

YEIP
2002-034
2002

Monster Copper Resources Inc

**2002 GEOLOGICAL RECONNAISSANCE,
ROCK GEOCHEMICAL SAMPLING PROGRAM
AND GRAVITY SURVEY
ON THE MONSTER PROPERTY,
Monster 1-192, 207-216, 231-240, 263-265,
Cookie 1-58 and CO 1-4 Claims**

YMIP REFERENCE 02-034

Located in the Ogilvie Mountains
Dawson Mining District,
NTS 116B/13
64°49' North Latitude
139°50' West Longitude

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2002 EXPLORATION PROGRAM ON THE MONSTER PROPERTY

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SUMMARY

In 2001, Monster Copper Resources Inc. acquired 100% interest in the 273 claim Monster/Cookie Property and the 12 claim Scary Property in the Ogilvie Mountains area of the Yukon Territory from Blackstone Ventures Inc. The four claims comprising the CO property, which occurs within the Monster property, were optioned by Monster Copper in 2002. The properties occur along two long, linear, structurally controlled belts of intrusive, iron oxide-rich hydrothermal breccia, each with anomalous to ore grade occurrences of Cu, Co, Au and Ag. Associated alteration includes carbonatization, hematization and albitization. The breccia belts are correlative with the more widely known hydrothermal intrusive breccias in the Wernecke Mountains, 250 km to the east. These latter breccias have been explored to the tune of \$US 5.5 million by Newmont and associates. By contrast, the breccia belts (collectively known as the Wernecke Breccia) in the Ogilvie Mountains have received very little attention.

Since 1993, Blackstone Ventures Inc has controlled and intermittently explored the ground along the Ogilvie Mountains breccia belts which is considered to be most prospective. Grab samples from these claims contain up to 44.8% Cu, 1.04 g/t Au, 2.8% Co and 176 ppm Ag (different samples). None of the showings have been drilled, and neither gravity nor IP had been employed prior to Monster Copper's involvement. In 2001 Monster Copper spent 13 days in the field on its properties, conducting geological reconnaissance/due diligence and performing a gravity survey over part of the Monster/Cookie property. In 2002, Monster Copper spent an additional 13 days on the Monster/Cookie property, conducting geological reconnaissance and sampling, obtaining density measurements on a suite of representative samples, and completing a gravity survey designed to infill and expand upon the 2001 survey. \$75,974.49 was spent on the Monster claims, \$4,257.91 was spent on the Cookie claims and \$3,256.05 was spent on the CO claims. This report documents the results of the 2002 exploration program.

Several samples with a density in excess of 3.0 g/cm^3 were discovered. These samples include three hematite-dominant pieces of float (one of which is hematite-chlorite) with densities ranging from 3.3 to 4.3 g/cm^3 . Such hematite-rich samples are common in IOCG deposits, but had not previously been noted on the Monster/Cookie property. These samples, combined with newly discovered examples of Wernecke Breccia that have a high density due to the presence of abundant hematite, increase the overall confidence in the potential of the property to host IOCG deposits. Several siderite-Mn veins were noted, one of which contains 2.2% Cu. Siderite is noted as being "abundant" at Olympic Dam and several large Brazilian IOCG deposits.

Additional data has shown that the gravity anomaly is slightly west and of slightly lower amplitude than was interpreted from last year's reconnaissance survey. Preliminary modelling suggests that the anomaly may be caused by two subvertical, east-southeast trending bodies, approximately 250 m wide, each with a density on the order of 3.1 g/cm^3 . Given the complex geology of the property and the lack of samples with a specific gravity of this magnitude, the most likely scenario is that the dense bodies contain a certain amount of country rock (shale, Wernecke Breccia; average density 2.75 g/cm^3), intermixed with one or more denser lithology. The most likely candidate for a dense lithology in this particular area is the siderite-Mn veining. To date these veins have only been found in the area of the gravity anomaly, and they are relatively abundant in this area. One possible interpretation is thus that the gravity anomaly may be caused by a concentration of siderite-Mn veins.

Such a concentration of veins may have the potential to host anomalous to significant amounts of Cu, as indicated by the one vein sample which ran 2.2% Cu.

Further work on the Monster/Cookie property should concentrate on the gravity anomaly. The interpreted causative bodies of this anomaly could be drilled following additional geophysical modelling, or alternatively, IP profiles across the bodies could be obtained. This latter course would ensure that any drilling was targeted on sulphide-rich portions of the dense bodies, although it would be an added expense prior to drilling. Consideration should also be given to completing reconnaissance gravity surveying over the entire Monster/Cookie property.

1.0 INTRODUCTION

The Monster Project is located in the southern Ogilvie Mountains, approximately 85 km north of Dawson City in the Yukon Territory (Fig. 1). The project consists of two properties, Monster/Cookie and Scary. The Monster/Cookie Property is the largest of these properties and consists of the contiguous Monster and Cookie claim groups, as well as the recently optioned, four claim CO claim group, which occurs within the Monster claim group. The property was staked in 1993 and 1994 (small portion in 1998) to cover numerous hematite-rich breccias and associated Cu-Co-Au geochemical anomalies. The breccias belong to the Wernecke Breccia, which is the name given to a widespread group of Middle Proterozoic, intrusive, hydrothermal breccias best documented in the Wernecke Mountains 250 km east of the Monster Project (Fig. 2). The Wernecke Breccia has been extensively explored in the Wernecke Mountains for IOCG (Iron Oxide Copper-Gold, also known as Olympic Dam-type) mineralization, but exploration for this deposit type in the Ogilvie Mountains has been more restricted.

The Monster/Cookie and Scary properties were purchased by Monster Copper Resources Inc. (Monster Copper) from Blackstone Ventures Inc. (Blackstone); Blackstone has intermittently explored the properties since 1993. In 2001, Monster Copper conducted a reconnaissance geology/geophysical program with the objective of gaining confidence that the geological environment was prospective for IOCG deposits, examining the known showings, and commencing initial geophysical work to help define one or more drill targets. This exploration program consisted of geological reconnaissance, minor rock sampling and a gravity survey that covered almost half of the Monster/Cookie property. Geological reconnaissance and rock sampling was done on the Scary property. An apparent gravity anomaly in the northeast part of the Monster claims was partially delineated during this program (Setterfield and Tykajlo, 2001). In July of 2002, a second program of geological reconnaissance and gravity surveying was undertaken. This work focused mainly on the area of the interpreted gravity anomaly, but also expanded the geophysical and geological coverage. Class II Permit Number LQ00085 was obtained for this program, and the program was the recipient of the Yukon Mining Incentive Program (YMIP) grant 02-034. This report documents the results of the 2002 exploration program.

2.0 LIST OF CLAIMS

The Monster/Cookie property comprises 277 contiguous quartz mineral claims, located in the Dawson Mining District (Table 1; Figs. 1, 3 and 4). Government records indicate that the Monster and Cookie claims are 100% owned by Monster Copper Resources Inc. and the CO claims are owned by Earl Dodson.

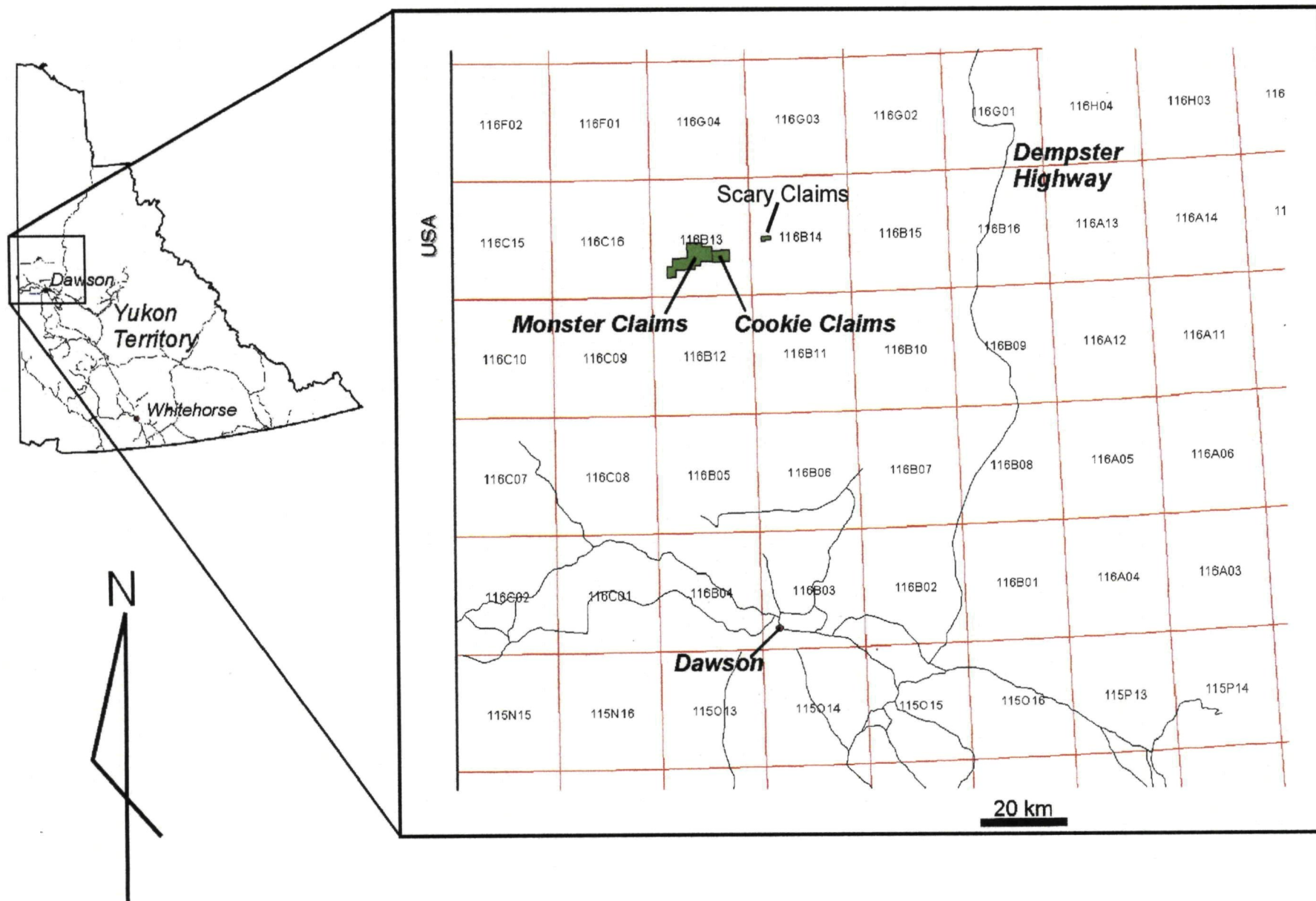


Figure 1: Project Area Location Map

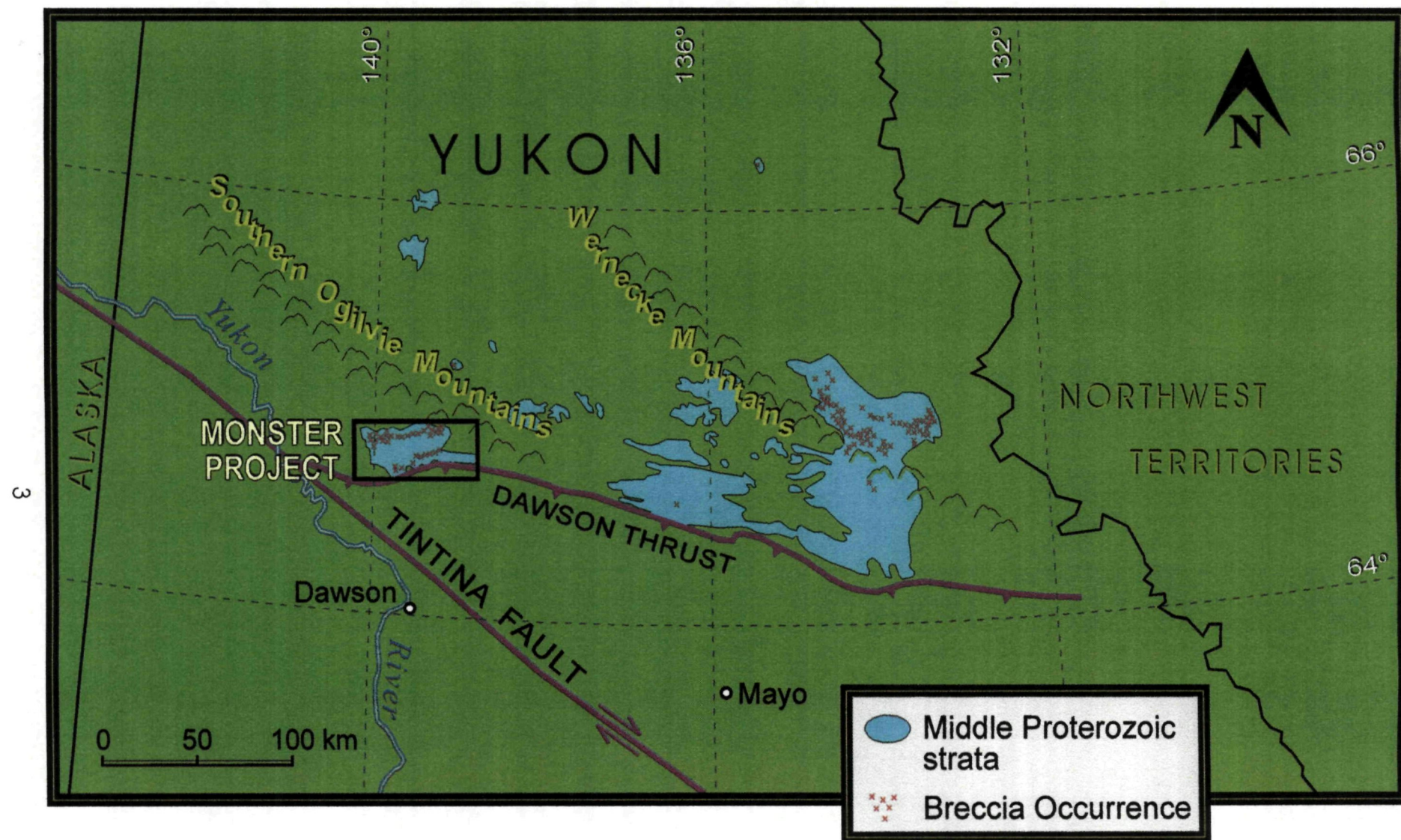
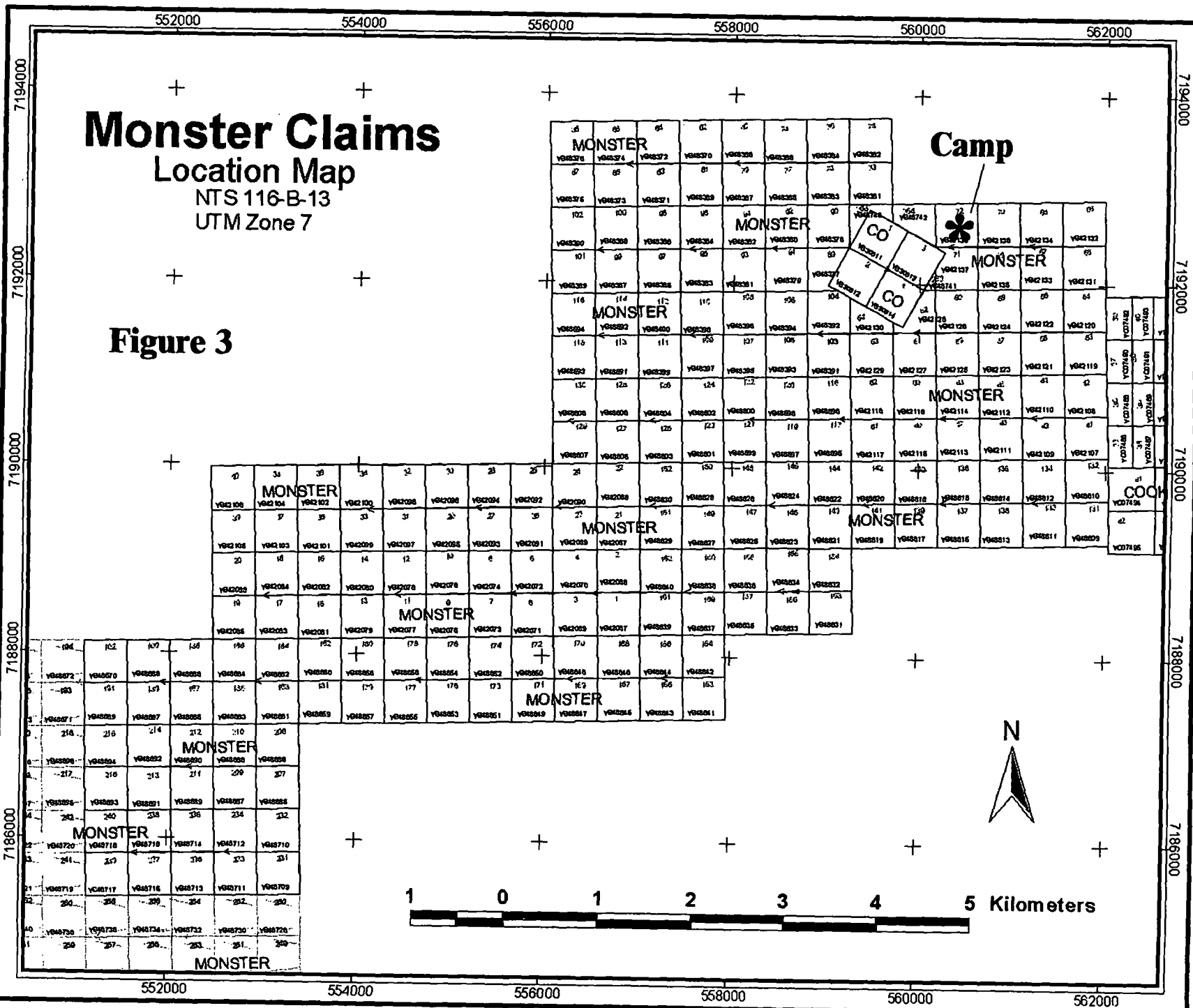


