K
Total Line km:	30.15 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	090°/270°

AIRBORNE SURVEY SYSTEM

Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz

Legend

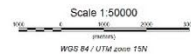


DATA REFERENCE

Radiometric data have been corrected for effective height, lag, aircraft, cosmic, slippage ratios, and attenuations, and then converted to apparent radioclement concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

TOPOGRAPHIC REFERENCE

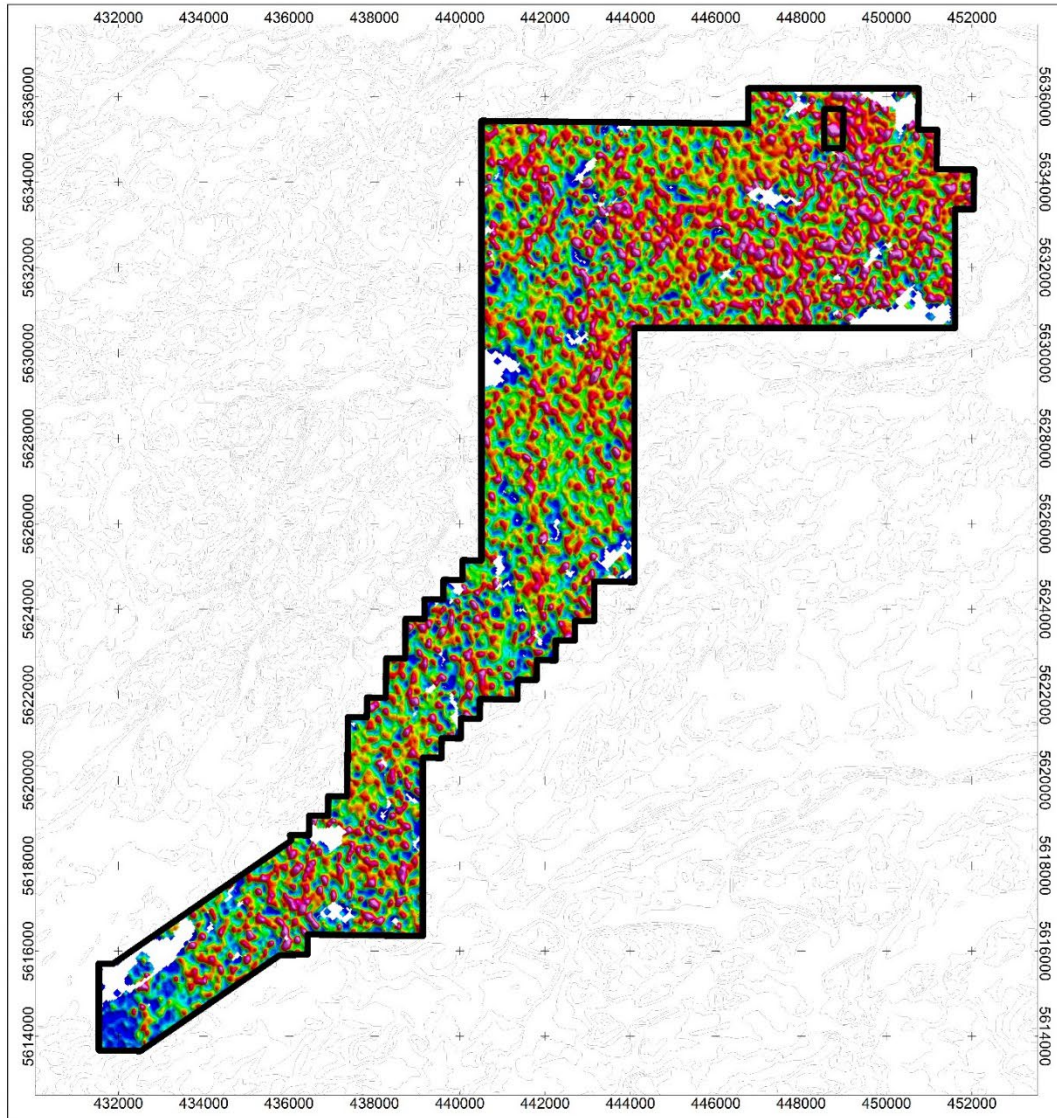
National Topographic Data Base (NTDB), Canada, Ottawa, ON: Government of Canada, Natural Resources Canada, Center for Topographic Information
 URL: <http://ftp.geonutis.gc.ca/pub/nrcan_mean/vector/ntdb_bndr/2007>



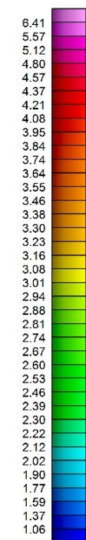
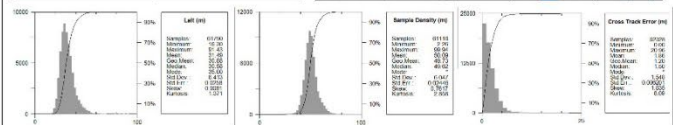
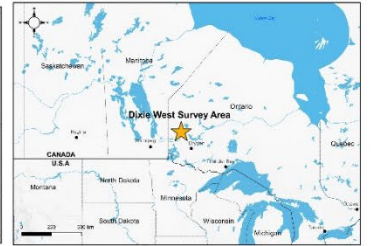
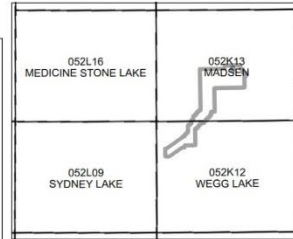
D2 Gold Inc.
Dixie West
 Radiometric Map
 Potassium over Uranium Ratio
Precision
 GeoSurveys

Plate 9
 %K/eU

D2 Gold Inc.



National Topographic System



eTh/eU

MAP PROJECTION
 Projection: Universal Transverse Mercator Zone 15N
 Datum: WGS 84
 Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZHK
Total Line km:	3015 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	080°/270°

AIRBORNE SURVEY SYSTEM

Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz

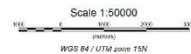
Legend

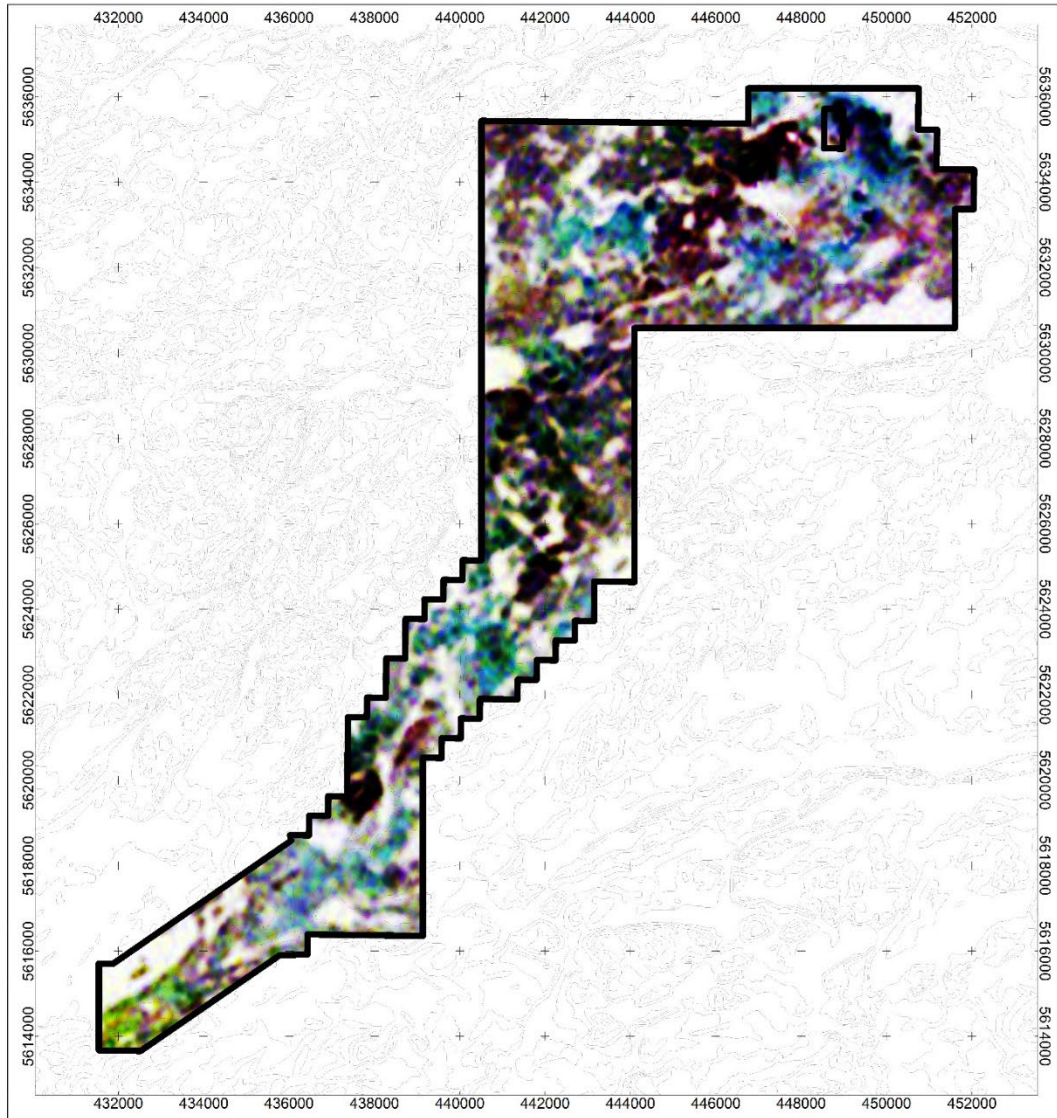


DATA REFERENCE
 Radiometric data have been corrected for effective height, lag, aircraft, cosmic, slurred ratios, and attenuations, and then converted to apparent radiometric concentrations. Refer to report for details. Radiometric data are represented as a grid and drawn with a histogram-equalized colour shade; sun illumination inclination at 45° and declination at 045°.

