EXPLORATION REPORT

ON AN

MMI SOIL GEOCHEMISTRY SURVEY

AND

SATTELITE IMAGERY WORK

ON THE

TULSEQUAH PROPERTY

YELLOW BLUFF, TAKU RIVER AREA

ATLIN MINING DIVISION, BRITISH COLUMBIA

LOCATED:	100 km south of the village of Atlin, BC 58°62'69" North Latitude and 133°46'85" Longitude NTS: 104K/11
WRITTEN FOR:	**OPTIMA MINERALS INC.** 1500 Hardy St. Kelowna, British Columbia V1Y 8H2
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DATED:	May 15th, 2009

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SUMMARY

An MMI soil sampling survey was carried out on the Tulsequah. This property is located on Yellow about 100 km south of the village of Atlin, within the Atlin Mining Division of B.C. The purpose of the work was to locate any possible mineralization perhaps similar to the two showings on the property.

The MMI survey consisted of 99 samples carried out over two small grids within the northern part of the property. Samples were picked up every 25 meters on six lines, three to each grid, for a total of 2,740 meters. The samples were bagged and sent to SGS Labs in Toronto for analysis where they were tested for 46 elements. The results for twelve of these, namely silver, arsenic, gold, cadmium, cerium, cobalt, copper, molybdenum, nickel, lead, uranium, and zinc, were divided by their respected mean background values to obtain a number called a response ratio. Stacked histograms were then made for each survey line and contour plans were made for all twelve of the elements.

CONCLUSIONS

1. The MMI survey revealed two anomalous zones that have been labeled by the upper case letters A and B. Both anomalies appear to strike northeasterly and are anomalous in zinc, silver, lead, and cadmium that correlate with IP highs. A is also anomalous in copper.

2. Anomaly A is the main high containing the strongest MMI results, especially zinc. The correlation therefore suggests that the mineralization extends in a northeast direction for a minimum 275 meters being open in both the northeast and southwest directions.

3. Anomaly A has two causative sources, that is, two zones of sulphide mineralization, a southern zone and a northern zone. At depth, it increases in width to at least 115 meters. The northern zone does not outcrop and thus indicates a previously unknown zone of mineralization occurring at depth. Its width increases to a minimum 135 meters at about 75 meters depth.

4. Anomaly B appears to be parallel to anomaly having a similar strike length of 250 meters. This width of the mineralization also increases with depth reaching about 90 meters at a depth of 100 meters.

RECOMMENDATIONS

The MMI results are encouraging and therefore warrant further exploration. Therefore, MMI and IP surveys should be continued to the west, south, and east. The line spacing in the area of the anomaly should be reduced to 50 meters. This should more accurately determine the strike and the width of the anomaly, especially considering that the anomaly, at this point, appears to strike northeasterly across survey lines that run in a north direction. However, there is some indication that the anomaly may actually strike more easterly.

This work should result in drill targets. It appears there are drill targets at this point but further work as recommended above will optimize the locations of these drill targets.

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INTRODUCTION AND GENERAL REMARKS

MMI (mobile metal ion) soil sampling along with grid emplacement was carried out during the period of September 5th to 9th, 2008 by an 8-man Geotronics crew within the northern part of the Tulsequah Property, which is 100 km south of the town of Atlin. The survey occurred over two grids, Grid 1 and 2, encompassing there lines each. The purpose of the work was to locate any possible mineralization perhaps similar to the two showings on the property.

Much of the following description of the property up to and including the property's geology, was taken from Mihalynuk's 1994/1995 geological report on the property.

PROPERTY AND OWNERSHIP

The Tulsequah Property consists of 107 mineral claims owned by Optimum Minerals Inc. The property has a total area of 40,207.331 hectares.

Tenure Number	Type	Claim Name	Good Until	Area (ha)
503526	Mineral	Border Lake	20100901	33.86
516543	Mineral		20100901	202.066
522857	Mineral	OP 1	20090901	420.829
522859	Mineral	OP 2	20090901	404.273
522860	Mineral	OP 3	20090901	421.3
522861	Mineral	OP 4	20090901	421.536
522862	Mineral	OP 5	20090901	421.803
522863	Mineral	OP 6	20090901	421.824
522865	Mineral	OP 7	20090901	421.565
522866	Mineral	OP 8	20090901	404.498
522867	Mineral	OP 9	20090901	422.18
522868	Mineral	OP 10	20090901	421.592
522870	Mineral	OP 11	20090901	270.177
522873	Mineral	OP 12	20090901	421.415

522874	Mineral	OP 14	20090901	421.853
522876	Mineral	OP 15	20090901	405.263
522907	Mineral	OP 16	20090901	420.863
522908	Mineral	OP 17	20090901	421.098
522910	Mineral	OP 18	20090901	421.335
522913	Mineral	OP 19	20090901	421.572
522914	Mineral	OP 20	20090901	421.898
525316	Mineral	EA 1	20091201	403.784
525356	Mineral	SUTLAHINE CLAIM	20090301	101.312
525513	Mineral	OPI 1	20090301	135.563
530323	Mineral	BLACK 1	20080901	421.965
530324	Mineral	BLACK 2	20080901	421.958
530326	Mineral	BLACK 3	20080901	421.935
530327	Mineral	BLACK 4	20090901	404.837
530623	Mineral	OP 21	20080908	421.765
530624	Mineral	OP 22	20080901	422.102
530625	Mineral	OP 23	20090901	404.931
530626	Mineral	OP 24	20080901	405.189
530711	Mineral	OP 25	20090901	404.967
530716	Mineral	OP 26	20080901	421.489
530718	Mineral	OP 27	20080901	419.937
530719	Mineral	OP 28	20080901	419.699
530721	Mineral	OP 29	20080901	419.439
530722	Mineral	OP 30	20080901	419.431
530723	Mineral	OP 31	20080901	419.69
530724	Mineral	OP 32	20080901	419.923
530725	Mineral	OP 33	20080901	419.92
530726	Mineral	OP 34	20080901	419.693
530727	Mineral	OP 35	20090301	419.792
530728	Mineral	OP 36	20090301	420.125
530729	Mineral	OP 37	20090301	419.962
530730	Mineral	OP 38	20090301	167.795
530731	Mineral	OP 39	20090301	420.244
530732	Mineral	OP 40	20090301	184.837
530734	Mineral	OP 41	20090301	420.851
530749	Mineral	OP 42	20090301	404.215
530750	Mineral	OP 43	20090301	404.41
530751	Mineral	OP 44	20091201	16.829
532111	Mineral	MOLY 7	20080901	423.817
532171	Mineral	ERIC 1	20091201	387.224
532172	Mineral	SPRING	20091201	405.244
532173	Mineral	MOLY	20100901	406.774
532174	Mineral	MOLY 2	20100901	406.887
532175	Mineral	SPRING 2	20091201	422.09
532176	Mineral	MOLY 3	20090401	423.905

532177	Mineral	MOLY 4	20090401	424.052
532178	Mineral	MOLY 5	20100901	423.877
532179	Mineral	ERIC 2	20091201	168.279
532180	Mineral	ERIC 6	20100901	420.27
532181	Mineral	ERIC 3	20100901	420.403
532182	Mineral	MOLY 6	20090401	118.664
532183	Mineral	ERIC 4	20090901	420.263
532184	Mineral	ERIC 5	20090901	117.736
532185	Mineral	ERIC 7	20100901	420.522
532186	Mineral	ERIC 8	20100901	403.783
532187	Mineral	ERIC 9	20091201	420.616
532188	Mineral	ERIC 10	20091201	420.641
532189	Mineral	ERIC 11	20090701	353.189
532190	Mineral	ERIC 12	20091201	404.229
532191	Mineral	TAKU 1	20090401	424.042
532192	Mineral	TAKU 2	20090401	424.169
532193	Mineral	TAKU 3	20090401	424.264
532194	Mineral	TAKU 4	20090401	424.211
532195	Mineral	TAKU 5	20090401	424.106
532196	Mineral	TAKU 6	20090401	356.093
542659	Mineral	TAKE ONE	20080908	422.126
542663	Mineral	TAKE TWO	20080908	422.435
542665	Mineral	GRAGY 1	20080908	422.695
542670	Mineral	YOGI BEAR	20080908	423.044
542671	Mineral	TAKE CONECTOR	20080908	405.236
542672	Mineral	BORDER CLAIM	20080908	254.032
542674	Mineral	LAST SPIKE	20080908	422.727
542675	Mineral	THE PIPE	20080901	422.165
542719	Mineral	CU 1	20080901	422.598
542721	Mineral	ICE 2	20080901	304.133
542723	Mineral	ICE 3	20080901	185.956
542781	Mineral	ENDZONE	20080901	254.027
542847	Mineral	SUT 1	20080901	422.287
542848	Mineral	SUT 2	20080901	422.395
542849	Mineral	STU 3	20080901	422.58
542850	Mineral	STU 4	20080901	422.609
542851	Mineral	STU 5	20080901	422.797
542852	Mineral	PID 1	20080901	405.715
542853	Mineral	LAH 1	20080901	422.672
542854	Mineral	LAH 2	20080901	405.86
542855	Mineral	TAKE ANOTHER	20080901	422.424
542856	Mineral	POR 1	20080901	354.556
549129	Mineral	MTOGDENMOLY	20100901	423.609
549133	Mineral	MTOGDENMOLY P1	20090901	372.63
550031	Mineral	MOLYTAKU 1	20100901	288.018

550033	Mineral	MT O	20090901	50.8
566548	Mineral	TEL 2	20090901	404.701
591097	Mineral	OM 1	20090909	421.765

Total Area: 40207.331 ha

LOCATION AND ACCESS

The Tulsequah Property is located in the Atlin Mining Division in the upper northwest corner of British Columbia, just east of the Alaska-BC border. The center of the property is about 100 kilometers south of the community of Atlin. The property is centered at latitude 58°62’69” North Latitude and 133°46’85” West Longitude on BCGS map sheets 104k.043, 104k.044, 104k.053, 104k.054, 104k.063, 104k.064, 104k.073, and 104k.074, with an NTS of 104k/06, 104k/11, and 104K/12.

Access to the region is either by fixed or rotary-wing aircraft or by shallow-draft boat or barge up the Taku River. Nearest centres for aircraft charter are Atlin and Juneau, although helicopters are intermittently based in the Tulsequah Valley. Two gravel airstrips are serviceable. Northwest of the confluence of the Taku and Tulsequah rivers, a strip more than a kilometre long will accommodate STOL (short takeoff and landing) aircraft but is subject to flooding two or more times each summer. A less flood prone, much shorter strip at the New Polaris (Polaris-Taku) minesite, a few kilometres west of the Tulsequah Property, will accommodate small aircraft or those with short takeoff capability. Float equipped aircraft can land on the Taku River and Border Lake. There are several river crossings to negotiate for travel by land between this strip and the project site. There are no roads or established trails within the map area; travel from airstrips to other localities is most effectively done by helicopter.

There is daily scheduled air service into either Whitehorse, Yukon or Juneau, Alaska the two nearest centres with commercial airline airports. Atlin is accessible by either charter aircraft or road and lies approximately 180 kilometres south of Whitehorse via Highways 7 and 1 (the Alaska Highway). These roads are good, all-weather roads for the entire length between Whitehorse and Atlin and are open year-round. The nearest major city centre is Whitehorse, 230 kilometres north of the project area. Whitehorse is a supply centre for this northern region and has an ample labour force. Due to historic mining activity in the area, an experienced work force, including mining personnel are available in Whitehorse and Atlin. The communities of Atlin and Whitehorse are government centres, and supply and service points for fuel, groceries, accommodation, etc. Large amounts of equipment can be flown into the Taku Property from Atlin. For advanced programs, equipment can be flown to the airstrip at the New Polaris site; there is a limitation on the size and weight that can be air freighted as the maximum runway length is 427 metres.

PHYSIOGRAPHY

The Tulsequah Property is situated within the rugged ranges of the Coast Mountains. The topography is mountainous and can be extremely rugged and precipitous at higher elevations.

The area includes a sizeable icefield around Mount Sittakanay in the central portion of the property and Mount Ogden in the southern portion. Elevations range from about 20 metres above sea level (ASL) in the Taku River valley to 2263 metres at the top of Mount Ogden.

The property area has a coastal climate with temperatures which average 20°C in July and -15°C in December and receives somewhat less precipitation than Juneau. The average annual temperature is -6°C. Average annual precipitation is approximately 190 centimetres (75 inches) of which 71 centimetres (28 inches) occurs as rainfall, and 119 centimetres (47 inches) as snow. Winters are mild, however, heavy snowfall often leads to poor flying conditions. Generally, exploration programs are not carried out in the winter months although the weather would not impact on a mining operation. The practical field season is from May through November dependent on the project's elevation. Snow pack can exist from the treeline to the mountain peaks until late July; however, the valleys will be clear of snow by early to mid-May. Summer conditions can be highly variable from year to year. It is not unusual to have significant periods of rainfall and low cloud cover during the summer months impeding exploration activities. The property has no inhabitants. There are several, generally minimally-equipped seasonal hunting/fishing cabins within 40 kilometres of the property, owned and operated by outfitters. Additionally, the New Polaris minesite has all-season accommodations for up to 30 people and Redfern Resources Ltd.'s camp at the Tulsequah Chief minesite is of approximately equal size.

Braided channels and flanking sloughs of the southwest-flowing Taku River occupy a swath 2.5 kilometres wide through the northern claim block of the property. Stuhini Creek and major parallel drainages north and south, the Sittakanay River and Zohini Creek respectively, are deeply incised, and meet the Taku River on grade. Other streams occupy U-shaped hanging valleys and freefall into the Taku River. Such streams are in turn, commonly fed from hanging valleys. Travel from one valley to the next is often not possible without technical climbing. The topography of the area is rugged with steep peaks sculpted by glaciers into jagged spires and narrow saw-toothed ridges. The area has a relief of approximately 2240 metres, with Mount Ogden at an elevation of 2268 metres and the Taku River at about 20 metres above sea level (ASL). The treeline is at 1000 metres (Figure 4). The lower valleys are choked with alder forest and the slopes to the treeline are composed of fir. Rock and temperate rainforest comprise roughly equal proportions with about 5 per cent outcrop beneath forest canopies. Areas of 100 per cent cover are restricted to glaciers, river bottoms and swamps. Geological fieldwork is challenged by steep topography, snow and ice cover, dense brush in major valley bottoms and generally poor weather. The southern half of the Ericksen-Ashby portion of the property is mainly outcrop, almost all of which is accessible by foot. The only exception is a steep to nearly vertical cliff to the east side of the mountain. The northern half of this portion of the property is along a gently sloping ridge covered by trees and bushes with relatively limited exposure in areas of economic potential. There is adequate supply of water available at most sites for exploration and mining purposes. Minimal harvestable timber is available on the property.

The author did not see any topographic or physiographic impediments for potential mine, mill, heap leach or waste disposal sites. Suitable lands occur throughout the project area that should allow development of such facilities. However, there are certain areas of steep terrain in which such facilities could not be located.

HISTORY

The general geology of the Tulsequah Property was originally mapped in 1930 and 1932 by Kerr (1931a, b; 1948) followed in 1958 to 1960 by Souther (1971) who completed 1:250,000-scale mapping of the Tulsequah area. Monger (1980) mapped parts of the northern Stuhini Creek area. Regional mapping in 1994 by Mihalynuk extended previous 1:50,000 mapping of the Tulsequah River mapsheet (104K/12) in 1993, (Mihalynuk *et al.*, 1994a, b) eastward into the Stuhini Creek map area (Mihalynuk *et al.*, 1995a, b).

GEOLOGICAL SETTING

The following regional setting and the Taku Star block setting is derived in whole or in part from (Mihalynuk *et a/.*, 1994a, b; 1995a, b).

a) REGIONAL GEOLOGY

Four major building blocks constitute the terrane superstructure of northwestern British Columbia: a western block of polydeformed, metamorphosed Proterozoic to middle Paleozoic pericontinental rocks (Nisling Assemblage**)**; an eastern block of exotic oceanic crustal and low-latitude marine strata (Cache Creek Terrane); central blocks including Paleozoic Stikine Assemblage and Triassic arc-volcanic and flanking sedimentary rocks of Stikine Terrane; and overlying Late Triassic to Middle Jurassic arc-derived strata of the Whitehorse Trough (including the Inklin overlap assemblage)**.** Mesozoic rocks of the Taku Property area are dominated by arc-flanking strata of the Whitehorse Trough: parts of the Upper Triassic Stuhini Group and the Lower to Middle Jurassic Laberge Group. These are overlain by Tertiary continental arc volcanic rocks of the Sloko Group which are intruded by partly comagmatic Coast Plutonic Complex plutons. The Stikine Assemblage is restricted mainly to the south and western margins of the region, but probably extends beneath much of the Mesozoic and Tertiary cover. On the northern and southern edges of the map area, the geology is influenced by two major crustal structures. Eastern splays of the transcurrent Llewellyn fault system juxtapose ductilely deformed Paleozoic rocks with Mesozoic rocks between Sittakanay River and Stuhini Creek. To the north, southwest-verging frontal thrusts of the King Salmon fault system interleave Jurassic and Triassic Whitehorse Trough strata. Second order normal, or high-angle reverse faults, juxtapose Tertiary volcanics with Mesozoic and Paleozoic rocks. Deformation generally increases in intensity with age.

b) PROPERTY GEOLOGY

Northern Section

Paleozoic Stikine Assemblage strata underlay the western margin of the Tulsequah Property north of the Taku River but towards the south end of the claim block where the claim boundary extends westward. The Paleozoic belt comprises over three-quarters of the underlying stratigraphy on the property.

North of the Taku River Paleozoic rocks are traced along the west side of Mount Metzgar and can be correlated on a unit-by-unit basis with well-defined Pennsylvanian to Permian Stikine Assemblage rocks of the Mount Eaton Formation to the northwest which hosts the Tulsequah Chief and Big Bull sulphide deposits. Rocks south of the Taku River, on Sittakanay Mountain, have been confidently correlated with the Stikine Assemblage but unlike well preserved correlative strata to the north, polyphase deformation, indistinct lithologies and precipitous terrain prevent extensive subdivision of these rocks. Mount Ericksen lies midway between the Mount Metzgar and Sittakanay Mountain areas and is largely underlain by rocks that are tentatively correlated by Mihalynuk with the Stikine Assemblage.

A wide variety of arc lithologies crop out along the eastern cirque of Mount Metzgar. From north to south these include: maroon and green, fine-grained lapilli ash tuff; well-bedded, tan bioclastic limestone; bedded to massive chert; sulphidic, calcareous, rusty, black, well-bedded argillite and siltstone; decimetre-thick interbeds of limestone and chert; bright green, chlorite and calcite amygdaloidal, monomict andesite tuff; light grey, stretched limestone-cobble debris flow; purple to green, pyroxene-phyric pillow breccia with a calcareous matrix; pyroxene-phyric pillow breccia with a calcareous matrix; dark green, flattened lapilli tuff of probable basaltic andesite composition; and centimetre to decimetre interbeds of argillite and cherty, tuffaceous siltstone. The last few units apparently change along strike downslope into dark brown and green, fine grained tuffaceous sediments and sparse lapilli tuffite, that form locally developed, albeit inconspicuous, centimetre to decimetre thick beds. More commonly these form disrupted beds with metre-scale close to isoclinal folds. Matrix compositions are typically siliceous with carbonate locally predominating. Hornfelsing is common possibly due to plutonic rocks in the near subsurface. Rhyolite has also been reported in this area. Dark green volcanic breccia and bedded tuff predominate farther west along the southern ridge of Mount Metzgar.

In general, ductile deformation increases in intensity while confidence in correlation decreases both northeast and southwest of Mount Sittakanay. Northeast of Mount Sittakanay in the Stuhini Creek valley, dynamothermally metamorphosed phyllite and schist are cut by discrete shear bands within the Sittakanay shear zone (Figure 9). To the southwest, extensive intrusion by Coast Plutonic Complex plutons caused widespread thermal metamorphism. Primary sedimentary component decreases to the northeast where a lower succession of massive volcanic strata is dominant. Protolith textures are best preserved in a belt of distinctive units that extend south into the Sittakanay River valley. Mapping by Mihalynuk within this belt focused mainly on Mount Sittakanay. Conspicuous white-weathering carbonate layers determined to be of Late Carboniferous age outline the belt. Some distinctive individual units were correlated with those in the Tulsequah River area where unit designations are those of Mihalynuk *et al.* (1994b).

The peak and southern flanks of Mount Ericksen are underlain by green to black, fine to medium grained basaltic pyroxene +/- feldspar porphyry breccia, lesser flows and intrusive equivalents. Epidote-chlorite alteration of matrix and along fractures is pervasive but is less intense in pyroxene phenocrysts that comprise 10 per cent to rarely 50 per cent of the rock. Hypabyssal gabbroic intrusions are believed to be comagmatic with volcanic strata. Both are cut by veins of epidote, hornblende and potassium feldspar.

Sediments and fine-grained basalt dominate northern slopes of Mount Ericksen. Included in the sedimentary package are hornfelsed, dark green and purplish cherty siltstone and conspicuous contorted white and black-banded carbonate and massive white marble layers, 6 metres or more thick. Hornfelsed siltstone is commonly interbedded with green to pink laminated carbonate, at one locality containing basaltic 'clasts' up to 40 centimetres in diameter. Pervasive thermal alteration of these rocks has produced widespread silicification, development of fine-grained biotite and formation of epidote-actinolite-chlorite quartz veins and knots. Grossularite occurs in isolated pockets. These sediments are similar lo those exposed low on the eastern slopes of Mount Metzgar.

Two small areas underlain by rocks of the Upper Triassic Stuhini Group were mapped by Mihalynuk *et al.* in 1994. These include an area of basaltic rock about 2 kilometres east of Mount Sittakanay and an area of undivided volcanic rocks less than 3 kilometres north of the basalts on the north side of Stuhini Creek.

A part of the northeast section of the Taku Star block (Ericksen-Ashby area) is underlain by a succession of volcanic intrusive clast-dominated conglomerates, sandstone, feldspathic wacke, siltstone, minor metamorphic clast-rich and chert-pebble conglomerate and rare tuffite of the Jurassic Laberge Group. This succession covers a vast area to the east and north of the property. Much of the succession represents shallow-marine deposition in a prograding deltaic fan environment. Accumulations of Laberge strata may reach as much as 3000 metres.

Next to the Stikine Assemblage rocks, Early Eocene Sloko Group rocks are the most dominant on the Taku Star block, primarily underlying the west-central to southeast part of the claim area. Geological mapping by Mihalynuk in the region in 1993 and 1994 indicates that Sloko Group lithologies are much more extensive than previously thought. Most of the rocks around Yellow Bluff, Kwashona Creek and Stuhini Creek area were included in the Sloko Group. Unlike typical Sloko volcanics to the north, these strata are steeply dipping and locally folded. Sloko Group volcanics are bimodal, but dominated by felsic lithologies. They rest unconformably upon a high-relief paleosurface that was etched into Mesozoic and Paleozoic strata. Voluminous air-fall units are regionally mappable, but the distribution of flow and epiclastic units is profoundly affected by paleotopography and synvolcanic faulting. These units occur as more isolated and sporadic units. Due to rapid facies changes within the Sloko volcanics, not all units comprising the Sloko Group in the Tulsequah area (Mihalynuk *et al.*, 1994a, b) occur within the Stuhini Creek map area. Previous regional mapping outlined six different mappable units including a basal conglomerate; massive, well indurated, black pyroclastics (Opposer Formation); massive, tan-weathering breccias (Mount Haney Formation); interlayered feldspar-phyric flows and volcaniclastics (Nakonake Formation); rhyolite domes and tuffs; and trachyte flow succession(s). In the Stuhini Creek area, several additional units are required to describe the Sloko Group. Two of these units were persistent enough to warrant informal formation designation by Mihalynuk; coarse sandstone and Laberge Group clast-rich conglomerate and siltstone (Niagara Formation); and vitrophyric tuff containing fragments of feldspar crystals, pumice, coarse ash and fine lapilli (Teepee Formation). Other units include: thick, bleached and silicified, indurated feldspar-phyric flows and lesser interflow breccia and tuff, green hornblende and feldspar-phyric lapilli breccias; chaotic intermediate to felsic feldspar-phyric lapilli tuff to breccia; well-bedded fine tuff or tuffite; and biotite and sanidine-phyric breccias.