Figure 2: Location of Middle Proterozoic assemblages and occurrences of the Wernecke Breccia, Yukon Territory

Monster Claims Location Map

NTS 116-B-13
UTM Zone 7

Figure 3



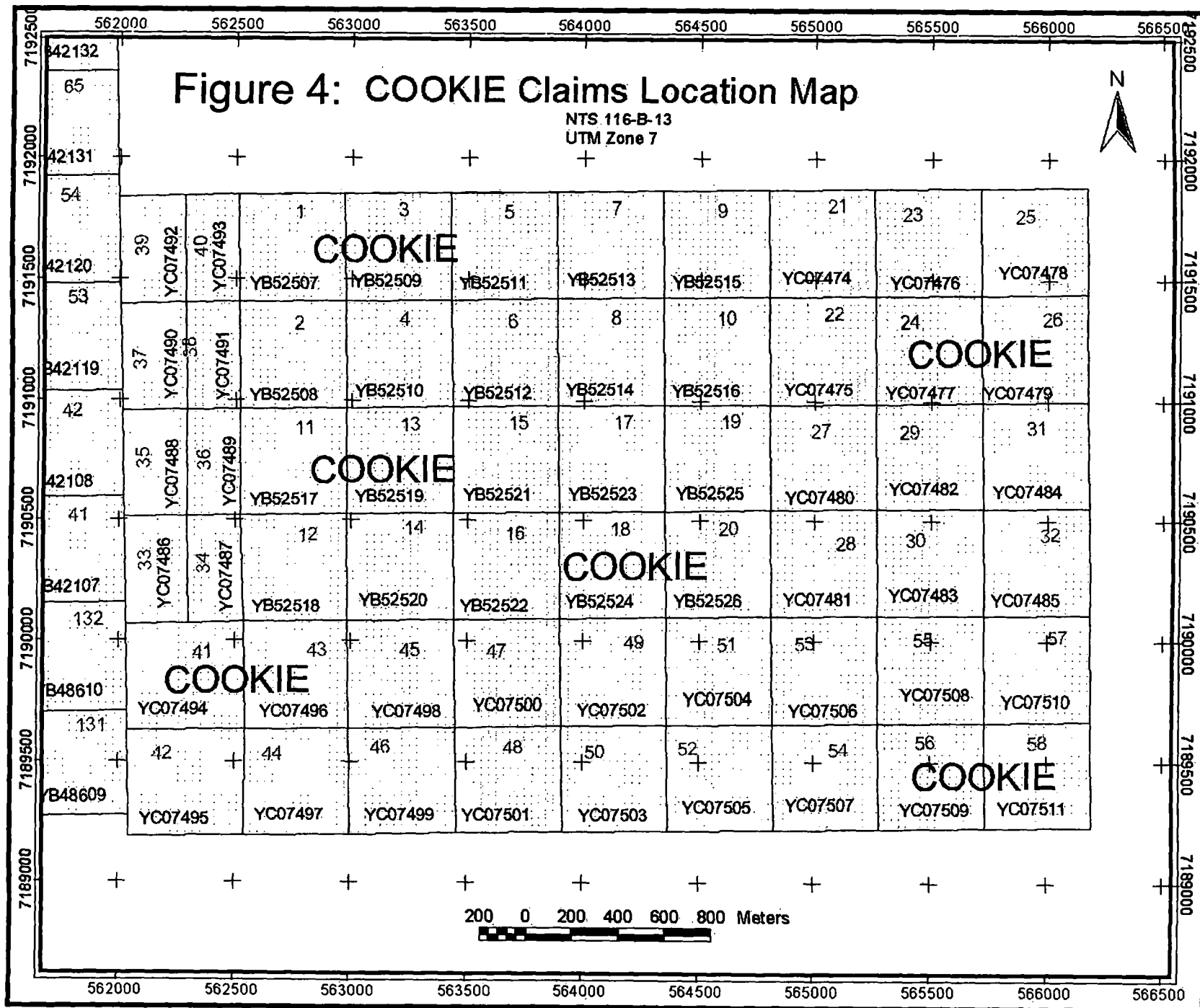


Table 1: Claim Data

Claim Name	Grant Number	No. of Claims	Expiry Date*	Owner
Monster 1-72	YB42067-138	72	Dec. 31, 2004	Monster Copper Resources Inc
Monster 73-112	YB48361-400	40	Dec. 31, 2003	Monster Copper Resources Inc
Monster 113-192	YB48591-670	80	Dec. 31, 2003	Monster Copper Resources Inc
Monster 207-216	YB48685-694	10	Dec. 31, 2003	Monster Copper Resources Inc
Monster 231-240	YB48709-718	10	Dec. 31, 2003	Monster Copper Resources Inc
Monster 263-265	YB48741-743	3	Dec. 31, 2003	Monster Copper Resources Inc
Cookie 1-20	YB52507-526	20	Dec. 31, 2004	Monster Copper Resources Inc
Cookie 21-58	YC07474-511	38	Dec. 31, 2004	Monster Copper Resources Inc
CO 1-4	YB30611-614	4	June 4, 2003	Earl Dodson
Total		277		

* Claim Expiry dates do not reflect the recently-applied for claim renewals which this report supports.

3.0 LOCATION, ACCESS AND GEOGRAPHY

The Monster/Cookie Property is located approximately 85 km north-northwest of Dawson City, at the headwaters of Coal Creek, which enters the Yukon River 65 km northwest of Dawson City. The approximate center of the claims is latitude 64° 49' North and longitude 139° 50' West.

The property is located approximately 75 km west of the Dempster Highway (Yukon Highway 11). The Monster/Cookie Property may be accessed by fixed wing aircraft from Dawson City to a 600 m long outfitter's gravel airstrip on the South Tatonduk River (64° 55.7'N, 139° 52.3'W) and hence by helicopter to the property (some 10 km). Dawson City has regular air service from Whitehorse, and also has a full complement of hotels, equipment, expeditors, helicopter companies etc.

The area lies in the western portion of the southern Ogilvie Mountains, 50 km north of the Tintina Trench. This region was unaffected by continental glaciation during the Pleistocene (Lane, 1990) resulting in rounded mountainous terrain. Locally, alpine glaciation has created steep cirques and sharp ridges on many of the mountains on the property. Elevations on the Monster Property range from around 900 m Above Sea Level (<3000') in the Coal Creek valley to about 2000 m Above Sea Level (>6500') on the highest peaks. Most of the property is above treeline, and is covered by alpine grasses, moss and shrubs (Plate 1). Thick stands of spruce are found in some of the major creek and river valleys. Outcrop is abundant on the uppermost slopes of the mountains and less so on ridge crests; valleys and the lower parts of the slopes are typically scree covered.

4.0 PROPERTY EXPLORATION HISTORY

Original exploration in the 1970's in the Wernecke Mountains was for red bed copper, Sullivan-style sedex deposits, and to a lesser extent unconformity associated uranium. Numerous mineral occurrences associated with the Wernecke Breccia (see below) were discovered during this work.

Recent exploration in the Wernecke Mountains has concentrated on the breccias and their perceived potential for IOCG deposits. A joint venture between Pamicon Developments/Equity Engineering, Newmont Mining and Westmin Resources has spent US\$5.5 million in the Wernecke Mountains since 1993 (Gorton and Stammers, 2000). This work has not been well documented (at least in publicly available documents), but a number of prospects were developed and at least partially tested. Some of the better intersections include 110 m @ .3% Cu/.06 g/t Au, 75 m @ .41% Cu/.3 g/t Au, 21 m @ 2.0% Cu/.2 g/t Au/.2% Co, and 5.5 m @ 0.5% Cu/.21 g/t Au (Gorton and Stammers, 2000).

The amount of exploration conducted to date in the Ogilvie Mountains is negligible compared to that completed in the Wernecke Mountains, although from geological considerations the potential in the two places should be similar. In the mid to late 1970's several companies, including Hudson Bay, Cyprus Anvil and UMEX/Shell, explored in the Ogilvie Mountains, primarily for carbonate-hosted Pb-Zn in the Gillespie Lake Group. The presence of the Wernecke Breccia was noted at this time, and UMEX/Shell conducted mapping, soil geochemistry, IP and magnetic surveys around some of the breccia occurrences. No further work was done in the area until the early 1990's, when Major General Resources (now Commander Resources Ltd) and Placer Dome worked on the Lala (now called the Olympic) breccia/mineralization occurrence in the eastern part of the North Belt of Wernecke Breccia (Fig. 5).

In 1993 a preliminary exploration program was carried out by the privately funded Monster Joint Venture (which became Pendisle Resources Ltd.) on the Monster 1-72 Claims (Fig. 3). This work was followed by stream sediment sampling and additional staking in the spring of 1994. Exploration in 1994 consisted of fly camp based geological mapping and rock, soil and stream sediment sampling over most of the Monster Property and the other properties within the project area (Baknes, 1995; Falls and Baknes, 1995). This work indicated several areas of promising mineralization, including the 4900 Zone and East Cu-Co Zone in the Monster West area, the Cobalt Cirque in the Monster East area and the Choc Zone in the Monster Southwest area (Fig. 6).

In 1996, Blackstone Resources Inc., a successor to Pendisle, flew an airborne magnetic and radiometric geophysical survey over the entire Northern and Southern belts of Wernecke Breccia defined by Lane (1990; Fig. 5), including a detailed survey over the Monster Property itself. The survey was flown on north-south lines spaced 1 km apart over most of the area and 250 m apart over the Monster claims. This survey and all available data were subsequently evaluated in detail by Etheridge Henley Williams, a consulting firm with abundant expertise in searching for IOCG deposits in Australia (EHW, 1997). Etheridge Henley Williams targetted magnetic and structural features in the Monster East-Cookie area, the Monster West area and the Monster Southwest area. In 1998, based mainly on these recommendations, Blackstone staked the Cookie 21-58 claims (Fig. 4) and completed further mapping and soil sampling in several restricted areas (Jones, 1999).

In August of 2001, Monster Copper conducted a reconnaissance geology/geophysical (gravity) program on the Monster/Cookie property (Setterfield and Tykajlo, 2001). This work served to reinforce Monster Copper's confidence in the prospectivity of the geological environment, and partially delineated an apparent gravity anomaly in the northeast part of the Monster claims. The results of 2001 program provided an area of focus for the work conducted in 2002.

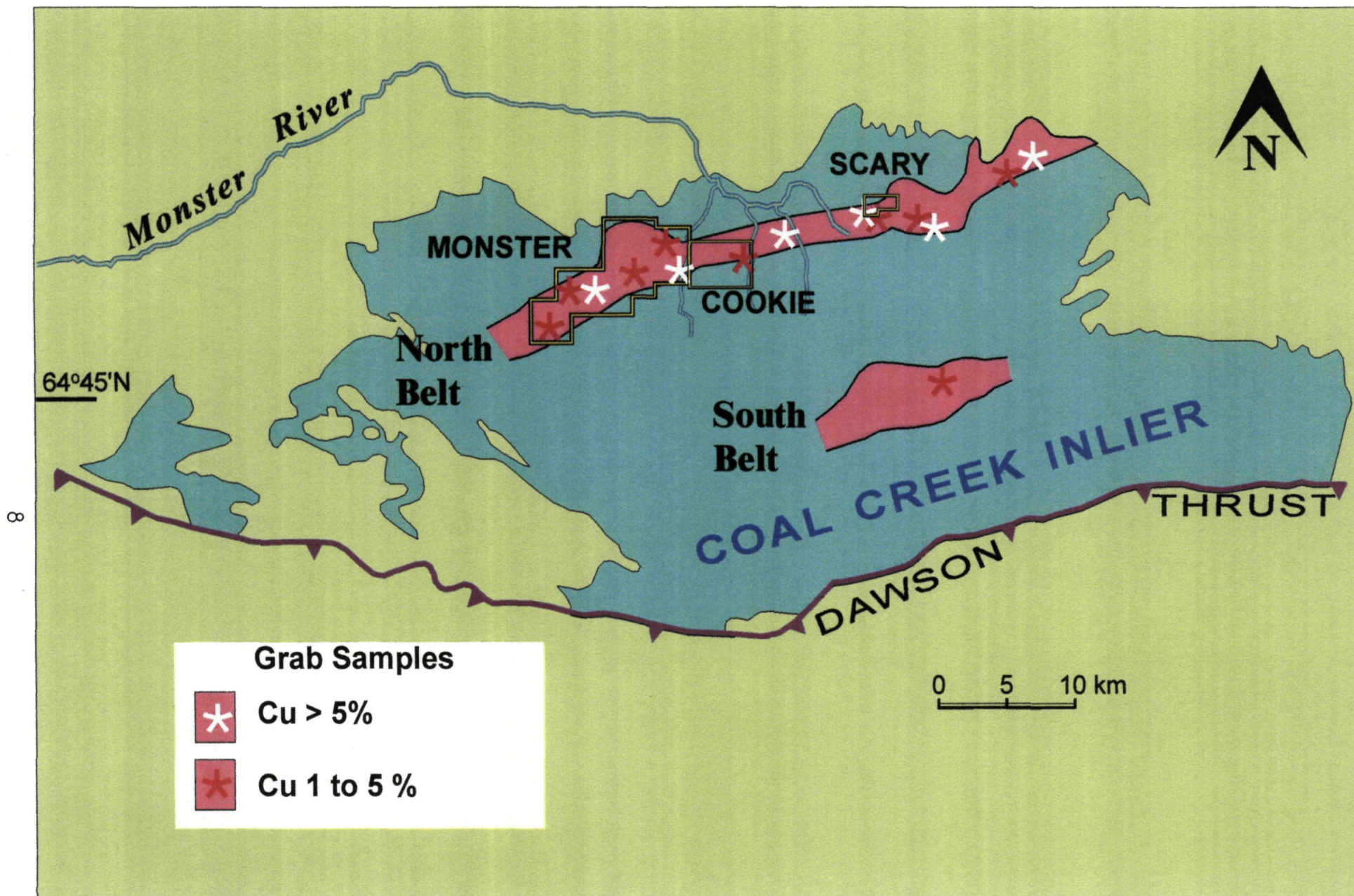


Figure 5: Location of belts of Wernecke Breccia, Monster Project properties and areas of known mineralization in the Coal Creek Inlier of the Ogilvie Mountains (cf. Fig. 2).

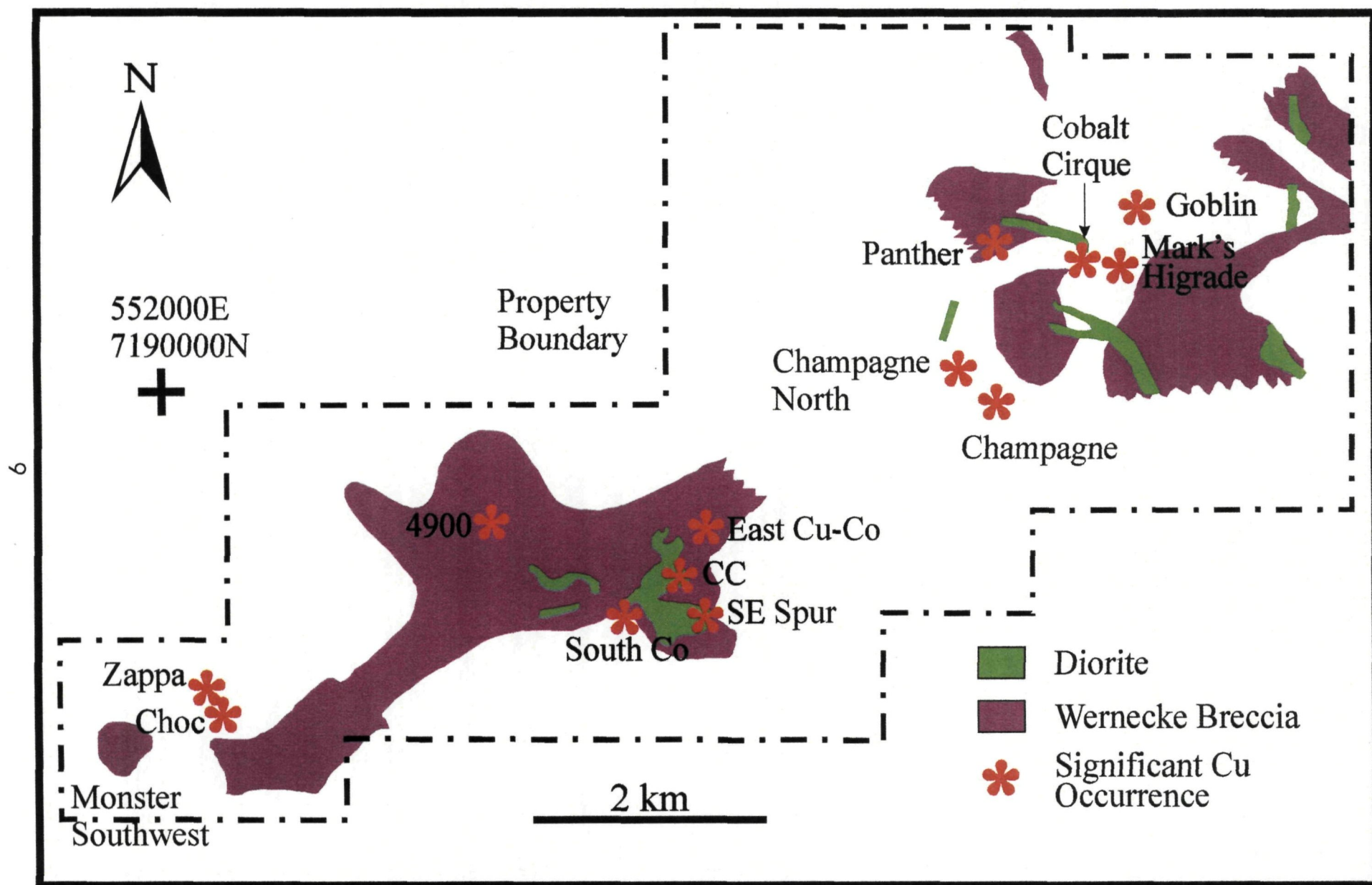


Figure 6: Location of significant Cu showings on the Monster Property. Modified after Caulfield, (1995).