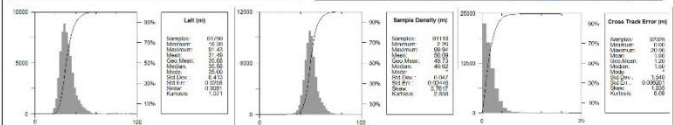
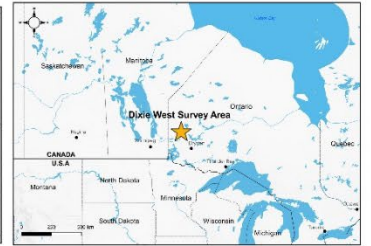
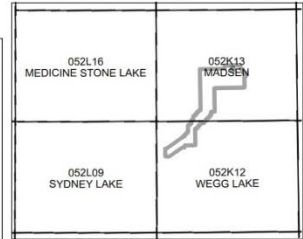
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 URL: <http://ftp.geogratis.gc.ca/pub/nrcan/main/vector/ntdb_bndr/2007>

D2 Gold Inc.
 Dixie West
 Radiometric Map
 Thorium over Uranium Ratio
 Precision
 GeoSurveys





National Topographic System



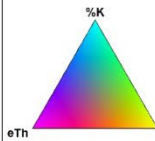
MAP PROJECTION
 Projection: Universal Transverse Mercator Zone 15N
 Datum: WGS 84
 Local Datum Transform: World

DIXIE WEST SURVEY SPECIFICATIONS

Survey Technology:	Radiometric survey
Survey Dates:	May 26 to May 29, 2022
Survey Base:	Red Lake, ON
Aircraft Type:	Bell 206 Jet Ranger
Registration:	C-FZHK
Total Line km:	3015 km
Mean Survey Height:	31.5 meters
Survey Line Spacing:	42 meters
Survey Line Direction:	000°/180°
Tie Line Spacing:	420 meters
Tie Line Direction:	080°/270°

AIRBORNE SURVEY SYSTEM

Gamma Ray Spectrometer:	Medusa GR-820.1
Downward-Looking Crystals:	16.8 litres of NaI(Tl)
Sample Rate:	1 Hz



Legend

- Elevation Contours, 10 m Intervals:
- Dixie West Survey Block Boundary: _____

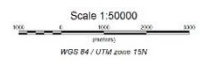
DATA REFERENCE
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 URL: <http://ftp.geogratis.gc.ca/pub/nrcan/main/vector/ntdb_bndr/2007>

D2 Gold Inc.
 Dixie West
 Radiometric Map
 Ternary Image
Precision
 GeoSurveys

Plate 11
 TI

Job #22157
 June 8, 2022



D2 Gold Inc.

9.0 INTERPRETATION AND CONCLUSIONS

The Property has received airborne-based exploration work performed on it by D2 Gold Inc. and past geological interpretation of the Property is from historic widely-spaced government magnetic surveys and regional mapping. Since acquiring the Property, D2 Gold has completed a detailed modern-day magnetic survey that successfully and significantly defined specific magnetic features otherwise not interpreted or visible in the less detailed, lower-quality government surveys. The magnetic features correlate reasonably well to regional geological mapping, but add detail, including distinctive east-west features in the north portion of the Property that have been interpreted as potentially mafic-intermediate lenses (Clark, 2020). In addition, the southwest claim area of the Property displays a defined magnetic low that likely represents a structural corridor (Clark, 2020).

D2's recently completed 2022 radiometric survey adds further detail to the geological understanding of the Property. Although an apparent correlation has been observed between elevated ground and locally strong anomalies of Th, U, and K probably reflecting more exposed basement, as noted earlier in the Exploration section, these relations potentially can be diminished by considering element ratios. For example, elevated K can be associated with mineralization in multiple settings, including volcanic hosted massive sulfides, magmatic-hydrothermal deposits and porphyries. Low eTh/K ratio anomalies target such elevated K (Shives, et al, 1997) while reducing other influences such as on exposure or elevation. An example of such a low eTh/K anomaly occurs in

the southern part of the Property (centered at UTM Zone 437,850 E and 5,619,600 N; Datum WGS84), where it corresponds to an onshore Digital Terrain Model [DTM] high. Further detailed interpretation of the radiometric data is likely to yield more potential target anomalies, and is recommended, as discussed in the next section.

10.0 RECOMMENDATIONS

Future exploration recommended for the Property includes detailed and integrated interpretation of D2 Gold's new radiometric survey, and D2 Gold's high-resolution magnetic survey, plus prospecting, geochemical sampling as well as potentially till sampling (focused on recovery of gold grains) and possibly Soil Gas Hydrocarbon (SGH) soil sampling. All of these recommended programs could further the evaluation of D2 Gold's Property and its potential to host economic gold mineralization and/or mineralization of other metals and minerals of economic interest. The radiometric and magnetic data should be interpreted to highlight potential radiometric anomalies (such as low eTh/K ratios) and their relation to potential magnetically defined structures. The SGH survey should be completed on the northwest trending magnetic features in the north portion of the claims and along the common claim boundary with neighbouring Kinross Gold Corporation (and its Great Bear Resources Ltd. subsidiary). Prospecting could focus on the southwestern portion of the Property to assess the already observed potential structural features.

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STATEMENT OF QUALIFICATION: HARRISON COOKENBOO, PHD, PGEO, PGEOL

Effective date: 5th day of August 2022:

To accompany report “Assessment Report On the Airborne Radiometric Survey D2 Gold Property Red Lake Mining Division, Northern Ontario, Canada”

I, Harrison Cookenboo, Ph.D., P.Geo.,, special authorization #245 from the OGQ, am a consulting geologist providing my services through:

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I graduated with a Bachelor of Science Degree (cum laude) in geology from Duke University (Durham, North Carolina) in 1981. a Masters of Science in geology from the University of British Columbia in 1989, and a Ph.D. in geology from the University of British Columbia in 1994.

I am a member of the British Columbia Association of Professional Engineers and Geologists (EGBC P.Geo. #23483). a member of the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS P.Geo. # 27847), a member of the Association of Professional Geoscientists of Ontario (APGO #1358), as well as a Fellow of the Geological Association of Canada.

I have worked as a geologist for 30 years since graduation from Duke University in 1981. From 1981 to 1986, I worked for Cities Service Oil and Gas Corporation (later Occidental Petroleum) as an exploration geologist generating and evaluating hydrocarbon prospects in the Gulf of Mexico. Between 1987 and 1993, I completed my M.Sc. and Ph.D. degrees and worked as a research and teaching assistant at the University of British Columbia. From 1993 to the present, I have worked in mineral exploration, including diamonds, gold, nickel, copper, and the platinum group metals, first for Canamera Geological (later Meridian Geoscience), and since 2002 as an independent consulting geologist. I was appointed a Senior Associate Geologist by Watts, Griffis and McQuat Consulting Geologists and Engineers, Toronto Canada in 2004.

I have read the assessment report referred to above, and declare to the best of my knowledge, information and belief that as of the effective date, this assessment report contains all relevant scientific and technical information that is required to make the report complete and not misleading.

“signed and sealed”

Effective date August 5, 2022

Harrison O. Cookenboo

Dated at Vancouver, B.C.

Dated this 5th day of August, 2022

D2 Gold Inc.

Appendix 1 – Contractor's Report

AIRBORNE GEOPHYSICAL SURVEY REPORT



Dixie West Survey Block Red Lake, Ontario **D2 Gold Inc.**

Precision GeoSurveys Inc.

BC Permit to Practice 1002615

www.precisiongeosurveys.com

Hangar 42, Langley Airport

21330 - 56th Ave., Langley, BC

Canada V2Y 0E5

604-484-9402

Jenny Poon, B.Sc., P.Geo.

June 2022

Job# 22157

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Plate 11: Dixie West – Ternary Image (TI)

1.0 Introduction

This report outlines the geophysical survey operations and data processing procedures taken during the high resolution helicopter-borne radiometric survey flown over the Dixie West survey block for D2 Gold Inc. The survey block is located in western Ontario (Figure 1). The survey was flown from May 26 to May 29, 2022.



Figure 1: Dixie West survey area located in western Ontario.

1.1 Survey Area

The Dixie West survey block is centered approximately 20 km south of Red Lake, Ontario (Figure 2).

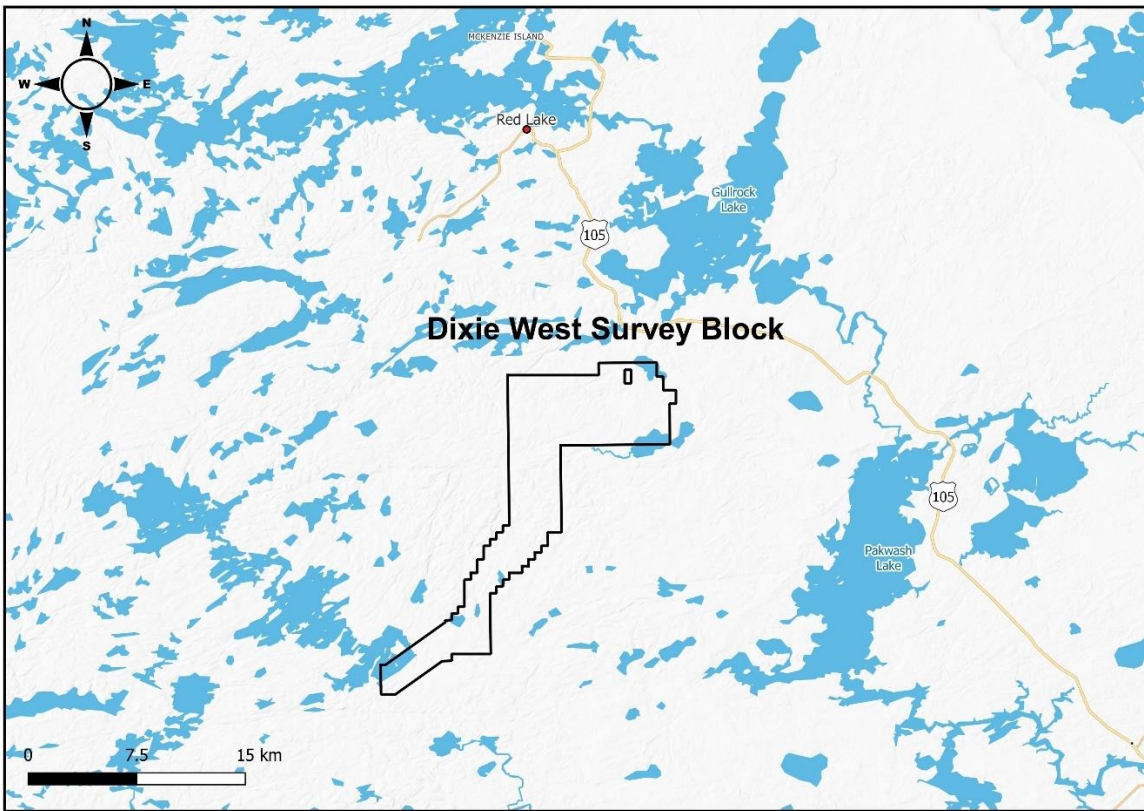


Figure 2: Dixie West survey block 20 km south of Red Lake, Ontario.