While smaller stocks consisting of Triassic to Cretaceous rocks occur on the Optima Mineral property, by far the most significant plutonic rocks occurring are those of the Paleocene to Eocene Sloko-Hyder Suite which cover much of the northern quarter of the Taku Star block as well as the eastern extent of the Taku Gold block (Figure 10). The plutons and stocks of this suite are spatially associated with and probably comagmatic with Sloko Group volcanics. The Sloko-Hyder Suite consists of east-west elongated, high-level, multiphase plutons and stocks. In outcrop, these intrusions weather white, light grey, tan, pink or orange. They are compositionally and texturally variable, ranging from fine to medium grained quartz-feldspar porphyritic monzonite and diorite to granite with as much as 15 per cent biotite, magnetite, and/or hornblende. Contacts with solid country rock are sharp and chilled. The plutons and stocks are crosscut by northeast-trending faults resulting in brittle deformation and subsequent local alteration, hydrothermal alteration and precious and base metal mineralization (i.e. auriferous arsenopyrite with sphalerite and galena in clay alteration zones and molybdenum along fractures in gossanous zones).

Southern Section

Volcaniclastics of the Paleozoic Stikine Assemblage extend south from the north section of the property and underlie much of the area beneath the south section. Greenstone and greenschist metamorphic rocks of the Devonian to Mississippian Whitewater Metamorphic Complex underlie the western portion of the block near Mount Ogden.

The oldest rocks exposed on the south claims consist of Stikine Assemblage Permian limestones, dolomitic limestones, and minor chert. These occur with fine grained Stikine clastic sediments and intercalated volcanic rocks which are largely altered to greenstone and phyllite. These metasediments and volcanics have been intruded by felsic dikes and plutons of Late Cretaceous and Tertiary age. The sediment series is primarily hornfels sediments intruded by rhyolite, felsite and andesite dikes. Skarn mineralization is relatively common. A Late Cretaceous pluton lies about 2 kilometres west of a Paleocene to Eocene Sloko-Hyder batholith consisting of granite to alkali granite. Surface exposures indicate the Cretaceous stock is about 2 kilometres long and 1 kilometre wide. The pluton is composed of inequigranular to subporphyritic fine-grained alaskite which contains quartz, K-feldspar, plagioclase, and less than 1 per cent biotite, chlorite, sphene, and fluorite. This alaskite is also molybdenite-bearing. An intrusive body in the Y zone area, to the southeast of the alaskite pluton, is considered to be a compositionally similar but texturally different phase. Prominent and distinctive quartz eyes and feldspar phenocrysts occur in an aphanitic matrix are its defining characteristics.

c) MINERALIZATION

North Section

Ericksen-Ashby *(MINFILE 104K 009)*

The area underlying Mount Ericksen consists of Late Carboniferous to Permian volcanosedimentary strata of the Stikine Assemblage. According to Mihalynuk (1996), the strata are predominantly pyroxene-phyric andesite or basaltic andesite and gabbro. Near the north end of the ridge, the volcanic strata are interrupted by two interlayers comprised of chert and carbonate (Figure 12). They are approximately 100 metres thick due to folding which obscures the original stratigraphic thickness. The structurally highest sedimentary unit bifurcates northward to envelop andesite of approximately the same thickness. It also includes a thin layer of rhyolite. A subjacent, tabular, porphyritic quartz monzonite, 50 to 100 metres thick (and up to 350 metes thick locally), known as the Ericksen sill, thermally metamorphoses the entire section on Mount Ericksen.

Mineralization occurs within at least thirteen different zones, each of which contains one or more discontinuous lens-shaped bodies of disseminated to massive sulphide (Payne, 1979). The sulphides are mostly a mixture of pyrrhotite, sphalerite, pyrite and galena. The skarn mineralogy typically consists of rhodonite, diopside, tremolite and magnetite. All massive sulphide mineralization of economic interest occurs in the upper sedimentary division (SED-2 of Payne, 1979). Within SED-2, sulphide layers with high zinc, lead and silver contents occur above the discontinuous rhyolite layer. Some sulphide pods and lenses are discordant, clearly related to late skarn alteration and/or remobilization of the stratiform sulphides.

The property is divided into two structural blocks by a major fault, called the Bracken fault which strikes north-northwest and is thought to be related to a regional fault system in the Taku River area. A small subsidiary fault occurs just northwest of Bracken fault, and is called Zone 8A fault. Also, a minor north-northwest trending fault occurs within epidotized andesites/basalts south of the mineralized zones.

South of the Bracken fault, which includes Zones 1, 2, 2S, 2N and the Glory Hole, mineralization occurs with and possibly related to the major footwall rhyolite. A typical stratigraphic section consists of a lower zone of rhyolite and pyritic rhyolite, overlain by more pyritic rhyolite with lenses of massive pyrite and of magnetite, which in turn, is overlain by massive sulphides. Commonly, galena and sphalerite are concentrated towards the top of the massive sulphide section. Silver minerals reported include argentite, freibergite and argentiferous galena. Rhodonite and magnetite are abundant in small skarns near the rhyolite and massive sulphides. Drilling in 1981 within Zone 1 indicated ore grade material extends to depth. Mineralization consists of massive sulphides which are roughly lensoid or podiform and plunge about 20 degrees south. The zones of mineralization all occur near the unconformable contact of a slightly metamorphosed, occasionally brecciated limestone-chert sequence with a massive basaltic tuff unit. Rhyolite occurs near the unconformable contact, and dips about 75 degrees southwest and strikes northwest. Mineralization is found in a rhyolite breccia with the matrix that surrounds altered fragments which include chert, andesite and limestone. Locally, garnetiferous zones occur within the breccia.

In 1981, drillhole No. 3 intersected 20.2 metres which assayed 567.1 grams per tonne silver, 4.94 per cent lead and 4.22 per cent zinc; drillhole No. 4 intersected 5.1 metres which assayed 627.4 grams per tonne silver, 6.42 per cent lead and 6.2 per cent zinc (Hemingway and Elliott, 1982). High gold values of up to 1.37 grams per tonne across 3 metres were reported in 1963 from Zone 2 (Bernius, 1963). Encouraging gold values were obtained from several locations south of Zone 2S and include values of 26,200 and 2320 parts per billion, respectively from silicified andesite and skarn outcrops (Bojczyszyn, 1988).

North of the Bracken fault, the lithologies are predominantly chert, limestone, and hornfelsed siltstone. Mineralization is associated with cherts and limestones. This mineralization generally contains massive sulphide zones with lower grades. In 1981, a 15.1 metre drill intersection in mineralized cherts in Zone 8 assayed 173.1 grams per tonne silver, 1.2 per cent lead and 1.37 per cent zinc (Hemingway and Elliott, 1982). A more complete description of the various zones is found under History (Section 6).

In 1964, indicated reserves were reported to be 907,100 tonnes grading 214.9 grams per tonne silver, 2.23 per cent lead and 3.79 per cent zinc (year of reserves is reported to be questionable) (Vancouver Stock Exchange Application for Listing 142/80 as documented in MINFILE 104K 009). This resource estimate was calculated prior to the implementation of National Instrument 43-101 and is not compliant with those standards.

Massive sulphide mineralization at the Ericksen-Ashby has been referred to as both skarn-related and as volcanogenic in origin. Field evidence has predominantly pointed to a volcanogenic origin for the deposit. Like the volcanogenic massive sulphides to the immediate north (e.g. Tulsequah Chief), it is closely associated with a felsic tuff horizon. Mineralization is dominantly stratiform and mainly restricted to the single SED-2 interval (Payne, 1979). Furthermore, a lithologically similar calcareous layer between SED-2 and the Ericksen sill is unmineralized although, given its closer proximity to the intrusion, it would seem a more likely host for skarn mineralization. Thus, Payne interpreted the Ericksen-Ashby as primarily a volcanogenic massive sulphide deposit with partial late remobilization due to the Ericksen sill. While Mihalynuk *et al.* (1995b) reported that field observations were consistent with those of Payne and his volcanogenic interpretation, subsequent isotopic dating of lead from galena taken from the massive sulphide lenses were incompatible with the Paleozoic age of the enclosing volcanics and are in keeping with 53.7 +/- 0.7 Ma (Tertiary) age of the Ericksen sill as derived through U-Pb geochronology dating (Mihalynuk *et al.*, 1996).

Yellow Bluff *(MINFILE 104K 049)*

Yellow Bluff is a steep, north trending gossanous cliff with 330 metres of vertical relief above the Taku River. Pyritic massive sulphide lenses occur with variable copper, lead, zinc, gold, and silver values that are associated with felsic volcanic rocks. The area stratigraphy has recently been reassigned to the Early Eocene Sloko Group and consists of andesitic feldspar porphyry flows and tuffs, coarse sediments to conglomerates, rhyolitic to dacitic flows and tuffs and coarse volcaniclastic and pyroclastic volcanic rocks. The strata across the bluff area strike at about 325 degrees. A Tertiary granitic dike strikes east-west through the strata.

Goat (Mt. Manville) *(MINFILE 104K 094)*

The Goat property is underlain by interbedded rhyolitic tuffs and breccias of andesitic composition and graphitic argillite with minor volcanic sandstone and subvolcanic andesite. These units strike 230 degrees with vertical to steep dips. Area rocks are mapped as Carboniferous Stikine Assemblage. Minor amounts of disseminated chalcopyrite and sphalerite were found in rhyolitic rocks along the western edge of the survey area.

Maidas *(MINFILE 104K 020)*

Rocks are comprised of andesitic flows and fragmentals with limestone belts belonging to a Late Carboniferous to Permian volcanosedimentary unit of the Stikine Assemblage. The strata are crosscut by felsic dikes. Mineralization appears to be associated with the dikes and consists of dark sphalerite with interspersed grains of galena, associated pyrite, pyrrhotite, and a little chalcopyrite. The orebody was reported to be 6.7 metres wide, with a northwest strike and vertical dip. A 2.4 metre wide vein is reported to be well mineralized. A sample taken in 1929 assayed 2.57 grams per tonne gold, 548.56 grams per tonne silver, 8.0 per cent lead, and 26 per cent zinc (Minister of Mines Annual Report 1929). This historic showing, which consisted of the Maidas I-II claims and the adjoining Mohawk 1-6 claims is now part of the Ericksen-Ashby property.

Spring *(MINFILE 104K 096)*

A large limonitic and hematitic gossanous zone occurs on the north side of a prominent east-southeast trending valley that drains west into the Sittakanay River. Area stratigraphy has recently been reassigned to the Paleozoic Stikine Assemblage which in the area is intruded by a quartz monzonite stock and associated feldspar porphyry dikes related to the Tertiary Sloko-Hyder Plutonic Suite.

In 1980, prospecting on the Spring and Reto claims by Island Mining & Exploration Co. Ltd. located an area of heavy pyrrhotite mineralization with lesser amounts of pyrite, chalcopyrite, sphalerite, galena and molybdenite. Minor silver and gold also accompany the sulphides. Although the massive sulphide lenses have attracted the most interest, mineralization occurs mainly within extensive crosscutting fractures and veins associated with shear zones within the andesitic to intermediate volcanic rocks. Metal banding was noted in some samples, however, it was reported that there was no indication of a syngenetic (VMS) origin for the sulphides. A grab from the sulphide lens assayed 0.17 gram per tonne gold, 356.6 grams per tonne silver, 10.3 per cent zinc, and 0.12 per cent copper (Clouthier, 1981a). In 1990, Goldbelt Resources located a shear zone containing pods of massive sulphide. Grab samples of the massive sulphide yielded values of up to 0.25 per cent copper, 0.5 gram per tonne gold and 14.7 grams per tonne silver (Lambert, 1991). In 1991, a drill program designed to follow up a previous EM survey consisted of 195 metres of BQ drilling in one hole. The only noteworthy mineralization intersected was from 57.61 to 59.13 metres (1.52 metres) which analysed 0.31 per cent zinc (Taylor, 1992).

Council *(MINFILE 104K 017)*

In 1930, a group of six claims called the Council was located near the mouth of the south fork of the Taku River. The occurrence consists of a well-defined shear zone traced by several cuts along the west bank of a creek for about 90 metres, from 30 to 50 metres elevation above the river. The shear cuts metamorphosed rocks, mainly Carboniferous metasediments of the Stikine Assemblage. Mineralization consists of massive and disseminated stibnite with some finely disseminated pyrite in a gangue of quartz and lesser calcite. Oxides of antimony are widely distributed. A green diffusion band about 46 centimetres wide occurs within the mineralized shear that is exposed in an upper cut. It was described as an insoluble silicate coloured by chromium (possibly mariposite) with some iron and trace nickel. In 1930, a sample of this band assayed trace gold, silver and nickel with no copper; a sample of dark, quartzose-sheared material with antimony oxide from the lower showing yielded traces of silver and gold (Minister of Mines Annual Report 1930). No work since 1930 is documented.

Baker *(MINFILE 104K 048)*

The Baker occurs on the north side of Stuhini Creek, highlighted by a distinct yellowish alteration zone within rocks of the Early Eocene Sloko Group. The vertical exposures on the north side of the creek are limonitic stained and gossanous with pervasive sulphide mineralization and strongly silicified. Locally, felsic volcanics exhibit a tuffaceous texture and may be rhyolite tuffs. Quartz-eye rhyolite tuffs with pervasive sulphide mineralization (>5 per cent finely disseminated pyrite) occur on the west side of the tributary near the confluence with Stuhini Creek. Also occurring nearby are sulphide-rich rhyolite tuff breccias composed of large, angular, dark grey fragments hosted in a silica-sulphide matrix. Locally, the wallrock along the drainage is sheared and slickensided with extensive limonite and manganese oxide staining. A sample of the intermediate, silicified and pyritic pyroclastic from this alteration zone assayed trace gold, 1.37 grams per tonne silver, 0.01 per cent copper, 0.02 per cent lead, and 0.01 per cent zinc (Greig, 1981). Wesa (1990) states that the zone of interest exhibits "advanced argillic alteration with local intense silicification and pervasive pyritization and gossanous limonitic surface weathering. The strong, pervasive silicification of the felsic volcanics…may represent the silica cap covering an epithermal system."

Surveyor *(MINFILE 104K 016)*

A mineralized shear zone is hosted by altered Carboniferous arkosic argillite, quartzite, and quartz-mica schists of the Stikine Assemblage. In 1930, a group of ten claims called Surveyor covered the zone. The occurrence consists of a well defined shear zone about 3.3 metres wide, striking 310 degrees and dipping 50 degrees southwest. The shear is traceable from 15 to 58 metres elevation above the river. The shear zone is banded and reticulated in structure and is well mineralized with streaks, bunches, and veinlets of massive and disseminated stibnite, accompanied by fine disseminations of pyrite, in a gangue of quartz and calcite. In some places the stibnite has been extensively weathered to an antimony oxide, possibly stibiconite or cervantite. In some sections, the gangue contains greenish diffusion bands, which were identified as chromium silicate, thought to be a very fine distribution of mariposite. In 1930, a sample was taken from the quartz-rich part of the zone which was mineralized with pyrite and minor stibnite. This sample assayed 37 per cent antimony and contains no values in silver and gold (Minister of Mines Annual Report 1930). It was reported that the antimony ore is remarkably free from refractory impurities and may possibly be of commercial importance on this account.

Squat *(MINFILE 104K 062)*

The Squat claims were located 5 kilometres southeast of Tulsequah along Stuhini Creek in 1980 and were owned by Redfern Resources Ltd. and Comaplex Resources International Ltd. (Exploration in British Columbia 1980). Pyrite, chalcopyrite, sphalerite, and galena are reported to occur in a brecciated zone in the Paleozoic schists. The deposit has an apparent bedded nature. No other information is available.

Anty *(MINFILE 104K 023)*

The Anty Creek fault hosts massive stibnite mineralization as well as disseminated stibnite and arsenopyrite in quartz vein fissure fillings within the shear zone. Trenching in 1967 revealed a 107 metre zone of mineralization carrying massive and disseminated stibnite in a gangue of quartz within tightly folded micaceous quartzites and schists and is related to a pronounced northwest-trending shear. Mineralization consists of fracture replacement over a width of 12 metres. In 1965, a report stated that a section 33.5 metres long with an average width of 1.5 metres assayed 3.25 per cent antimony and another section 73 metres long with an average width of 1.6 metres assayed 9.5 per cent antimony (Minister of Mines Annual Report 1967). The stratigraphy is assigned to a Carboniferous unit of the Stikine Assemblage.

Green Ham *(MINFILE 104K 127)*

The area is underlain by Paleozoic Mount Eaton Formation chert, tuff, tuffaceous sediments and argillite. These rocks have been intruded by Eocene hornblende-biotite quartz diorite, and gabbro. Mineralization occurring in glacial float and moraine debris was found during a provincial government regional mapping program in 1993 (Mihalynuk *et al.*, 1994a, b). Rusty weathering black argillite contains disseminated to massive pyrite, pyrrhotite and chalcopyrite with minor amounts of sphalerite. The head of the cirque (to the southwest) is heavily oxidized and rusty weathering but was inaccessible due to topographic constraints. It is assumed that this is the source of the mineralized debris.

South Section

The principal country rock is a Carboniferous to Permian sequence of the Stikine Assemblage consisting of high rank metamorphics which include Permian limestones, dolomitic limestones with chert, and Carboniferous fine grained, hornfelsed clastic sediments and intercalated volcanics which are largely altered to greenstone and phyllite. These rocks are intruded by a Tertiary-Cretaceous granitic stock exposed in nine locations on Mount Ogden.

There are two intrusive types. One is a series of thin, widely-spaced, light coloured dikes and the other is the mineralized intrusive stock which is a light coloured, fine-grained alaskite with quartz and feldspar phenocrysts. The alaskite stock is about 1000 metres wide and 2000 metres long and is informally known as the Mt. Ogden stock. Molybdenite mineralization occurs in several modes within the alaskite and the exploration focus prior to 1980 was on zones DD, G, L, M, N, O, P, Q and Z (not on the Taku Property). A new molybdenite-bearing zone, the Y zone, was found late in the 1979 season about 750 metres southeast of the area that had been previously been examined in detail. Location maps from Assessment Report 9085 (Appendix G) and Figure 8 from Karelse (2006) show the only graphic representations of the Y zone or the Y zone drill site. Measurements from all the maps place the Y zone within the present claim boundaries of the Moly Taku block of Optima Minerals. The Y zone is reported as being downhill to the northeast of the drill site which 1980 drill logs indicate is at 1808 metres elevation. The MINFILE location is clearly in error as it plots in the area L to Z zones (Appendix H).

The Y zone is about 600 metres southeast of the Mt. Ogden stock where the other original zones occur. It is a large, 150 metre long outcrop. The exposure consists of quartz-feldspar porphyry containing molybdenum-tungsten mineralization. Compositionally, the Y zone intrusion is similar to the Mt. Ogden stock but texturally it is a distinctly separate intrusive phase. Prominent and distinct quartz eyes and feldspar phenocrysts in an aphanitic matrix distinguish it from the Mt. Ogden alaskite stock. In 1980, a bulk sample from this zone assayed 0.073 per cent molybdenite (MoS_2); and 0.084 per cent tungstic oxide (WO_3). Traces of powellite have been detected under ultraviolet lamp, as well as scheelite (Elliott and Clouthier, 1981).

In 1979 and 1980, drillhole Y-1 was drilled to 662.9 metres and Y-2, from the same set-up above the Y zone, was drilled to 332.5 metres. Both holes were collared in dark brown to black, banded meta-argillite which has loosely been called "hornfels" as a field term. A thin section of the hornfels showed a recrystallized texture and very fine (0.5 millimetre) bands or laminations of quartz-rich and biotite-rich mineralogy. Approximately one-third of the length of the hornfels section (to a depth of 607.8 metres) in hole Y-1 was intruded by dikes of andesite, dacite, felsite, alaskite, and quartz feldspar porphyry. These dikes vary from 4 centimetres to 25.4 metres in apparent width. The most important dikes in hole Y-l are the four quartz-feldspar porphyry dikes intersected between 486 and 596 metres. These porphyries are strongly altered to chlorite and sericite and contain 2-3 per cent disseminated and fracture pyrite. In general, alteration of the hornfels and dikes varied from weak to extremely strong and consisted of sericitization, chloritization, epidotization, silicification and K-feldspathization. Drillholes Y-1 and Y-2 both ended in alaskite of the Mt. Ogden stock. It was observed that this leucocratic granite was clearly later than the mineralization and alteration found in the upper sections of the drillholes. The alaskite is relatively fresh but does contain some disseminated molybdenite and quartz veins with molybdenite.

Mineralized quartz veins occurred throughout the drill core. The most common type of vein intersected was quartz-pyrite-pyrrhotite-sphalerite which also contain minor scheelite. Other common vein types were quartz-molybdenite, quartz-epidote-pyrite-magnetite-scheelite and quartz-magnetite-epidote. Quartz veins with pyrrhotite, chalcopyrite, and scheelite also occurs as well as quartz veins with just sphalerite or scheelite. Fluorite-bearing and magnetite-bearing veins were intersected in drillhole Y-1. Fracture-coating mineralization also occur but less commonly than mineralized veins. The fracture coatings include pyrrhotite, chalcopyrite, molybdenite, magnetite, sphalerite and pyrite.

Elliott and Clouthier (1981) reported the following conclusions. Diamond-drill holes Y-1 and Y-2 intersected sections of a large halo of alteration, quartz veining and mineralization which is thought to be associated with a buried felsic stock. Both drillholes ended in the post-mineral Mt. Ogden alaskite stock which crops out to the north. Although an orebody was not intersected the following information was obtained:

(1) Molybdenite and scheelite-bearing quartz veins occur throughout the drill cores.

(2) Sericitization of the "hornfels" occurs throughout 600 metres of drillhole Y-l. Commonly this alteration results in sections of complete sericitization.

(3) Silicification, K-feldspathization, and chloritization all increase below 400 metres in depth in drillhole Y-1.

(4) The intensity of quartz veining increases with depth in both drillholes Y-l and Y-2.

(5) Fluorite-bearing and magnetite-bearing veins occur at depth in drillhole Y-1.

These above indicators suggest that drillholes Y-1 and Y-2 have intersected a thick portion of a strong hydrothermal, mineralized system. The four altered and pyritic quartz feldspar porphyry dikes that were intersected in drillhole Y-1 may be associated with a buried pluton responsible for the molybdenite mineralization; a mineralized "hood" zone around the buried stock was postulated by Elliott and Clouthier (1981) who stated that future drilling should be undertaken to the south to find it. The ground south of the drill sites is held as part of the southern section of the Tulsequah Property, owned by Optima Minerals.

GRID EMPLACEMENT

The grid is emplaced as shown on figure #3.