5.0 2002 EXPLORATION PROGRAM

The objectives of Monster Copper's 2002 exploration program were fourfold i) to procure enough additional gravity data in the area of the interpreted anomaly so as to be able to position effective drill holes, ii) to expand the reconnaissance gravity surveying, iii) to obtain density measurements over a complete suite of rock units, in order to realistically model the gravity anomaly, and iv) to obtain additional geological information in the region of the gravity anomaly. The reason for the latter objective was to determine if there were any rock units exposed which could account for the gravity anomaly. A fly camp was set up on the Monster 72 claim in the northeast part of the Monster claim group (Fig 3, Plate 1). This camp was operational from July 4 to July 16 inclusive. Geological reconnaissance, rock sampling and gravity surveying was conducted from the camp, with variable amounts of helicopter support. Thirteen man-days of geological reconnaissance were conducted on the Monster claims, and 14 rock samples were taken for chemical analysis. The database of density measurements on rocks from the property was increased to 56. A total of 188 gravity data points were collected on and immediately adjacent to the Monster/Cookie property.

6.0 REGIONAL GEOLOGY

Proterozoic strata of northwestern Canada have been divided into three distinct tectonostratigraphic units (Young et al, 1979). Sequence A comprises deformed, predominantly sedimentary rocks varying in age from 1.7 to approximately 1.0 Ga. The Belt/Purcell Supergroup, which hosts the Sullivan deposit, and the Wernecke Supergroup, host to the Wernecke Breccia, are members of Sequence A. Sequence B consists of marine platform and terrestrial sedimentary rocks aged 1.0 to 0.78 Ma, possibly recording development of an intracratonic basin in the interior of a supercontinent (Rainbird, 1995). The Pinguicula Group in the Wernecke Mountains and the Fifteenmile Group in the Ogilvie Mountains overlie the Wernecke Supergroup. Latest work (Thorkelson, 2000) has shown that as originally defined, these groups straddle the boundary between Sequence A and Sequence B, that part of the Pinguicula Group which occurs in Sequence B has been renamed the Hematite Creek Group. Sequence C (0.78 to 0.56 Ga) contains rifted to passive margin sedimentary rocks developed during fragmentation of this supercontinent. Contacts between individual sequences are characterized by well developed unconformities (Young et al, 1979).

Proterozoic strata of the Wernecke Supergroup within the Wernecke Mountains consist of a minimum of 14 km of mostly fine-grained terrigenous and carbonate rocks, and are interpreted to comprise a possible intracratonic rift basin (Thorkelson, 2000). The Wernecke Supergroup has been subdivided into three conformable groups i) Fairchild Lake Group (oldest), ii) Quartet Group and iii) Gillespie Lake Group (youngest). The stratigraphic base of the Wernecke is not exposed.

The Fairchild Lake Group (4 km thick) consists of grey-green laminated siltstone, mudstone, fine sandstone and minor carbonate (Delaney, 1981). Metamorphic grade is greenschist with localized development of schists and phyllite. The Fairchild Lake Group is comprised of five formations, with distinctive carbonate beds in the middle and top of the group. Delaney (1981) sees the Fairchild Lake Group as being deposited in deep water by southerly flowing currents.

The Quartet Group (5 km thick) is a monotonous succession of dark grey siltstone, sandstone, mudstone and minor silty dolomite (Delaney, 1981). The base of the Quartet Group is underlain by a pyritic carbonaceous claystone, which possibly represents a sediment starved basin. Overlying siltstone-mudstone rhythmites record a gradual increase of sediment into the basin. These rhythmites grade upward into a thick siliclastic unit typical of a shallow marine setting, such as sub-tidal to inter-tidal facies.

The Gillespie Lake Group (4 km thick) consists of a dominantly orange dolomite with minor intercalations of sand and clay (Delaney, 1981). The base of the Gillespie Lake Group is characterized by shallow marine silicic sediments, with a gradual increase in dolomite up section. Paleocurrents on these silicic sediments indicate a southerly transport. Patches of relict limestone are common throughout the section, implying that much of the group was originally limestone. Thorkelson (1995) postulated that shallow water to partly emergent conditions existed during evolution of the Gillespie Lake Group.

The Wernecke Supergroup is locally overlain by the amygdaloidal, intermediate to mafic Slab volcanics in the Wernecke Mountains. Clasts of these volcanics have been noted in the Wernecke Breccia. Thorkelson (1995) states "a volcanic succession at least 250 m thick was deposited subaerially on a substrate of deformed Wernecke Supergroup prior to generation of Wernecke Breccia". Unfortunately these volcanics are not widespread, and their interpreted stratigraphic position corresponds to the transition between the Wernecke Supergroup and the Pinguicula Group, which is the site of a major unconformity. Thus the volcanics could have been much more extensive than is now the case.

Dikes and intrusions of diorite, syenite, gabbro and lesser basalt cut the Wernecke Supergroup. In the Wernecke Mountains, the dioritic to syenitic Bonnet Plume River series of intrusions has been dated at 1710 to 1720 Ma (Thorkelson et al., 2001). Some dikes are truncated by the unconformity with the overlying Pinguicula Group, whereas others pass through it. Lamprophyre dikes, comprised of phlogopite + clinopyroxene and perovskite, also occur in the Wernecke Supergroup, but these are likely to be of Paleozoic age.

The rocks described above have been intruded by the Wernecke Breccia, which is the term given to a collection of hydrothermal breccias thought to have been intruded at approximately 1600 Ma (Thorkelson, 2000). The breccia typically consists of subangular, altered clasts in a fine-grained, hydrothermal matrix of varying amounts of carbonate, albite, hematite or chlorite. Trace to significant amounts of Cu, Co and Au occur in the breccia. Breccia zones range in area from 0.1 to 10 km² (Thorkelson, 2000).

Although described above for the Wernecke Mountains, these stratigraphic relationships are also valid for the Ogilvie Mountains (Table 2). No volcanics have been found in the Ogilvies, but rare amygdaloidal (i.e. high level) mafic dikes occur. This part of the Ogilvie Mountains is cored by the Coal Creek Inlier, an east-trending window of Middle Proterozoic rocks of the Wernecke Supergroup that have been cut by two belts of Wernecke Breccia (Fig. 5) and by mafic sills and dikes.

Table 2: Table of Formations in the Project Area

Sequence	Group	Predominant Rock Types	Intrusive Event
B	Fifteenmile (Unit R5)	Mudstone, Limestone	
A	Fifteenmile (Units R1 to R4)	Dolomite	
A			Wernecke Breccia
A	Gillespie Lake	Dolomite	Mafic Dikes
A	Quartet	Siltstone	Mafic Dikes
A	Fairchild Lake	Siltstone, Sandstone, Carbonate	Mafic Dikes

The Coal Creek Inlier has been mapped at 1 250,000 scale by Green (1972) The breccias were examined in some detail as part of an MSc thesis by Lane (1990), this mapping was released as a government 1 50,000 scale map (Lane and Godwin, 1992) The Geological Survey of Canada has re-mapped the Dawson map area at a scale of 1 50,000 (Thompson et al , 1992)

7.0 PROPERTY GEOLOGY

Monster Copper's 2001 and 2002 exploration programs both involved reconnaissance examinations of the property geology to confirm previous mapping, these examinations have led to modification of Thompson et al 's (1992) geology map (Fig 7, Map 1) The Monster/Cookie Property is underlain predominantly by Quartet and to a lesser extent Gillespie Lake Group sediments that have been intruded by a discontinuous, ENE-trending belt of Wernecke Breccia and by diorite intrusions (Fig 7) The Quartet Group consists of grey to black shale, bedded on a mm to cm scale, and with highly variable orientation (Plate 2) The shale is locally replaced by light brown carbonate (Plate 3), interpreted to be of hydrothermal origin, and to be the same material which commonly forms the matrix to the Wernecke Breccia (see below) The Gillespie Lake Group is represented by light grey, thickly bedded (5 cm to 1 m) dolomite, which locally weathers orange-brown and in some locations is stromatolitic (Plate 4)

The Wernecke Breccia consists predominantly of clasts of Wernecke Supergroup sediments in a matrix variably consisting of light brown iron carbonate (Plate 5), a red hematite-stained feldspar (?albite), and hematite (Plate 6) or hematite-chlorite Minor hydrothermal magnetite was noted on the Cookie claim group Clasts vary in size from several mm to several hundred m, and are commonly altered to carbonate, albite or hematite Some clasts contain veins of hematite which do not penetrate into the matrix, indicating multiple episodes of hydrothermal activity/brecciation Rare clasts of apparent granite and basalt were noted The matrix mineralogy varies inconsistently and with no evident pattern, other than a tendency for feldspar-rich matrix to occur proximal to mafic dikes In several locations transitions from undisturbed host rock (both Quartet and Gillespie Lake groups) to veined (carbonate $\pm$ quartz) and broken host rock to Wernecke Breccia were observed, over 100 to 1000 m intervals Medium-grained to lesser fine-grained, non-magnetic to magnetic mafic dikes typically cross-cut the breccia, although in some instances the breccia cuts and engulfs specific dikes, and clasts of dike material are locally incorporated into the breccia (Plate 7) The Wernecke Breccia clearly cross-cuts the stratigraphy of the Wernecke Supergroup, and is confidently interpreted as an intrusive hydrothermal breccia The breccia is similar to published accounts of the

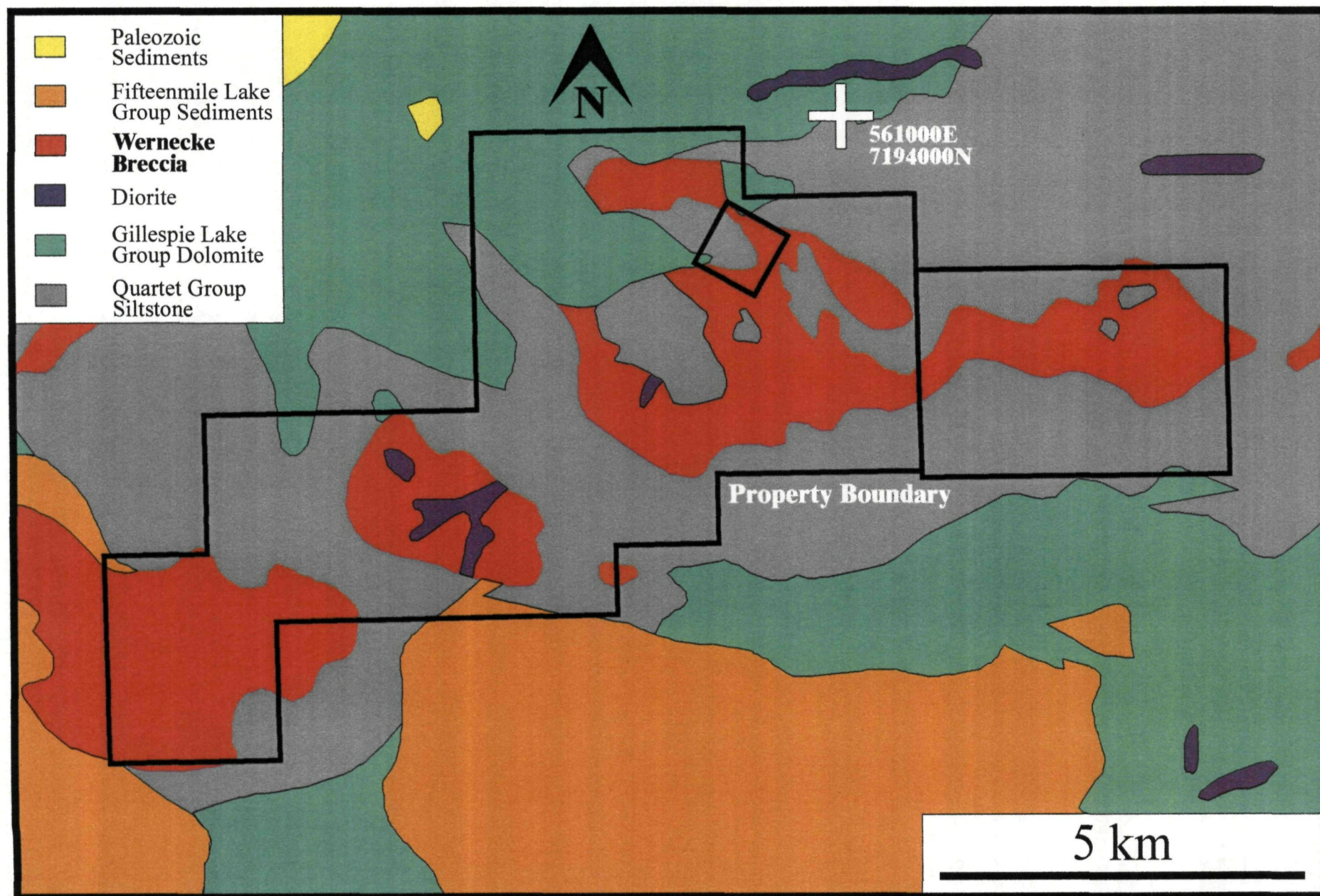


Figure 7: Geology of the Monster/Cookie Property. Modified after Thompson et al. (1992).