The Dixie West survey block was flown at 42 m line spacing at a heading of 000°/180°; tie lines were flown at 420 m spacing at a heading of 090°/270° (Figures 3 and 4).

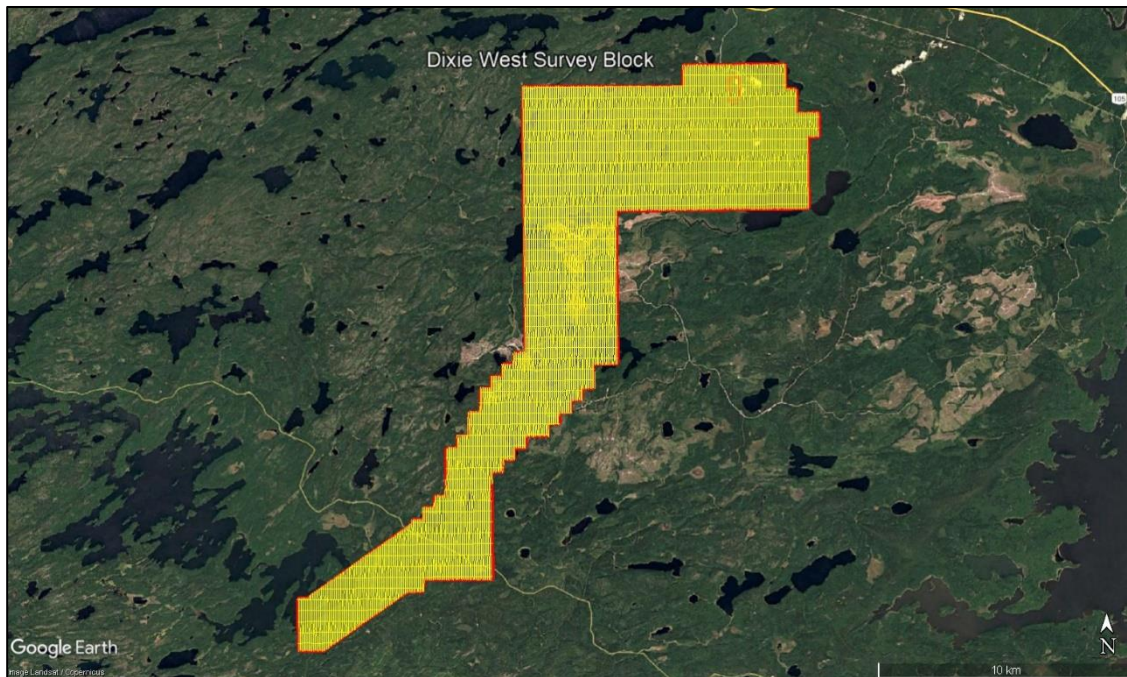


Figure 3: Plan View – Dixie West survey block with actual flight lines in yellow and survey block boundary in red.



Figure 4: Terrain View – Dixie West survey block with actual flight lines displayed in yellow.

1.2 Survey Specifications

The geodetic system used for the geophysical survey was WGS 84 in UTM Zone 15N. A total of 3015 line km was flown over an area of 114 km² (Table 1). This total includes 57 km of additional data retained from partial flight lines flown outside the survey block margins for survey efficiency. Polygon coordinates for the Dixie West survey block are specified in Appendix A.

Survey Block	Area (km ²)	Line Type	Line Orientation (UTM grid)	Line Spacing (m)	No. of Lines Planned	No. of Lines Completed	Total Planned Line km	Total Actual km Flown
Dixie West	114.0	Survey	000°/180°	42	488	488	2685	2740
		Tie	090°/270°	420	53	53	273	275
		Total:				541	541	2958

Table 1: Survey flight line specifications for Dixie West.

2.0 Geophysical Data

Geophysical data are collected in a variety of ways and are used for many purposes including aiding in geological mapping, mineral exploration, oil and gas exploration, geotechnical investigations, contaminated land site studies, and UXO (unexploded ordnance) detection.

For the purposes of this survey, airborne radiometric data were collected to serve in geological mapping and exploration for mineral deposits.

2.1 Radiometric Data

Radiometric surveys are used to determine the absolute or relative concentrations, or both, of the naturally occurring radioelements uranium (U), thorium (Th), and potassium (K) in surface rocks and soils using radioactive emanations. Mapping the distribution and concentration of radioelements is useful for:

- Determining different lithologies based on characteristic radioelement geochemistry, either absolute or relative. For example, natural radioactivity of igneous rocks generally increases with SiO₂ content.
- Identification of hydrothermal alteration. For example, individual radioelements follow very different pathways of evolution during alteration of rocks, particularly potassic enrichments.
- Exploration for valuable radioelements, in particular uranium.
- Providing insights into weathering. For example, clay minerals tend to fix the natural radioelements in near-surface environments.

Gamma rays are electromagnetic waves with frequencies between 10¹⁹ and 10²¹ Hz emitted spontaneously from an atomic nucleus during radioactive decay, in packets referred to as photons. The energy E transported by a photon is related to the wavelength λ or frequency ν by the formula:

$$E = h\nu = hc/\lambda$$

where: c is the velocity of light

h is Planck's constant (6.626 x 10⁻³⁴ joule)

To detect radioelements, gamma radiation is utilized due to its greater penetration depth compared with alpha and beta radiation. All detectable gamma radiation from Earth materials comes from the natural decay products of three primary radioelements: U, Th, and K. Each individual nuclear species (element) emits gamma rays at one or more specific energies, as shown in Figure 5. Of these elements, only potassium (⁴⁰K) emits gamma energy directly, at 1.46 MeV. Uranium (²³⁸U) and thorium (²³²Th) emit gamma rays through their respective decay series; ²¹⁴Bi at 1.76 MeV for uranium and ²⁰⁸Tl at 2.61 MeV for thorium. Accordingly, the ²¹⁴Bi and ²⁰⁸Tl measurements are considered equivalents for uranium (eU) and thorium (eTh), as the daughter products will be in equilibrium under most natural conditions.

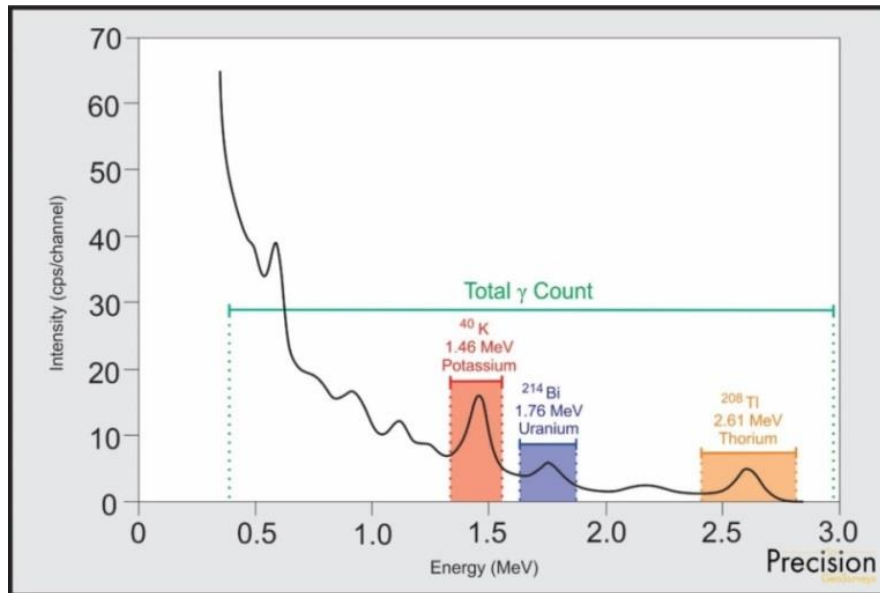


Figure 5: Typical natural gamma spectrum showing the three spectral windows (^{40}K 1.37-1.57 MeV, ^{214}Bi 1.66-1.86 MeV, ^{208}Tl 2.41-2.81 MeV) and total count (0.40-2.81 MeV) window.

Surficial debris, vegetation, standing water (lakes, marshes, swamps), ice, and snow can effectively attenuate gamma rays originating from underlying rocks. Therefore, variations in gamma counts must be evaluated with respect to surficial conditions before they are attributed to changes in underlying geology. An increase in soil moisture can also significantly affect gamma radiation concentrations. For example, a 10% increase in soil moisture can decrease the measured gamma radiation by about the same amount. Radon isotopes are long-lived members of both the U and Th decay series and Ra mobility can influence radiometric surveys. In addition to being directly radioactive, ^{226}Ra and ^{222}Rn can attach to dust particles in the atmosphere. Precipitation of these radioactive dust particles by rain can lead to apparent increases of more than 2000% in uranium ground concentration (IAEA, 2003). Therefore, gamma data should not be collected during a rainfall, or shortly after a rainfall.

3.0 Aircraft and Equipment

All geophysical and subsidiary equipment were carefully installed on an aircraft by Precision GeoSurveys to collect radiometric data.

3.1 Aircraft

Precision GeoSurveys flew the survey using a Bell 206 Jet Ranger, registration C-FZHK.

3.2 Geophysical Equipment

The survey aircraft (Figure 6) was equipped with a data acquisition system, GPS navigation system, pilot guidance unit (PGU), laser altimeter, gamma ray spectrometer, barometer, and temperature/humidity probe. Technical specifications for the geophysical equipment are provided in Appendix B.



Figure 6: Survey helicopter equipped with a magnetic sensor and gamma spectrometer. Magnetic data were not collected for this survey.

3.2.1 IMPAC

The Integrated Multi-Parameter Acquisition Console (IMPAC) (Figure 7), manufactured by Nuvia Dynamics Inc. (previously Pico Envirotec Inc.), is the main computer used in integrated data recording, data synchronizing, providing real-time quality control data for the geophysical operator display, and the generation of navigation information for the pilot and operator display systems.



Figure 7: IMPAC data acquisition system.

IMPAC uses the Microsoft Windows operating system and geophysical parameters are based on Nuvia's Airborne Geophysical Information System (AGIS) software. Depending on survey specifications, information such as magnetic field, electromagnetic response, total gamma count, counts of various radioelements (K, U, Th, etc.), cosmic radiation, barometric pressure, atmospheric humidity, temperature, aircraft attitude, navigation parameters, and GPS status can all be monitored on the AGIS on-board display (Figure 8).