MMI SOIL SAMPLING

(a) Sampling Procedure

The MMI survey picked up 99 samples over six lines, comprising 2,740 meters. The sampling procedure was to first remove the organic material from the sample site (A_0 layer) and then dig a pit over 25 cm deep with a shovel. Sample material was then scraped from the sides of the pit over the measured depth interval of 10 centimeters to 25 centimeters. About 250 grams of sample material was collected and then placed into a plastic Zip-loc sandwich bag with the sample location marked thereon. The 99 samples were then packaged and sent to SGS Minerals located at 1885 Leslie Street, Toronto, Ontario. (This is only one of two labs in the world that do MMI analysis, the other being in Perth, Australia where the MMI method was developed.)

(b) Analytical Methods

At SGS Minerals, the testing procedure begins with weighing 50 grams of the sample into a plastic vial fitted with a screw cap. Next is added 50 ml of the MMI-M solution to the sample, which is then placed in trays and put into a shaker for 20 minutes. (The MMI-M solution is a neutral mixture of reagents that are used to detach loosely bound ions of any of the 46 elements from the soil substrate and formulated to keep the ions in solution.) These are allowed to sit overnight and subsequently centrifuged for 10 minutes. The solution is then diluted 20 times for a total dilution factor of 200 times and then transferred into plastic test tubes, which are then analyzed on ICP-MS instruments.

Results from the instruments for the 46 elements are processed automatically, loaded into the LIMS (laboratory information management system which is computer software used by laboratories) where the quality control parameters are checked before final reporting.

(c) Compilation of Data

Twelve elements, or metals, were chosen out of the 46 reported on and these were silver, arsenic, gold, cadmium, cerium, cobalt, copper, molybdenum, nickel, lead, uranium, and zinc. The mean background value was calculated for each of the twelve metals and this number was then divided into the reported value for that metal to obtain a figure called the response ratio. Two stacked histograms were then made of the response ratios for each of the six lines of the twelve metals as shown on figures #6 through to #13, inclusive. The first stacked histogram included copper, cadmium, gold, silver and cobalt, and the second one included copper, nickel, lead, zinc, and cerium. The calculated background values in parts per billion (ppb) are as follows:

Ag	**As**	**Au**	**Cd**	**Ce**	**Co**	**Cu**	**Mo**	**Ni**	**Pb**	**U**	**Zn**
0.5	0.5	0.05	1.42	3.64	8.24	36.42	2.5	26.14	2.4	5.78	44

DISCUSSION OF RESULTS

The overall MMI results are very high in several metals, notably copper, zinc, molybdenum, and silver. This would suggest that the grid may occur within the area of a significant deposit. The general environment supports this in that it occurs within a cirque around which there is significant iron oxidation.

SELECTED BIBLIOGRAPHY

Alldrick, D.J. 1993. Geology and metallogeny of the Stewart mining camp, northwestern British Columbia. B.C. Ministry of Energy and Mines. Bull. 85, 105 pages.

Alldrick, D.J., Nelson, J.L. and Barresi T., 2005. Geology and Mineral Occurrences of the Upper Iskut River Area: Tracking the Eskay Rift through Northern British Columbia. Geological Fieldwork 2004, Paper 2005-1; 1-28.

Beacon Hill Consultants Ltd., 1988. Polaris-Taku Mine Geology Review and Exploration Program. Prepared for Suntac Minerals Corp., Sept 1988.

Church, C.L., 1990. Tulsequah Project – Summary of the 1990 Geochemical Programme – Nick 1-9 Claims, Atlin Mining Division. Geological Survey Branch A. R. 20657.

Graf, C., 1995. 1994 Soil Sampling and Prospecting Program on the CST 1, 2, 3 Claims, Atlin Mining Division, NTS 104K-3W. Geological Survey Branch A. R. 24616

Kerr. F.A., 1948. Taku River Map Area, British Columbia Geological Survey, Memoir 248.

Matysek, P.F., Day, S.J., Gravel, J.L. and Jackaman, W., 1988. Tulsequah Area, NTS 104K; .C. Ministry of Energy, Mines and Petroleum Resources, BC RGS 20/GSC OF 1647 Regional Geochemical Survey release.

McGuigan, P.J., Dawson, G.L. and Melnyk, W.D., 1993. Tulsequah Chief Mine, northwestern B.C.. 1992 Exploration Program: Diamond Drilling, Geology and Reserve Estimation; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 22939.

Mihalynuk, M.G., Smith, M.T., Hancock, K.D. and Dudka, S., 1994. Regional and economic geology of the Tulsequah River and Glacier areas (104K/12 & 13). Geological

Fieldwork 1993, Paper 1994-1: 171-197.

Monger, J.W.H., Price, R.A. and Tempelman-Kluit, D.J., 1982. Tectonic Accretion and Origin of the Two Major Plutonic Welts in the Canadian Cordillera. Geology, 10: 70-75.

Nelson, J., 1981. Geology and Geochemical Results on the ONO and OYA Claims (for Anglo Canadian mining Corporation). BCDM Assessment Report # 9007.

Nelson, J. and Payne, J.G., 1983. Paleozoic Assemblages and Volcanogenic Massive Sulphide Deposits near Tulsequah, British Columbia. Ca. J. Earth Sci., 21: 379-381.

Sherlock, R.L., Childe, F., Barrett, T.J., Mortensen, J.K. and Lewis, P.D., 1994. Geological investigations of the Tulsequah Chief massive sulphide deposit, northwestern British Columbia (104K/12). Geological Fieldwork 1993, Paper 1994-1: 373-379.

Souther, J.G., 1971. Geology and Mineral Deposits of Tulsequah Map Area. Geological Survey of Canada, Memoir 362.

Wojdak, P., 2007. Northwestern Region. In: Exploration and Mining in British Columbia 2006. B.C. Ministry of Energy, Mines and Petroleum Resources, Mining and Mineral Division. Victoria, BC.

GEOPHYSICIST'S CERTIFICATE

I, DAVID G. MARK, of the City of Surrey, in the Province of British Columbia, do hereby certify that:

I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

I am a Consulting Geophysicist of Geotronics Surveys Ltd., with offices at 6204 – 125th Street, Surrey, British Columbia.

I further certify that:

1. I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.
2. I have been practicing my profession for the past 41 years, and have been active in the mining industry for the past 44 years.
3. This report is compiled from data obtained from MMI soil sampling from September 6th to 9th, 2008. All work was carried out by a crew of Geotronics Surveys and headed by me.
4. I do not hold any interest in Optima Minerals Inc, nor in the Tulsequah Property, nor in any other property of Optima Minerals, nor do I expect to be receiving any interest as a result of writing this report.

David G. Mark, P.Geo.
Geophysicist

May 15th, 2009

AFFIDAVIT OF EXPENSES

MMI soil sampling with grid emplacement was carried out on the Tulsequah Property, which occurs on and around New Taku River near Tulsequah and located 100 km due south of the village of Atlin, B.C, ithin the fall of September, 2008 to the value of the following:

FIELD:		
Mob/demob, share	$ 2,110.00	
MMI Survey, 8-man crew, 2.5 days @ $3,300/day	8,250.00	
Helicopter	15,199.00	
Courier costs for sample shipping	745.00	
TOTAL	$26,304.00	$26,304.00
LABORATORY:		
Laboratory testing of 101 samples @ $37/sample	$3,737.00	$3,737.00
REPORT and DATA REDUCTION:		
MMI data organizing and reduction	$1,850.00	
Interpretive report	$1,500.00	
	$3,350.00	$3,350.00
GRAND TOTAL		**$33,391.00**

Respectfully submitted,
Geotronics Consulting Inc.

David G. Mark, P.Geo,
Geophysicist

May 15th, 2009

APPENDIX –GEOCHEMISTRY DATA

Yellow Bluff MMI Data

Element		Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cu	Dy	Er	Eu	Fe
DETECTION		1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1
UNITS		PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPM
Line 89400E																	
09143N	89333E	<1	<1	<10	<0.1	520	<1	<10	1	<5	163	<100	20	<1	1.1	<0.5	128
08449N	89345E	<1	<1	<10	<0.1	440	<1	<10	2	7	200	<100	50	2	1.6	<0.5	165
08432N	89364E	<1	<1	<10	<0.1	320	<1	<10	<1	17	44	<100	390	2	1.8	<0.5	232
08412N	89361E-	<1	<1	<10	<0.1	490	<1	20	4	<5	166	<100	40	<1	1.6	<0.5	172
08391N	89382E	2	<1	<10	<0.1	430	<1	<10	2	<5	202	<100	110	2	2.6	<0.5	126
08407N	89391E	3	<1	<10	<0.1	260	<1	<10	2	6	100	<100	90	3	4.2	<0.5	102
08434N	89402E	3	<1	<10	<0.1	440	<1	20	3	<5	104	<100	50	<1	1	<0.5	159
08432N	89417E	<1	<1	<10	<0.1	1550	<1	20	2	<5	283	<100	10	<1	1.4	<0.5	239
08457N	89431E	6	<1	<10	<0.1	380	<1	<10	2	<5	187	<100	140	3	4.3	<0.5	130
08466N	89426E	<1	<1	<10	<0.1	830	<1	30	3	6	290	<100	30	1	1.6	<0.5	159
08446N	89454E	1	<1	<10	<0.1	650	<1	10	2	<5	184	<100	80	1	1.7	<0.5	146
08427N	89453E	<1	<1	<10	<0.1	240	<1	<10	1	5	59	<100	60	2	2.2	<0.5	121
08399N	89447E	<1	<1	<10	<0.1	660	<1	10	5	6	105	<100	110	4	5.3	<0.5	176
08347N	89456E	<1	<1	<10	<0.1	1710	<1	30	6	7	282	<100	20	<1	0.9	<0.5	129
08322N	89445E	<1	<1	<10	<0.1	650	<1	20	2	<5	139	<100	20	<1	1.1	<0.5	90
08463N	89447E	1	<1	<10	<0.1	360	<1	40	10	91	189	<100	310	52	27.1	7.6	58
08260N	89418E	<1	<1	<10	<0.1	760	<1	40	3	5	125	<100	120	2	2.4	<0.5	183
08249N	89421E	1	<1	<10	<0.1	230	<1	10	4	7	231	<100	280	4	4	<0.5	113
08235N	89406E	<1	<1	<10	<0.1	740	<1	50	3	6	90	<100	70	1	1.6	<0.5	183
08196N	89417E	<1	<1	<10	<0.1	630	<1	30	3	<5	63	<100	50	1	1.7	<0.5	178
08193N	89417E	<1	<1	<10	<0.1	610	<1	<10	7	6	159	<100	100	2	2.9	<0.5	133
08179N	89415E	<1	<1	<10	<0.1	2110	1	80	6	8	176	<100	30	1	1	<0.5	228
08150N	89422E	<1	<1	<10	<0.1	320	<1	<10	<1	8	91	<100	40	3	3.2	<0.5	186
08127N	89433E	<1	<1	<10	<0.1	330	<1	<10	3	5	149	<100	170	7	9.3	<0.5	97
08112N	89461E	1	<1	<10	<0.1	500	<1	30	7	10	179	<100	130	12	12.7	0.7	131
08090N	89458E	<1	<1	<10	<0.1	980	<1	20	3	13	195	<100	80	4	4	<0.5	245
08064N	89476E	<1	<1	<10	<0.1	550	<1	20	3	<5	268	<100	70	2	2.9	<0.5	133
Line 10200N																	
10200N	89000E	4	<1	<10	<0.1	190	<1	<10	13	210	22	<100	120	56	29.4	8.1	22
10200N	89025E	<1	<1	<10	<0.1	1180	<1	130	77	260	26	<100	60	63	45.2	7.8	58
10200N	89050E	12	<1	<10	<0.1	120	<1	<10	2	232	<5	<100	110	137	69.1	17.4	36
10200N	89075E	2	<1	<10	<0.1	130	<1	<10	3	90	9	<100	80	31	20.4	3.4	96
10200N	89100E	19	<1	<10	0.1	100	1	<10	4	84	6	<100	190	51	47.1	3.7	78
10200N	89125E	31	<1	<10	0.2	90	<1	<10	4	490	<5	<100	280	291	149	45.3	20
10200N	89150E	3	<1	<10	<0.1	190	<1	<10	2	194	13	<100	130	38	23.9	4.4	115
10200N	89175E	14	<1	10	<0.1	240	3	<10	6	1460	24	<100	190	134	58.9	28.5	47
10200N	89200E	8	<1	10	<0.1	130	1	<10	2	1150	7	<100	150	105	46.2	19.8	40
10200N	89225E	8	<1	10	<0.1	230	<1	<10	2	1130	10	<100	120	117	54.2	19.9	50
10200N	89250E	19	52	10	<0.1	100	4	<10	2	1070	<5	<100	110	131	61.5	32.9	14
10200N	89275E	6	<1	<10	<0.1	310	6	<10	<1	35	13	<100	220	8	7.8	0.6	271
10200N	89325E	<1	<1	<10	<0.1	270	<1	20	6	17	53	<100	50	14	16.5	1.4	101
10200N	89350E	<1	<1	<10	<0.1	380	2	<10	3	11	21	<100	20	2	1	<0.5	107
10200N	89375E	<1	<1	<10	<0.1	<10	<1	<10	<1	<5	<5	<100	<10	<1	<0.5	<0.5	<1

Yellow Bluff MMI Data

Element		Gd	La	Li	Mg	Mo	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm
DETECTION		1	1	5	1	5	0.5	1	5	10	1	1	1	5	1	5	1
UNITS		PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
Line 89400E																	
09143N	89333E	<1	2	<5	6	<5	0.7	2	177	<10	<1	<1	<1	28	<1	10	<1
08449N	89345E	<1	4	<5	5	<5	1.1	3	180	<10	<1	<1	<1	65	<1	10	<1
08432N	89364E	2	10	<5	4	<5	2.3	8	115	<10	<1	2	<1	33	<1	10	2
08412N	89361E-	<1	1	<5	9	<5	<0.5	1	121	<10	<1	<1	<1	50	<1	6	<1
08391N	89382E	<1	2	<5	7	<5	<0.5	2	170	<10	<1	<1	<1	54	<1	7	<1
08407N	89391E	<1	3	<5	4	<5	<0.5	3	141	40	<1	<1	<1	13	<1	15	<1
08434N	89402E	<1	<1	<5	10	<5	<0.5	1	170	<10	<1	<1	<1	9	<1	6	<1
08432N	89417E	<1	3	5	17	<5	0.9	3	400	<10	<1	<1	<1	24	<1	11	<1
08457N	89431E	<1	2	<5	12	<5	<0.5	2	379	30	<1	<1	<1	22	<1	6	<1
08466N	89426E	<1	3	<5	18	<5	<0.5	3	286	<10	<1	<1	<1	77	<1	11	<1
08446N	89454E	<1	1	<5	22	<5	<0.5	1	265	<10	<1	<1	<1	11	<1	<5	<1
08427N	89453E	<1	3	<5	3	<5	<0.5	3	105	<10	<1	<1	<1	13	<1	8	<1
08399N	89447E	1	3	<5	10	<5	1	3	241	60	<1	<1	<1	111	<1	19	<1
08347N	89456E	<1	4	<5	12	<5	1	4	238	<10	<1	<1	<1	61	<1	11	<1
08322N	89445E	<1	1	<5	14	<5	<0.5	2	135	<10	<1	<1	<1	72	<1	5	<1
08463N	89447E	41	28	<5	37	<5	<0.5	94	665	390	<1	17	<1	63	<1	24	28
08260N	89418E	<1	3	9	10	<5	0.8	3	137	20	<1	<1	<1	12	<1	10	<1
08249N	89421E	1	4	<5	7	<5	0.7	4	127	<10	<1	<1	<1	67	<1	7	1
08235N	89406E	<1	3	<5	11	<5	1.4	3	195	20	<1	<1	<1	99	<1	12	<1
08196N	89417E	<1	2	<5	7	<5	1.4	2	111	10	<1	<1	<1	84	<1	10	<1
08193N	89417E	<1	4	<5	8	<5	1.6	3	231	10	<1	<1	<1	52	<1	16	<1
08179N	89415E	<1	5	<5	20	<5	3.5	4	150	10	<1	<1	<1	15	<1	13	<1
08150N	89422E	1	4	<5	5	<5	1.4	4	149	20	<1	1	<1	22	<1	21	1
08127N	89433E	2	2	<5	5	<5	<0.5	3	184	30	<1	<1	<1	24	<1	15	<1
08112N	89461E	4	5	<5	9	<5	0.7	7	245	120	<1	2	<1	42	<1	19	2
08090N	89458E	2	7	8	16	<5	2.3	7	209	30	<1	2	<1	25	<1	25	2
08064N	89476E	<1	2	<5	9	<5	<0.5	2	190	10	<1	<1	<1	26	<1	7	<1
Line 10200N																	
10200N	89000E	58	96	<5	1	6	1	187	60	1390	<1	40	<1	88	<1	21	50
10200N	89025E	68	159	<5	15	6	1.5	228	41	400	<1	52	<1	203	<1	30	59
10200N	89050E	130	115	<5	<1	8	2.3	352	32	920	<1	67	<1	134	<1	44	110
10200N	89075E	26	44	<5	<1	<5	6.2	67	50	770	<1	15	<1	52	<1	31	20
10200N	89100E	27	43	<5	<1	12	2.2	71	24	620	<1	17	<1	142	<1	46	20
10200N	89125E	292	150	<5	<1	12	1.7	768	17	1150	<1	142	<1	186	<1	89	241
10200N	89150E	35	107	<5	1	<5	6.1	108	43	560	<1	25	<1	128	<1	35	30
10200N	89175E	196	440	<5	2	23	4.1	863	39	660	<1	195	<1	91	<1	101	226
10200N	89200E	154	485	<5	<1	11	3.9	673	39	330	<1	159	<1	68	<1	66	157
10200N	89225E	167	501	<5	1	9	5.3	680	72	400	<1	164	<1	73	<1	64	165
10200N	89250E	233	612	<5	<1	12	1.5	1220	6	710	<1	280	<1	104	<1	105	286
10200N	89275E	6	34	<5	2	<5	3.5	25	86	280	<1	7	<1	84	<1	15	5
10200N	89325E	8	7	<5	4	<5	<0.5	15	47	270	<1	3	<1	56	<1	21	5
10200N	89350E	2	5	<5	5	<5	1.9	6	47	50	<1	1	<1	27	<1	18	1
10200N	89375E	<1	<1	<5	<1	<5	<0.5	<1	<5	<10	<1	<1	<1	<5	<1	<5	<1

Yellow Bluff MMI Data

Element		Sn	Sr	Ta	Tb	Te	Th	Ti	Tl	U	W	Y	Yb	Zn	Zr
DETECTION		1	10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
UNITS		PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
Line 89400E															
09143N	89333E	<1	60	<1	<1	<10	5.8	166	<0.5	7	<1	<5	2	30	6
08449N	89345E	<1	70	<1	<1	<10	7	384	<0.5	7	<1	8	2	60	10
08432N	89364E	<1	40	<1	<1	<10	14	679	0.5	11	<1	12	2	<20	20
08412N	89361E-	<1	160	<1	<1	<10	5.2	106	<0.5	7	<1	5	3	80	<5
08391N	89382E	<1	90	<1	<1	<10	4.6	124	1	5	<1	10	4	50	6
08407N	89391E	<1	90	<1	<1	<10	7.1	114	<0.5	7	<1	17	6	40	6
08434N	89402E	<1	180	<1	<1	<10	3	37	0.6	6	<1	<5	3	<20	<5
08432N	89417E	<1	330	<1	<1	<10	6.1	181	0.5	7	<1	6	3	60	8
08457N	89431E	<1	180	<1	<1	<10	4.3	69	0.5	6	<1	20	6	40	<5
08466N	89426E	<1	290	<1	<1	<10	4.5	83	0.7	7	<1	6	4	60	<5
08446N	89454E	<1	220	<1	<1	<10	2.9	60	0.6	4	<1	6	3	20	<5
08427N	89453E	<1	70	<1	<1	<10	4.5	138	<0.5	5	<1	9	4	30	<5
08399N	89447E	<1	200	<1	<1	<10	10.6	484	0.7	9	<1	25	7	150	14
08347N	89456E	<1	190	<1	<1	<10	4.6	136	<0.5	7	<1	6	2	110	12
08322N	89445E	<1	250	<1	<1	<10	4.9	66	<0.5	4	<1	<5	2	80	7
08463N	89447E	<1	270	<1	8	<10	17	84	<0.5	12	<1	276	17	340	7
08260N	89418E	<1	300	<1	<1	<10	9.5	181	<0.5	8	<1	10	3	170	7
08249N	89421E	<1	120	<1	<1	<10	6.1	276	<0.5	7	<1	21	5	80	10
08235N	89406E	<1	320	<1	<1	<10	9.2	350	<0.5	9	<1	7	2	200	7
08196N	89417E	<1	230	<1	<1	<10	9	561	<0.5	7	<1	6	3	210	13
08193N	89417E	<1	170	<1	<1	<10	12.8	619	<0.5	13	<1	12	4	180	22
08179N	89415E	<1	520	<1	<1	<10	13.7	553	<0.5	13	<1	6	2	180	25
08150N	89422E	<1	60	<1	<1	<10	16.6	389	<0.5	12	1	14	4	60	13
08127N	89433E	<1	140	<1	<1	<10	11.5	191	0.6	10	<1	42	9	70	9
08112N	89461E	<1	240	<1	1	<10	16.4	280	0.6	14	<1	66	13	190	13
08090N	89458E	<1	250	<1	<1	<10	19.9	556	<0.5	19	<1	20	5	220	25
08064N	89476E	<1	200	<1	<1	<10	4.7	166	<0.5	7	<1	13	4	170	6
Line 10200N															
10200N	89000E	<1	40	<1	10	<10	68.6	215	0.6	46	1	315	20	620	24
10200N	89025E	<1	260	<1	10	<10	114	214	<0.5	46	2	402	39	5430	17
10200N	89050E	<1	10	<1	23	<10	120	329	0.7	219	2	711	49	30	87
10200N	89075E	<1	<10	<1	5	<10	142	629	0.6	33	1	166	16	100	19
10200N	89100E	<1	<10	<1	6	<10	69.8	385	0.5	184	2	298	38	120	52
10200N	89125E	<1	<10	<1	50	<10	64.7	297	0.6	350	3	1490	108	50	68
10200N	89150E	<1	20	<1	6	<10	152	479	0.7	32	2	200	19	440	21
10200N	89175E	<1	20	<1	28	<10	460	549	1	129	24	484	51	650	80
10200N	89200E	<1	10	<1	21	<10	334	666	1	84	4	475	35	150	52
10200N	89225E	<1	20	<1	23	<10	303	690	0.8	84	3	588	41	190	33
10200N	89250E	<1	20	<1	29	<10	263	176	0.8	225	5	546	57	170	46
10200N	89275E	<1	40	<1	1	<10	63.4	490	<0.5	27	<1	45	9	50	54
10200N	89325E	<1	130	<1	2	<10	13.8	207	0.7	5	<1	72	17	140	<5
10200N	89350E	<1	90	<1	<1	<10	15.2	484	<0.5	5	2	8	2	170	6
10200N	89375E	<1	<10	<1	<1	<10	<0.5	<3	<0.5	<1	<1	<5	<1	<20	<5