Plate 1: Camp

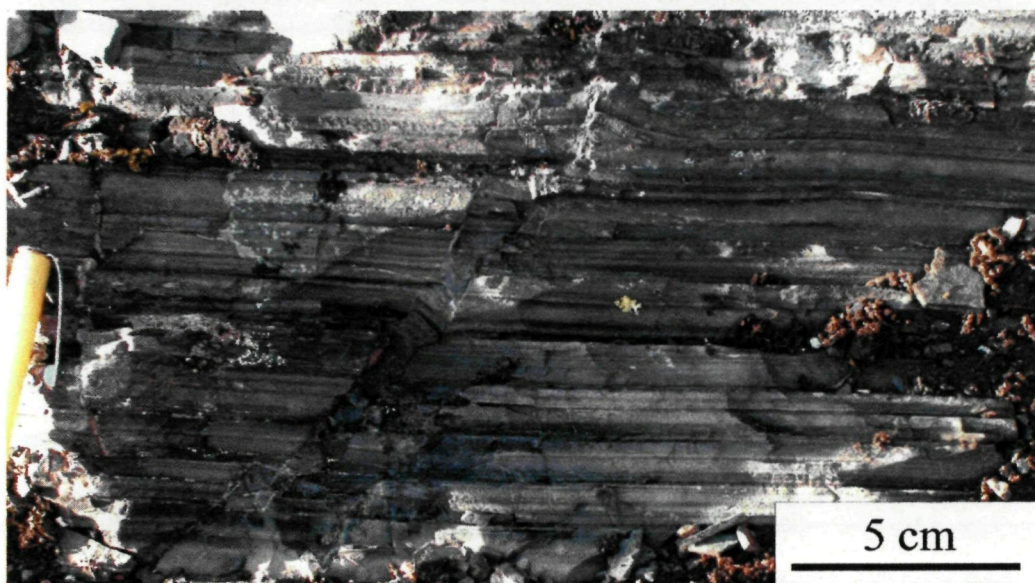


Plate 2:
Bedded shale

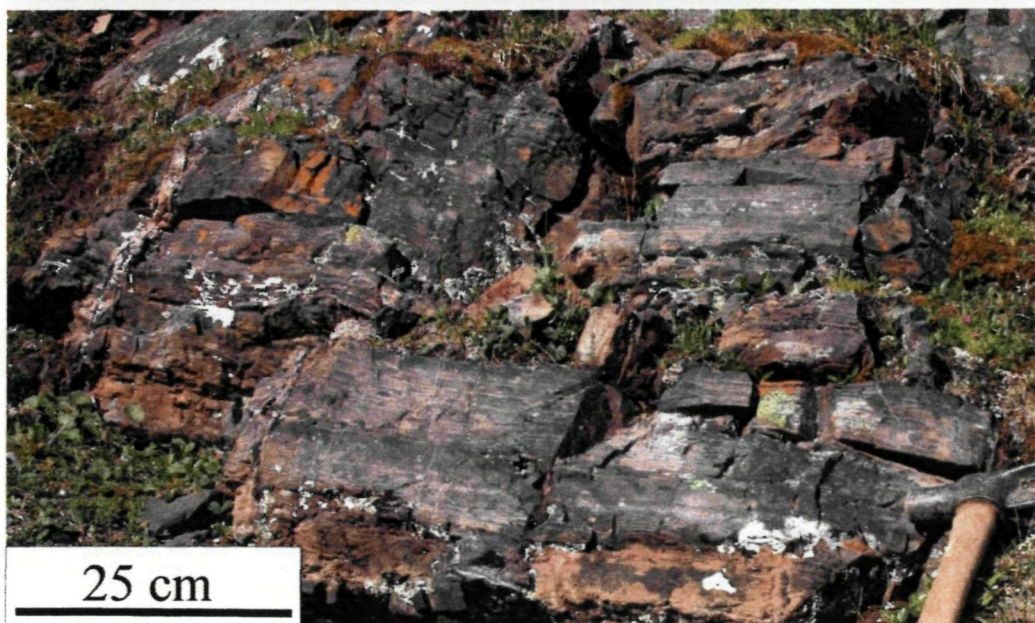


Plate 3: Partly
carbonatized
shale

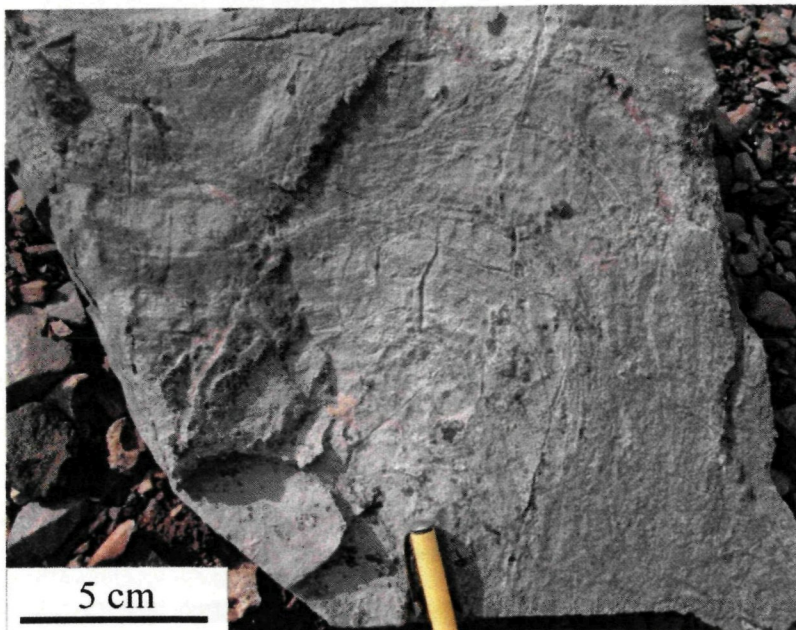


Plate 4: Stromatolitic Carbonate,
Gillespie Lake Formation

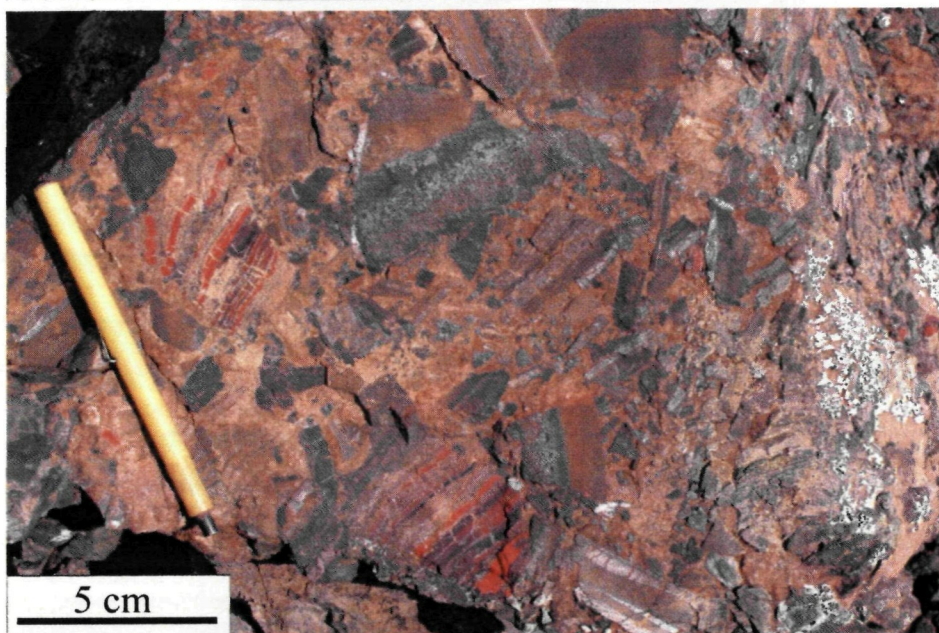


Plate 5: Wernecke
Breccia with carbonate
matrix



Plate 6:
Wernecke Breccia
with hematite rich
matrix

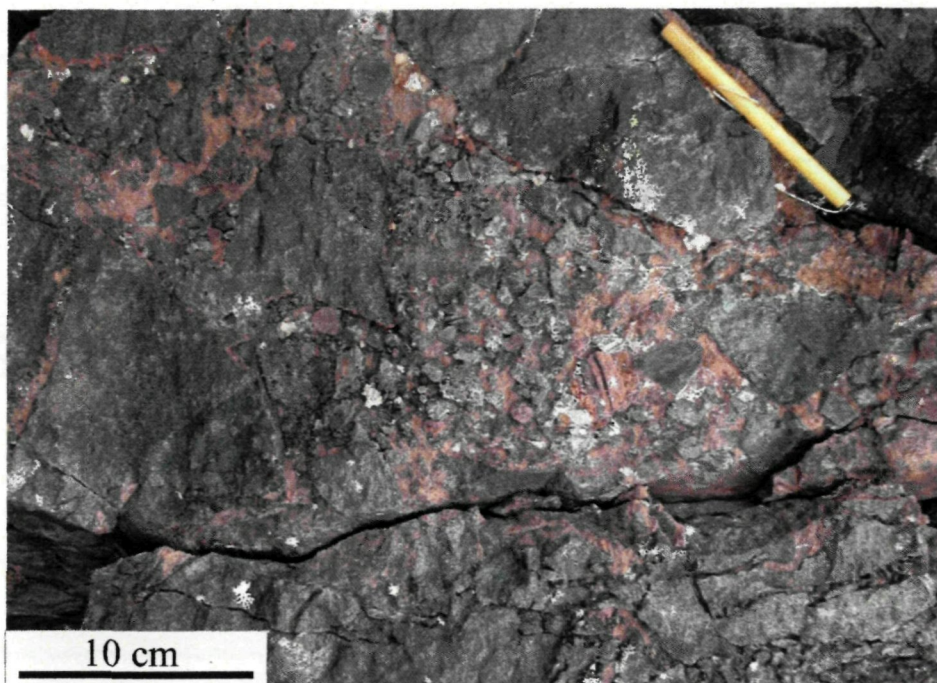


Plate 7:
Dismembered
diorite dike
incorporated into
the Wernecke
Breccia

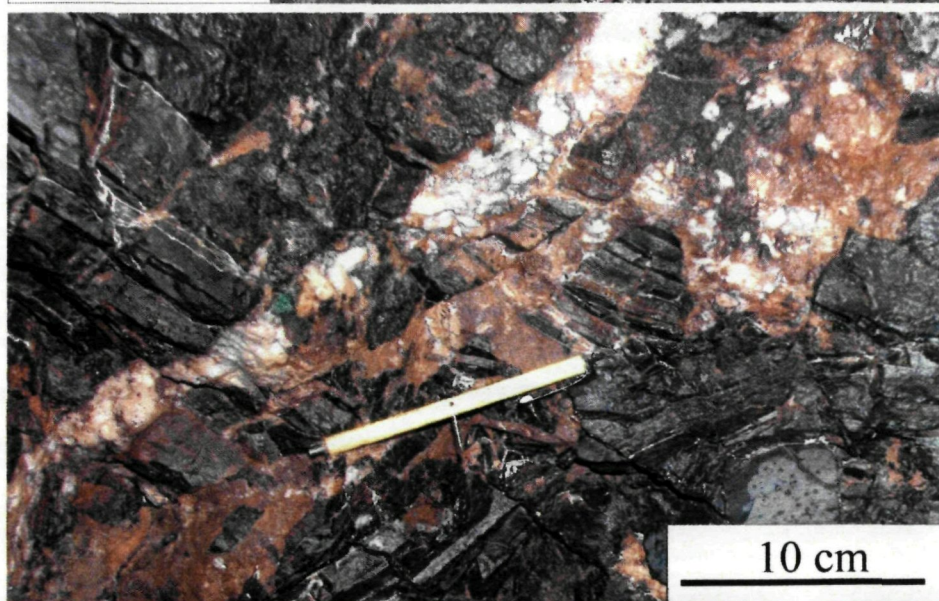


Plate 8: Malachite
in carbonate-quartz
vein which cuts
shale



Plate 9: Talus of
Quartet Group shale
with malachite on
fractures and
bedding planes

type Wernecke Breccia from the Wernecke Mountains (eg Thorkleson, 2000), and has been identified as such by government geologists familiar with the Wernecke Mountains

Nine mineralized zones previously documented by Blackstone were examined over the two field seasons, and 29 new "showings" were discovered in the course of the two programs on the Monster claims (Table 3, Fig 8) Copper $\pm$ cobalt mineralization is abundant in and adjacent to the Wernecke Breccia, and occurs in four main geologic settings The most common setting is in sedimentary rocks, typically shale of the Quartet Group, either immediately adjacent to the breccia, or in large clasts within the breccia In this setting, copper occurs in veins of iron carbonate $\pm$ quartz (Plate 8), or along bedding planes and fractures in the sediment (Plate 9) Malachite/azurite, with minor amounts of chalcopryite, are the typical minerals, and erythrite (cobalt bloom) occurs at several showings A second setting that mineralization occurs in is close to (within 10 m of) mafic dikes Several showings are of this style, with the copper in sediments, breccia, or carbonate-quartz veins Malachite, chalcopryite, bornite and erythrite were all seen in this setting The third setting for mineralization is as disseminations within the Wernecke Breccia This is most common in the iron carbonate breccia (eg Plate 10), although examples of copper in hematite breccia were also seen Malachite is the most common mineral, but disseminated chalcopryite was also noted The fourth setting is in siderite veins which contain abundant Mn along fractures (Plates 11 and 12) Examples of each of the first three types of mineralization are numerous, and are distributed across the Monster/Cookie property The siderite-Mn veins have been noted only in the northeast part of the Monster claims, proximal to the gravity anomaly (see below) All of the observed showings are relatively limited in extent, none are considered to merit follow-up work in their own right, but the widespread nature of the Cu mineralization is considered very encouraging

8.0 ROCK SAMPLING RESULTS

Fourteen rock samples were collected in the 2002 program, and submitted to Activation Laboratories (Actlabs) for analysis Actlab's "Gold + 48" analytical package was requested- this package provides analyses of all common metals and many other elements of interest A combination of INNA (Neutron Activation) and ICP (Inductively Coupled Plasma) techniques are used for analysis A variety of showings and altered rocks were sampled Sample locations are shown in Figure 9, and results for selected elements are provided in Table 4 Sample descriptions are given in Table 5 and full chemical analyses are given in Appendix C

Sample M-172, the sample with the highest Cu (3.3%) and Au (0.2 g/t) assays, was from a sulphide-rich zone of Wernecke Breccia on the southern extension of Mark's Higrade showing (Figs 6 and 9) The South Co showing, visited for the first time by Monster Copper personnel, produced assays of 1.6% Cu and 9900 ppm Co (sample M-128, Table 4) Samples of the siderite-Mn veins (see Plate 11) contained up to 5% Mn, and consistently anomalous Cu, with sample M-203 (Fig 9, Plate 12) containing 2.2% Cu Other samples contain variably anomalous amounts of Ag, As, Ba, and locally Au and Mo Overall, the chemical results support Monster Copper's belief in the prospectivity of the Monster/Cookie property, but none of the results by themselves justify immediate follow-up

Table 3 Showings on the Monster Property

NAME	EASTING	NORTHING	Visited	DESCRIPTION
Previously discovered				
Zappa	552520	7187445		Cpy, bn, cobaltite in structure in silica-carbonate altered dolomite
Choc	552555	7187345		
South Dolomite	553690	7186340		
CC (a)	556396	7188507	2001	Malachite, py, cpy on contact between albitic WBX and carbonate altered WBX
CC (b)	556367	7188483	2001	Large clast of jasper/shale in WBX Malachite and azurite on bedding planes
CC (c)	556378	7188436	2001	Malachite disseminated in Fe-rich WBX
East Cu-Co	556539	7188850	2001	Malachite, cpy and cobaltite in bedding planes and fractures over large area in shale/sandstone sequence
Champagne	559145	7189280		Cobaltite, cpy, bornite at contact between dolomite and shale
Champagne Nort	558694	7190228	2001	Malachite on bedding planes in 100 x 100 m block of black shale within WBX
Champagne East	559315	7190010		
Panther	559152	7191229	2001	Steeply dipping, strongly silicified sediments within WBX contains disseminated bn, malachite, cobaltite, py
Cobalt Cirque	559890	7191140		Large zone of Cu-Co mineralization in shales and dolomite (?) near diorite ("Dolomite" is probably hydrothermal)
Mark's Higrade	560258	7191102	2001, 2002	Cpy, bornite, malachite in qtz vein on margin of dike cutting WBX Cobaltite associated with nearby dikes
Goblin	560345	7191402	2001, 2002	Malachite on bedding planes and fractures in shale, and in carbonate veinlets Close to WBX
4900 Zone	555037	7189061	2002	W part showing py-mal-cpy in WBX-cb
4900 Zone	554927	7188859	2002	E part minor malachite in WBX-cb float
South Co	556020	7188166	2002	Malachite, azurite, Co in Sh-cb
SE Spur	556694	7188181	2002	50 m clast Sh w malachite on bedding planes
Discovered by Monster Copper				
M-9	559804	7191067	2001	Malachite in qtz vns cutting shale, and on local fault plane Within WBX
M-18	559145	7191570	2001	Malachite on bedding planes in small block of silicified sediment within WBX, close to diorite dike
M-22	558660	7190225	2001	Malachite, pyrite, azurite in qtz-sericite shear in WBX
M-37B	560453	7190316	2001, 2002	Abundant malachite in Wernecke Breccia with carbonate-albite-hematite alteration
M-41	561514	7192624	2001	FLOAT of black shale with malachite and azurite on bedding planes
M3111	559961	7190685	2001	5% disseminated py
M6	559660	7189822	2001	Disseminated malachite in WBX
M10	559804	7191067	2001	CuOH in q vns in WBX
M35	560397	7190494	2001	Disseminated cpy, py in DOLM
M37	560467	7190315	2001	Malachite disseminated in WBX
M40	558889	7190312	2001	Arsenopyrite bearing float
M42	560298	7191409	2002	Malachite, py on bedding planes in Sh nr WBX ct
M57	560264	7191303	2002	Malachite on bedding planes in Sh and in cb vns
M57	560244	7191292	2002	Malachite on bedding planes in Sh and in cb vns
M63	560197	7191283	2002	Malachite on bedding planes in Sh and in cb vns
M63	560187	7191271	2002	Malachite on bedding planes in Sh and in cb vns
M66	560156	7191221	2002	Malachite in cb-q vn
M69	560043	7191140	2002	Malachite on bedding planes in Sh and in WBX-cb
M73	560019	7191147	2002	Minor malachite in WBX
M96	559883	7191752	2002	Malachite on bedding planes and fractures in Sh
M101	559708	7191665	2002	Cpy in q vnlets in DI
M102	559640	7191633	2002	Malachite on fractures in DI
M114	559464	7192769	2002	Malachite in WBX (WBX = fault)
M121	555485	7188977	2002	Py, cpy in matrix of WBX
M127	555395	7188420	2002	Disseminated malachite in WBX-cb
M130	560384	7190620	2002	50 m clast Sh w malachite on bedding planes
M154	559174	7191034	2002	Malachite on bedding planes and fractures in Sh
M154	559122	7191118	2002	Malachite on bedding planes and fractures in Sh
M191	559166	7189677	2002	Malachite on bedding planes and fractures in Sh
M196	559721	7189903	2002	Malachite on fractures in WBX
M202	558241	7190719	2002	Minor cpy-py in siderite vns
M203	558214	7190722	2002	Minor cpy-py in siderite vns