While in flight, raw magnetic response, magnetic fourth difference, compensated and uncompensated data, radiometric spectra, EM response, aircraft position, survey altitude, cross track error, and other parameters are recorded and can be viewed by the geophysical operator for immediate QC (quality control). Additional software allows for post or real time magnetic compensation and radiometric calibration.

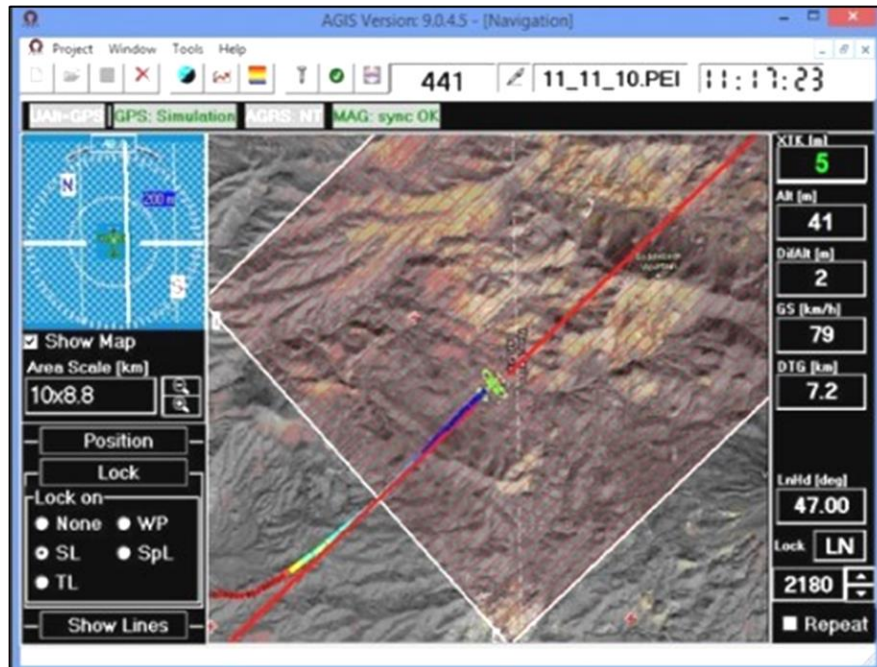


Figure 8: AGIS operator display showing real time flight line recording and navigation parameters. Additional windows display real-time geophysical data to operator.

3.2.2 GPS Navigation System

A Hemisphere R330 GPS receiver (Figure 9) and a Novatel GPS antenna on the tail of the aircraft integrated with the AGIS navigation system and pilot display (PGU) provide accurate navigational information and position control. The R330 GPS receiver supports fast updates at a rate of up to 10 Hz (10 times per second); delivering sub-meter positioning accuracy in three dimensions. It receives GNSS (GPS/GLONASS) L1 and L2 signals.

The receiver supports differential correction methods including L-Band, RTK, SBAS, and Beacon. The R330 employs innovative Hemisphere GPS Eclipse SureTrack technology, which allows it to model the phase on satellites that the airborne unit is currently tracking. With SureTrack technology, dropouts are reduced and speed of the signal reacquisitions is increased; enhancing accurate positioning when base corrections are not available.

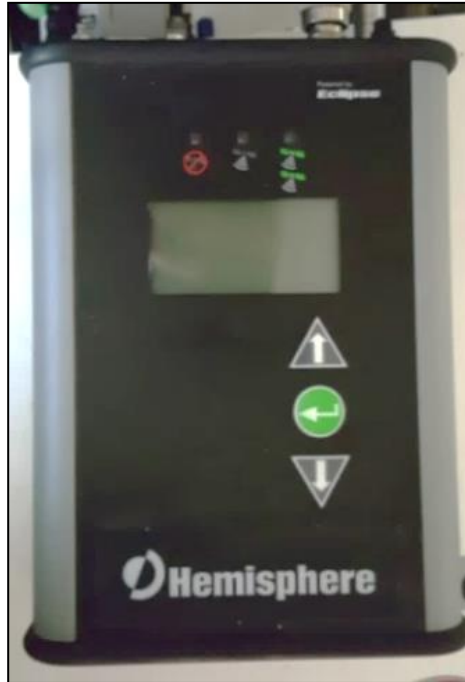


Figure 9: Hemisphere R330 GPS receiver.

3.2.3 Pilot Guidance Unit

Steering and elevation (ground clearance) information is continuously provided to the pilot by the Pilot Guidance Unit (PGU). The graphical display is mounted on top of the aircraft's instrument panel, remotely from the data acquisition system. The PGU is the primary navigation aid (Figure 10) to assist the pilot in keeping the aircraft on the planned flight path, heading, speed, and at the desired ground clearance.

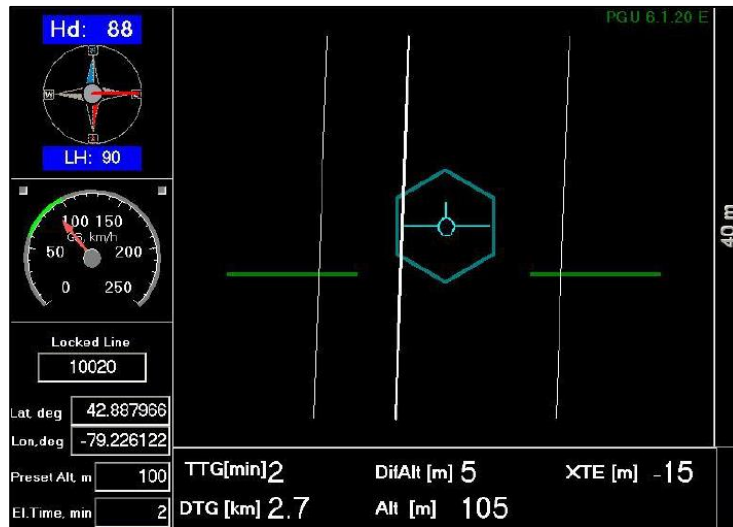


Figure 10: PGU screen displaying navigation information.

PGU information is displayed on a full VGA 600 x 800 pixel 7 inch (17.8 cm) LCD display. The CPU for the PGU is contained in a PC-104 console and uses Microsoft Windows operating system control, with input from the GPS antenna on the aircraft, laser altimeter, and AGIS.

3.2.4 Laser Altimeter

Terrain clearance is measured by an Opti-Logic RS800 Rangefinder laser altimeter (Figure 11) attached to the belly of the forward magnetometer boom. The RS800 laser is a time-of-flight sensor that measures distance by a rapidly modulated and collimated laser beam that creates a dot on the target surface. The maximum range of the laser altimeter is 700 m off natural surfaces with accuracy of ± 1 m on 1 x 1 m diffuse target with 50% ($\pm 20\%$) reflectivity. Within the sensor unit, reflected signal light is collected by the lens and focused onto a photodiode. Through serial communications and digital outputs, ground clearance data are transmitted to an RS-232 compatible port and recorded and displayed by the AGIS and PGU at 10 Hz in meters.

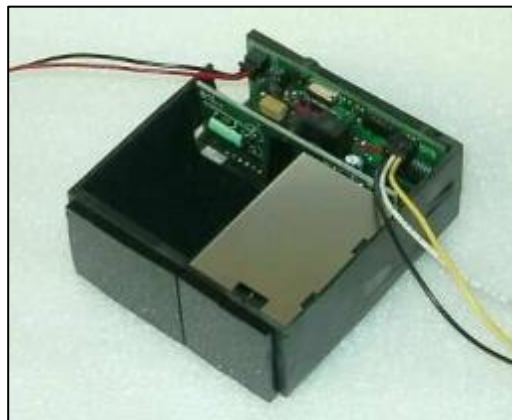


Figure 11: Opti-Logic RS800 Rangefinder laser altimeter.

3.2.5 Spectrometer

Gamma radiation data were collected by a Medusa GR-820.1 gamma ray spectrometer manufactured by Medusa Radiometrics BV of Groningen, Netherlands. The GR-802.1 is an intelligent, self-calibrating, fully integrated gamma detection system (Figure 12) containing four thallium-activated synthetic sodium iodide crystals; 16.8 litres (four crystals of 4.2 litres each) downward-looking, with user-selectable 256, 512, or 1024 channel output at 1 Hz sampling rate. The downward-looking crystals are designed to measure gamma rays from below the aircraft. The GR-820.1 system is installed in the rear cargo compartment of the helicopter away from the fuel tank to minimize variable gamma attenuation from fluctuating fuel levels.



Figure 12: Medusa gamma spectrometer system with four downward detectors; 16.8 litres in total.

4.0 Survey Operations

The Dixie West geophysical survey was flown from May 26 to May 29, 2022 in variable weather conditions. The experience of the pilot ensured that data quality objectives were met, and that safety of the flight crew was never compromised given the potential risks involved in airborne geophysical surveying. Field processing and quality control checks were performed daily.

4.1 Operations Base and Crew

The base of operation for the Dixie West survey was at Red Lake airport (CYRL), Ontario, north of the survey block.

Precision's geophysical crew consisted of three members (Table 2):

Crew Member	Position
Ryan Snow	Helicopter pilot
Puraz Shirzad, B.A.	GIS technician – mapping (off-site)
Jenny Poon, B.Sc., P.Geo.	Geophysicist – data processor and reporting (off-site)

Table 2: List of survey crew members.

4.2 Field Processing and Quality Control

Survey data were transferred from the aircraft's data acquisition system onto a USB memory stick and copied onto a field data processing laptop on a flight-by-flight basis. The raw data files in PEI binary and Medusa JSON data formats were converted into Geosoft GDB database format. Using Geosoft Oasis Montaj 2021.2.1.11, the data were inspected to ensure compliance with contract specifications (Table 3; Figures 13 to 15).

Parameter	Specification	Tolerance
Position	Line Spacing	Flight line deviation within 8 m L/R from ideal flight path. No exceedance for more than 1 km.
	Height	Nominal flight height of 35 m above ground level (AGL) with tolerance of ± 10 m. No exceedance for more than 1 km, provided deviation is not due to tall trees, topography, mitigation of wildlife/livestock harassment, cultural features, or other obstacles beyond the pilot's control.
	GPS	GPS signals from four or more satellites must be received at all times, except where signal loss is due to topography. No exceedance for more than 1 km.
Radiometrics	Sampling	1 Hz, 256 channels.
	Moisture Conditions	No delays shall be incurred due to unfavourable radiometric survey conditions.