Yellow Bluff MMI Data

Element		Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cu	Dy	Er	Eu	Fe
DETECTION		1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1
UNITS		PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPM
10200N	89400E	3	<1	<10	<0.1	240	2	10	15	230	30	<100	810	70	40.9	11.1	40
10200N	89425E	7	<1	10	<0.1	140	<1	<10	3	99	15	<100	160	24	10.8	4.4	36
10200N	89450E	2	<1	<10	<0.1	100	<1	<10	<1	29	18	<100	380	8	5.6	1.1	209
10200N	89475E	1	<1	<10	<0.1	250	<1	10	<1	6	20	<100	130	3	3.4	<0.5	175
10200N	89500E	<1	<1	<10	<0.1	90	<1	<10	1	<5	20	<100	40	2	2.6	<0.5	57
Line 10100N																	
10100N	89025E	9	<1	10	<0.1	650	2	40	13	612	18	<100	130	97	49.5	16.3	62
10100N	89050E	4	<1	<10	<0.1	450	1	30	9	446	28	<100	60	100	64.8	13.5	146
10100N	89075E	17	<1	20	<0.1	180	2	<10	3	588	11	100	290	78	39.5	12.2	109
10100N	89100E	9	<1	10	<0.1	140	1	<10	7	305	17	<100	110	47	29.1	5.5	162
10100N	89125E	23	<1	10	<0.1	250	15	10	5	1060	14	<100	140	143	72	21.5	41
10100N	89150E	49	<1	<10	2	80	<1	70	18	1300	<5	<100	880	378	200	87.9	18
10100N	89175E	39	113	20	0.1	160	8	<10	2	3890	9	<100	350	398	179	118	38
10100N	89200E	5	<1	<10	0.3	350	12	<10	46	879	21	<100	370	166	106	15.3	41
10100N	89225E	4	<1	<10	<0.1	70	<1	<10	6	27	16	<100	100	12	9.6	1	56
10100N	89250E	2	<1	<10	<0.1	60	<1	<10	4	11	14	<100	40	16	12.3	0.9	19
10100N	89275E	<1	<1	<10	<0.1	600	<1	110	49	59	41	<100	130	42	25.1	4.7	52
10100N	89300E	<1	<1	<10	<0.1	480	<1	230	45	41	84	<100	110	52	41.1	5.2	41
10100N	89325E	1	<1	<10	<0.1	280	<1	90	14	52	21	<100	100	39	22.7	5.2	26
10100N	89350E	3	<1	<10	<0.1	650	<1	120	8	99	18	<100	110	54	29.7	7.8	25
10100N	89375E	<1	<1	<10	<0.1	630	<1	130	12	135	44	<100	150	92	52.9	12	46
10100N	89400E	<1	<1	<10	<0.1	130	<1	<10	<1	10	19	<100	140	5	4.7	<0.5	130
10100N	89425E	<1	<1	<10	<0.1	600	<1	100	7	32	29	<100	70	44	41.6	4	123
10100N	89450E	2	<1	<10	<0.1	220	<1	<10	6	79	28	<100	140	34	19.3	4.3	57
10100N	89475E	2	<1	<10	<0.1	400	<1	20	26	104	57	<100	110	56	31.7	7.2	62
10100N	89500E	<1	<1	<10	<0.1	150	<1	10	8	22	35	<100	170	20	12.5	2.1	44
10100N	89525E	1	<1	<10	<0.1	110	<1	<10	2	57	11	<100	70	25	13.8	4	38
Line 7630N																	
7630N	89425E	<1	<1	<10	<0.1	1100	<1	40	13	55	272	<100	410	35	26.8	3.6	119
7630N	89450E	<1	<1	<10	<0.1	210	<1	<10	6	54	69	<100	230	25	15.4	3.2	43
7630N	89475E	<1	<1	<10	<0.1	1250	<1	10	8	52	302	<100	240	25	16.7	3.1	159
7630N	89500E	<1	<1	<10	<0.1	1460	<1	50	8	10	250	<100	240	11	10	1	89
7630N	89525E	<1	<1	<10	<0.1	950	<1	50	5	<5	162	<100	10	<1	<0.5	<0.5	114
7630N	89550E	<1	<1	<10	<0.1	630	<1	30	3	11	501	<100	130	4	5.2	<0.5	208
7630N	89575E	<1	<1	<10	<0.1	1250	<1	30	2	7	317	<100	30	2	3.3	<0.5	141
7630N	89600E	<1	<1	<10	<0.1	2460	<1	190	9	<5	347	<100	70	3	3.5	<0.5	234
7630N	89625E	<1	<1	<10	<0.1	1000	<1	110	17	9	54	<100	230	14	12.2	0.9	177
Line 7700N																	
7700N	89400E	<1	<1	<10	<0.1	1190	<1	70	10	23	313	<100	330	24	21.9	1.9	121
7700N	89425E	<1	<1	10	<0.1	310	<1	<10	7	40	160	<100	330	20	14.7	2.5	96
7700N	89450E	<1	<1	<10	<0.1	980	<1	10	10	19	310	<100	200	15	13.2	1.3	75
7700N	89475E	<1	<1	<10	<0.1	1230	<1	60	6	<5	179	<100	80	2	2.1	<0.5	179
7700N	89500E	<1	<1	<10	<0.1	730	<1	30	7	7	165	<100	210	5	4.6	<0.5	130
7700N	89525E	<1	<1	<10	<0.1	1060	<1	20	4	6	193	<100	30	1	1.6	<0.5	57

Yellow Bluff MMI Data

Element		Gd	La	Li	Mg	Mo	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm
DETECTION		1	1	5	1	5	0.5	1	5	10	1	1	1	5	1	5	1
UNITS		PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
10200N	89400E	60	93	<5	<1	8	0.9	179	124	1210	<1	40	<1	94	<1	49	45
10200N	89425E	26	40	<5	<1	9	3.4	75	40	630	<1	16	<1	93	<1	18	21
10200N	89450E	5	17	<5	2	5	2.1	16	50	20	<1	4	<1	87	<1	26	4
10200N	89475E	1	3	<5	3	<5	1.2	4	44	<10	<1	<1	<1	43	<1	14	<1
10200N	89500E	<1	2	<5	<1	<5	<0.5	2	34	40	<1	<1	<1	36	<1	<5	<1
Line 10100N																	
10100N	89025E	117	252	<5	4	8	5.8	392	64	630	<1	90	<1	178	1	70	105
10100N	89050E	111	219	<5	2	8	12.6	385	79	760	<1	83	<1	116	<1	48	96
10100N	89075E	104	279	<5	<1	19	17.7	383	16	550	<1	90	<1	78	1	65	94
10100N	89100E	49	134	<5	<1	<5	10.3	187	65	410	<1	44	<1	88	<1	43	48
10100N	89125E	176	487	<5	3	15	6.2	617	53	520	<1	148	<1	142	<1	79	163
10100N	89150E	495	1000	<5	2	23	<0.5	1850	94	4460	<1	400	<1	177	<1	130	455
10100N	89175E	828	3640	<5	<1	16	1.6	4670	15	1700	<1	1160	<1	109	<1	228	969
10100N	89200E	136	200	<5	2	7	<0.5	400	74	5330	<1	83	<1	132	<1	82	123
10100N	89225E	7	12	<5	<1	<5	1.4	18	41	1940	<1	4	<1	90	<1	15	5
10100N	89250E	5	5	<5	<1	<5	0.7	9	44	1250	<1	2	<1	18	<1	23	3
10100N	89275E	32	21	<5	9	<5	<0.5	66	99	550	<1	12	<1	66	<1	21	22
10100N	89300E	32	21	<5	4	<5	<0.5	50	31	280	<1	9	<1	24	<1	16	18
10100N	89325E	32	21	<5	3	<5	<0.5	64	51	690	<1	12	<1	92	<1	20	21
10100N	89350E	48	44	<5	4	<5	0.5	115	63	480	<1	21	<1	154	<1	20	34
10100N	89375E	74	53	<5	5	<5	<0.5	173	70	660	<1	30	<1	49	<1	31	50
10100N	89400E	3	5	<5	1	<5	0.9	6	40	40	<1	1	<1	97	<1	11	2
10100N	89425E	26	16	<5	5	<5	<0.5	40	70	490	<1	7	<1	18	<1	17	15
10100N	89450E	28	30	<5	<1	<5	1.9	68	62	340	<1	13	<1	116	<1	28	20
10100N	89475E	46	38	<5	3	6	1.5	107	60	580	<1	19	<1	160	<1	31	34
10100N	89500E	13	7	<5	3	<5	<0.5	25	84	70	<1	4	<1	49	<1	16	9
10100N	89525E	21	22	<5	<1	<5	1.3	54	33	110	<1	10	<1	57	<1	28	16
Line 7630N																	
7630N	89425E	20	22	<5	17	<5	0.5	48	897	230	<1	9	<1	192	<1	45	14
7630N	89450E	18	19	<5	3	<5	<0.5	45	222	140	<1	9	<1	85	<1	24	13
7630N	89475E	17	22	<5	10	<5	1.1	43	635	180	<1	8	<1	100	<1	27	12
7630N	89500E	6	4	<5	28	<5	<0.5	10	427	70	<1	2	<1	90	<1	13	4
7630N	89525E	<1	3	<5	29	<5	<0.5	3	141	<10	<1	<1	<1	107	<1	<5	<1
7630N	89550E	2	6	<5	29	<5	<0.5	7	332	<10	<1	2	<1	80	<1	14	2
7630N	89575E	1	3	<5	21	<5	<0.5	4	332	<10	<1	<1	<1	207	<1	16	1
7630N	89600E	1	2	7	54	<5	<0.5	3	459	10	<1	<1	<1	70	<1	14	<1
7630N	89625E	5	4	<5	29	<5	<0.5	9	283	90	<1	2	<1	67	<1	13	3
Line 7700N																	
7700N	89400E	11	8	<5	29	<5	1.2	22	613	130	<1	4	<1	50	<1	32	7
7700N	89425E	13	16	<5	7	<5	1.4	33	281	220	<1	7	<1	88	<1	34	10
7700N	89450E	7	8	<5	11	<5	<0.5	16	361	110	<1	3	<1	94	<1	30	5
7700N	89475E	<1	2	7	20	<5	<0.5	2	132	20	<1	<1	<1	8	<1	9	<1
7700N	89500E	2	3	<5	13	<5	<0.5	5	166	60	<1	<1	<1	19	<1	10	1
7700N	89525E	1	3	<5	14	<5	<0.5	3	232	<10	<1	<1	<1	141	<1	15	<1

Yellow Bluff MMI Data

Element		Sn	Sr	Ta	Tb	Te	Th	Ti	Tl	U	W	Y	Yb	Zn	Zr
DETECTION		1	10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
UNITS		PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
10200N	89400E	<1	80	<1	11	<10	24.5	231	<0.5	44	<1	430	31	360	23
10200N	89425E	<1	10	<1	4	<10	63.6	795	<0.5	36	3	118	7	90	45
10200N	89450E	<1	20	<1	1	<10	18.3	1020	0.5	15	<1	37	5	60	42
10200N	89475E	<1	80	<1	<1	<10	11.1	463	<0.5	8	<1	16	4	40	17
10200N	89500E	<1	30	<1	<1	<10	3.8	135	<0.5	5	<1	10	3	50	<5
Line 10100N															
10100N	89025E	<1	120	<1	17	<10	628	674	1.1	87	9	476	42	690	52
10100N	89050E	1	70	<1	17	<10	255	1300	1.1	112	5	657	55	260	22
10100N	89075E	1	10	<1	15	<10	375	1570	0.8	107	9	363	32	100	76
10100N	89100E	<1	<10	<1	8	<10	198	764	<0.5	65	2	252	26	350	23
10100N	89125E	<1	50	<1	27	<10	650	723	1.7	171	5	716	62	320	60
10100N	89150E	<1	60	<1	70	<10	123	122	<0.5	384	2	2270	154	680	22
10100N	89175E	<1	20	<1	95	<10	320	364	0.7	215	4	1780	156	120	86
10100N	89200E	<1	30	<1	25	<10	251	116	<0.5	148	<1	852	97	1020	62
10100N	89225E	<1	<10	<1	2	<10	35.2	226	0.6	33	<1	69	8	40	24
10100N	89250E	<1	<10	<1	2	<10	6.8	250	<0.5	36	<1	83	9	90	10
10100N	89275E	<1	340	<1	6	<10	23.5	104	<0.5	10	<1	235	18	1240	11
10100N	89300E	<1	660	<1	6	<10	13.2	40	<0.5	34	<1	372	31	320	6
10100N	89325E	<1	210	<1	6	<10	15.3	137	0.5	26	<1	227	15	280	16
10100N	89350E	<1	350	<1	8	<10	11.5	321	1.6	20	<1	334	19	110	20
10100N	89375E	<1	430	<1	13	<10	16.6	132	1	29	<1	563	34	130	10
10100N	89400E	<1	20	<1	<1	<10	11.2	208	0.7	9	<1	25	4	70	15
10100N	89425E	<1	470	<1	5	<10	15.5	192	<0.5	12	<1	314	35	190	8
10100N	89450E	<1	20	<1	5	<10	28.3	360	1.1	14	<1	160	13	200	44
10100N	89475E	<1	90	<1	8	<10	38	475	1.1	28	<1	272	22	320	53
10100N	89500E	<1	70	<1	3	<10	7.5	173	<0.5	6	<1	95	9	1240	10
10100N	89525E	<1	30	<1	4	<10	14.3	463	0.5	12	<1	117	9	70	31
Line 7630N															
7630N	89425E	<1	410	<1	4	<10	32.7	241	<0.5	33	<1	186	21	180	22
7630N	89450E	<1	60	<1	4	<10	11.3	101	<0.5	17	<1	128	10	150	13
7630N	89475E	<1	190	<1	3	<10	22.5	527	0.5	22	<1	135	14	230	22
7630N	89500E	<1	530	<1	1	<10	8.7	158	<0.5	10	<1	71	9	490	6
7630N	89525E	<1	440	<1	<1	<10	1.7	16	<0.5	3	<1	<5	<1	50	<5
7630N	89550E	<1	380	<1	<1	<10	8.4	70	<0.5	18	<1	22	11	120	9
7630N	89575E	<1	380	<1	<1	<10	6.4	81	0.8	10	<1	13	9	50	8
7630N	89600E	<1	1290	<1	<1	<10	9	144	<0.5	10	<1	17	7	400	7
7630N	89625E	<1	540	<1	1	<10	11.9	125	<0.5	11	<1	81	10	1560	6
Line 7700N															
7700N	89400E	<1	500	<1	3	<10	24.2	627	<0.5	18	<1	152	20	520	18
7700N	89425E	<1	60	<1	3	<10	27.4	718	<0.5	23	<1	108	12	180	33
7700N	89450E	<1	150	<1	2	<10	19.8	180	<0.5	19	<1	88	12	210	15
7700N	89475E	<1	360	<1	<1	<10	8.4	147	<0.5	8	<1	11	3	610	6
7700N	89500E	<1	180	<1	<1	<10	9.6	163	<0.5	10	<1	30	5	790	7
7700N	89525E	<1	320	<1	<1	<10	3.2	18	<0.5	6	<1	8	5	60	5

Yellow Bluff MMI Data

Element		Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cu	Dy	Er	Eu	Fe
DETECTION		1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1
UNITS		PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPM
7700N	89550E	<1	<1	<10	<0.1	2000	<1	110	3	<5	341	<100	10	<1	1.1	<0.5	155
7700N	89575E	<1	<1	<10	<0.1	1050	<1	40	13	12	269	<100	240	16	15	1	198
7700N	89600E	<1	249	<10	<0.1	810	<1	50	6	13	379	<100	170	7	7.3	0.7	275
7700N	89650E	<1	>30	<10	<0.1	260	<1	50	12	13	218	<100	290	11	9.3	1.1	225
Line 10000N																	
10213N	89268E	25	73	40	<0.1	100	5	10	2	1640	6	<100	140	151	69.4	39.7	20
10198N	89253E	40	97	30	0.2	110	4	<10	2	2440	<5	<100	190	197	87.2	60.4	19
10177N	89232E	22	154	30	0.1	100	3	<10	2	3820	7	<100	300	253	111	72.6	29
10154N	89214E	39	180	50	0.2	210	4	<10	4	5910	8	<100	320	478	202	170	29
10135N	89200E	21	>30	40	<0.1	380	6	30	26	1300	43	100	250	146	68.6	32.2	203
10119N	89191E	31	226	50	0.2	200	6	20	7	4910	13	<100	500	516	247	115	64
10095N	89175E	54	97	30	<0.1	100	4	20	2	2580	5	<100	250	265	119	73.3	19
10082N	89153E	13	>30	40	<0.1	110	3	<10	9	1370	16	100	260	180	91.5	35.8	198
10065N	89138E	11	237	20	<0.1	150	1	160	8	2420	13	<100	140	196	89.6	39.1	35
10049N	89127E	3	>30	20	<0.1	310	1	<10	5	541	19	<100	140	53	25.6	9.5	94
10043N	89123E	6	169	20	<0.1	80	2	<10	1	2010	9	<100	190	114	43.6	33.4	35
10003N	89091E	150	108	30	0.7	140	4	170	16	1330	13	<100	630	236	105	62.9	25

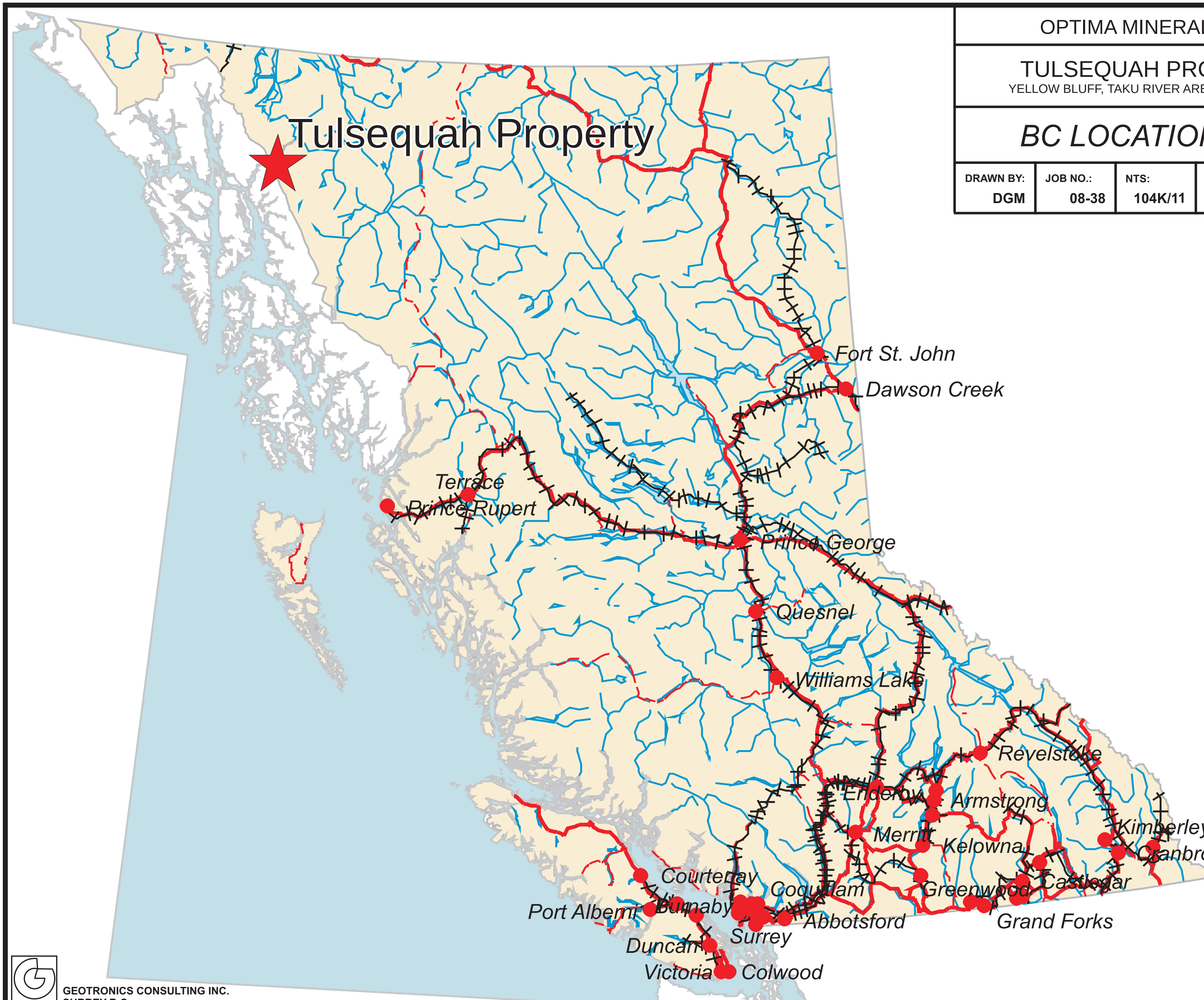
Yellow Bluff MMI Data

Element		Gd	La	Li	Mg	Mo	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm
DETECTION		1	1	5	1	5	0.5	1	5	10	1	1	1	5	1	5	1
UNITS		PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
7700N	89550E	<1	2	<5	56	<5	<0.5	2	530	<10	<1	<1	<1	108	<1	10	<1
7700N	89575E	7	5	<5	20	<5	0.9	10	306	180	<1	2	<1	66	<1	31	4
7700N	89600E	3	5	<5	23	<5	0.8	8	391	30	<1	2	<1	14	<1	28	2
7700N	89650E	5	6	<5	23	<5	0.8	11	430	60	<1	2	<1	19	<1	19	4
Line 10000N																	
10213N	89268E	269	734	<5	1	13	1.4	1520	11	820	<1	347	<1	114	1	128	350
10198N	89253E	374	1430	<5	1	17	1.2	2160	10	1080	<1	502	<1	190	1	206	508
10177N	89232E	438	1600	<5	1	18	1.7	2370	18	890	<1	549	<1	154	1	304	574
10154N	89214E	944	2240	<5	1	14	1.7	6210	18	840	<1	1360	<1	293	1	436	1330
10135N	89200E	236	658	<5	2	22	5.6	1070	90	1990	<1	238	<1	273	2	118	254
10119N	89191E	805	3330	<5	1	14	2.9	4030	61	1460	<1	1210	<1	248	2	274	900
10095N	89175E	517	2510	<5	1	9	0.8	3010	19	1060	<1	915	<1	150	<1	86	628
10082N	89153E	252	487	<5	1	28	4.6	1080	26	1320	<1	236	<1	152	1	124	278
10065N	89138E	295	1420	<5	2	9	1.3	1350	52	360	<1	334	<1	142	<1	86	307
10049N	89127E	68	254	<5	1	10	5.4	299	55	530	<1	76	<1	103	<1	63	71
10043N	89123E	217	690	<5	1	10	1.9	1180	14	420	<1	274	<1	116	<1	125	273
10003N	89091E	430	1820	<5	3	20	0.8	2090	50	3540	<1	503	<1	98	1	70	478