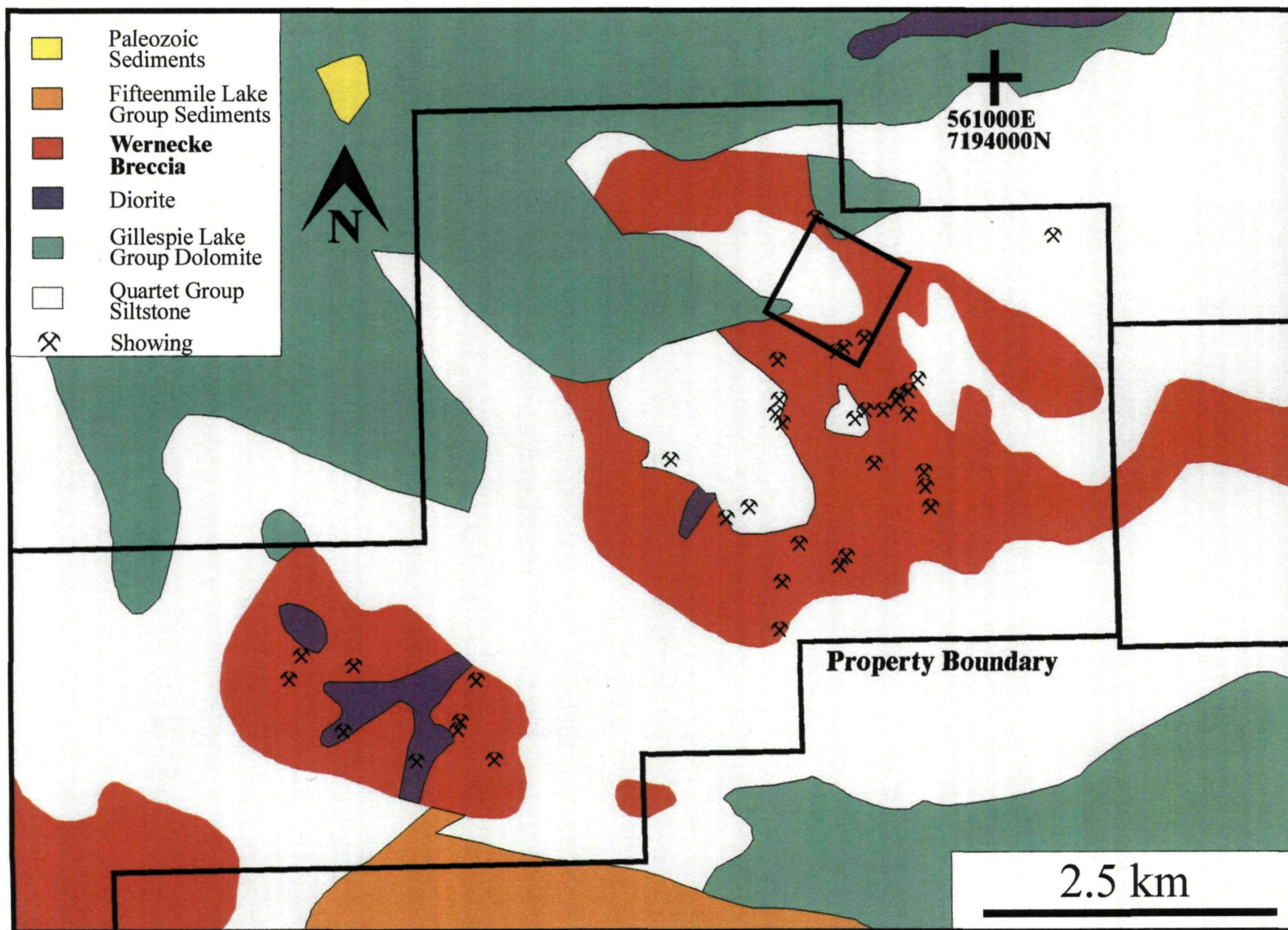


Figure 8: Showings in the core of the Monster Claims

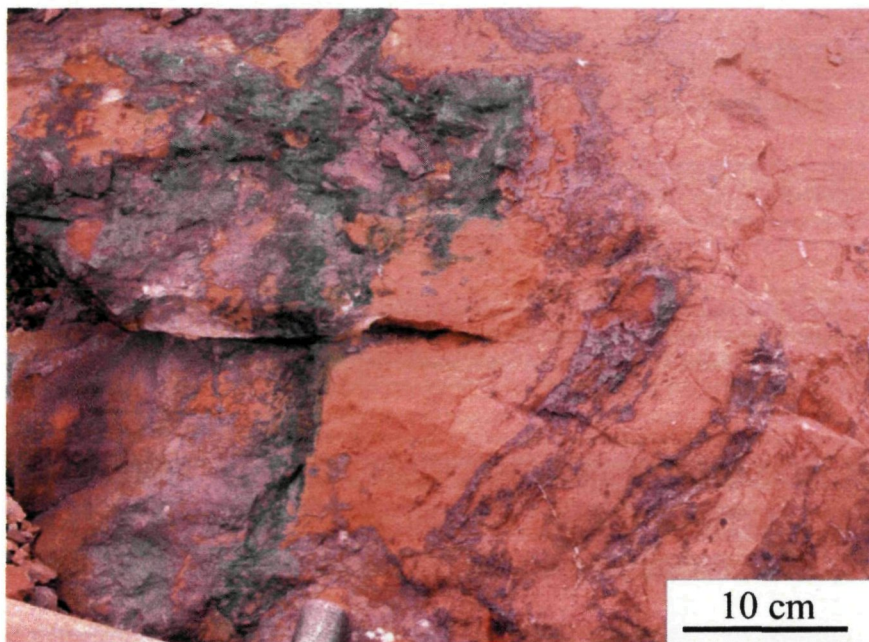


Plate 10: Malachite in
carbonate-rich Wernecke
Breccia



Plate 11: Manganese-rich
fractures in boulder from
siderite dominant vein

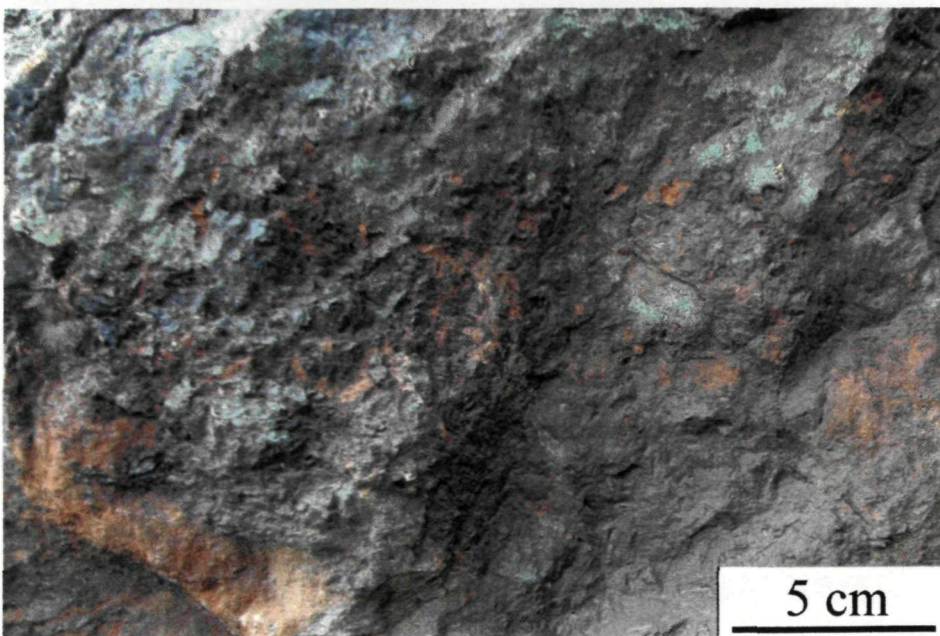


Plate 12: Malachite
in siderite-Mn vein

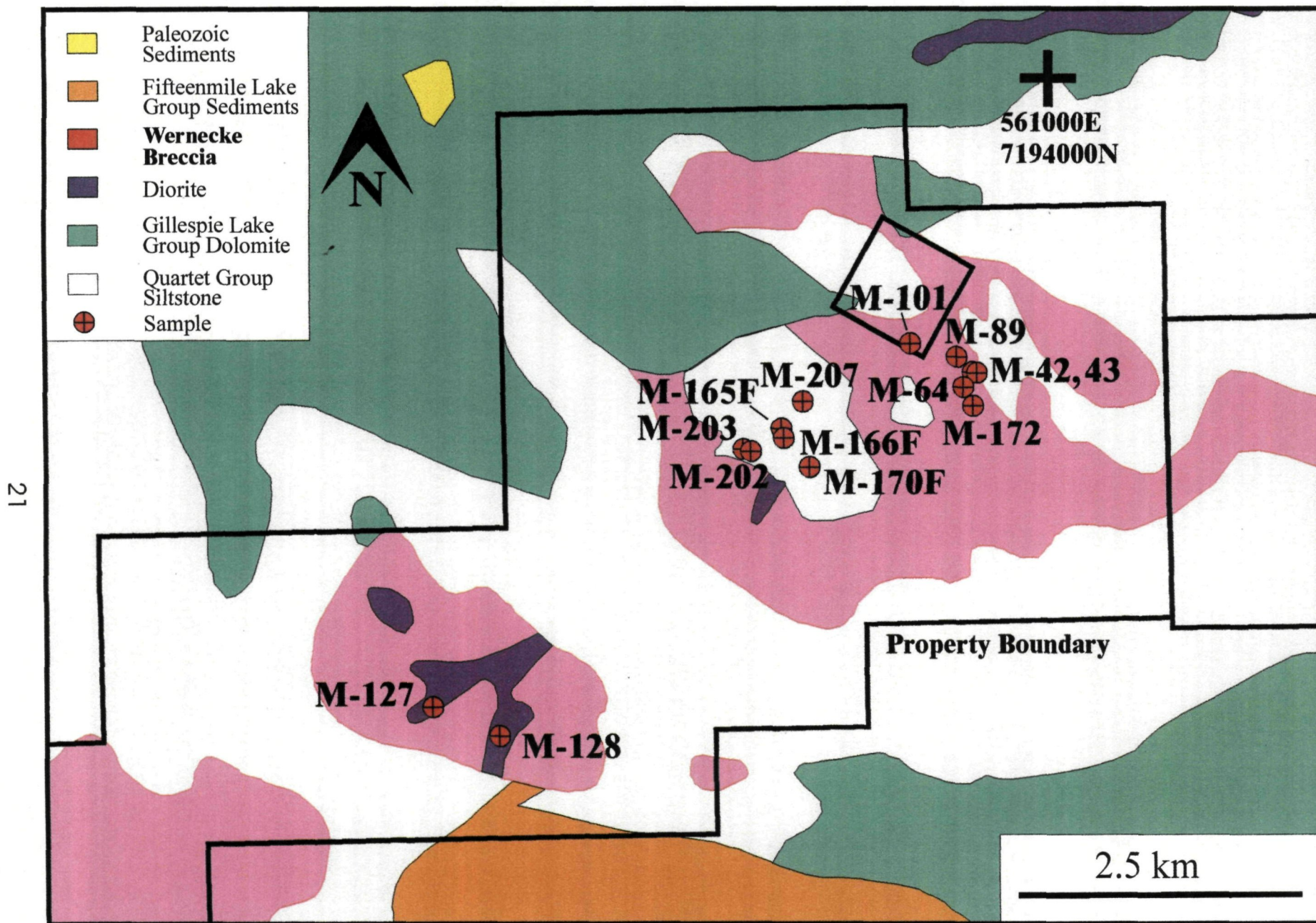


Figure 9: Samples Taken for Assay During the 2002 Exploration Program

Table 4: Selected Chemical Results from the 2002 Exploration Program

Sample ID	Easting	Northing	Cu ppm	Au ppb	Ag ppm	Co ppm	As ppm	Ba ppm	Fe %	Mo ppm	U ppm	Zn ppm	Mn ppm	K %
M-42	560298	7191409	3269	102	5.1	117	877	650	12.5	7	5.9	122	627	4.51
M-43	560266	7191419	21	5	0.3	18	4.6	770	5.92	4	1.7	68	383	7.23
M-64	560187	7191271	8743	17	6.8	51	79.1	420	3.24	20	2.3	264	958	3.86
M-89	560125	7191537	305	9	-0.3	77	20.6	1600	26.5	10	4.4	102	557	3.81
M-101	559708	7191665	5891	10	0.5	56	28.9	380	10.6	5	1.2	73	1398	2.31
M-127	555395	7188420	1739	2	0.6	71	24.7	2000	2.78	11	5.8	38	664	12.23
M-128	556020	7188166	15990	15	3.6	9900	10800	430	4.49	9	-0.5	30	1257	2.66
M-165F	558559	7190884	1059	-2	-0.3	112	27.2	-50	30.3	11	-0.5	47	49988	0.02
M-166F	558568	7190842	3234	-2	2.8	20	8.8	140	28.6	15	-0.5	123	39618	0.21
M-170F	558788	7190562	6164	12	4.8	4	31.4	-50	1.05	-1	1.3	239	337	0.09
M-172	560252	7191114	33138	202	0.9	119	88.4	530	6.94	99	5.9	41	3244	2.90
M-202	558241	7190719	4939	-2	0.9	61	74.3	-50	34.4	9	-0.5	130	48298	0.06
M-203	558214	7190722	22211	-2	5.2	52	54.3	-50	27.6	11	0.8	83	32467	0.08
M-207	558754	7191141	301	5	-0.3	10	11.2	780	7.65	4	4.7	95	14122	3.36

Table 5: Rock Sample Descriptions

Sample ID	Easting	Northing	Description
M-42	560298	7191409	Malachite in shale, near Goblin showing
M-43	560266	7191419	Silicified, chloritized Wernecke Breccia
M-64	560187	7191271	Malachite on bedding planes in Shale and in carbonate veins
M-89	560125	7191537	Small boulder of massive hematite-chlorite
M-101	559708	7191665	Diorite with 0.5% chalcopryite
M-127	555395	7188420	Disseminated malachite in Wernecke Breccia with carbonate matrix
M-128	556020	7188166	Shale with malachite, azurite, Co bloom, South Co showing
M-165F	558559	7190884	Siderite-Mn boulder with minor chalcopryite
M-166F	558568	7190842	Siderite-Mn boulder with minor chalcopryite
M-170F	558788	7190562	Boulder of quartz-pyrite-chalcopryite-azurite
M-172	560252	7191114	Pyrite, chalcopryite bearing Wernecke Breccia, Mark's HiGrade showing
M-202	558241	7190719	Siderite-Mn veins with trace pyrite-chalcopryite
M-203	558214	7190722	Siderite-Mn veins with pyrite-chalcopryite
M-207	558754	7191141	Shale with hematite on fractures

9.0 DENSITY MEASUREMENTS

The density has been measured on 56 samples spanning the range of rock types encountered in the field (Table 6). The aim of this work is to document the density of the country rocks and all denser lithologies in order to understand the results of the gravity survey and model any anomalies. The lower density background rocks are comprised of a combination of Quartet Group shale (average density 2.73 g/cm^3), Wernecke Breccia (average density 2.76 g/cm^3), and minor amounts of Gillespie Lake Group dolomite (density 2.80 g/cm^3 from one sample). The country rocks are thus likely to have an average density on the order of 2.75 g/cm^3 . Observed rocks that have a higher density, and could thus contribute to a gravity anomaly, include diorite (average density 2.84 g/cm^3), massive chlorite-hematite (one sample of float with a density of 3.31 g/cm^3), Wernecke Breccia with a strongly hematitic matrix (observed density up to 3.33 g/cm^3), siderite-Mn veins (average density 3.48 g/cm^3), semi-massive hematite (one sample of float with a density of 3.96 g/cm^3), and hematite-pink mineral (one sample with a density of 4.25 g/cm^3).

10.0 GRAVITY SURVEY

MWH Geo-surveys Ltd (MWH) of Vernon, B.C., under contract to Monster Copper, completed a program of gravity surveying over the Monster, Cookie and CO claims and immediate peripheral area from July 3 to 16, 2002. The field survey crew consisted of a gravity meter operator and a GPS receiver operator. Data was processed in the field and in offices of MWH after completion of the field data acquisition work.

The survey program was partially helicopter-supported from the field camp located on the property, and consisted of 184 unique station points, and 4 station repeats (required for quality control), for a total program of 188 data points (Maps 2 and 3). The new station points were integrated with the 2001 survey results to form a complete data set of 319 surveyed points. The survey was tied to the Canadian Gravity Standardization Network (CGSN) via a base station located at the Dawson airport (details in Appendix D). Station points were spaced at approximately 200-400 m intervals along most traverses. Data for a single north-south traverse was collected at approximately 50 m intervals. Field data collected by MWH included gravity, elevation (determined by differential GPS (DGPS)), and local slope data around a 170 m radius from each station point. Data was reduced to simple Bouguer gravity anomaly using a Bouguer density of 2.75 g/cm^3 . Local slope data was used to calculate inner terrain corrections, using a terrain density of 2.75 g/cm^3 . Inner terrain corrections were computed for Hammer Zones (Hammer, 1939) B through D, which collectively account for terrain effects of a circle of terrain with 170 m radius from the station point. Inner terrain corrected Bouguer gravity values, station elevations, and supporting principal fact data is tabulated in Appendix D. GPS derived station elevation data is posted against station locations on Map 2.

Gravity data acquired and processed to inner terrain corrected Bouguer anomaly values by MWH, was further processed by Monster Copper, to a Complete Bouguer Anomaly (CBA). The CBA includes the inner terrain correction plus outer terrain effects from 170 m to 22 km radius from the gravity station point (equivalent to Hammer Zones (Hammer, 1939) E through M).