Table 3: Contract survey specifications.

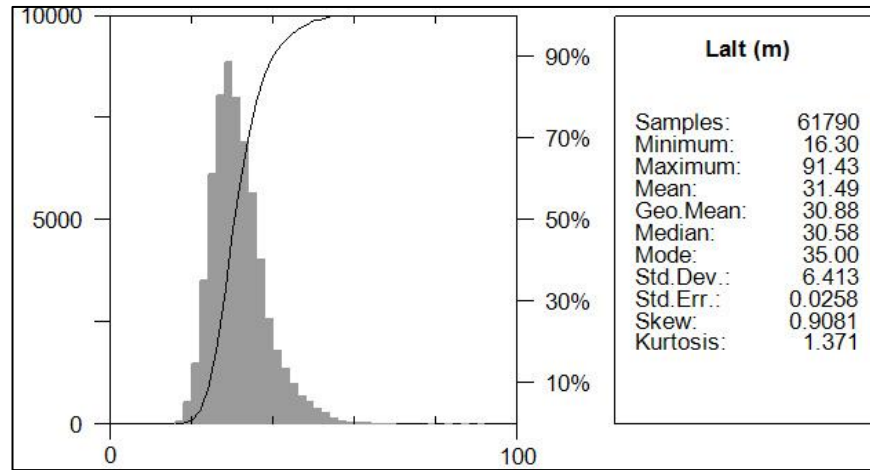


Figure 13: Histogram showing survey elevation vertically above ground.

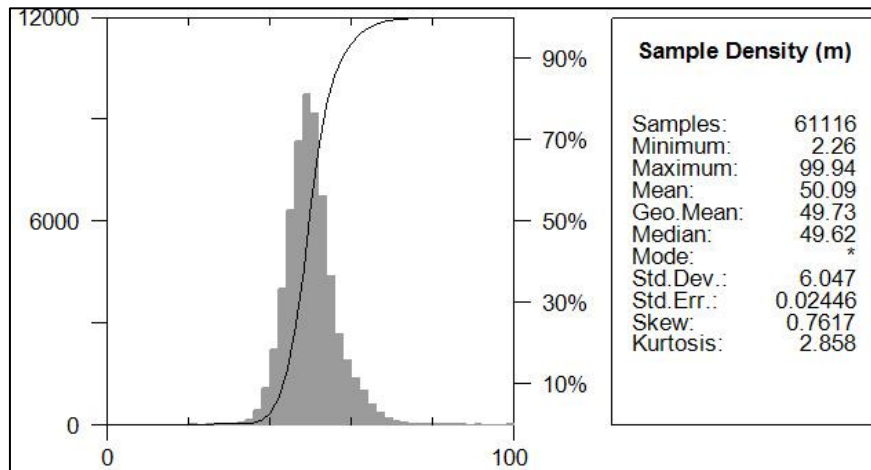


Figure 14: Histogram showing radiometric sample density. Horizontal distance in meters between adjacent measurement locations; radiometric sample frequency 1 Hz.

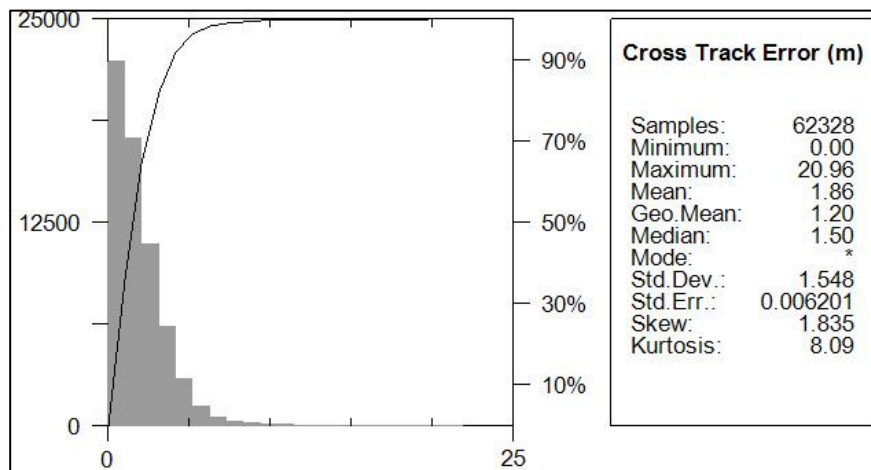


Figure 15: Histogram showing cross track error of survey helicopter.

5.0 Data Acquisition Equipment Checks

Equipment tests and calibrations were conducted for the laser altimeter and spectrometer at the start of the survey to ensure compliance with contract specifications and to deliver high quality airborne geophysical data. A lag test was conducted for the laser altimeter. There were three tests conducted for the gamma spectrometer: Stonehenge calibration, cosmic flight test, and altitude correction and sensitivity test.

5.1 Laser Altimeter Calibration

The Opti-Logic RS-800 laser altimeter used on the survey helicopter was tested and calibrated in accordance with manufacturer's instructions prior to starting the survey. This ensured that heights reported by the laser were accurate within the normal survey operating range.

5.2 Lag Test

A lag test was performed to determine the difference in time the digital reading was recorded for the laser altimeter with the position fix time that the fiducial of the reading was obtained by the GPS system resulting from a combination of system lag and different locations of various sensors with respect to the GPS antenna. The test was flown in reciprocal headings over identifiable features at survey speed and height to isolate position changes. The resulting data (Table 4) were used to correct for time and position.

Instrument	Source	Lag Fiducial	Correction (sec)
Laser	Sharp gully	0.90	0.90

Table 4: Survey lag correction values. Laser altimeter were sampled at 1 Hz.

5.2.1 Stonehedge Calibration

The spectrometer was calibrated at Medusa's radiometric facility in Groningen, Netherlands using their proprietary Stonehenge calibration setup. Stonehenge is a semi-infinite cube of brick of density 2.32 kg/l, which effectively shields the gamma crystals from outside influences. The spectrum measured is subsequently energy stabilized, normalized, and approximated to the Monte Carlo simulation code. The calibration procedure provides a set of standard spectra that are used in Full Spectrum Analysis to analyze gamma ray data measured in the field. More details describing the calibration procedures can be found in *Van der Graaf, et al, 2011 (Journal of Environmental Radioactivity, Monte Carlo based calibration of scintillation detectors for laboratory and in situ gamma ray measurements, 102:270-282)*

5.2.2 Cosmic Flight Test

While the background source of gamma radiation from the aircraft itself is essentially constant, the amount of signal detected from ground sources varies with ground clearance. As the height of the aircraft increases, the distance between the ground and the spectrometer crystals increases, and the proportion of cosmic radiation in each spectral window increases exponentially. The cosmic flight test is conducted to determine the aircraft's background attenuation coefficients for the detector crystal packs and the cosmic coefficients. The pilot is required to fly over the same low gamma source location (such as a large lake) repeatedly at 5000, 6000, 7000, 8000 and 9000 feet (1520, 1830, 2130, 2440, and 2740 m) above ground, for approximately two minutes each, to collect gamma data used to determine the non-terrestrial component present in the total gamma signal.

5.2.3 Altitude Correction and Sensitivity Test

The altitude and sensitivity test is similar to the cosmic flight test but is conducted at lower elevations. The aircraft is required to fly over the same location at 30, 40, 50, 70, and 80 m above ground, for two minutes each. As the distance between the gamma detectors on the aircraft and the radioactive ground source increases, the source signature exponentially degrades. As a result, this test is used to determine the altitude attenuation coefficients and the radio-element sensitivity of the airborne spectrometer system.

6.0 Data Processing

After all data were collected, several procedures were undertaken to ensure that the data met a high standard of quality. Radiometric data recorded by the Medusa GR-820.1 spectrometer were converted into Geosoft or ASCII file formats using Medusa's Gamman software. Further processing (Figure 16) was carried out using Geosoft Oasis Montaj 2021.2.1.11 geophysical processing software along with proprietary processing algorithms.

6.1 Position Corrections

In order to collect high resolution geophysical data, the location at which the data were collected and recorded must be accurate.

6.1.1 Lag Correction

A correction for lag error was applied to the geophysical data recorded by the laser altimeter to compensate for the combination of lag in the recording system and the sensing instrument flying in a different location from the GPS antenna, as determined during the lag test. Validity of the lag corrections was confirmed by the absence of grid corrugations in adjoining reciprocal lines.