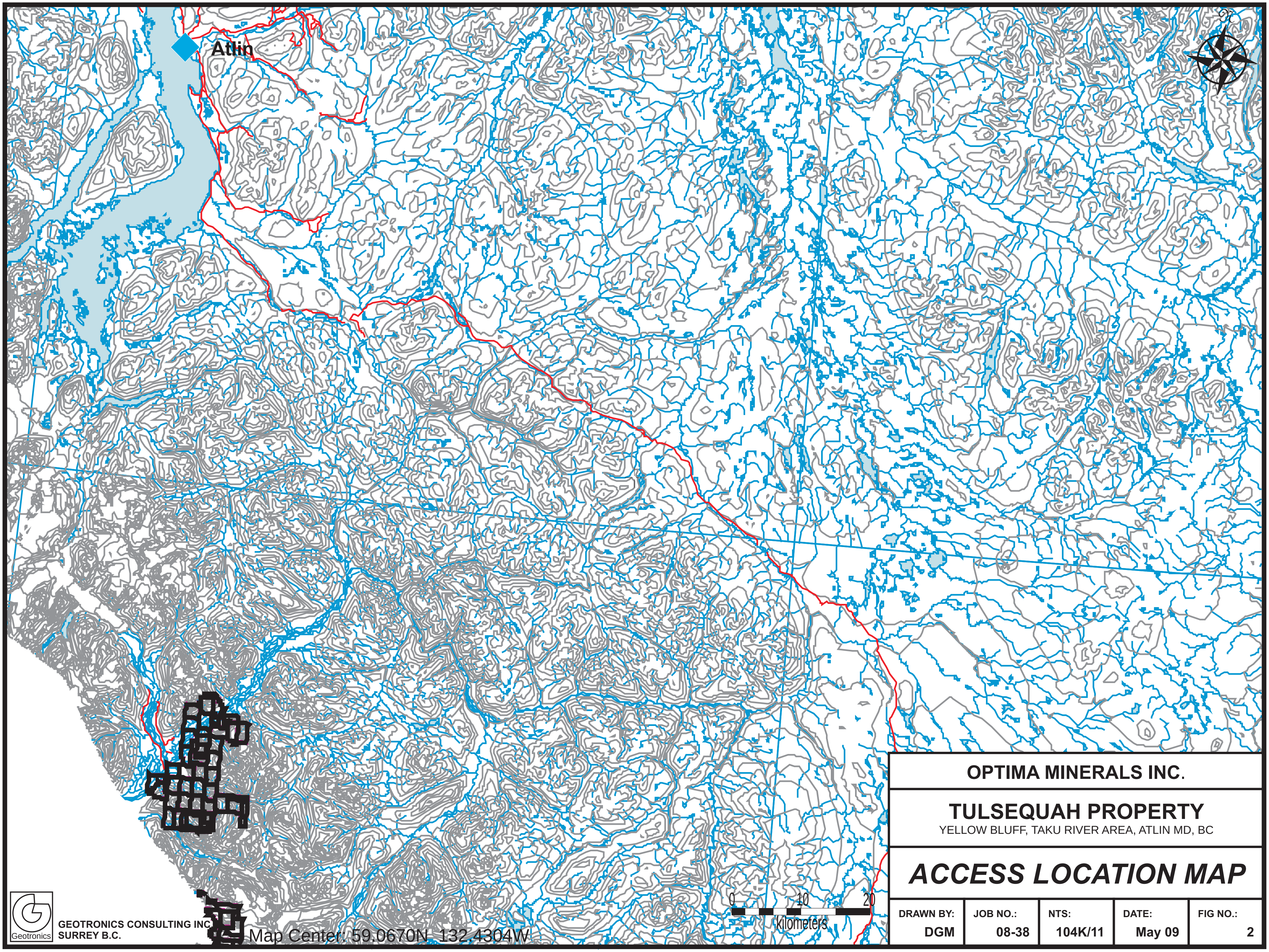
Yellow Bluff MMI Data

Element		Sn	Sr	Ta	Tb	Te	Th	Ti	Tl	U	W	Y	Yb	Zn	Zr
DETECTION		1	10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
UNITS		PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
7700N	89550E	<1	1000	<1	<1	<10	3.9	57	0.6	6	<1	6	3	120	<5
7700N	89575E	<1	360	<1	2	<10	25.5	301	<0.5	19	<1	96	16	680	12
7700N	89600E	<1	320	<1	<1	<10	13.2	240	<0.5	14	<1	41	8	290	12
7700N	89650E	<1	250	<1	1	<10	15.2	506	<0.5	12	<1	70	10	240	13
Line 10000N															
10213N	89268E	<1	30	<1	35	<10	298	196	0.6	272	6	655	66	200	55
10198N	89253E	<1	30	<1	48	<10	361	155	0.5	190	7	785	85	140	89
10177N	89232E	<1	30	<1	59	<10	521	270	0.7	219	4	962	106	160	83
10154N	89214E	<1	30	<1	119	<10	744	320	0.7	452	7	1940	208	220	123
10135N	89200E	2	60	<1	31	<10	486	1370	1.3	207	7	736	58	450	140
10119N	89191E	1	40	1	111	<10	580	746	1	527	8	3650	215	200	134
10095N	89175E	<1	20	<1	65	<10	160	204	0.5	254	3	1680	102	180	59
10082N	89153E	1	20	<1	37	<10	342	1210	0.8	239	5	824	78	210	101
10065N	89138E	<1	90	<1	42	<10	260	349	0.7	290	7	1090	68	70	44
10049N	89127E	<1	30	<1	11	<10	379	967	0.7	94	4	233	21	250	73
10043N	89123E	<1	<10	<1	28	<10	386	343	<0.5	127	3	419	37	170	61
10003N	89091E	<1	230	<1	56	<10	207	134	0.5	1810	4	1630	88	2430	49

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA, ATLIN MD, BC				
BC LOCATION MAP				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104K/11	DATE: May 09	FIG NO.: 1



GEOTRONICS CONSULTING INC.
SURREY B.C.


Atlin
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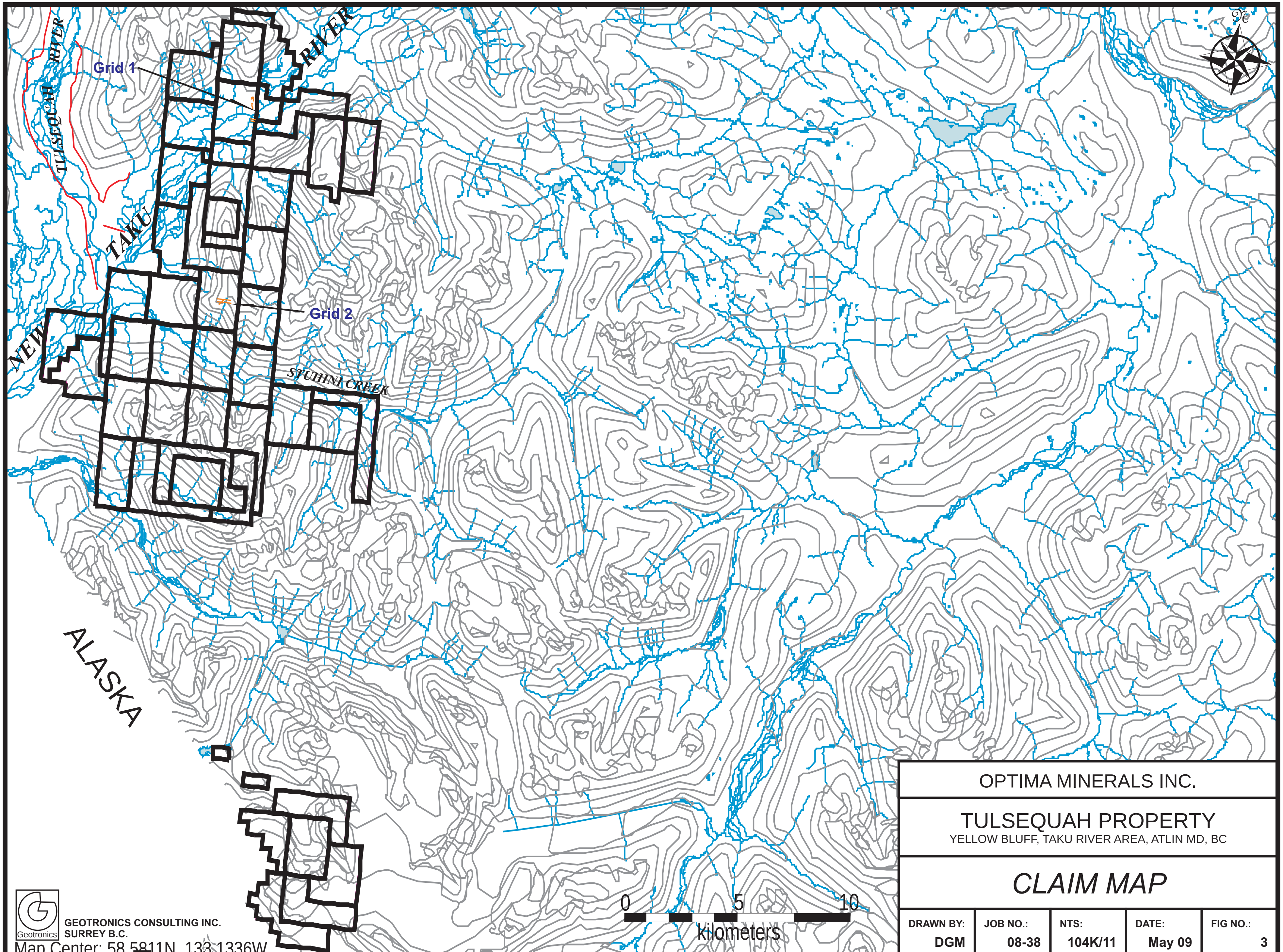
20
kilometers
Map Center: 59.0670N 132.4304W
Geotronics
GEOTRONICS CONSULTING INC.
SURREY B.C.
OPTIMA MINERALS INC.
TULSEQUAH PROPERTY
YELLOW BLUFF, TAKU RIVER AREA, ATLIN MD, BC
ACCESS LOCATION MAP
DRAWN BY: DGM
JOB NO.: 08-38
NTS: 104K/11
DATE: May 09
FIG NO.: 2

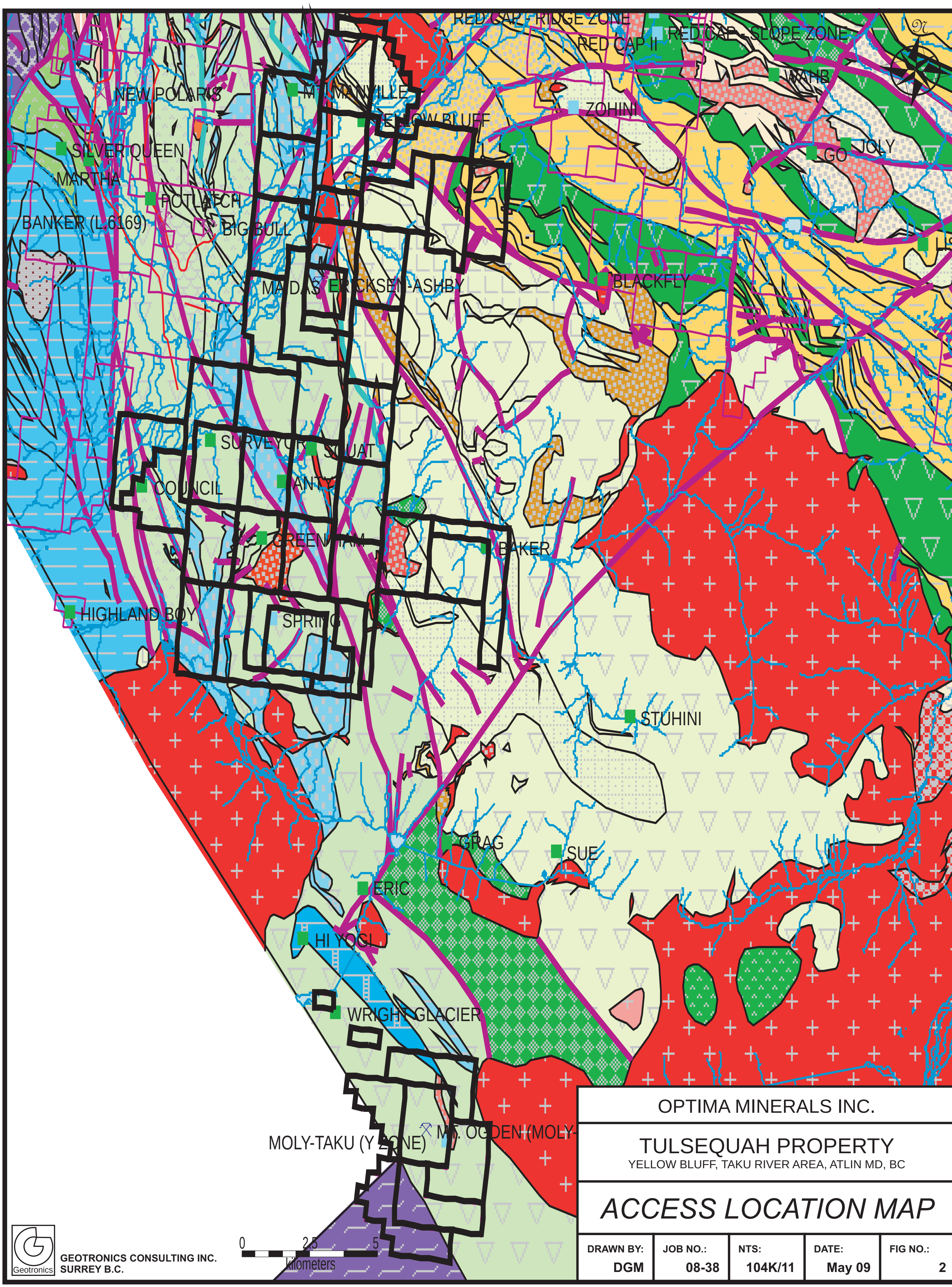


OPTIMA MINERALS INC.

TULSEQUAH PROPERTY
YELLOW BLUFF, TAKU RIVER AREA, ATLIN MD, BC

CLAIM MAP

DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG NO.:
DGM	08-38	104K/11	May 09	3



OPTIMA MINERALS INC.

TULSEQUAH PROPERTY

YELLOW BLUFF, TAKU RIVER AREA, ATLIN MD, BC

ACCESS LOCATION MAP

DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG NO.:
DGM	08-38	104K/11	May 09	2

Early Eocene
conglomerate, coarse clastic sedimentary rocks

Early Eocene
andesitic volcanic rocks

Early Eocene
coarse volcaniclastic and pyroclastic volcanic rocks

Early Eocene
rhyolite, felsic volcanic rocks

Paleocene to Eocene
granite, alkali feldspar granite intrusive rocks

Paleocene to Eocene
migmatitic metamorphic rocks

Late Cretaceous
quartz dioritic intrusive rocks

Lower Jurassic to Early Middle Jurassic
mudstone, siltstone, shale fine clastic sedimentary rocks

Lower Jurassic
argillite, greywacke, wacke, conglomerate turbidites

Lower Jurassic
conglomerate, coarse clastic sedimentary rocks

Lower Jurassic
andesitic volcanic rocks

Upper Triassic
conglomerate, coarse clastic sedimentary rocks

Upper Triassic
basaltic volcanic rocks

Upper Triassic
undivided volcanic rocks

Pennsylvanian
undivided volcanic rocks

Mississippian to Triassic
ultramafic rocks

Mississippian to Triassic
mudstone, siltstone, shale fine clastic sedimentary rocks

Mississippian
bimodal volcanic rocks

Lower Permian
limestone, marble, calcareous sedimentary rocks

Carboniferous
volcaniclastic rocks

Carboniferous
coarse clastic sedimentary rocks

Devonian to Mississippian
greenstone, greenschist metamorphic rocks

Geotronics

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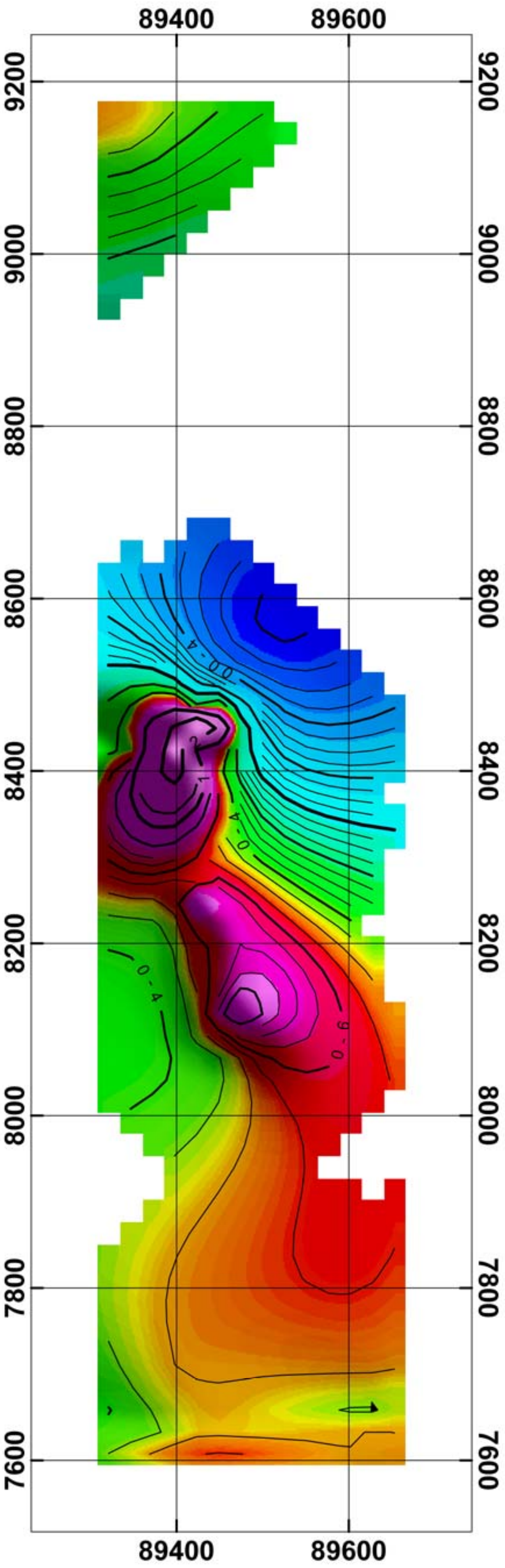
GEOLOGY MAP LEGEND



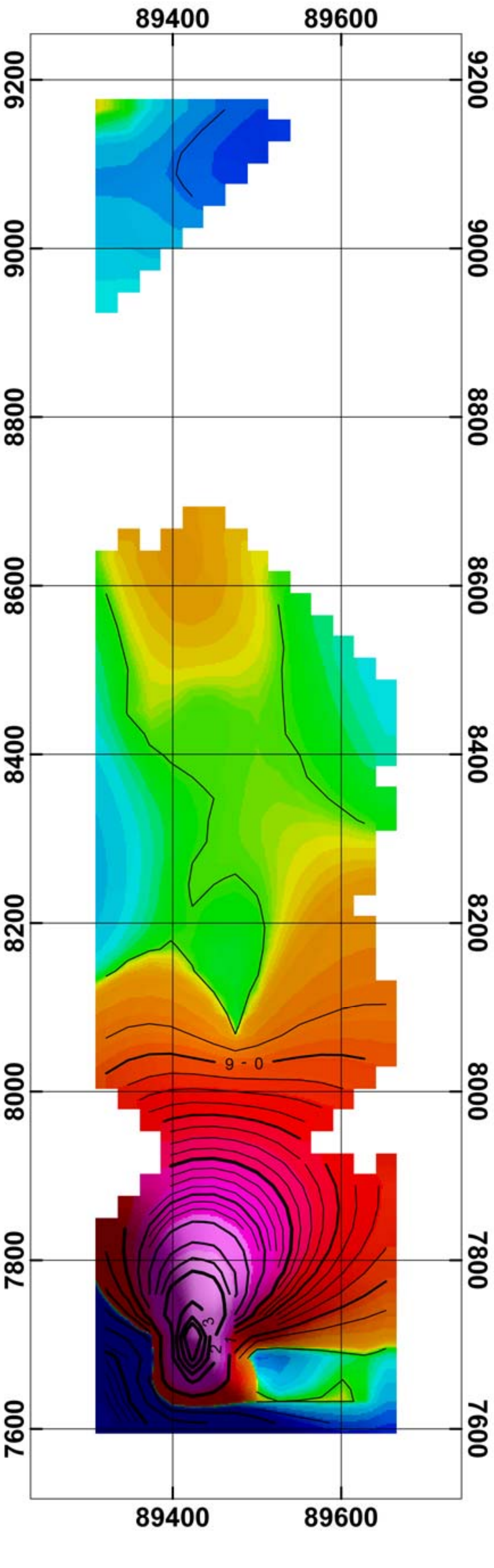
Scale 1:9000

100 0 100 200 300

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN SILVER (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



Scale 1:9000

100 0 100 200 300

metres

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN ARSENIC (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10

GEOTRONICS CONSULTING INC.
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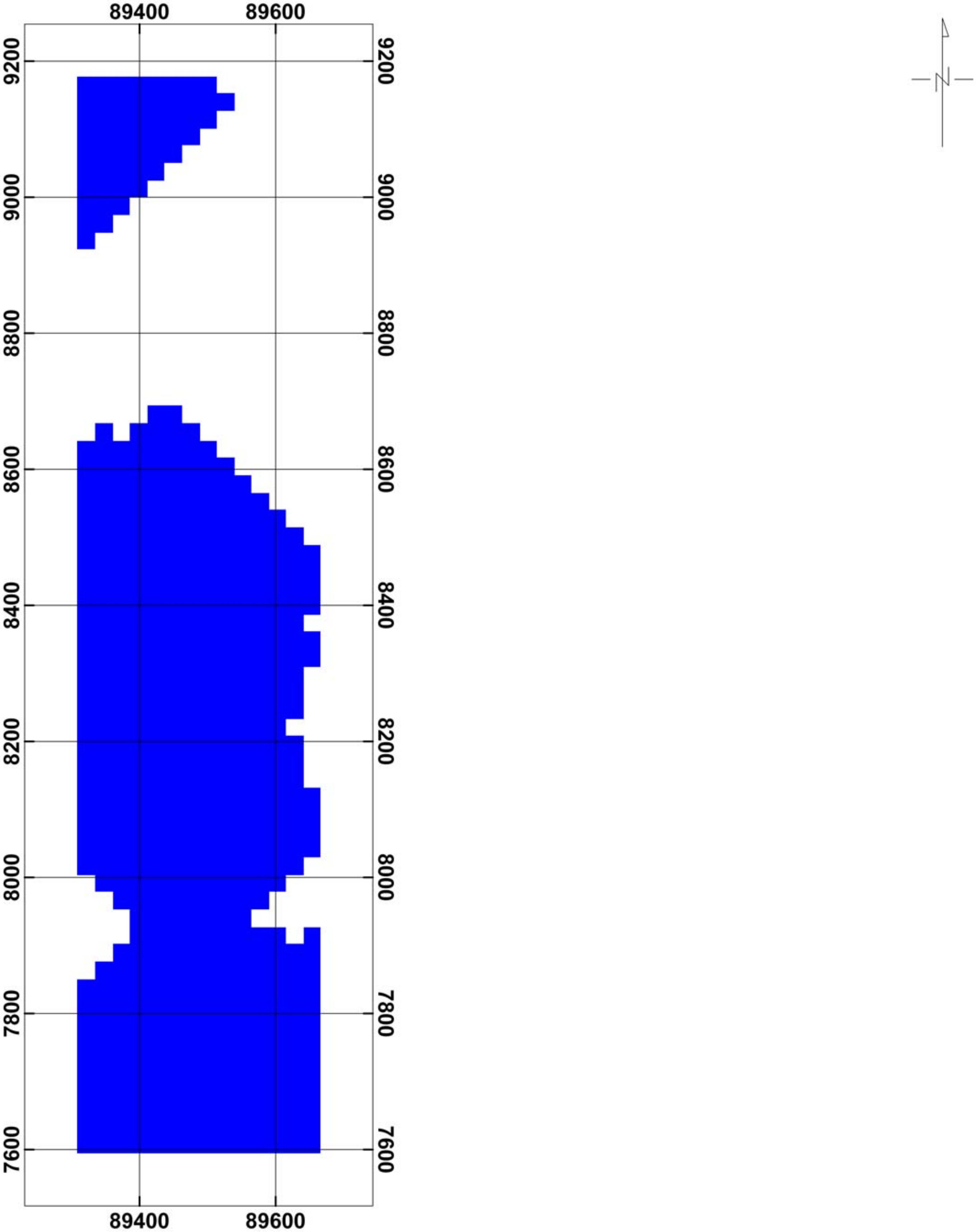