Table 6: Summary of Rock Physical Properties

<i>sample number</i>	<i>density (g/cm³)</i>	<i>mag susc (1e-3 SI)</i>	<i>description</i>
Dolomites			
M173	2.80	0.03	Dolomite (Gillespie lake Fn)
Hydrothermal Carbonates			
M211*	2.76	0.13	hydrothermal carbonate
M210*	2.80	0.17	hydrothermal carbonate
<i>average</i>	<i>2.78</i>	<i>0.15</i>	
Wernecke Breccias			
M70	2.84	0.17	Wernecke Breccia
M76	2.67	-0.05	Wernecke Breccia albitic
M114	2.66	0.22	Wernecke Breccia w albite clasts
M125	2.65	0.09	Wernecke Breccia w albitic matrix
M121	2.79	0.24	Wernecke Breccia w carbonate matrix
M43	2.81	0.12	Wernecke Breccia w chlorite matrix
M42-F	2.76	0.25	Wernecke Breccia w hematite matrix
GDX-2*	2.78	0.49	Wernecke Breccia with mostly iron matrix
M 37 A (1)	2.82	0.26	Wernecke Breccia
M 37 A (2)	2.81	0.26	Wernecke Breccia
HEM(b)	2.82	0.23	Hematite rich matrix
M1-D	2.80	0.45	Iron oxide rich Wernecke Breccia
M 37-B	2.61	0.20	Wernecke Breccia with carbonate-albite-hematite
M 35	2.77	0.16	Wernecke Breccia with carbonate matrix
M153-F	2.80	0.36	Wernecke Breccia w hematite matrix
<i>average</i>	<i>2.76</i>	<i>0.23</i>	
Various Dense			
M43-F	4.29	10.43	hematite albite?
M43-F	4.26	10.43	hematite albite?
M72-F	3.03	0.19	hematite siderite? albite?
M164-F	3.51	2.99	siderite massive
M157-F	3.09	1.07	Wernecke Breccia w hematite matrix
M165-F(1)	3.60	2.53	siderite massive
M165-F(2)	3.45	1.98	siderite massive
M166-F	3.40	2.17	siderite massive
M203	3.46	2.44	siderite massive w malachite + py+cp
M77-F	3.96	0.71	massive hematite
M89	3.31	6.23	massive hematite chlorite
236 (-F)	3.33	8.58	Float-Wernecke Breccia with hematite matrix
<i>average</i>	<i>3.56</i>	<i>4.15</i>	

Diorites			
M75	2 98	5 05	Diorite
M47	2 74	10 39	Diorite
M36	2 75	0 38	Diorite
M94	2 77	3 55	Diorite albitized
M101	2 79	3 91	Diorite albitized
M80	2 83	0 18	Diorite cut by carbonate veins
M 17 11 (1)	2 95	13 03	Diorite
M 17 11 (2)	2 92	9 81	Diorite
HEM(a)	2 82	1 47	Diorite hematized
M 17 5	2 72	0 48	Diorite
H-2*	2 80	1 29	Diorite
GDX-3	3 01	0 83	Diorite (south of camp)
M149	2 76	0 63	Diorite
average	2.84	3 92	
Various Exotics			
M138	2 57	0 31	felsic intrusive?
GDX-10	2 84	0 10	basalt??
M35-F	2 76	0 67	granite?
average	2.72	0 36	
Shales			
M59	2 74	0.17	Shale
M66	2 71	-0 02	Shale
M108	2 74	0 06	Shale
M112	2 71	0 03	Shale silicified
GDX-1*	2 75	0 26	Shale with layers of of hydrothermal carbonate
221	2 75	0 16	Shale
M132	2 75	0 35	Shale
M207(1)	2 71	0 07	Shale (hematized)
M207(2)	2 70	0 06	Shale (hematized)
M207(3)	2 73	0 10	Shale (hematized w ankerite?)
average	2.73	0 12	

*Note *samples have porosity, density may be overstated
 "-F" suffix in sample number designates float*

Physical property determinations of Wernecke Breccia and shale country rocks (Table 6) in the area of the 2001 gravity anomaly yielded a mean density of about 2.75 g/cm^3 . Therefore, terrain density used for 2002 terrain corrections was increased from 2.67 g/cm^3 (as used for the 2001 terrain corrections) to 2.75 g/cm^3 .

All terrain effects were calculated using a commercial terrain correction software (Geosoft) and implementation of methods of Nagey (1966) and Kane (1962). A detailed 5 m grid cell digital elevation model (DEM) of the area of the Monster claims (derived from historical (early 1990's) contour data based on an orthophoto survey completed by Blackstone) was used to replace the D zone slope-derived correction provided by MWH. Data points within the area of the detailed DEM were then corrected to the maximum radius allowed by the limits and extents of the detailed DEM. A 90 m grid cell DEM of Yukon, made available from the Yukon Department of Renewable Resources Geographic Information System (RRGIS), was used to complete terrain corrections to the maximum radius of 22 km. Resulting CBA values are posted on Maps 2 and 3, contoured in Map 3, and tabulated in Appendix E.

After full terrain correction, the gravity anomaly initially detected in 2001 is more fully defined. Application of detailed DEM to the terrain correction calculation, including replacement of D zone slope-derived corrections, and use of revised (increased) terrain density, has resulted in improved terrain correction accuracy, which in turn has resulted in a decrease in anomaly amplitude first reported for the 2001 gravity anomaly (Setterfield and Tykajlo, 2001). The anomaly shape is roughly a parallelogram of about 900-1000 m along a side (Map 3), within which are two parallel high gravity zones trending WNW. Peak anomaly amplitude is approximately 2.5 mGal.

11.0 DISCUSSION AND RECOMMENDATIONS

The objectives of Monster Copper's 2002 work program on the Monster/Cookie Property were achieved. The gravity surveying produced additional information on the gravity anomaly, leading to a more accurate and confident delineation of its position and amplitude (Map 3). The reconnaissance gravity survey was also expanded (Map 2). The database of density measurements was vastly increased (Table 6), and new geological information led to a refinement in the geology map over the Monster/Cookie property (Fig. 7, Map 1). Additional geochemical information was procured, which adds to the overall chemical database on the property.

This year's discovery of several samples with a density in excess of 3.0 g/cm^3 is particularly significant. These samples include three hematite-dominant pieces of float (one of which is hematite-chlorite) with densities ranging from 3.3 to 4.3 g/cm^3 (Table 6, Fig. 10). Such hematite-rich samples are common in IOCG deposits, but had not previously been noted on the Monster/Cookie property. These samples, combined with examples of Wernecke Breccia that have a high density due to the presence of abundant hematite (M157F and 236F, Table 6), increase the overall confidence in the potential of the property to host IOCG deposits. Several siderite-Mn veins were noted, one of which contains 2.2% Cu (Table 4). Siderite is noted as being "abundant" at Olympic Dam and several large Brazilian IOCG deposits (Haynes, 2002).

Additional data has shown that the gravity anomaly is slightly west and of slightly lower amplitude than was interpreted from last year's reconnaissance survey. Preliminary modelling suggests that the anomaly may be caused by two subvertical, east-southeast trending bodies, approximately 250 m

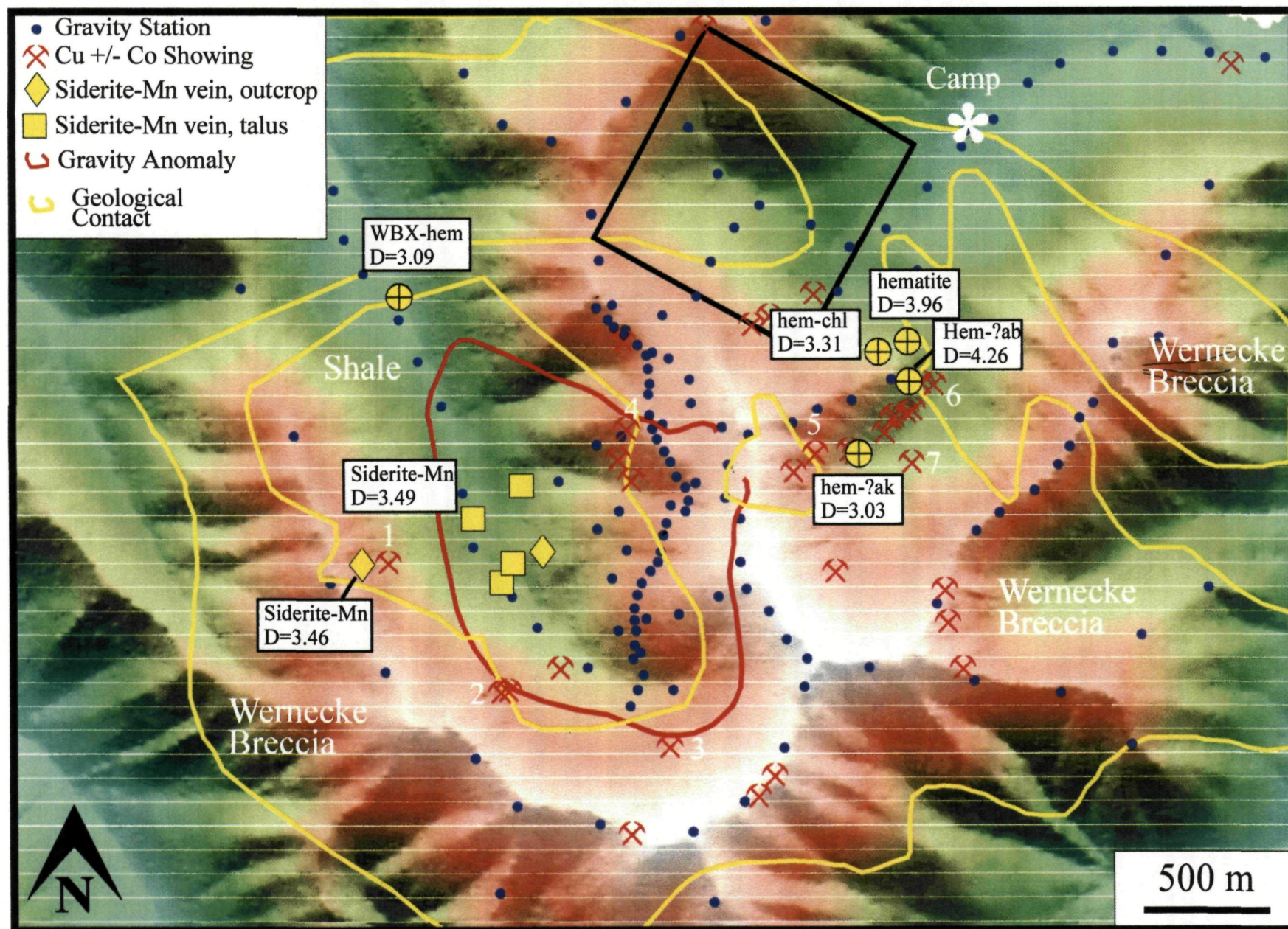


Figure 10: Main Gravity Anomaly, Showings and Dense Samples. 1: M-203 (2.2% Cu, grab, Siderite-Mn vein); 2: Champagne North (11.35% Cu, grab); 3: Champagne East (3.4% Cu, grab); 4: Panther (1.3% Cu, grab); 5: Cobalt Cirque (4.2% Cu, 295 ppb Au, grab); 6: Goblin (0.34% Cu, 0.04% Co, 1 m chip); 7: Mark's High Grade (3.5% Cu, 2.72% Co, 50 cm chip).

wide, each with a density on the order of 3.1 g/cm^3 . Given the complex geology of the property and the lack of samples with a specific gravity of this magnitude, the most likely scenario is that the dense bodies contain a certain amount of country rock (shale, Wernecke Breccia, average density 2.75 g/cm^3), intermixed with one or more of the dense lithologies shown in Table 6. Going one step further, the most likely candidate for a dense lithology in this particular area is the siderite-Mn veining. To date these veins have only been found in the area of the gravity anomaly, and they are relatively abundant in this area (Fig. 10). One possible interpretation is thus that the gravity anomaly may be caused by a concentration of siderite-Mn veins. Such a concentration of veins may have the potential to host anomalous to significant amounts of Cu, as indicated by the one vein sample which has 2.2% Cu.

Further work on the Monster/Cookie property should concentrate on the gravity anomaly. The interpreted causative bodies of this anomaly could be drilled following additional geophysical modelling, or alternatively, IP profiles across the bodies could be obtained. This latter course would ensure that any drilling was targeted on sulphide-rich portions of the dense bodies, although it would be an added expense prior to drilling. Consideration should also be given to completing reconnaissance gravity surveying over the entire Monster/Cookie property.

12.0 REFERENCES

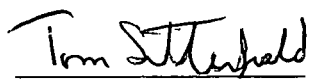
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Respectfully Submitted,

MONSTER COPPER RESOURCES INC


Tom Setterfield, P Geo
Ottawa, Ontario
January, 2003


Roman Tykajlo, P Geo
Ottawa, Ontario
January, 2003

APPENDIX A: LIST OF FIELD PERSONNEL

Tom Setterfield (Geologist)
Monster Copper Resources Inc
21 Tripp Crescent
Ottawa, ON
K2J 1C5

Roman Tykajlo (Geophysicist)
Monster Copper Resources Inc
74 Stonebriar Drive
Nepean, ON
K2G 5X9

Christine Purves (Cook)
Aurora Geosciences
Suites 11 & 12 - 4078 4th Avenue
Whitehorse, Yukon
Y1A 5P7

Kevin McNabb (Gravity Surveyor/Data Processor)
MWH Geo-Surveys Ltd
2916 - 29th Street
Vernon, BC
V1T 5A6

Marshall McNabb (GPS Surveyor)
MWH Geo-Surveys Ltd
2916 - 29th Street
Vernon, BC
V1T 5A6

APPENDIX B

STATEMENT OF EXPENDITURES

**STATEMENT OF EXPENDITURES
MONSTER/COOKIE PROPERTY
Monster 1-192, 207-216, 231-240, 263-265, Cookie 1-58 and CO 1-4 Claims
July 3 to July 16, 2002**

CANADA) In the matter of an evaluation program on the Monster/Cookie Property

I, Tom Setterfield, of Monster Copper Resources Inc , 21 Tripp Crescent, Ottawa, Ontario, do solemnly declare that a program consisting of geological reconnaissance, rock sampling and gravity surveying was carried out on the Monster 1-192, 207-216, 231-240, 263-265, Cookie 1-58 and CO 1-4 Mineral Claims in the period July 3 to July 16, 2002. The following expenses were incurred during the course of this work and in the compilation of the results (correct up to December 31, 2002)

**\$75,974.49 on the Monster claim group,
\$4,257.91 on the Cookie claim group,
\$3,256.05 on the CO claim group,**

see Table B1 for details

And I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act

Declared at Ottawa in the
Province of Ontario this

15 day of January, 2003

)
)
)

Tom Setterfield

Expenses Incurred in Planning, Undertaking and Interpreting Monster Copper's 2002 Exploration Program in the Ogilvie Mountains

Expense	Amount	YMIP Eligible
Monster Personnel Salaries Planning, Mobilization	\$ 1,350 00	
Monster Personnel Salaries Fieldwork	\$ 9,450 00	\$ 9,450 00
Monster Personnel Salaries Interpretation, Reporting	\$ 3,318 75	\$ 3,318 75
Travel & Accommodation	\$ 4,432 39	\$ 1,230 15
Meals, Groceries	\$ 1,620 09	\$ 1,616 99
Courier	\$ 91 39	
Vehicle Rental	\$ 1,495 31	\$ 1,495 31
Helicopter Charter	\$27,852 72	\$27,852 72
Airplane Charter	\$ 3,262 50	\$ 3,262 50
Geophysical Contractor Fees	\$18,200 00	\$18,200 00
Geophysical Contractor Mobilization	\$ 3,000 00	\$ 2,000 00
Camp Costs (Rental, Maintenance, Consumables)	\$ 8,977 80	\$ 8,977 80
Chemical Analyses	\$ 437 50	\$ 437 50
Total	\$83,488.45	\$77,841.72

APPENDIX C

CERTIFICATES OF ANALYSIS



Invoice No 25959
Work Order: 26143
Invoice Date. 28-NOV-02
Date Submitted. 04-NOV-02
Your Reference: MONSTER
Account Number. 3160

METALLUM GEOCONSULTANTS CORP.
21 TRIPP CRESCENT
OTTAWA, ON
K2J 1C5

ATTN. TOM SETTERFIELD

CERTIFICATE OF ANALYSIS

15 ROCK(S) (PREP.REV3.2) were submitted for analysis.

The following analytical packages were requested Please see
our current fee schedule for elements and detection limits.

REPORT 25959 CODE 1H - INAA(INAAGEO.REV1)
REPORT 25959 B CODE 1H - TOTAL DIGESTION ICP(TOTAL.REV2)
REPORT 25959 C CODE 4B - MAJOR ELEMENTS FUSION ICP(WRA.REV2)

This report may be reproduced without our consent If only selected
portions of the report are reproduced, permission must be obtained.
If no instructions were given at time of sample submittal regarding
excess material, it will be discarded within 90 days of this report
Our liability is limited solely to the analytical cost of these analyses.
Test results are representative only of material submitted for analysis.

CERTIFIED BY

A handwritten signature in dark ink, appearing to be "E. Hoffman".