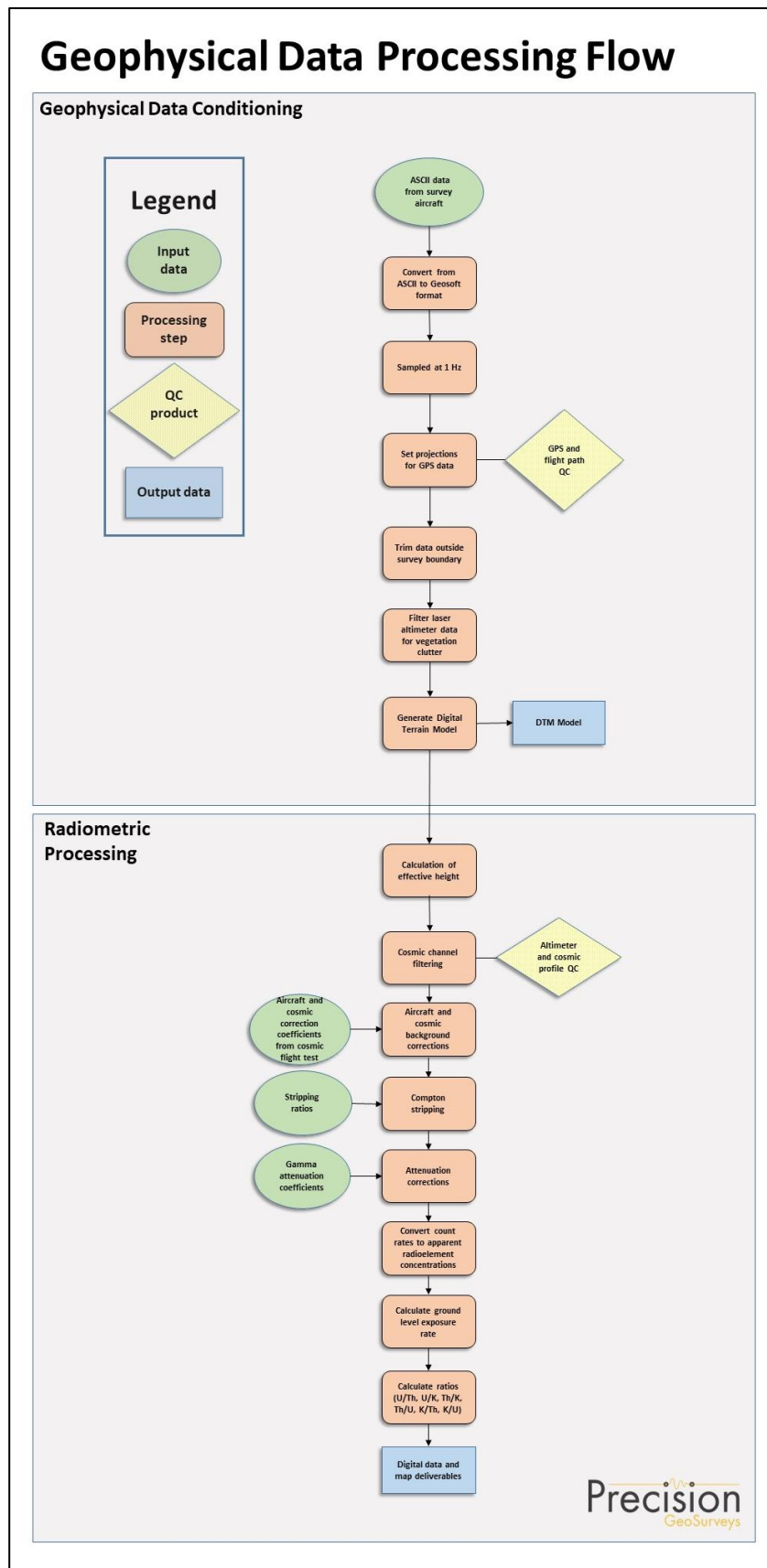


Figure 16: Radiometric data processing flow.

6.2 Flight Height and Digital Terrain Model

Laser altimeters are unable to provide valid data over glassy water or fog which dissipate the laser so that a “zero” reading is obtained. In these cases, estimates of correct height are inserted manually. Dense vegetation generates high frequency variations from leaf and branch reflections. A Rolling Statistics filter is applied to the lag corrected (0.90 seconds lag) laser altimeter data to remove vegetation clutter followed by a Low Pass filter to smooth out the laser altimeter profile to eliminate isolated high frequency noise and generate a surface closely corresponding to the actual ground profile.

A Digital Terrain Model (DTM) was determined by subtracting the laser altimeter data from the filtered GPS altimeter data defined by the WGS 84 ellipsoidal height. DTM accuracy is affected by the attitude of the aircraft, slope of the ground, sample density, and satellite geometry. Small inconsistencies in recorded flight height at the intersection points of survey lines and tie lines resulted in small spatial variabilities in the digital terrain model. Conventional leveling and micro-leveling were applied to correct for these variations and a fully leveled digital terrain model was generated.

6.3 Radiometric Processing

Radiometric surveys map gamma rays from the concentration of radioelements at or near Earth’s surface; typically up to 1 m below surface. Before airborne radiometric data are processed, the spectrometer system is calibrated with the Stonehenge setup, cosmic flight test, and altitude correction and sensitivity test. Once calibration of the system was completed, radiometric data were processed by windowing the full 256 channel spectrum to create individual channels for U, Th, K, and total count (TC).

Potassium (^{40}K) is measured directly at 1.461 MeV and is reported as %K. Secular equilibrium in the decay chains of uranium (^{238}U determined from the radon daughter ^{214}Bi) and thorium (^{232}Th determined from ^{208}Tl) is assumed and the ground concentration results are reported as equivalent uranium (eU, ppm) and equivalent thorium (eTh, ppm). Total gamma count (TC) data (energy range from 0.40 to 2.81 MeV) is reported in dose rate (nGy/hr) and natural exposure ($\mu\text{R/hr}$).

Radiometric processing generally followed the procedures provided by the International Atomic Energy Agency (IAEA) report 1363, *Guidelines for Radioelement Mapping using Gamma Ray Spectrometry Data*.

6.3.1 Calculation of Effective Height

Effective height (h_{ef}) in meters was determined using laser/radar altimeter, temperature, and pressure data, according to the formula below:

$$h_{ef} = h * \frac{273.15}{T + 273.15} * \frac{P}{1013.25}$$

where: h is observed laser/radar altitude in meters
 T is measured air temperature in degrees Celsius
 P is barometric pressure in millibars

6.3.2 Aircraft and Cosmic Background Corrections

Aircraft background and cosmic stripping corrections are applied to total gamma count and all three individual radioelements using the following formula:

$$C_{ac} = a_c + b_c * Cos_f$$

where: C_{ac} is the background and cosmic corrected channel
 a_c is the aircraft background for this channel
 b_c is the cosmic stripping coefficient for this channel
 Cos_f is the filtered cosmic channel

6.3.3 Compton Stripping

Spectral overlap corrections are applied to potassium, uranium, and thorium as part of the Compton stripping process. This is done by using the stripping ratios that have been calculated for the spectrometer by prior calibration.

For each of the stripping ratios α , β , and γ , height corrections at STP are made by using the following formulas:

$$\begin{aligned}\alpha_h &= \alpha + h_{ef} * 0.00049 \\ \beta_h &= \beta + h_{ef} * 0.00065 \\ \gamma_h &= \gamma + h_{ef} * 0.00069\end{aligned}$$

where: α , β , and γ are the Compton stripping coefficients
 α_h , β_h , and γ_h are the height-corrected Compton stripping coefficients
 h_{ef} is the effective height above ground in metres at STP

Stripping corrections are then carried out using the following formulas:

$$Th_c = Th_{bc}(1 - g\beta_h) + U_{bc}(b\gamma_h - a) + K_{bc}(ag - b)/A$$

$$U_c = Th_{bc}(g\beta_h - \alpha_h) + U_{bc}(1 - b\beta_h) + K_{bc}(b\alpha_h - g)/A$$

$$K_c = [Th_{bc}(\alpha_h\gamma_h - \beta_h) + U_{bc}(a\beta_h - \gamma_h) + K_{bc}(1 - a\alpha_h)]/A$$

where: U_c , Th_c , and K_c are stripping-corrected uranium, thorium, and potassium
 α_h , β_h , and γ_h are height-corrected Compton stripping coefficients
 U_{bc} , Th_{bc} , and K_{bc} are background corrected uranium, thorium, and potassium
 a is the spectral ratio Th/U
 b is the spectral ratio Th/K
 g is the spectral ratio U/K
 $A = 1 - g\gamma_h - (\alpha_h - g\beta_h) - b(\beta_h - \alpha_h\gamma_h)$ is the backscatter correction

6.3.4 Attenuation Corrections

Total count, potassium, uranium, and thorium data are then corrected to a nominal survey altitude (corrected to remove vegetation clutter from radar/laser altimeter data); in this case the nominal survey height was 35 m AGL. This is done according to the equation:

$$C_a = C * e^{\mu(h_{ef} - h_0)}$$

where: C_a is the output altitude-corrected channel
 C is the input channel
 μ is the attenuation correction for that channel
 h_{ef} is the effective altitude
 h_0 is the nominal survey altitude used as datum

6.3.5 Conversion to Apparent Radioelement Concentrations

With all corrections applied to the radiometric data, the final step is to convert the corrected potassium (^{40}K), uranium (from ^{214}Bi), and thorium (from ^{212}Tl) to apparent radioelement concentrations using the following formula:

$$eE = C_{cor}/S$$

where: eE is the element concentration of K (%) and equivalent element concentration of U (ppm) & Th (ppm)
 S is the experimentally determined sensitivity
 C_{cor} is the fully corrected channel

Conversion of total count to natural exposure rate (Grasty et al, 1984) is determined by using the following formula:

$$\text{Natural Exposure} = [(1.505 * K) + (0.625 * eU) + (0.31 * eTh)]$$

where: Natural Exposure is in $\mu\text{R/hr}$

K is the concentration of potassium (%)

eU is the equivalent concentration of uranium (ppm)

eTh is the equivalent concentration of thorium (ppm)

6.3.6 Radiometric Ratios

Common radiometric ratios (U/Th, Th/K, U/K, and their inverses) were calculated using the guidelines of the IAEA. Due to statistical uncertainties in the individual radioelement measurements, care was taken during ratio calculation in order to obtain statistically significant values. The following guidelines were used to determine the ratios:

1. For each concentration, the lowest corrected count rate is determined.
2. Element concentrations of adjacent points on either side of each data point are summed until they exceed a pre-determined threshold value.
3. The ratios are calculated using the accumulated sums.

With these guidelines, errors associated with the calculated ratios are minimized and comparable for all data points.

6.3.7 Ternary Radioelement Image Map

Ternary images are a graphic representation of the relative proportion of the radioelement concentrations of %K, eTh, and eU components in proportion to the respective colours blue (cyan), red (magenta), and yellow. Since each distinct colour is used to represent each ternary ratio on the map, zones with similar ratios will be represented by a unique colour. This distinct relationship between colour and ternary ratio allows the map to show surficial radioelement concentration and distribution. Dark and light colours indicate high and low values for all three radionuclides, respectively. Areas of low radioactivity, and consequently low signal to noise ratios, can be masked and are shaded in white. Because the ternary image is a three-way ratio, topographic and physiographic effects are suppressed and a visualization of the relative concentrations of the individual radioelements are presented to help discriminate between different zones of lithology and alteration.

7.0 **Deliverables**

Dixie West survey data are presented as digital databases, grids, maps, and a logistics report.

7.1 **Digital Data**

Digital files have been provided in three formats:

- GDB file for use in Geosoft Oasis Montaj
- XYZ file
- CSV Excel comma separated file

Full descriptions of the digital data and contents are included in Appendix C.

7.1.1 **Grids**

The digital data were represented as grids as listed below:

- Digital Terrain Model (DTM)
- Potassium – Percentage (%K)
- Thorium – Equivalent Concentration (eTh)
- Uranium – Equivalent Concentration (eU)
- Total Count (TC)
- Total Count – Exposure Rate (TCexp)
- Potassium over Thorium Ratio (%K/eTh)
- Potassium over Uranium Ratio (%K/eU)
- Uranium over Thorium Ratio (eU/eTh)
- Uranium over Potassium Ratio (eU/%K)
- Thorium over Potassium Ratio (eTh/%K)
- Thorium over Uranium Ratio (eTh/eU)

Digital magnetic and radiometric data were gridded and displayed using the following Geosoft parameters:

- Gridding method: minimum curvature
- Grid cell size: 15 m
- Low-pass desampling factor: 5
- Tolerance: 0.001
- % pass tolerance: 99.99
- Maximum iterations: 100
- Shading effect: sun inclination at 45° and declination at 045°

Descriptions of colour scales used to display the grids are presented in Appendix C.