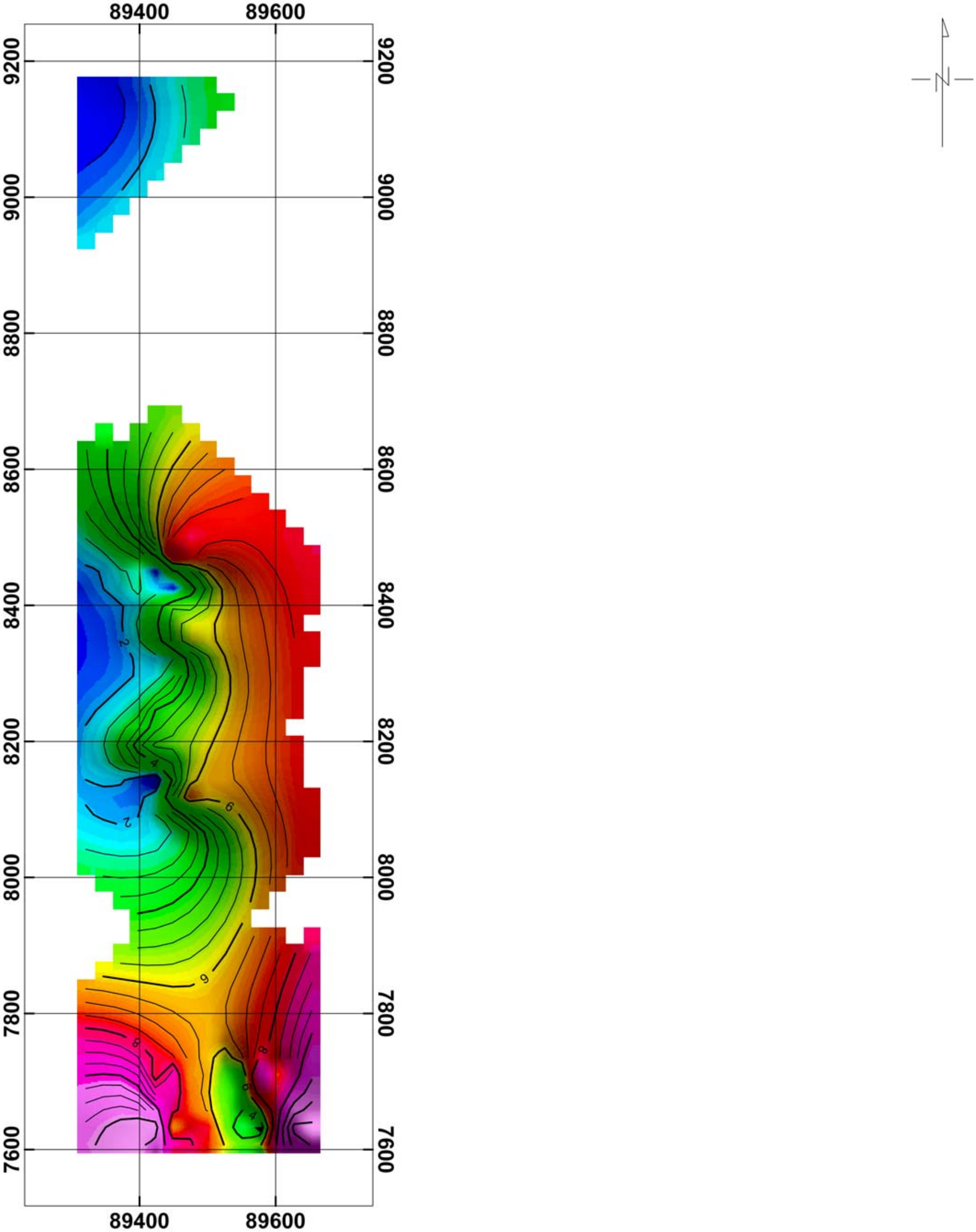
OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN GOLD (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10

Scale 1:9000

100 0 100 200 300

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.



OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN CADMIUM (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10

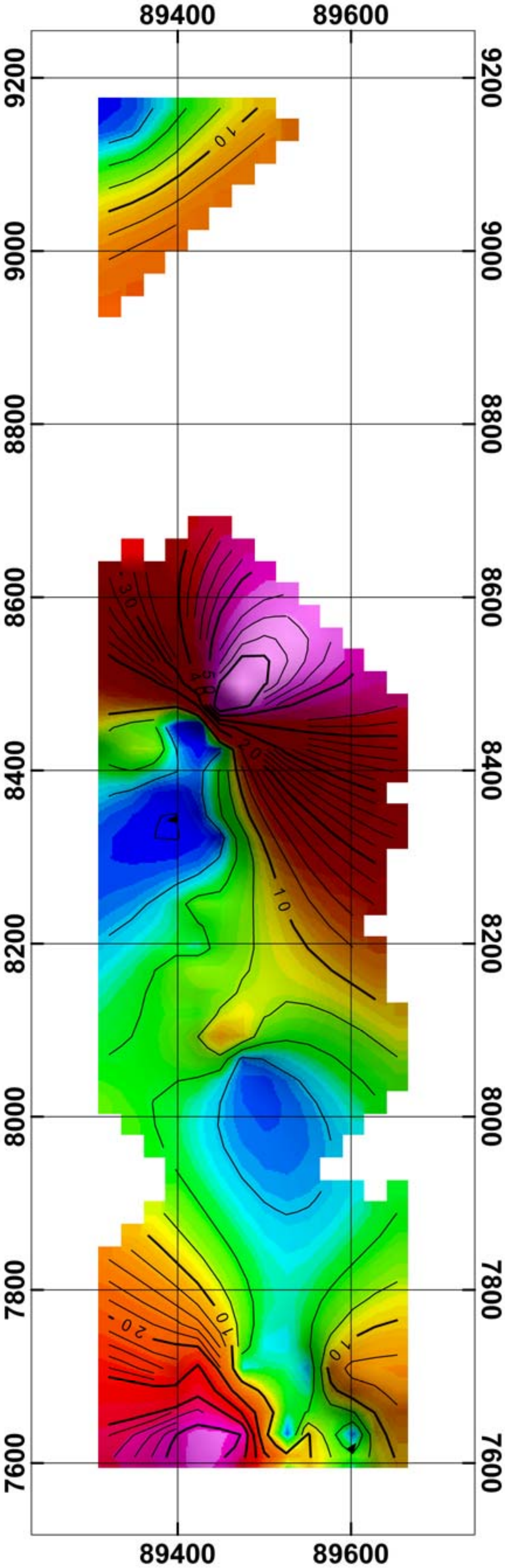
Scale 1:9000

100 0 100 200 300

metres

Geotronics

GEOTRONICS CONSULTING INC.
SURREY B.C.



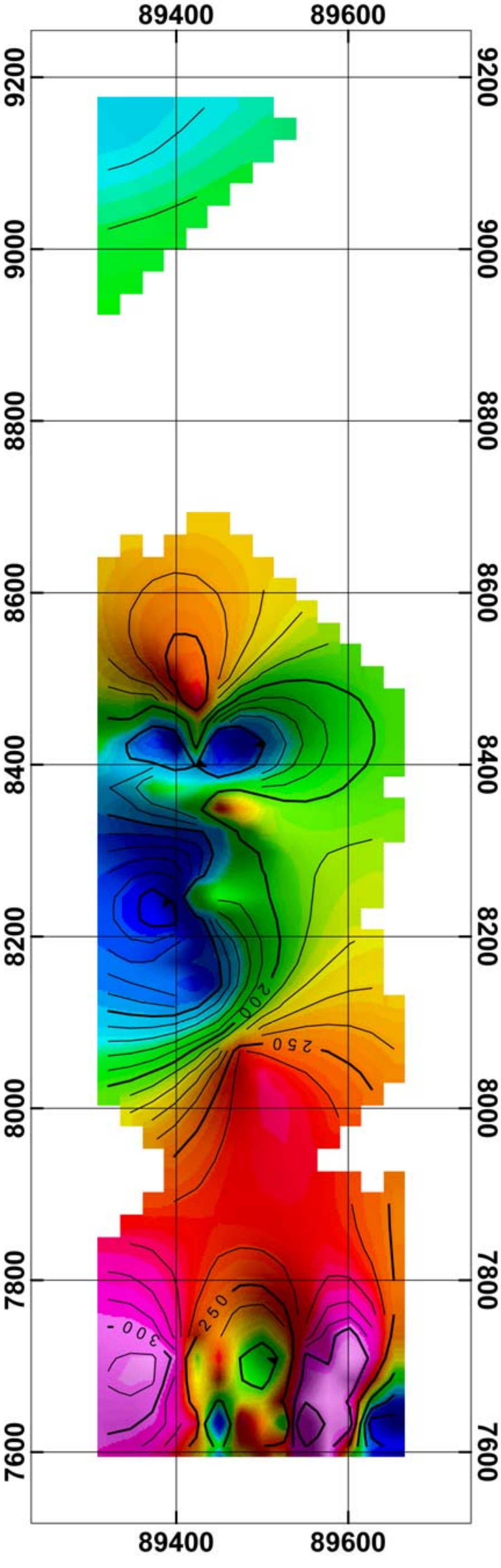
Scale 1:9000

100 0 100 200 300

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN CERIUM (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



OPTIMA MINERALS INC.

TULSEQUAH PROPERTY
YELLOW BLUFF, TAKU RIVER AREA

MMI SOIL GEOCHEMISTRY SURVEY
CONTOUR PLAN

COBALT (ppb)

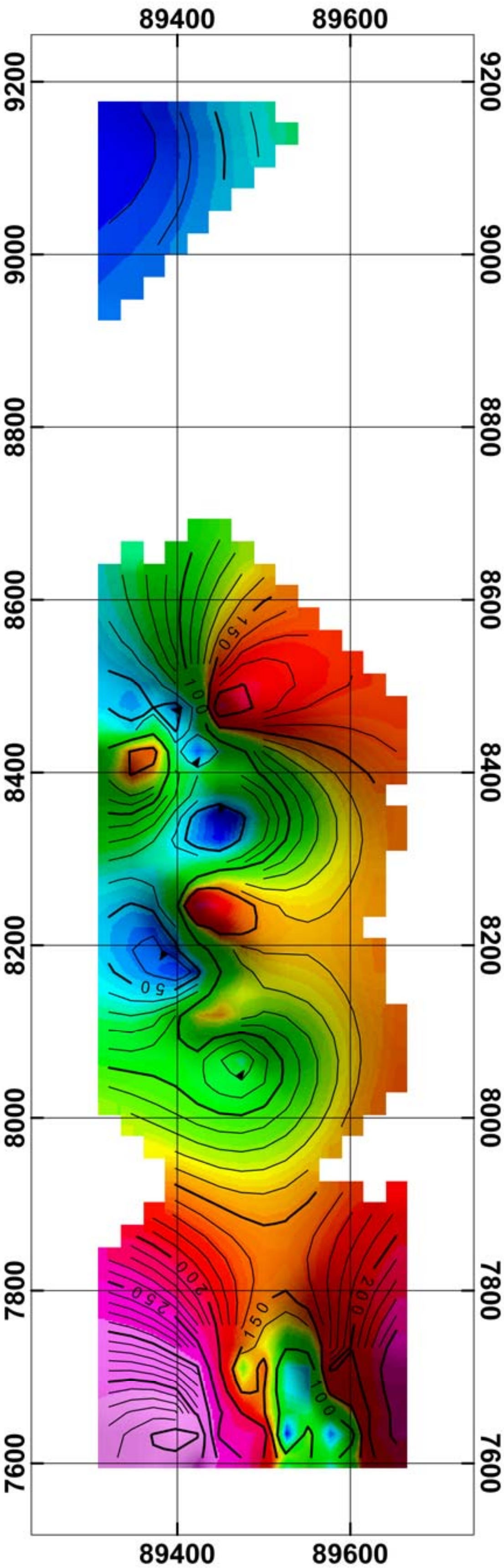
DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG. NO.:
DGM	08-38	104k/11	May 09	10

Scale 1:9000

100 0 100 200 300

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.



Scale 1:9000

100 0 100 200 300

metres

GEOTRONICS CONSULTING INC.
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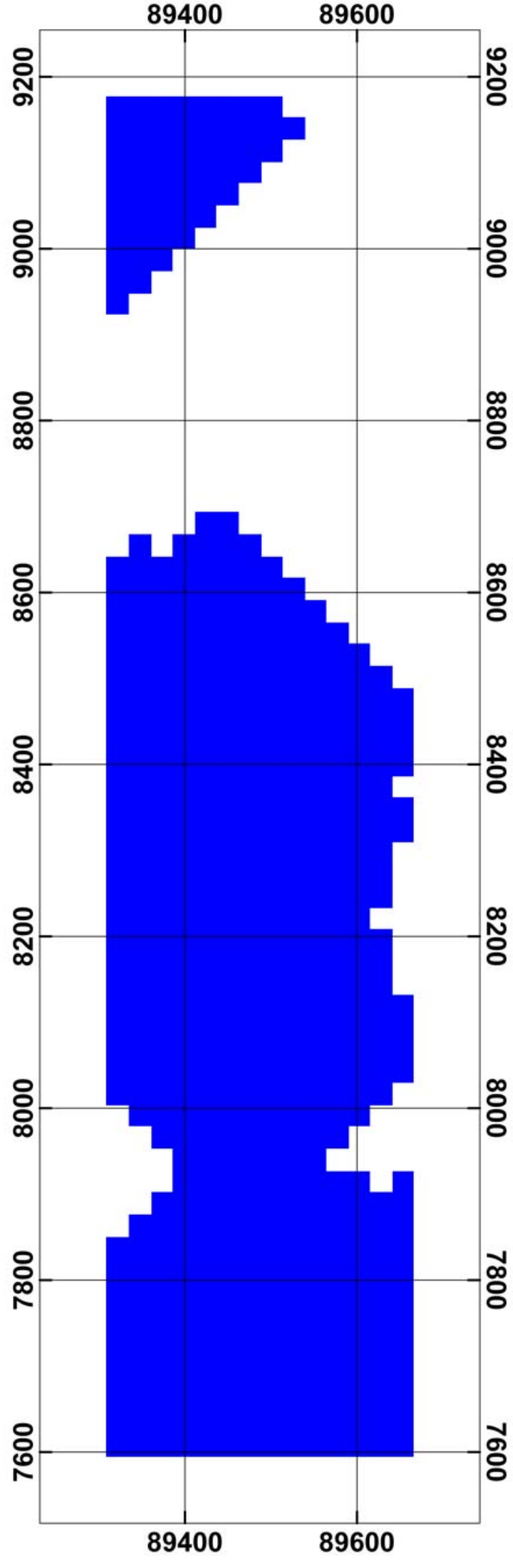
OPTIMA MINERALS INC.

TULSEQUAH PROPERTY
YELLOW BLUFF, TAKU RIVER AREA

MMI SOIL GEOCHEMISTRY SURVEY
CONTOUR PLAN

COPPER (ppb)

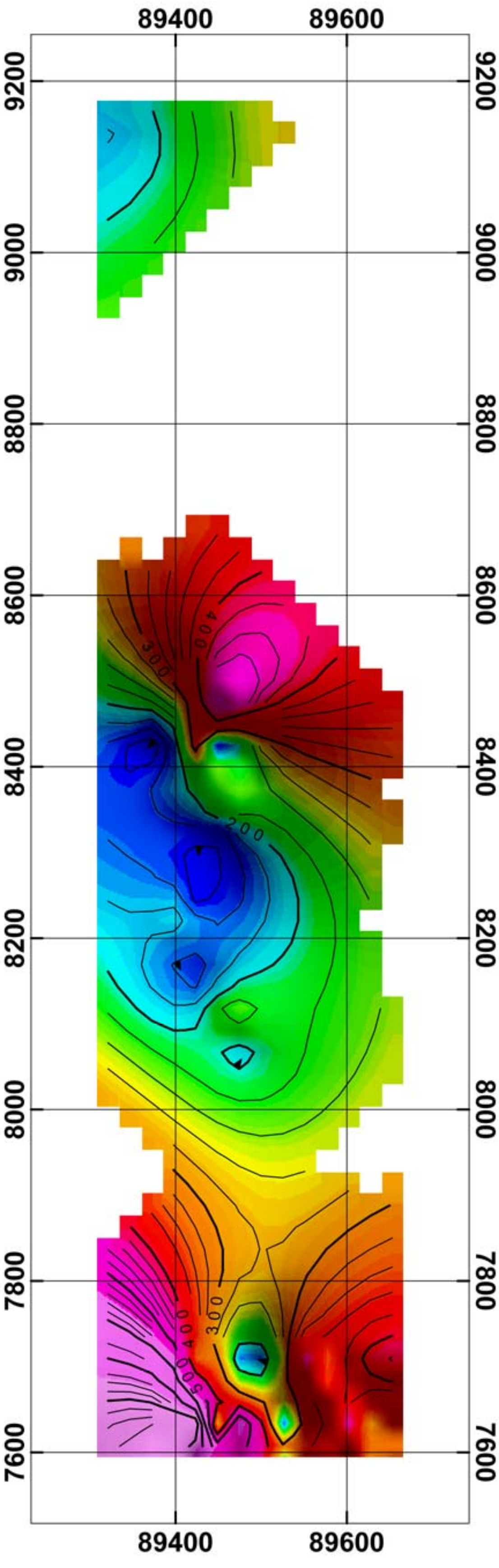
DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG. NO.:
DGM	08-38	104k/11	May 09	10



Scale 1:9000
100 0 100 200 300
metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN MOLYBDENUM (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



Scale 1:9000

100 0 100 200 300

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

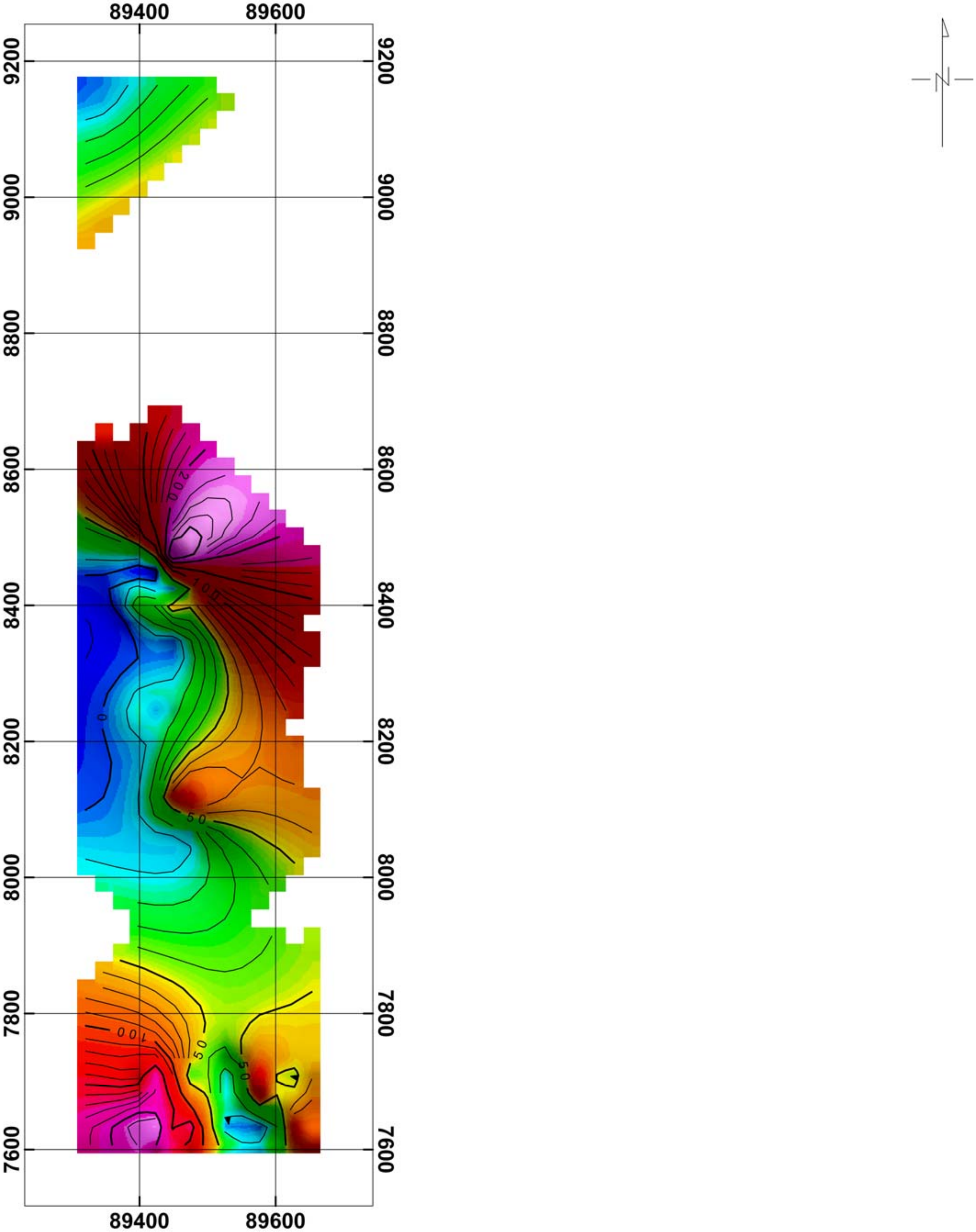
OPTIMA MINERALS INC.