DR E HOFFMAN/GENERAL MANAGER

Activation Laboratories Ltd Work Order 26143 Report 25959

Sample ID	Au ppb	Ag ppm	As ppm	Ba ppm	Br ppm	Ca %	Co ppm	Cr ppm	Cs ppm	Fe %	Hf ppm	Hg ppm	Ir ppb	Mo ppm	Na %	Ni ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm	Sn %	Sr %	Ta ppm	Th ppm	U ppm	W ppm	Zn ppm	La ppm	Ce ppm	Nd ppm	Sm ppm
M-42	102	-5	877	650	-0.5	-1	117	67	2	12.5	4	-1	-5	-1	0.05	95	192	95.2	12.1	-3	-0.02	-0.05	1	13.6	5.9	4	189	25.9	55	20	3.7
M-43	5	-5	4.6	770	-0.5	-1	18	81	12	5.92	5	-1	-5	-1	0.24	-20	212	1.1	19.8	-3	-0.01	0.05	1.3	14.2	1.7	-1	77	2.6	7	-5	0.7
M-64	17	10	79.1	420	-0.5	2	51	48	-1	3.24	2	-1	-5	20	0.13	-20	86	3.9	9.2	-3	-0.01	-0.05	-0.5	8.9	2.3	-1	245	28.1	54	19	3.8
M-89	9	-5	20.6	1600	-0.5	-1	77	32	-1	26.5	2	-1	-5	9	0.1	162	61	3.6	17	3	-0.01	-0.05	0.5	9.9	4.4	-1	151	53.6	83	20	4.6
M-101	10	-5	28.9	380	-0.5	3	56	63	-1	10.6	3	-1	-5	3	1.47	67	40	2.8	29.4	3	-0.02	-0.05	0.5	4	1.2	-1	50	10.2	21	9	2.3
M-127	2	-5	24.7	2000	1.9	-1	71	99	3	2.78	3	-1	-5	10	0.12	-21	241	1.3	17.1	-3	-0.01	-0.05	0.5	12.7	5.8	-1	-50	24	49	10	3.2
M-128	15	-5	10800	430	-0.5	4	9900	50	-1	4.49	-1	-1	-5	9	0.03	93	50	1	6	-3	-0.05	-0.05	-0.5	0.5	-0.5	-1	-50	21	40	11	3.5
M-165F	-2	-5	27.2	-50	-0.5	2	112	6	-1	30.3	-1	-1	-5	-1	0.02	64	-15	0.4	18	-3	-0.01	-0.05	-0.5	-0.2	-0.5	-1	149	0.5	-3	-5	1
M-166F	-2	-5	8.8	140	-0.5	5	20	8	2	28.6	-1	-1	-5	8	0.03	-20	-15	0.4	12.8	-3	-0.01	-0.05	-0.5	1.3	-0.5	-1	169	3.9	9	-5	1.5
M-170F	12	-5	31.4	-50	1	-1	4	12	-1	1.05	-1	-1	-5	3	0.03	-20	-15	2	0.7	-3	0.01	-0.05	-0.5	0.4	1.3	1	239	1.4	5	-5	0.6
M-172	202	-5	88.4	530	-0.5	7	119	44	1	6.94	2	-1	-5	143	0.04	-20	131	1	8.1	4	0.01	-0.05	0.5	9.5	5.9	-1	177	13.4	29	-5	3.1
M-202	-2	-5	74.3	-50	-0.5	1	61	7	-1	34.4	-1	-1	-5	-1	0.02	-23	-15	1.2	10.9	3	-0.01	-0.05	-0.5	0.6	-0.5	-1	168	1.8	5	-5	1
M-203	-2	-5	54.3	-50	0.9	5	52	8	-1	27.6	-1	-1	-5	-1	0.02	-22	-15	1.1	6	6	-0.01	-0.05	0.5	0.9	0.8	-1	119	2.9	7	-5	1.3
M-207	5	-5	11.2	780	0.5	-1	10	18	3	7.65	4	-1	-5	-1	0.05	-20	110	1	6.9	-3	0.01	-0.05	0.5	8	4.7	-1	129	27.3	76	25	32.9
DMMAS-18-2193	531	-5	2310	370	3.2	7	60	140	-1	8.03	2	-1	-5	-2	0.74	-25	49	7.5	18.9	-3	-0.02	-0.05	-0.5	1.4	0.5	18	241	12.6	24	12	3.9
DMMAS-18-2192	598	-5	2280	430	3.3	8	64	146	-1	8.17	2	-1	-5	-2	0.78	-27	33	6.9	19.4	-3	-0.03	-0.05	-0.5	0.9	-0.5	20	278	12.5	26	9	4.1
Accepted Value-DMMAS 18	598±84		2280±220	380±150	2±2	8±1	64±6	140±14	2±1	8.1±0.13	11±0.77	2±1			0.81±0.13	35±10	6.2±3.5	20±1.9					1.3±0.8		17±5	267±61	13±2.2	23±4	11±4	3.9±0.8	

Activation Laboratories Ltd Work Order 26143 Report 25959

Sample ID	Eu ppm	Tb ppm	Yb ppm	Lu ppm	Mass g
M 42	0.8	-0.5	1.4	0.25	25.98
M 43	-0.2	-0.5	2.2	0.34	26.07
M 64	0.4	0.5	0.9	0.14	25.28
M 89	1.5	0.5	3.2	0.49	32.59
M 101	0.7	-0.5	2.4	0.35	27.29
M 127	0.8	0.6	1.7	0.27	24.15
M 128	-0.2	-0.5	2	0.3	23.79
M-165F	-0.2	-0.5	2	0.3	36.29
M 166F	0.5	-0.5	2.1	0.32	31.55
M-170F	0.2	0.9	2.6	0.39	31.44
M 172	1	-0.5	3.2	0.47	26.08
M-202	-0.2	0.5	1.9	0.3	35.37
M 203	0.4	-0.5	2	0.3	30.19
M 207	19.3	25	26.1	3.91	23.56
DMMAS-18-2193	1.2	-0.5	3.6	0.54	25.18
DMMAS 18 2192	1.4	0.9	3.7	0.55	25.09

Accepted Value-DMMAS-18 1.2±0.3 3.6±0.8 0.56±0.17

Activation Laboratories Ltd Work Order No 26143 Report No 25959B

Near Total Digestion Analysis 1H

SAMPLE	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	Be	Bi	Ca	K	Mg	P	Sr	Ti	V	Y	S
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	%
M 42	5.1	0.5	3269	627	7	96	45	122	4.56	3	4	0.68	4.51	1.32	0.054	12	0.38	115	13	6.989
M 43	0.3	0.3	21	383	4	44	15	68	5.50	4	2	0.39	7.23	1.25	0.050	9	0.51	124	9	0.023
M 64	6.8	0.3	8743	958	20	49	21	264	5.24	3	4	2.28	3.86	1.77	0.069	48	0.29	186	14	0.584
M 89	0.3	0.7	305	557	10	133	24	102	3.50	1	2	1.22	3.81	1.70	0.345	19	0.56	947	18	0.027
M 101	0.5	0.3	5891	1398	5	66	4	73	5.36	1	6	2.02	2.31	3.60	0.040	15	0.99	360	21	0.726
M 127	0.6	0.3	1739	664	11	23	21	38	12.55	2	2	2.58	12.23	2.25	0.067	32	0.53	161	21	0.106
M 128	3.6	0.4	15990	1257	9	95	9	30	3.34	1	12	3.12	2.66	2.43	0.029	18	0.20	77	15	0.683
M 165F	0.3	0.3	1059	49988	11	53	6	47	0.10	1	2	1.58	0.02	1.74	0.001	10	0.01	4	6	0.526
M 166F	2.8	0.9	3234	39618	15	1	43	123	0.30	1	3	4.15	0.21	2.24	0.001	101	0.01	5	11	0.340
M 166F /R	2.7	0.8	3178	39187	15	1	30	122	0.30	1	6	4.08	0.21	2.29	0.001	101	0.01	5	11	0.328
M 170F	4.8	0.6	6164	337	1	9	192	239	0.15	1	5	0.07	0.09	0.03	0.008	5	0.01	9	27	0.407
M 172	0.9	0.3	33138	3244	99	38	3	41	3.73	2	6	7.29	2.90	3.51	0.024	27	0.17	58	34	3.200
M 202	0.9	1.0	4939	48298	9	1	58	130	0.09	1	2	0.63	0.06	1.15	0.001	8	0.01	4	6	0.749
M 203	5.2	0.8	22211	32467	11	16	8	83	0.19	1	2	4.46	0.08	2.72	0.001	19	0.01	3	8	2.724
M 207	0.3	0.8	301	14122	4	13	18	95	3.59	1	2	0.20	3.36	0.13	0.077	20	0.21	34	97	0.079
AL 1		0.03	3	31	0.1	2	4.5	8	9.841	2.7	0.03	0.274	0.116	0.021	0.016	80	0.007	2	6.8	0.0085
AL 1	0.3	0.3	11	11	1	2	9	12	4.53	4	2	0.25	0.13	0.01	0.007	64	0.01	2	1	0.007
SDC 1 cert	0.041	0.08	30	883	0.25	38	25	103	8.338	3.0	0.26	1.001	2.722	1.019	0.069	183	0.606	102	40	0.065
SDC 1	0.3	0.3	42	951	5	44	33	118	4.77	4	2	1.09	3.01	0.80	0.048	197	0.69	115	29	0.072
DNC 1 cert	0.027	0.182	96	1154	0.7	247	6.3	66	9.687	1	0.02	8.055	0.19	6.06	0.037	145	0.287	148	18	0.039
DNC 1	0.3	0.3	99	990	13	282	3	58	6.70	1	2	8.05	0.18	4.93	0.020	146	0.31	146	18	0.061
SCO 1 cert	0.134	0.14	28.7	410	1.37	27	31	103	7.24	1.84	0.37	1.87	2.30	1.64	0.090	174	0.38	131	26	0.063
SCO 1	0.4	0.3	38	409	7	32	34	115	5.70	2	2	2.29	2.80	1.50	0.070	199	0.42	148	21	0.090
GXR 6 cert	1.3	0.1	66	1008	2.4	27	101	118	17.68	1.4	0.29	0.179	1.87	0.61	0.035	35	0.498	186	14	0.016
GXR 6	0.5	0.3	86	1022	7	27	118	155	5.87	1	2	0.14	1.93	0.28	0.056	32	0.67	235	5	0.017
GXR-2 cert	17	4.1	76	1008	2.1	21	690	530	16.46	1.7	0.69	0.929	1.37	0.85	0.105	160	0.3	52	17	0.031
GXR 2	21.9	3.8	119	917	5	26	950	700	5.76	2	5	0.82	1.63	0.70	0.056	172	0.40	71	13	0.045
GXR 1 cert	31	3.3	1110	853	18	41	730	760	3.52	1.22	1380	0.958	0.05	0.22	0.065	275	0.036	80	32	0.257
GXR 1	31.8	3.3	1277	849	28	22	831	782	1.55	1	1423	0.98	0.06	0.13	0.046	353	0.03	89	39	0.301
GXR 4 cert	4	0.86	6520	155	310	42	52	73	7.20	1.9	19	1.01	4.01	1.66	0.120	221	0.29	87	14	1.770
GXR 4	3.8	0.3	7621	155	302	50	65	101	5.40	3	39	1.27	5.32	1.55	0.108	293	0.35	100	16	2.267

Note: Certificate data underlined are recommended values; other values are proposed except those preceded by a () which are information values.

Barite, gahnite, chromite, cassiterite, zircon, sphene, magnetite, and sulphates may not be totally dissolved.

Aluminium and Yttrium may only be partially extracted.

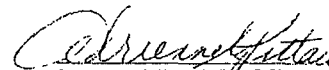
Sulphur associated with barite will not be extracted. Rutile, ilmenite, and monazite may not be fully extracted.

Clients are advised to obtain assays for Ag > 100 ppm and Pb > 5000 ppm due to potential solubility problems.

Values for Cu, Ni, Zn, Mo greater than 1% should be assayed if accuracy better than +/- 10-15% is required.

Values above 1% are for informational purposes only and should not be relied upon for promotional or ore reserve calculations. Assays are recommended for this purpose.

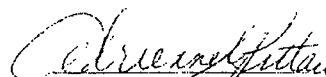
Sulphur will precipitate in samples containing massive sulphides.


Adlene F. Kuttan, B.Sc., C.Chem.
ICP Technical Manager
Lab. Technical Manager

Activation Laboratories Ltd Work Order No 26143 Report No 25959C

SAMPLE	SiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	TOTAL	Ba	Sr	Y	Sc	Zr	Be	V
	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
M-2	63.79	9.76	8.26	0.117	5.29	2.18	0.06	4.62	0.377	0.08	5.53	100.08	426	10	6	8	60	1	68
SY3 CERT	<u>59.62</u>	<u>11.75</u>	<u>6.49</u>	<u>0.32</u>	<u>2.67</u>	<u>8.26</u>	<u>4.12</u>	<u>4.23</u>	<u>0.15</u>	<u>0.54</u>	1.16		450	<u>302</u>	<u>718</u>	6.8	<u>320</u>	20	50 syenite
SY-3/C	59.83	11.63	6.41	0.330	2.59	8.25	4.14	4.19	0.148	0.54			446	309	717	8	337	21	49
NIST 694 CERT	<u>11.20</u>	<u>1.80</u>	<u>0.79</u>	<u>0.01</u>	<u>0.33</u>	<u>43.60</u>	<u>0.86</u>	<u>0.51</u>	0.11	<u>30.20</u>									<u>1736</u> western phosphate rock
NIST 694/C	10.98	1.89	0.72	0.011	0.32	44.13	0.88	0.54	0.116	28.79			114	960	149	3	99	1	1565
W-2 CERT	<u>52.44</u>	<u>15.35</u>	<u>10.74</u>	<u>0.163</u>	<u>6.37</u>	<u>10.87</u>	<u>2.14</u>	<u>0.627</u>	<u>1.06</u>	<u>0.131</u>	0.60		<u>182</u>	<u>194</u>	<u>24</u>	<u>35</u>	<u>94</u>	1.3	262 diabase
W-2/C	52.94	15.33	10.78	0.168	6.32	10.85	2.26	0.70	1.087	0.14			174	195	20	35	88	1	266
DNC-1 CERT	<u>47.04</u>	<u>18.30</u>	<u>9.93</u>	<u>0.149</u>	<u>10.05</u>	<u>11.27</u>	<u>1.87</u>	<u>0.229</u>	<u>0.48</u>	0.085	0.60		<u>114</u>	<u>145</u>	<u>18</u>	<u>31</u>	<u>41</u>	1	148 dolerite
DNC-1/C	47.37	18.57	9.85	0.148	10.13	11.27	1.95	0.20	0.495	0.07			107	144	17	31	32	-1	146
BE-N CERT	<u>38.20</u>	<u>10.07</u>	<u>12.84</u>	<u>0.200</u>	<u>13.15</u>	<u>13.87</u>	<u>3.18</u>	<u>1.39</u>	<u>2.610</u>	<u>1.05</u>			<u>1025</u>	<u>1370</u>	<u>30</u>	<u>22</u>	<u>265</u>	2	<u>235</u> basalt
BE-N/C	38.12	10.00	12.66	0.198	13.18	13.84	3.25	1.38	2.686	1.06			1062	1399	28	22	252	2	235
GBW 07113 CERT	<u>72.78</u>	<u>12.96</u>	<u>3.21</u>	<u>0.140</u>	<u>0.16</u>	<u>0.59</u>	<u>2.57</u>	<u>5.43</u>	<u>0.30</u>	<u>0.05</u>			<u>506</u>	<u>43</u>	<u>42.5</u>	<u>5.2</u>	<u>403</u>	<u>4.09</u>	<u>3.8</u> rhyolite
GBW 07113/C	72.87	12.91	3.14	0.142	0.18	0.61	2.57	5.36	0.290	0.05			500	43	48	5	414	4	5
NBS 1633b CERT	<u>49.24</u>	<u>28.43</u>	<u>11.13</u>	<u>0.020</u>	<u>0.799</u>	<u>2.11</u>	<u>0.271</u>	2.26	<u>1.32</u>	0.53			<u>709</u>	<u>1041</u>		41			296 fly ash
NBS 1633b/C	49.35	28.57	11.30	0.018	0.79	2.14	0.29	2.23	1.307	0.53			711	1040	90	40	183	12	292
STM-1 CERT	<u>59.64</u>	<u>18.39</u>	<u>5.22</u>	<u>0.22</u>	<u>0.101</u>	<u>1.09</u>	<u>8.94</u>	<u>4.28</u>	<u>0.135</u>	<u>0.158</u>			560	<u>700</u>	<u>46</u>	<u>0.61</u>	<u>1210</u>	9.6	(8.7) syenite
STM-1/C	59.32	17.80	5.07	0.219	0.09	1.11	8.77	4.14	0.129	0.16			587	691	42	1	1206	9	-5
IF-G CERT	<u>41.20</u>	<u>0.15</u>	<u>55.85</u>	<u>0.042</u>	<u>1.89</u>	<u>1.55</u>	<u>0.032</u>	<u>0.012</u>	<u>0.014</u>	<u>0.063</u>			1.5	3	9	0.38	2.4	4.7	4 iron form sample
IF-G/C	40.03	0.13	56.69	0.036	1.88	1.50	0.04	-0.01	0.005	0.06			4	4	9	-1	10	5	-5
FK-N CERT	<u>65.02</u>	<u>18.61</u>	<u>0.09</u>	<u>0.005</u>	<u>0.01</u>	<u>0.11</u>	<u>2.58</u>	<u>12.81</u>	<u>0.02</u>	<u>0.02</u>			<u>200</u>	<u>39</u>	0.3	0.05	13	1	3 K feldspar
FK-N/C	65.13	18.42	0.10	0.003	-0.01	0.10	2.50	12.86	0.005	0.01			206	37	-1	-1	3	1	-5

Note Certificate data underlined are recommended values other values are proposed except those preceded by a "(" which are information values
 Note The Fe2O3 for the standards is Total Fe2O3 and has not been adjusted for the FeO


 Andrew Pittau, B.Sc., C.Eng.
 QC Technical Manager

Quality Analysis...



Innovative Technologies

Invoice No. 25959
Work Order: 26143
Invoice Date: 28-NOV-02
Date Submitted. 04-NOV-02
Your Reference: MONSTER
Account Number: 3160

METALLUM GEOCONSULTANTS CORP
21 TRIPP CRESCENT
OTTAWA, ON
K2J 1C5

ATTN: TOM SETTERFIELD

CERTIFICATE OF ANALYSIS

15 ROCK(S) (PREP.REV3.2) were submitted for analysis.

The following analytical packages were requested Please see
our current fee schedule for elements and detection limits.