7.2 KMZ

Gridded digital data were exported into .KMZ files which can be displayed using Google Earth. The grids can be draped onto topography and rendered to give a 3D view.

7.3 Maps

The following digital map products were prepared for Dixie West:

Overview Maps (colour images with elevation contour lines):

- Actual flight lines
- DTM

Radiometric Maps (colour images with elevation contour lines):

- %K – Percentage
- eTh – Equivalent Concentration
- eU – Equivalent Concentration
- TC
- TCexp – Exposure Rate
- %K/eTh Ratio
- %K/eU Ratio
- eTh/eU Ratio
- Ternary Image

All survey maps were prepared in WGS 84 in UTM Zone 15N.

7.4 Report

A .PDF copy of the logistics report is included along with digital data and maps. The report provides information on acquisition, processing, and presentation of the Dixie West survey data.

8.0 Conclusions and Recommendations

The Dixie West survey collected 3015 line km of high resolution radiometric data over one survey block. The data have been processed and plotted on maps as a representation of the radiometric features of the survey area.

Geophysical data processing, particularly leveling and data interpolation routines, tend to smooth the original data so that resolution is reduced. In addition, gridding algorithms are not always able to properly calculate grids where flight height between adjacent flight lines varied due to cultural obstacles or steep terrain, where geological structures are acute to flight lines, where line spacing exceeds the size of the causative anomaly, or near grid margins as in “edge effects.” Therefore, subtle geophysical features observed near survey margins or in gridded and derivative-enhanced products must be evaluated with discretion.

The airborne geophysical data were acquired to map the geophysical characteristics of the survey area, which are in turn related to the distribution of radioactive elements in the Earth. Radiometric data are influenced by topographic features and surficial effects, and ratios can be used to evaluate the near-surface radioelement geochemistry of the survey area. Therefore, the geophysical data will be useful in mapping lithology, structure, and alteration, which will benefit mineral exploration initiatives and geological studies.

Geophysical data are rarely a direct indication of mineral deposits and therefore interpretation and careful integration with existing and new geological, geochemical, and other geophysical data are recommended to maximize value from the survey investment.

Respectfully submitted,
Precision GeoSurveys Inc.

Jenny Poon, P.Geo.
June 2022

Appendix A

Dixie West Polygon Coordinates

Dixie West Survey Block – WGS 84 Zone 15N

Latitude (deg N)	Longitude (deg W)	Easting (m)	Northing (m)
50.86755	93.84542	440509	5635437
50.86756	93.75654	446763	5635370
50.87500	93.75666	446763	5636197
50.87535	93.70000	450750	5636197
50.86666	93.70000	450741	5635231
50.86667	93.69375	451181	5635227
50.85833	93.69375	451172	5634300
50.85833	93.68125	452052	5634292
50.85000	93.68125	452043	5633366
50.85000	93.68750	451603	5633370
50.82500	93.68714	451603	5630590
50.82433	93.79374	444094	5630590
50.77084	93.79283	444094	5624642
50.77083	93.80625	443148	5624651
50.76250	93.80611	443148	5623724
50.76250	93.81250	442697	5623729
50.75833	93.81250	442692	5623266
50.75834	93.81875	442251	5623271
50.75416	93.81875	442246	5622807
50.75416	93.82500	441805	5622812
50.75000	93.82500	441800	5622349
50.75000	93.83125	441359	5622354
50.74584	93.83125	441354	5621891
50.74584	93.84375	440472	5621901
50.74166	93.84375	440467	5621437
50.74166	93.85000	440026	5621442
50.73750	93.85001	440020	5620979
50.73750	93.85625	439579	5620984
50.73334	93.85625	439574	5620521
50.73333	93.86250	439133	5620526
50.69584	93.86181	439133	5616356
50.69584	93.90000	436436	5616388
50.69166	93.90000	436430	5615924
50.69139	93.90921	435779	5615902
50.67088	93.95490	432523	5613662
50.67090	93.96878	431542	5613676
50.68912	93.96915	431542	5615703
50.68916	93.96437	431880	5615703
50.71553	93.90589	436047	5618583
50.71667	93.90625	436023	5618710
50.71667	93.90000	436464	5618704
50.72083	93.90000	436470	5619167
50.72083	93.89375	436911	5619162
50.72500	93.89376	436916	5619625

50.72500	93.88749	437358	5619620
50.74166	93.88750	437380	5621473
50.74167	93.88125	437821	5621468
50.74583	93.88125	437826	5621931
50.74583	93.87500	438267	5621926
50.75417	93.87500	438278	5622853
50.75417	93.86875	438719	5622848
50.76250	93.86875	438730	5623774
50.76250	93.86250	439171	5623769
50.76666	93.86250	439176	5624232
50.76666	93.85625	439617	5624227
50.77084	93.85625	439622	5624691
50.77084	93.85000	440063	5624686
50.77500	93.85000	440068	5625149
50.77500	93.84375	440509	5625144

Appendix B
Radiometric Correction Coefficients

Radiometric Correction Coefficients:

Cosmic Correction Coefficients		
	Cosmic Stripping	Aircraft Background
TC	2.50	37.47
K	0.11	4.51
U	0.12	1.66
Th	0.13	0.50

Altitude Attenuation Coefficients	
TC	-0.009
K	-0.011
U	-0.008
Th	-0.010

Compton Stripping	
Alpha	0.3184
Beta	0.4309
Gamma	0.8467
GrastyBackscatter_a	0.3184
GrastyBackscatter_b	0.0000
GrastyBackscatter_g	0.0000

Sensitivities	
TC	42.31
K	134.62
U	12.36
Th	6.12

Appendix C

Equipment Specifications

- Hemisphere R330 GPS Receiver
- Opti-Logic RS800 Rangefinder Laser Altimeter
- Setra Model 276 Barometric Pressure
- Rotronic HygroClip HC-S3 Relative Humidity and Temperature Probe
- Medusa GR-820.1
- Nuvia Dynamics IMPAC data recorder system (for navigation and geophysical data acquisition)

Hemisphere R330 GPS Receiver

GPS Sensor	Receiver Type	L1 and L2 RTK with carrier phase	
	Channels	12 L1CA GPS 12 L1P GPS 12 L2P GPS 12 L2C GPS 12 L1 GLONASS (with subscription code) 12 L2 GLONASS (with subscription code) 3 SBAS or 3 additional L1CA GPS	
	Update Rate	10 Hz standard, 20 Hz available	
	Cold Start Time	<60 s	
	Warm Start Time 1	30 s (valid ephemeris)	
	Warm Start Time 2	30 s (almanac and RTC)	
	Hot Start Time	10 s typical (valid ephemeris and RTC)	
	Reacquisition	<1 s	
	Differential Options	SBAS, Autonomous, External RTCM, RTK, OmniSTAR (HP/XP)	
	Horizontal Accuracy		RMS (67%)
RTK ^{1,2}		10 mm + 1 ppm	20 mm + 2 ppm
OmniSTAR HP ^{1,3}		0.1 m	0.2 m
SBAS (WAAS) ¹		0.3 m	0.6 m
Autonomous, no SA ¹		1.2 m	2.5 m
L-Band Sensor	Channel	Single channel	
	Frequency Range	1530 MHz to 1560 MHz	
	Satellite Selection	Manual or Automatic (based on location)	
	Startup and Satellite Reacquisition Time	15 seconds typical	
Communications	Serial Ports	2 full duplex RS232	
	Baud Rates	4800 – 115200	
	USB Ports	1 Communications, 1 Flash Drive data storage	
	Correction I/O Protocol	Hemisphere GPS proprietary, RTCM v2.3 (DGPS), RTCM v3 (RTK), CMR, CMR+NMEA 0183, Hemisphere GPS binary	
	Timing Output	1 PPS (HCMOS, active high, rising edge sync, 10 k Ω , 10 pF load)	
	Event Marker Input	HCMOS, active low, falling edge sync, 10 k Ω	
Environmental	Operating Temperature	-40°C to +70°C	
	Storage Temperature	-40°C to +85°C	
	Humidity	95% non-condensing	
Power GPS Sensor	Input Voltage Range	8 to 36 VDC	
	Consumption, RTK	<3.5 W (0.30 A @ 12 VDC typical)	
	Consumption, OmniSTAR	<4.3 W (0.36 A @ 12 VDC typical)	

¹ Depends on multipath environment, number of satellites in view, satellite geometry and ionospheric activity.² Depends also on baseline length.³ Requires a subscription from OmniSTAR.

Opti-Logic RS800 Rangefinder Laser Altimeter

Accuracy	±1 m on 1x1 m ² diffuse target with 50% reflectivity, up to 700 m
Resolution	0.2 m
Communication Protocol	RS232-8, N, 1 ASCII characters
Baud Rate	19200
Data Raw Counts	~200 Hz
Data Calibrated Range	~10 Hz
Data Rate	~200 Hz raw counts for un-calibrated operation; ~10 Hz for calibrated operation (averaging algorithm seeks 8 good readings)
Calibrated Range Units	Feet, Meters, Yards
Laser	Class I (eye-safe), 905 nm ± 10 nm
Power	7 - 9 VDC conditioned required, current draw at full power (~ 1.8 W)
Laser Wavelength	RS100 905 nm ± 10 nm
Laser Divergence	Vertical axis – 3.5 mrad half-angle divergence; Horizontal axis – 1 mrad half-angle divergence; (approximate beam “footprint” at 100 m is 35 cm x 5 cm)
Dimensions	32 x 78 x 84 mm (lens face cross section is 32 x 78 mm)
Weight	<227 g (8 oz)
Casing	RS100/RS400/RS800 units are supplied as OEM modules consisting of an open chassis containing optics and circuit boards. Custom housings can be designed and built on request.