TULSEQUAH PROPERTY
YELLOW BLUFF, TAKU RIVER AREA

MMI SOIL GEOCHEMISTRY SURVEY
CONTOUR PLAN

NICKEL (ppb)

DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG. NO.:
DGM	08-38	104k/11	May 09	10



OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN URANIUM (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10

Scale 1:9000

100 0 100 200 300

metres

GEOTRONICS CONSULTING INC.
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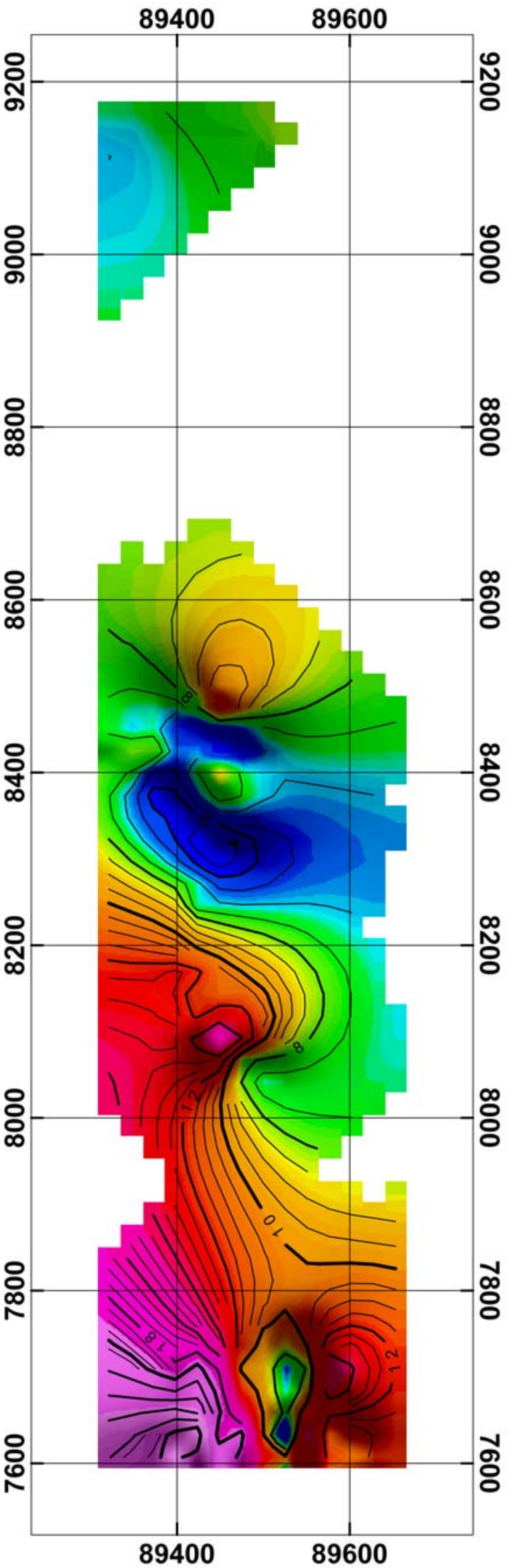


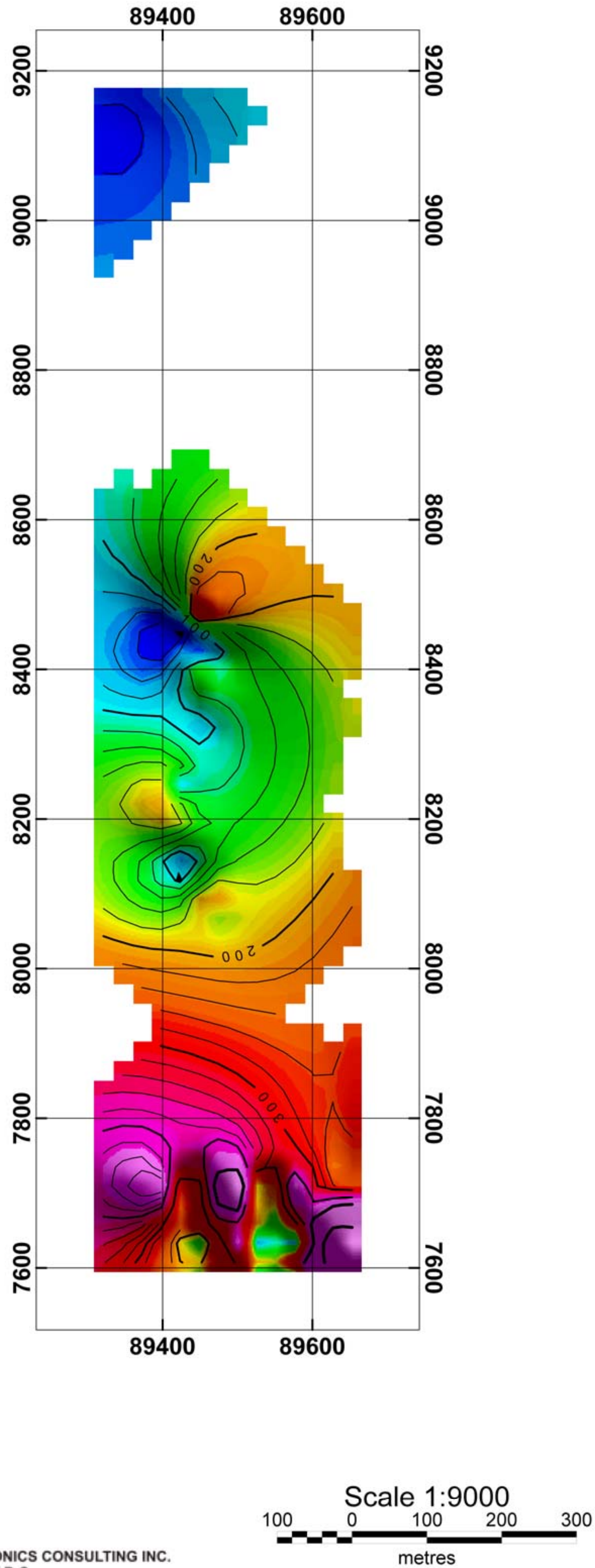
Scale 1:9000

100 0 100 200 300

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN URANIUM (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



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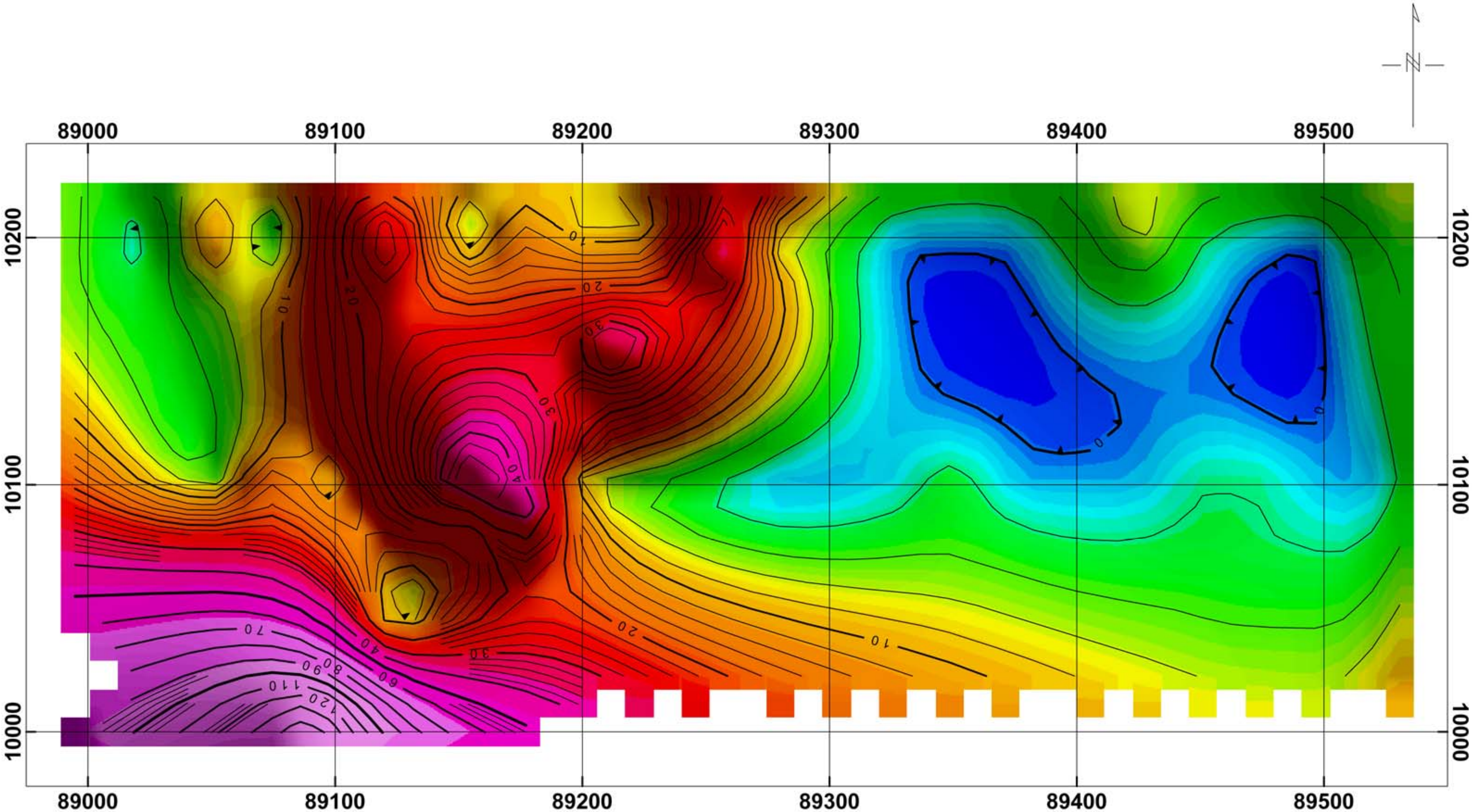
OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN ZINC (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



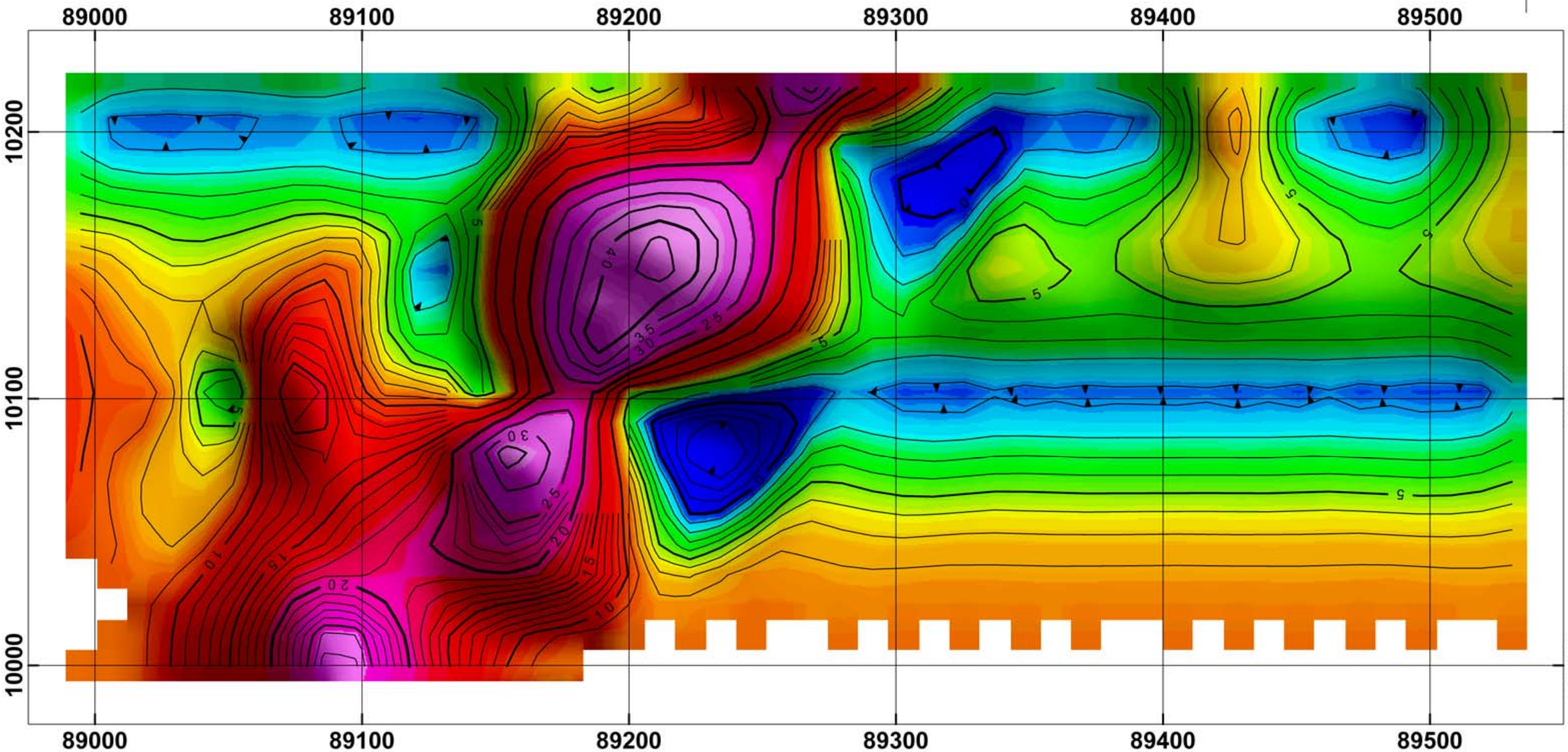
Scale 1:2500

25 0 25 50 75

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN SILVER (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



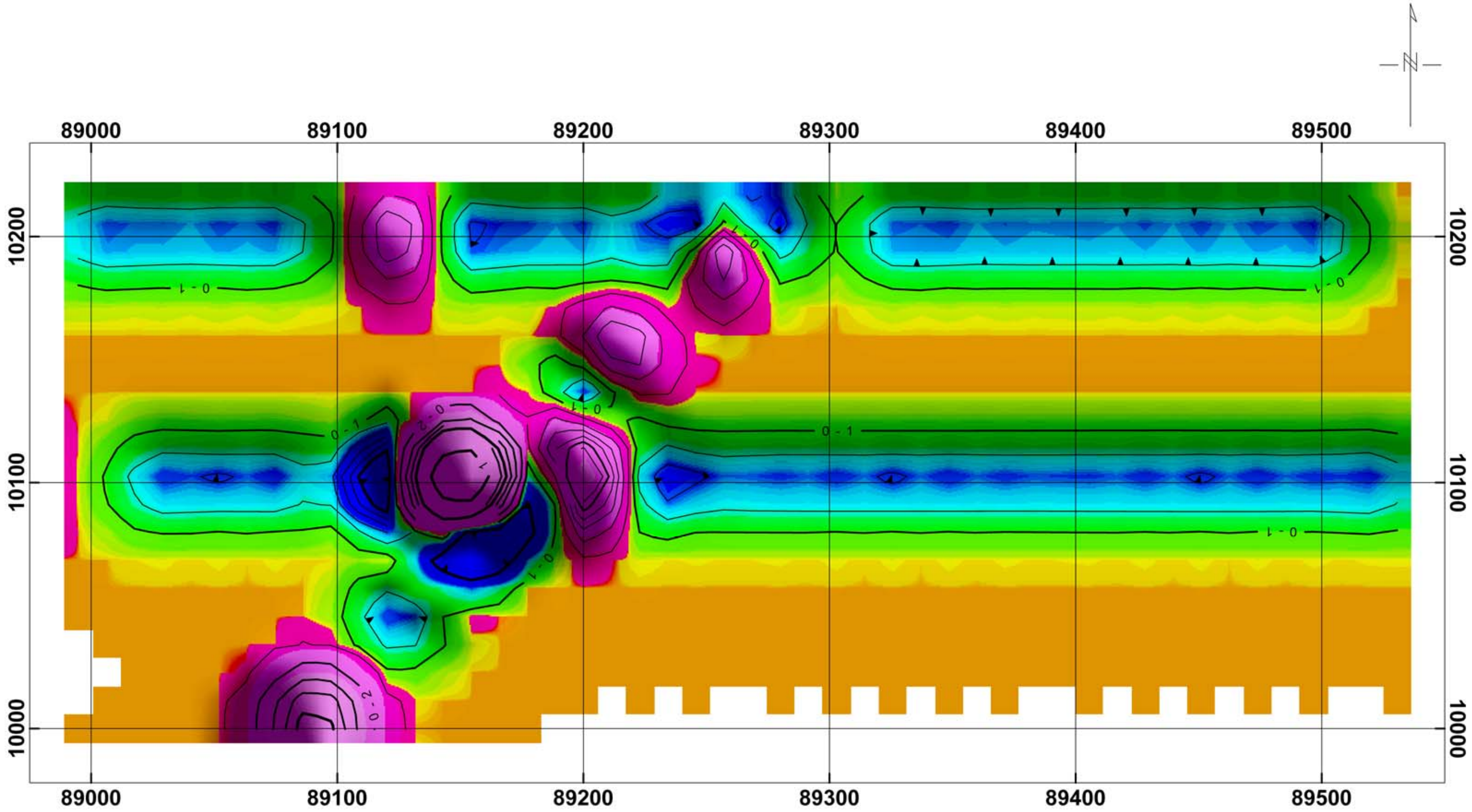
Scale 1:2500

25 0 25 50 75

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN ARSENIC (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



Scale 1:2500

25 0 25 50 75

metres

GEOTRONICS CONSULTING INC.
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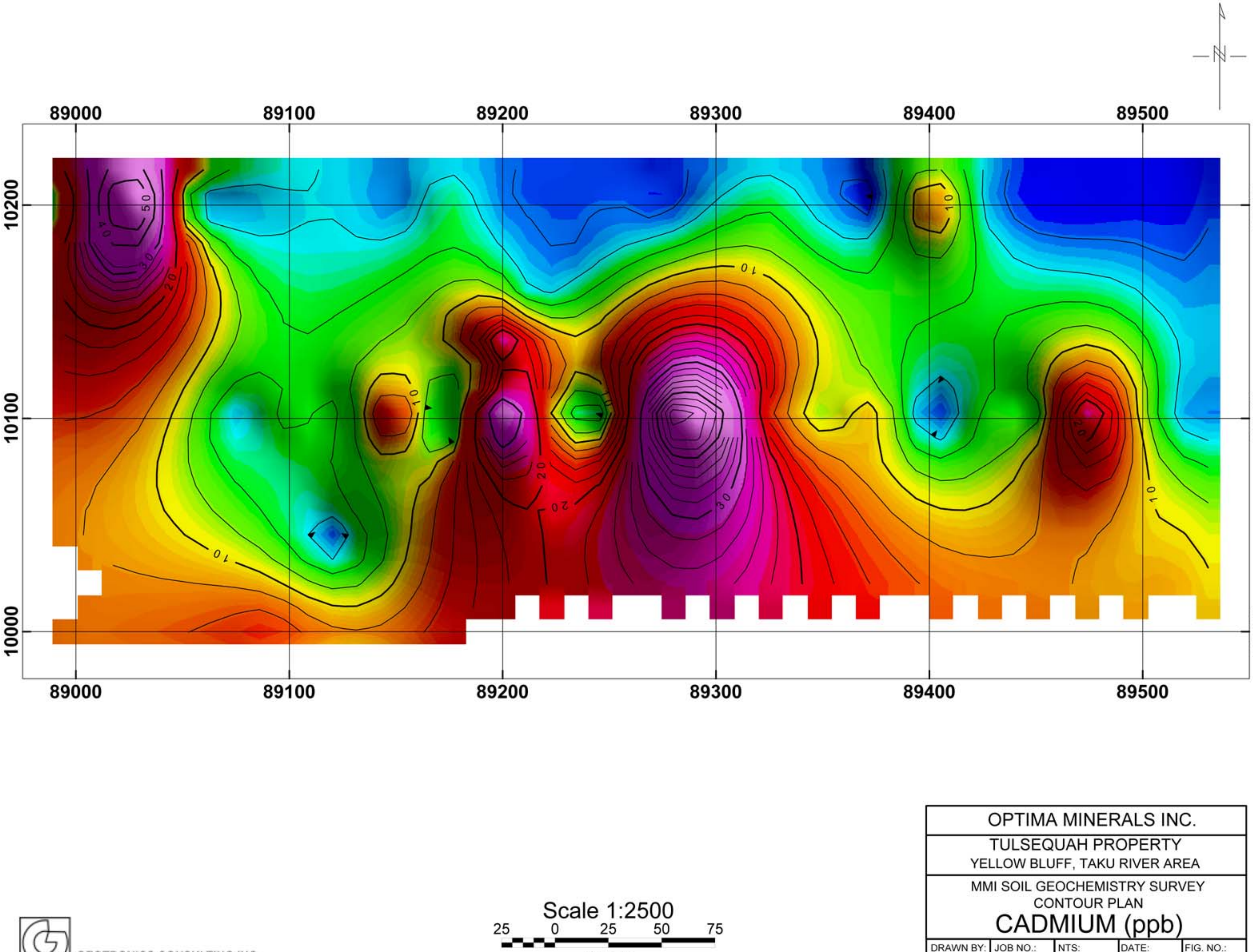
OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN GOLD (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN CADMIUM (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10

GEOTRONICS CONSULTING INC.
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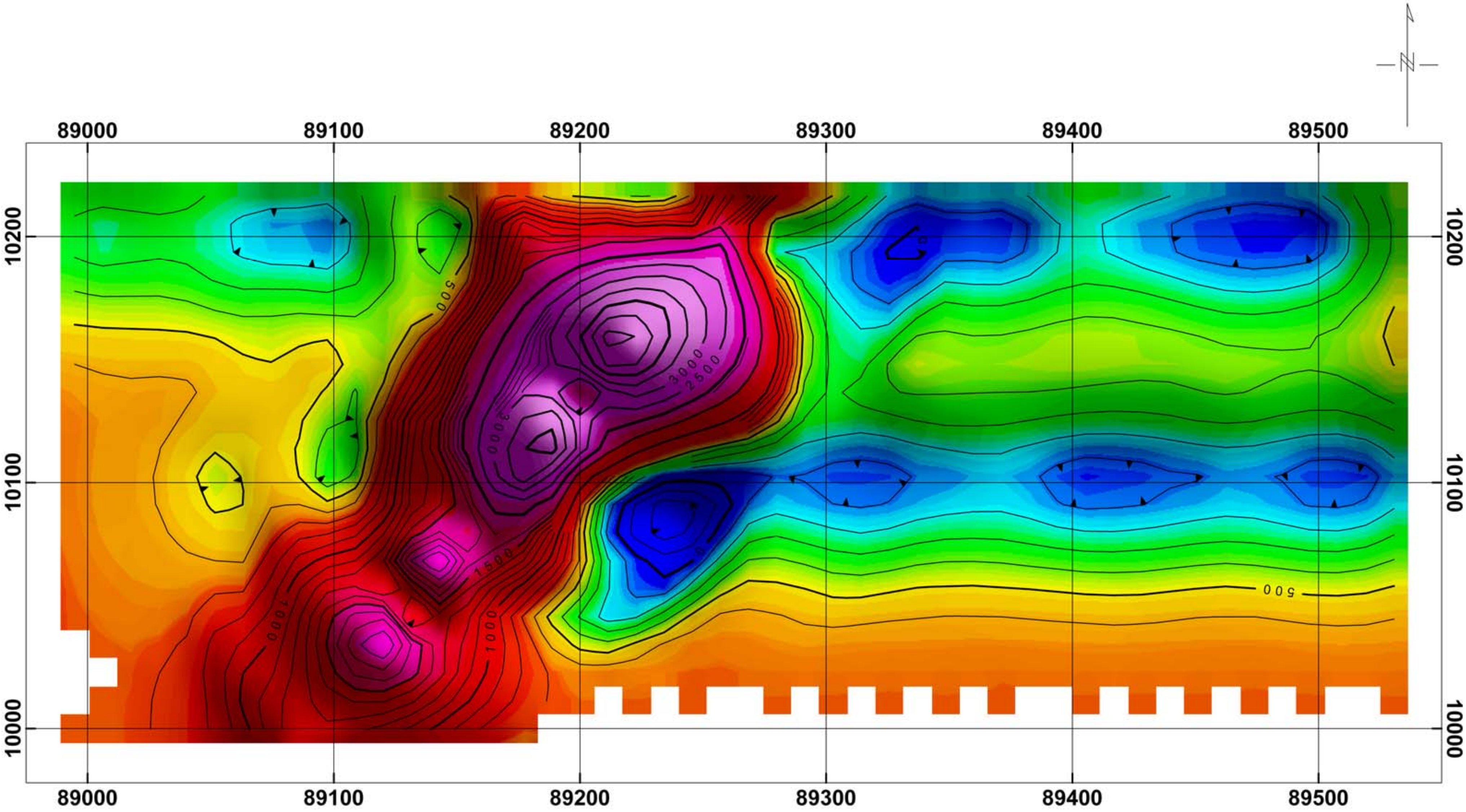


Scale 1:2500

25 0 25 50 75

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

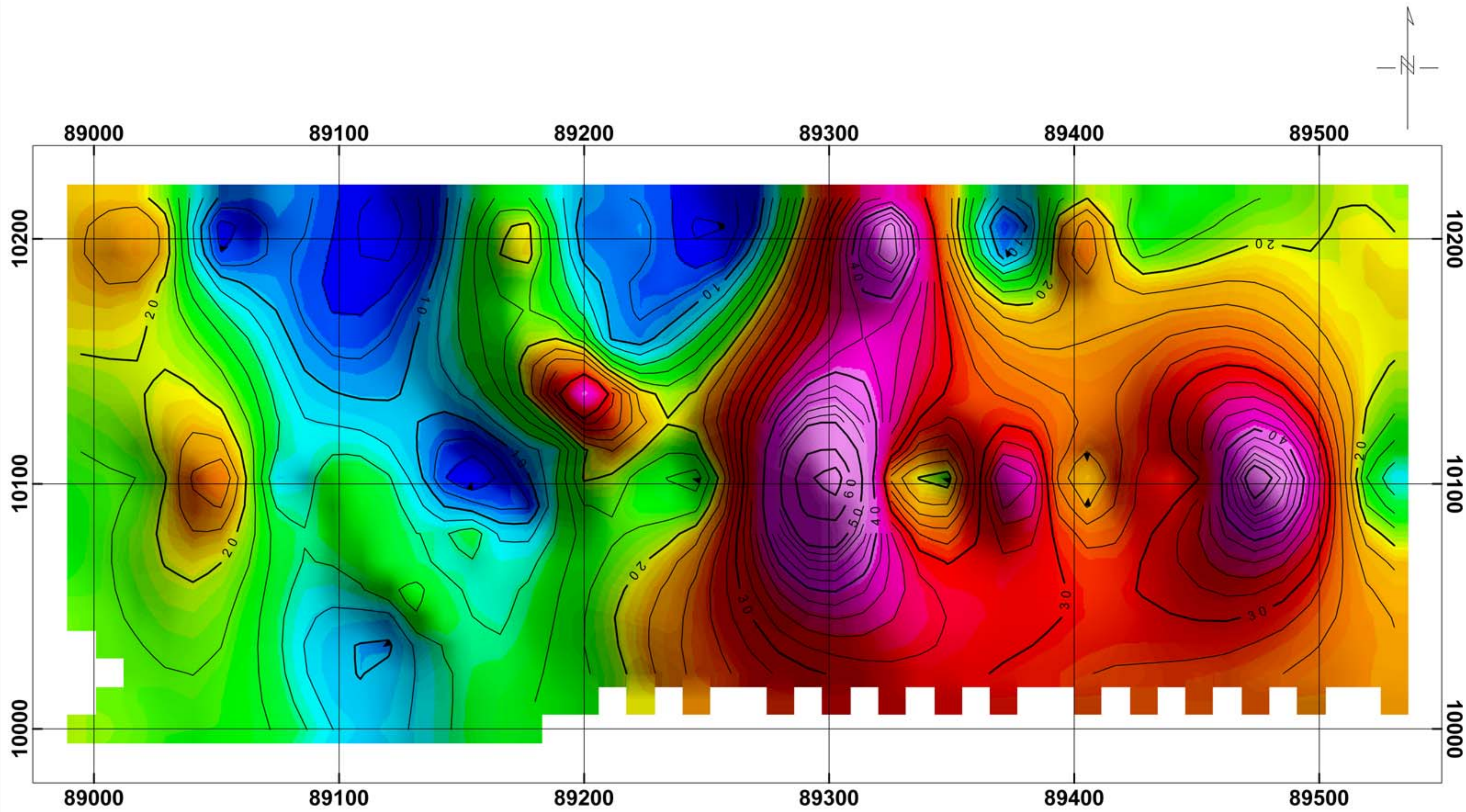
OPTIMA MINERALS INC.