Setra Model 276 Barometric Pressure

Performance	Accuracy RSS ¹ (at constant temp)	±0.25% FS ²
	Non-Linearity (BSFL)	±0.22% FS
	Hysteresis	0.05% FS
	Non-Repeatability	0.05% FS
	Thermal Effects ³	Compensated range: 0°C to +55°C (+30°F to +130°F) Zero shift (over compensated range): 1% FS Span shift (over compensated range): 1% FS
	Resolution	Infinite, limited only by output noise level (0.0005% FS)
	Time Constant	10 msec to reach 90% final output with step function pressure input
	Long Term Stability	0.25% FS / 6 months
Environmental	Temperature	Operating ⁴ : -18°C to +79°C (0°F to +175°F) Storage: -55°C to +121°C (-65°F to +250°F)
	Vibration	2 g from 5 Hz to 500 Hz
	Shock	50 g (Operating, 1/2 sine 10 ms)
	Acceleration	10 g
Electrical	Circuit	3-Wire ⁵ (Exc, Out, Com)
	Power Consumption	0.20 W (24 VDC)
	Output Impedance	5 Ω
	Output Noise	<200 μV RMS (0 to 100 Hz)

¹ RSS of non-linearity, hysteresis, and non-repeatability.

² FS = 300 mb for 800 – 1100 mb range; 500 for 600 – 1100 mb range; and 20 PSI for 0 to 20 PSIA.

³ Units calibrated at nominal 70°F. Maximum thermal error computed from this datum.

⁴ Operating temperature limits of the electronics only. Pressure media temperatures may be considerable higher or lower.

⁵ The separate leads for +EXC, -EXC, +Out, -Out are commoned internally. The shield is connected to the case. For best performance, either the -Exc or -Out should be connected to the case. Unit is calibrated at the factory with -Exc connected to the case. The insulation resistance between all signal leads are tied together and case ground is 100 Ω minimum at 25 VDC.

Rotronic HygroClip HC-S3 Relative Humidity and Temperature Probe

Relative Humidity	Operating Range	0 to 100% RH
	Accuracy at 23°C	±1.5% RH
	Output	0 – 1 VDC
	Typical Long-Term Stability	Better than ±1% RH per year
Temperature	Measurement Range	-40°C to +60°C
	Temperature Accuracy	-30°C to +60°C ±0.2°C -50°C to +60°C ±0.6°C (worst case)
	Output	0 – 1 VDC
Power	Supply Voltage	3.5 to 50 VDC (typically powered by data logger's 12 VDC supply)
	Current Consumption	<4 mA
Dimensions	Diameter	1.53 cm (0.60")
	Length	16.8 cm (6.6")
	Housing Material	Polycarbonate

Medusa GR-820.1

Crystal Volume	Four 4.2 L NaI(Tl) synthetic downward-looking Total volume of 16.8 L
Resolution	256/512/1024 channels
Data Handling	Individual detector processing and calibration
Energy Resolution	< 9% (@ 662 keV)
Linearity	Integral: less than 0.2% Differential: less than 1%
Gain Stabilization	Automatic multi-peak on natural radioisotopes
Calibration	Automatic using natural background radiation
Maximum Count Rate	1,000,000 per second
Sampling Rate	0.1 – 10 secs user defined
Spectra	0 keV to 3 MeV (plus cosmic)
Power	5-36 volts, reverse polarity protected
Operating Temperature	-20°C up to +50°C
System Stabilization	Cold start-up: less than 40 secs on the ground
GPS Connectivity	Time and position synchronization; additional add-on
Digital Output	Ethernet or wifi
Serial	RS-232

Nuvia Dynamics IMPAC data recorder system

(for navigation and geophysical data acquisition)

Functions	Integrated Multi-Parameter Airborne Console (IMPAC) with integrated dual Global Positioning System Receiver (GPS) and all necessary navigation guidance software. Inputs for geophysical sensors - portable gamma ray spectrometer GRS-10/AGRS, MMS4/MMS8 Magnetometer, Herz Totem-2A EM, A/D converter, temperature/humidity probe, barometric pressure probe, and laser/radar altimeter. Output for the multi-parameter PGU (Pilot Guidance Unit)
Display	Monitor display 600 x 800 pixels; customized keypad and operator keyboard. Multi-screen options for real-time viewing of all data inputs, fiducial points, flight line tracking, and GPS channels by operator
Navigation	Pilot/operator navigation guidance. Software supports preplanned survey flight plan, along survey lines, way-points, preplanned drape profile surfaces
Data Sampling	Sensor dependent
Data Synchronization	Synchronized to GPS position. Supports dual GPS
Data File	PEI Binary data format
Storage	80 GB
Software	DataView: Allows fast data verification and conversion of PEI binary data to Geosoft GBN or ASCII formats MAGConv: For survey preparation, calibration and conversion of maps, and survey plot after data acquisition MAGComp: For calculation of magnetic compensation coefficients AGRS/GRS10 Calibration: High voltage adjustment, linearity correction coefficients calculation, and communication test support AGIS: Real time data acquisition and navigation system. Displays chart/spectrum view in real-time for fast data Quality Control (QC)
Electrical	Multiple ethernet connections, RS232 serial ports, USB ports, and 16-bit differential analog input channels. It can support up to 4 magnetometer sensors
Power Requirement	24 VDC

Appendix D

Digital File Descriptions

- Radiometric Database
- Geosoft Grids
- Maps

Radiometric Database:

Abbreviations used in the GDB/XYZ/CSV files listed below:

CHANNEL	UNITS	DESCRIPTION
X_WGS84	m	UTM Easting – WGS84 Zone 15N
Y_WGS84	m	UTM Northing – WGS84 Zone 15N
Lat	Decimal degree	Latitude – WGS84
Lon	Decimal degree	Longitude – WGS84
Date	yyyy/mm/dd	Date of the survey flight(s) – Local
FLT		Flight Line numbers
GPStime	HH:MM:SS	GPS time (UTC)
XTE_m	m	Cross track error
Galt	m	GPS height – WGS84 Zone 15N (ASL)
Lalt	m	Laser altimeter height (AGL)
DTM	m	Digital Terrain Model
Sample_Density	m	Horizontal distance in metres between adjacent measurement locations; sample frequency is 1 Hz
Speed_km_hr	km/hr	Ground speed of aircraft in km/hr
BaroSTP_kPa	kPa	Barometric altitude (pressure and temperature corrected)
Temp_degC	°C	Air temperature
COSFILT	counts/sec	Spectrometer – Filtered Cosmic
Kcor	%	Concentration in Percentage - Potassium
Thcor	ppm	Equivalent Concentration - Thorium
Ucor	ppm	Equivalent Concentration - Uranium
TCcor	nGy/hour	Total Count
TCexp	µR/hour	Exposure Rate
KThratio		Spectrometer – %K/eTh ratio
KUratio		Spectrometer – %K/eU ratio
ThKratio		Spectrometer – eTh/%K ratio
ThUratio		Spectrometer – eTh/eU ratio
UKratio		Spectrometer – eU/%K ratio
UThratio		Spectrometer – eU/eTh ratio

Grids:

Dixie West, WGS 84 Zone 15N, sun inclination at 45° and declination at 045°. All grids generated using minimum curvature gridding method.

File Name	Description	Cell Size (m)
21157_DixieWest_DTM_15m.grd	Digital Terrain Model	15
21157_DixieWest_K_15m.grd	Potassium (%K) – in percentage	15
21157_DixieWest_eTh_15m.grd	Thorium (eTh) – equivalent concentration	15
21157_DixieWest_eU_15m.grd	Uranium (eU) – equivalent concentration	15
21157_DixieWest_TC_15m.grd	Total Count (TC)	15
21157_DixieWest_TCexp_15m.grd	Total Count (TCexp) – exposure rate	15
21157_DixieWest_KThRatio_15m.grd	Potassium over Thorium ratio (%K/eTh)	15
21157_DixieWest_KURatio_15m.grd	Potassium over Uranium ratio (%K/eU)	15
21157_DixieWest_UThRatio_15m.grd	Uranium over Thorium ratio (eU/eTh)	15
21157_DixieWest_UKRatio_15m.grd	Uranium over Potassium ratio (eU/%K)	15
21157_DixieWest_ThKRatio_15m.grd	Thorium over Potassium ratio (eTh/%K)	15
21157_DixieWest_ThURatio_15m.grd	Thorium over Uranium ratio (eTh/eU)	15

Maps:

Dixie West, WGS 84 Zone 15N, sun inclination at 45° and declination at 045°
(JPEG, PDF, and georeferenced PDF).

Plate Num	Plate Name	File Name	Description	Cell Size (m)	Colour Scale	Colour Shade
1	FL	21157_DixieWest_ActualFlightLines	Plotted actual flown flight lines	NA	NA	NA
2	DTM	21157_DixieWest_DTM_15m	Digital Terrain Model	15	Linear	NA
3	%K	21157_DixieWest_K_15m	Potassium (%K) – in percentage	15	Histogram-equalized	RGB
4	eTh	21157_DixieWest_eTh_15m	Thorium (eTh) – equivalent concentration	15	Histogram-equalized	RGB
5	eU	21157_DixieWest_eU_15m	Uranium (eU) – equivalent concentration	15	Histogram-equalized	RGB
6	TC	21157_DixieWest_TC_15m	Total Count (TC)	15	Histogram-equalized	RGB
7	TCexp	21157_DixieWest_TCexp_15m	Total Count (TCexp) – exposure rate	15	Histogram-equalized	RGB
8	%K/eTh	21157_DixieWest_KThRatio_15m	Potassium over Thorium ratio (%K/eTh)	15	Histogram-equalized	RGB
9	%K/eU	21157_DixieWest_KURatio_15m	Potassium over Uranium ratio (%K/eU)	15	Histogram-equalized	RGB
10	eU/eTh	21157_DixieWest_ThURatio_15m	Thorium over Uranium ratio (eTh/eU)	15	Histogram-equalized	RGB
11	TI	21157_DixieWest_TernaryImage_15m	Ternary ratio of all three elements (%K, eTh, eU)	15	Histogram-equalized	RGB inverted

*Grids displayed on the maps are exported as GeoTIFFs (.tiff) and KMZs.

Plates

Dixie West Survey Block

- Plate 1: Dixie West – Actual Flight Lines (FL)
- Plate 2: Dixie West – Digital Terrain Model (DTM)
- Plate 3: Dixie West – Potassium - Percentage (%K)
- Plate 4: Dixie West – Thorium - Equivalent Concentration (eTh)
- Plate 5: Dixie West – Uranium - Equivalent Concentration (eU)
- Plate 6: Dixie West – Total Count (TC)
- Plate 7: Dixie West – Total Count - Exposure Rate (TCexp)
- Plate 8: Dixie West – Potassium over Thorium Ratio (%K/eTh)
- Plate 9: Dixie West – Potassium over Uranium Ratio (%K/eU)
- Plate 10: Dixie West – Thorium over Uranium Ratio (eTh/eU)
- Plate 11: Dixie West – Ternary Image (TI)