TULSEQUAH PROPERTY
YELLOW BLUFF, TAKU RIVER AREA

MMI SOIL GEOCHEMISTRY SURVEY
CONTOUR PLAN

CERIUM (ppb)

DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG. NO.:
DGM	08-38	104k/11	May 09	10



Scale 1:2500
25 0 25 50 75
metres

GEOTRONICS CONSULTING INC.
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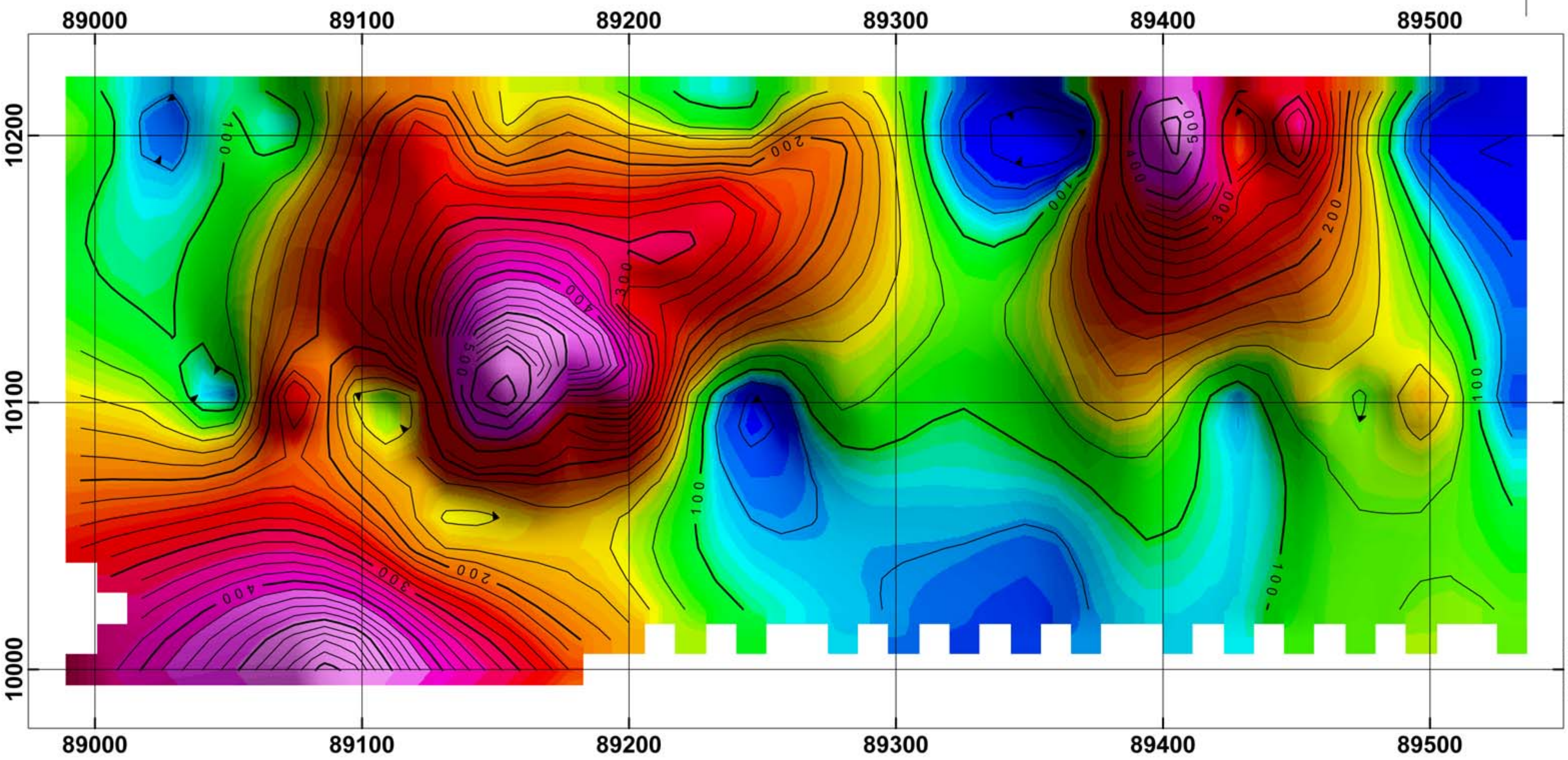
OPTIMA MINERALS INC.
TULSEQUAH PROPERTY
YELLOW BLUFF, TAKU RIVER AREA
MMI SOIL GEOCHEMISTRY SURVEY
CONTOUR PLAN
COBALT (ppb)

DRAWN BY:	JOB NO.:	NTS:	DATE:	FIG. NO.:
DGM	08-38	104k/11	May 09	10



Scale 1:2500

25 0 25 50 75

metres

GEOTRONICS CONSULTING INC.
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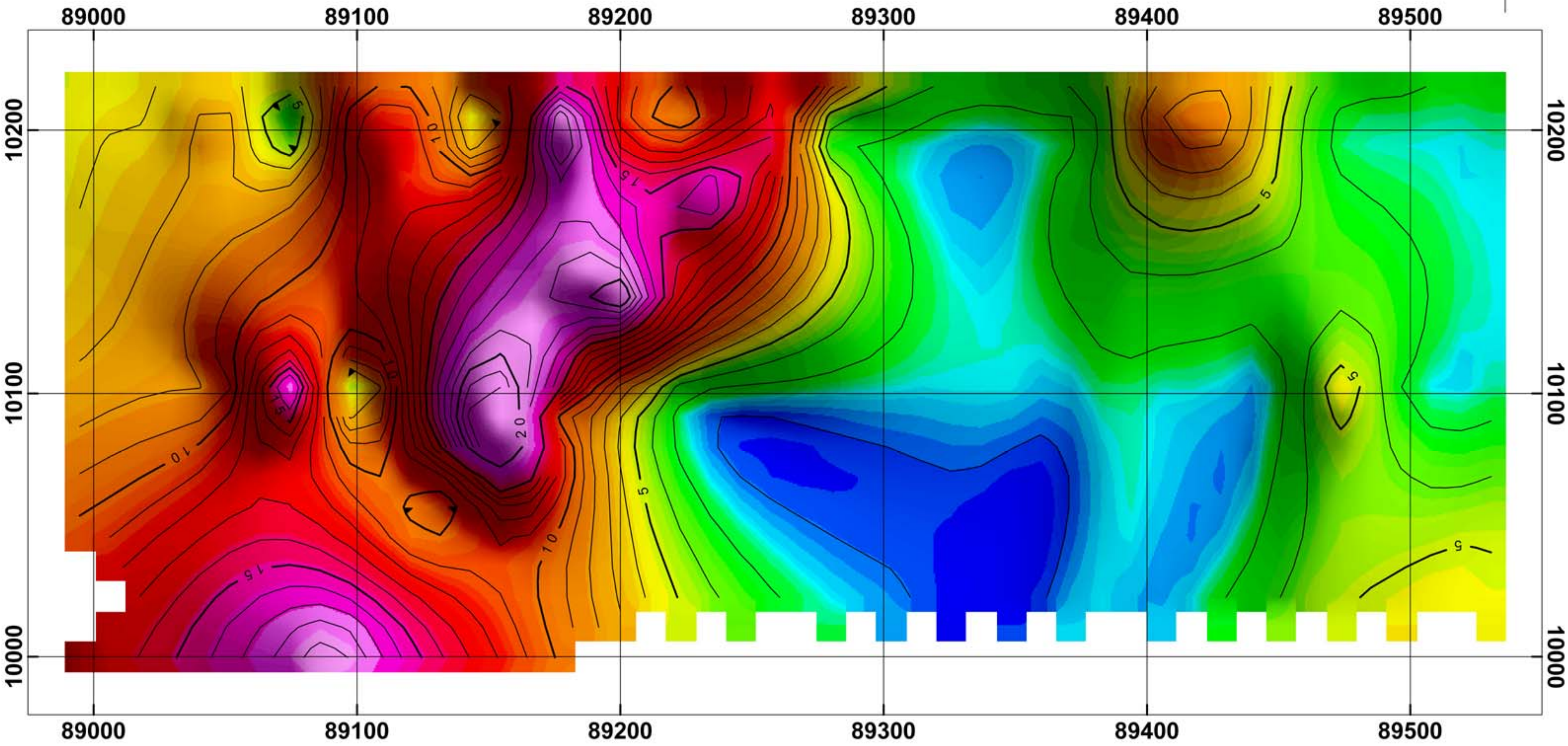
OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN COPPER (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



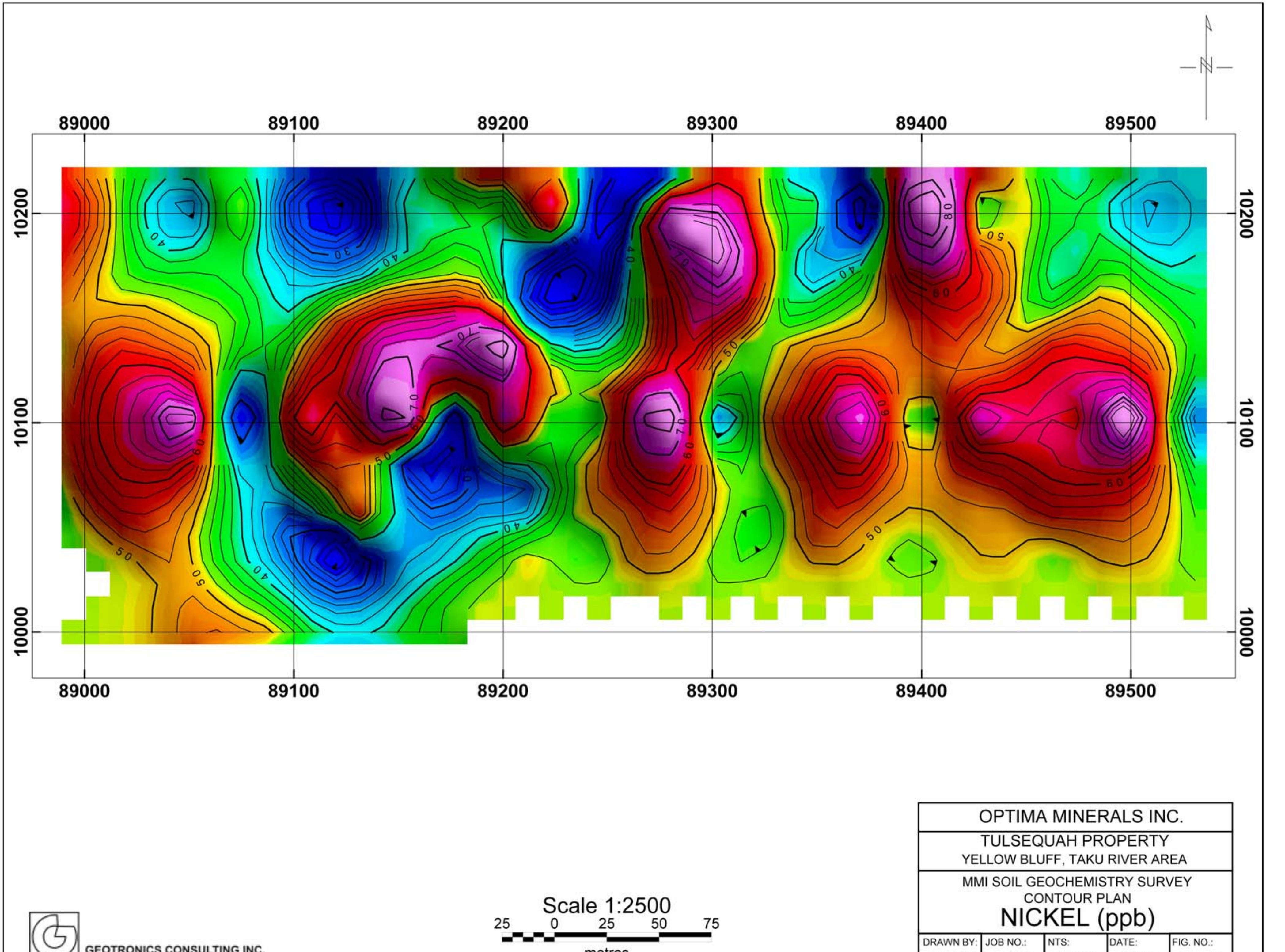
Scale 1:2500

25 0 25 50 75

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN MOLYBDENUM (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN NICKEL (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10

GEOTRONICS CONSULTING INC.
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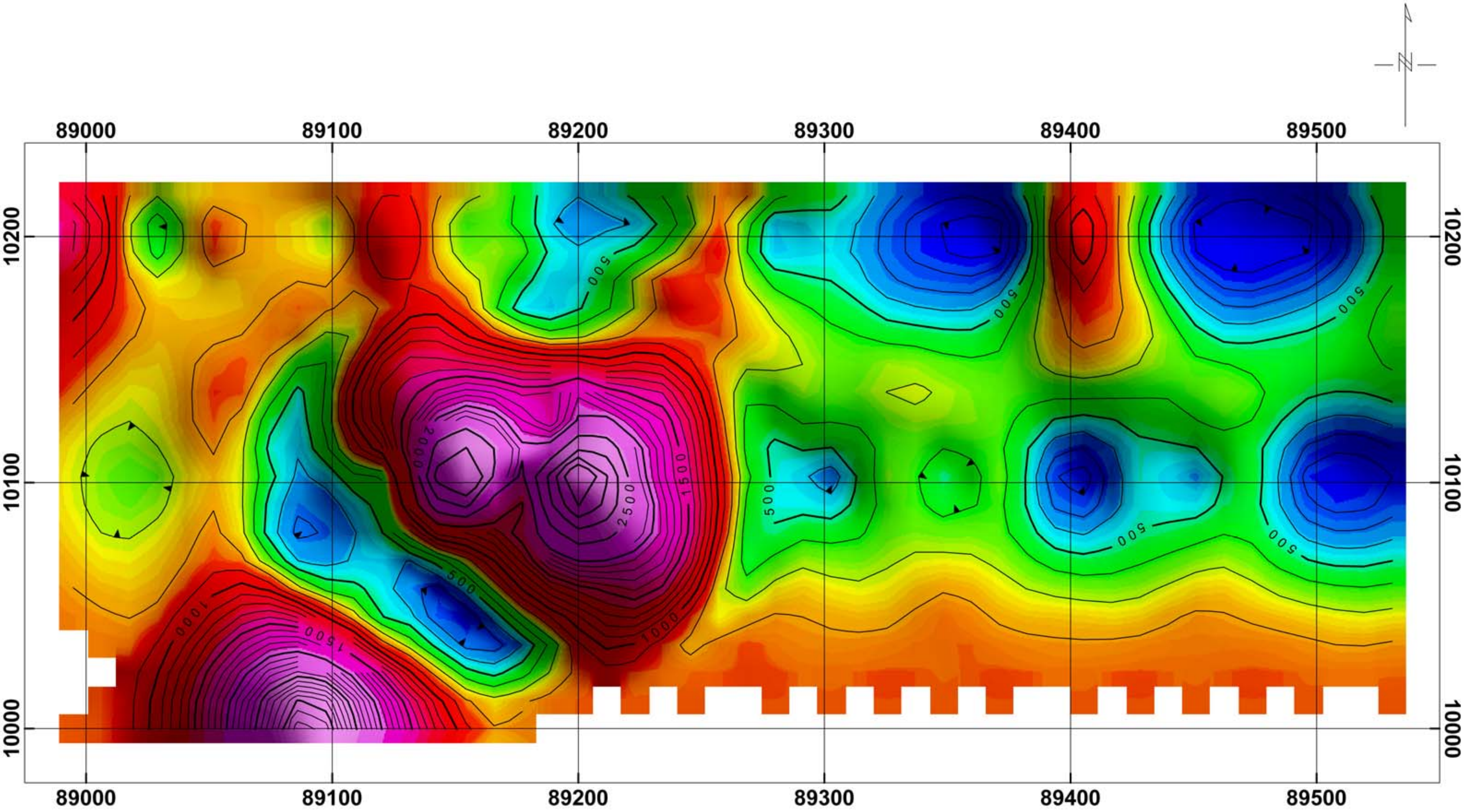

Scale 1:2500

25 0 25 50 75

metres

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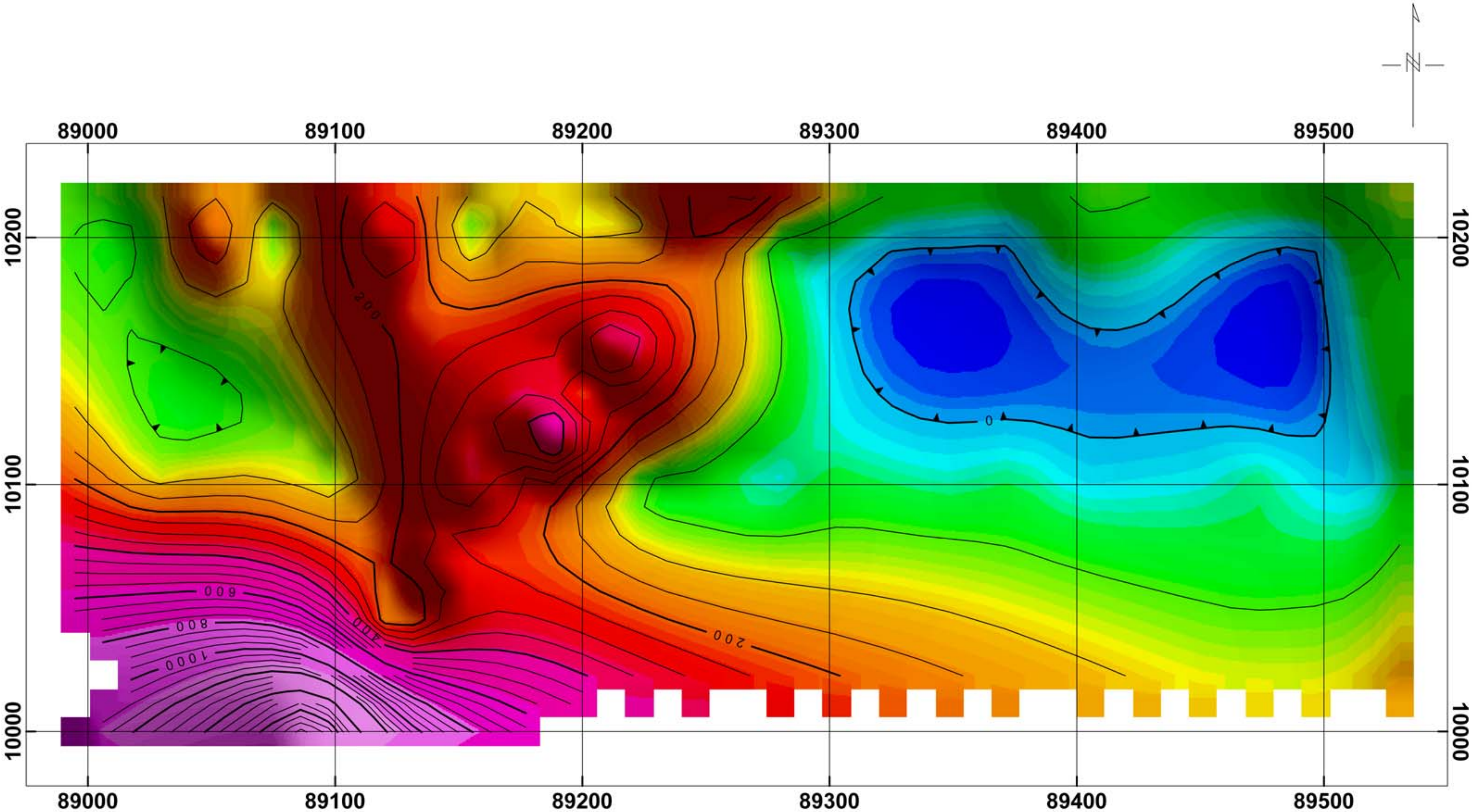
OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN LEAD (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10



Scale 1:2500

25 0 25 50 75

metres

GEOTRONICS CONSULTING INC.
SURREY B.C.

OPTIMA MINERALS INC.				
TULSEQUAH PROPERTY YELLOW BLUFF, TAKU RIVER AREA				
MMI SOIL GEOCHEMISTRY SURVEY CONTOUR PLAN URANIUM (ppb)				
DRAWN BY: DGM	JOB NO.: 08-38	NTS: 104k/11	DATE: May 09	FIG. NO.: 10