REPORT 25959 CODE 1H - INAA(INAAGEO.REV1)
REPORT 25959 B CODE 1H - TOTAL DIGESTION ICP(TOTAL.REV2)
REPORT 25959 C CODE 4B - MAJOR ELEMENTS FUSION ICP(WRA REV2)

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portions of the report are reproduced, permission must be obtained.
If no instructions were given at time of sample submittal regarding
excess material, it will be discarded within 90 days of this report.
Our liability is limited solely to the analytical cost of these analyses.
Test results are representative only of material submitted for analysis.

CERTIFIED BY


DR E.HOFFMAN/GENERAL MANAGER

Activation Laboratories Ltd Work Order 26143 Report 25959

Sample ID	Au ppb	Ag ppm	As ppm	Ba ppm	Br ppm	Ca %	Co ppm	Cr ppm	Cs ppm	Fe %	Hf ppm	Hg ppm	Ir ppb	Mo ppm	Na %	Ni ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm	Sn %	Sr %	Ta ppm	Th ppm	U ppm	W ppm	Zn ppm	La ppm	Ce ppm	Nd ppm	Sm ppm
M 42	102	-5	877	650	-0.5	-1	117	67	2	12.5	4	-1	-5	-1	0.05	95	192	95.2	12.1	-3	-0.02	-0.05	1	13.6	5.9	4	189	25.9	55	20	3.7
M-43	5	-5	4.6	770	-0.5	-1	18	81	12	5.92	5	-1	-5	-1	0.24	-20	212	1.1	19.8	-3	-0.01	-0.05	1.3	14.2	1.7	-1	77	2.6	7	-5	0.7
M 64	17	10	79.1	420	-0.5	2	51	48	-1	3.24	2	-1	-5	20	0.13	20	86	3.9	9.2	-3	-0.01	-0.05	0.5	8.9	2.3	-1	245	28.1	54	19	3.8
M 89	9	-5	20.6	1600	-0.5	-1	77	32	-1	26.5	2	-1	-5	9	0.1	162	61	3.6	17	-3	-0.01	-0.05	0.5	9.9	4.4	-1	151	53.6	83	20	4.6
M 101	10	-5	28.9	380	-0.5	3	56	63	-1	10.6	3	-1	-5	3	1.47	67	40	2.8	29.4	3	-0.02	-0.05	-0.5	4	1.2	-1	50	10.2	21	9	2.3
M-127	2	-5	24.7	2000	1.9	-1	71	99	3	2.78	3	-1	-5	10	0.12	-21	241	1.3	17.1	-3	-0.01	-0.05	-0.5	12.7	5.8	-1	-50	24	49	10	3.2
M-128	15	-5	10800	430	-0.5	4	9900	50	-1	4.49	-1	-1	-5	9	0.03	93	50	1	6	-3	-0.05	-0.05	-0.5	0.5	-0.5	-1	-50	21	40	11	3.5
M-165F	-2	-5	27.2	-50	-0.5	2	112	6	-1	30.3	-1	-1	-5	-1	0.02	64	-15	0.4	18	-3	-0.01	-0.05	0.5	-0.2	-0.5	-1	149	-0.5	-3	-5	1
M 166F	-2	-5	8.8	140	-0.5	5	20	8	2	28.6	-1	-1	-5	8	0.03	-20	-15	0.4	12.8	-3	-0.01	-0.05	-0.5	1.3	-0.5	-1	169	3.9	9	-5	1.5
M 170F	12	-5	31.4	-50	1	-1	4	12	-1	1.05	-1	-1	-5	3	0.03	-20	-15	2	0.7	-3	-0.01	-0.05	-0.5	0.4	1.3	1	239	1.4	5	-5	0.6
M 172	202	-5	88.4	530	-0.5	7	119	44	1	6.94	2	-1	-5	143	0.04	-20	131	1	8.1	4	-0.01	-0.05	-0.5	9.5	5.9	-1	177	13.4	29	5	3.1
M-202	-2	-5	74.3	-50	-0.5	1	61	7	-1	34.4	-1	-1	-5	1	0.02	-23	-15	1.2	10.9	-3	-0.01	-0.05	-0.5	0.6	-0.5	-1	168	1.8	5	-5	1
M 203	-2	-5	54.3	-50	0.9	5	52	8	-1	27.6	-1	-1	-5	-1	0.02	-22	-15	1.1	6	6	-0.01	-0.05	-0.5	0.9	0.8	-1	119	2.9	7	5	1.3
M 207	5	-5	11.2	780	-0.5	-1	10	18	3	7.65	4	-1	-5	-1	0.05	-20	110	1	6.9	-3	-0.01	-0.05	-0.5	8	4.7	-1	129	27.3	76	25	32.9
DMMAS-18-2193	531	-5	2310	370	3.2	7	60	140	-1	8.03	2	-1	-5	-2	0.74	-25	49	7.5	18.9	-3	-0.02	-0.05	-0.5	1.4	0.5	18	241	12.6	24	12	3.9
DMMAS-18-2192	598	-5	2280	430	3.3	8	64	146	-1	8.17	2	-1	-5	-2	0.78	-27	33	6.9	19.4	-3	-0.03	-0.05	-0.5	0.9	-0.5	20	278	12.5	26	9	4.1
Accepted Value DMMAS 18	598±84		2280±220	380±150	2±2	8±1	64±6	140±14	2±1	8.11±0.77	2±1				0.81±0.13	35±10	6.2±3.5	20±1.9					1.3±0.8		17±5	267±61	13±2.2	23±4	11±4	3.9±0.8	

Sample ID	Eu ppm	Tb ppm	Yb ppm	Lu ppm	Mass g
M 42	0.8	0.5	1.4	0.25	25.98
M 43	-0.2	-0.5	2.2	0.34	26.07
M 64	0.4	0.5	0.9	0.14	25.28
M 89	1.5	-0.5	3.2	0.49	32.59
M 101	0.7	0.5	2.4	0.35	27.29
M-127	0.8	0.6	1.7	0.27	24.15
M-128	-0.2	-0.5	2	0.3	23.79
M 165F	-0.2	-0.5	2	0.3	36.29
M 166F	0.5	-0.5	2.1	0.32	31.55
M 170F	-0.2	0.9	2.6	0.39	31.44
M 172	1	-0.5	3.2	0.47	26.08
M-202	-0.2	-0.5	1.9	0.3	35.37
M-203	0.4	-0.5	2	0.3	30.19
M-207	19.3	25	26.1	3.91	23.56
DMMAS-18-2193	1.2	0.5	3.6	0.54	25.18
DMMAS-18 2192	1.4	0.9	3.7	0.55	25.09

Accepted Value DMMAS-18 1.2±0.3 3.6±0.8 0.56±0.17

Activation Laboratories Ltd Work Order No 26143 Report No 25959B

Near Total Digestion Analysis 1H

SAMPLE	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	Be	Bi	Ca	K	Mg	P	Sr	Ti	V	Y	S
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	%
M 42	5.1	0.5	3269	627	7	96	45	122	4.56	3	4	0.68	4.51	1.32	0.054	12	0.38	115	13	6.989
M 43	0.3	0.3	21	383	4	44	15	68	5.50	4	2	0.39	7.23	1.25	0.050	9	0.51	124	9	0.023
M 64	6.8	0.3	8743	958	20	49	21	264	5.24	3	4	2.28	3.86	1.77	0.069	48	0.29	186	14	0.584
M 89	0.3	0.7	305	557	10	133	24	102	3.50	1	2	1.22	3.81	1.70	0.345	19	0.56	947	18	0.027
M 101	0.5	0.3	5891	1398	5	66	4	73	5.36	1	6	2.02	2.31	3.60	0.040	15	0.99	360	21	0.726
M 127	0.6	0.3	1739	664	11	23	21	38	12.55	2	2	2.58	12.23	2.25	0.067	32	0.53	161	21	0.106
M 128	3.6	0.4	15990	1257	9	95	9	30	3.34	1	12	3.12	2.66	2.43	0.029	18	0.20	77	15	0.683
M 165F	0.3	0.3	1059	49988	11	53	6	47	0.10	1	2	1.58	0.02	1.74	0.001	10	0.01	4	6	0.526
M 166F	2.8	0.9	3234	39618	15	1	43	123	0.30	1	3	4.15	0.21	2.24	0.001	101	0.01	5	11	0.340
M 166F /R	2.7	0.8	3178	39187	15	1	30	122	0.30	1	6	4.08	0.21	2.29	0.001	101	0.01	5	11	0.328
M 170F	4.8	0.6	6164	337	1	9	192	239	0.15	1	5	0.07	0.09	0.03	0.008	5	0.01	9	27	0.407
M 172	0.9	0.3	33138	3244	99	38	3	41	3.73	2	6	7.29	2.90	3.51	0.024	27	0.17	58	34	3.200
M 202	0.9	1.0	4939	48298	9	1	58	130	0.09	1	2	0.63	0.06	1.15	0.001	8	0.01	4	6	0.749
M 203	5.2	0.8	22211	32467	11	16	8	83	0.19	1	2	4.46	0.08	2.72	0.001	19	0.01	3	8	2.724
M 207	0.3	0.8	301	14122	4	13	18	95	3.59	1	2	0.20	3.36	0.13	0.077	20	0.21	34	97	0.079
AL 1		0.03	3	31	0.1	2	4.5	8	9.841	2.7	0.03	0.274	0.116	0.021	0.016	80	0.007	2	6.8	0.0085
AL 1	0.3	0.3	11	11	1	2	9	12	4.53	4	2	0.25	0.13	0.01	0.007	64	0.01	2	1	0.007
SDC 1 cert	0.041	(0.08	30	883	(25	38	25	103	8.338	3.0	0.26	1.001	2.722	1.019	0.069	183	0.606	102	40	0.065
SDC 1	0.3	0.3	42	951	5	44	33	118	4.77	4	2	1.09	3.01	0.80	0.048	197	0.69	115	29	0.072
DNC 1 cert	(0.027	(1.82	96	1154	(7	247	6.3	66	9.687	1	(0.2	8.055	0.19	6.06	0.037	145	0.287	148	18	(0.039
DNC 1	0.3	0.3	99	990	13	282	3	58	6.70	1	2	8.05	0.18	4.93	0.020	146	0.31	146	18	0.061
SCO-1 cert	0.134	0.14	28.7	410	1.37	27	31	103	7.24	1.84	0.37	1.87	2.30	1.64	0.090	174	0.38	131	26	0.063
SCO 1	0.4	0.3	38	409	7	32	34	115	5.70	2	2	2.29	2.80	1.50	0.070	199	0.42	148	21	0.090
GXR-6 cert	1.3	(1	66	1008	2.4	27	101	118	17.68	1.4	(29	0.179	1.87	0.61	0.035	35	0.498	186	14	0.016
GXR 6	0.5	0.3	86	1022	7	27	118	155	5.87	1	2	0.14	1.93	0.28	0.056	32	0.67	235	5	0.017
GXR 2 cert	17	4.1	76	1008	(2.1	21	690	530	16.46	1.7	(69	0.929	1.37	0.85	0.105	160	0.3	52	17	0.031
GXR 2	21.9	3.8	119	917	5	26	950	700	5.76	2	5	0.82	1.63	0.70	0.056	172	0.40	71	13	0.045
GXR 1 cert	31	3.3	1110	853	18	41	730	760	3.52	1.22	1380	0.958	0.05	0.22	0.065	275	0.036	80	32	0.257
GXR 1	31.8	3.3	1277	849	28	22	831	782	1.55	1	1423	0.98	0.06	0.13	0.046	353	0.03	89	39	0.301
GXR 4 cert	4	(86	6520	155	310	42	52	73	7.20	1.9	19	1.01	4.01	1.66	0.120	221	0.29	87	14	1.770
GXR 4	3.8	0.3	7621	155	302	50	65	101	5.40	3	39	1.27	5.32	1.55	0.108	293	0.35	100	16	2.267

Note: Certificate data underlined are recommended values, other values are proposed except those preceded by a (which are information values

Barite, gahnite, chromite, cassiterite, zircon, sphene, magnetite and sulphates may not be totally dissolved

Aluminium and Yttrium may only be partially extracted

Sulphur associated with barite will not be extracted Rutile, ilmenite and monazite may not be fully extracted

Clients are advised to obtain assays for Ag>100 ppm and Pb>5000 ppm due to potential solubility problems

Values for Cu, Ni, Zn, Mo greater than 1% should be assayed if accuracy better than +/- 10-15% is required

Values above 1% are for informational purposes only and should not be relied upon for promotional or ore

reserve calculations Assays are recommended for this purpose

Sulphur will precipitate in samples containing massive sulphides

Cedric J. Pittau
 Cedric J. Pittau B.Sc. C.Chem.
 ICP Technical Manager
 ICP Technical Manager

Activation Laboratories Ltd Work Order No 26143 Report No 25959C

SAMPLE	SiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	TOTAL	Ba	Sr	Y	Sc	Zr	Be	V
	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
M-2	63.79	9.76	8.26	0.117	5.29	2.18	0.06	4.62	0.377	0.08	5.53	100.08	426	10	6	8	60	1	68
SY3 CERT	<u>59.62</u>	<u>11.75</u>	<u>6.49</u>	<u>0.32</u>	<u>2.67</u>	<u>8.26</u>	<u>4.12</u>	<u>4.23</u>	<u>0.15</u>	<u>0.54</u>	1.16		450	302	718	6.8	320	20	50 syenite
SY-3/C	59.83	11.63	6.41	0.330	2.59	8.25	4.14	4.19	0.148	0.54			446	309	717	8	337	21	49
NIST 694 CERT	<u>11.20</u>	<u>1.80</u>	<u>0.79</u>	<u>0.01</u>	<u>0.33</u>	<u>43.60</u>	<u>0.86</u>	<u>0.51</u>	0.11	<u>30.20</u>									1736 western phosphate rock
NIST 694/C	10.98	1.89	0.72	0.011	0.32	44.13	0.88	0.54	0.116	28.79			114	960	149	3	99	1	1565
W-2 CERT	<u>52.44</u>	<u>15.35</u>	<u>10.74</u>	<u>0.163</u>	<u>6.37</u>	<u>10.87</u>	<u>2.14</u>	<u>0.627</u>	<u>1.06</u>	<u>0.131</u>	0.60		182	194	24	35	94	1.3	262 diabase
W-2/C	52.94	15.33	10.78	0.168	6.32	10.85	2.26	0.70	1.087	0.14			174	195	20	35	88	1	266
DNC-1 CERT	<u>47.04</u>	<u>18.30</u>	<u>9.93</u>	<u>0.149</u>	<u>10.05</u>	<u>11.27</u>	<u>1.87</u>	<u>0.229</u>	<u>0.48</u>	0.085	0.60		114	145	18	31	41	1	148 dolerite
DNC-1/C	47.37	18.57	9.85	0.148	10.13	11.27	1.95	0.20	0.495	0.07			107	144	17	31	32	-1	146
BE-N CERT	<u>38.20</u>	<u>10.07</u>	<u>12.84</u>	<u>0.200</u>	<u>13.15</u>	<u>13.87</u>	<u>3.18</u>	<u>1.39</u>	<u>2.610</u>	<u>1.05</u>			1025	1370	30	22	265	2	235 basalt
BE-N/C	38.12	10.00	12.66	0.198	13.18	13.84	3.25	1.38	2.686	1.06			1062	1399	28	22	252	2	235
GBW 07113 CERT	<u>72.78</u>	<u>12.96</u>	<u>3.21</u>	<u>0.140</u>	<u>0.16</u>	<u>0.59</u>	<u>2.57</u>	<u>5.43</u>	<u>0.30</u>	<u>0.05</u>			506	43	42.5	5.2	403	4.09	3.8 rhyolite
GBW 07113/C	72.87	12.91	3.14	0.142	0.18	0.61	2.57	5.36	0.290	0.05			500	43	48	5	414	4	5
NBS 1633b CERT	<u>49.24</u>	<u>28.43</u>	<u>11.13</u>	<u>0.020</u>	<u>0.799</u>	<u>2.11</u>	<u>0.271</u>	2.26	<u>1.32</u>	0.53			709	1041		41			296 fly ash
NBS 1633b/C	49.35	28.57	11.30	0.018	0.79	2.14	0.29	2.23	1.307	0.53			711	1040	90	40	183	12	292
STM-1 CERT	<u>59.64</u>	<u>18.39</u>	<u>5.22</u>	<u>0.22</u>	<u>0.101</u>	<u>1.09</u>	<u>8.94</u>	<u>4.28</u>	<u>0.135</u>	<u>0.158</u>			560	700	46	0.61	1210	9.6	(8.7) syenite
STM-1/C	59.32	17.80	5.07	0.219	0.09	1.11	8.77	4.14	0.129	0.16			587	691	42	1	1206	9	-5
IF-G CERT	<u>41.20</u>	<u>0.15</u>	<u>55.85</u>	<u>0.042</u>	<u>1.89</u>	<u>1.55</u>	<u>0.032</u>	<u>0.012</u>	<u>0.014</u>	<u>0.063</u>			1.5	3	9	0.38	2.4	4.7	4 iron form sample
IF-G/C	40.03	0.13	56.69	0.036	1.88	1.50	0.04	-0.01	0.005	0.06			4	4	9	-1	10	5	-5
FK-N CERT	<u>65.02</u>	<u>18.61</u>	<u>0.09</u>	<u>0.005</u>	<u>0.01</u>	<u>0.11</u>	<u>2.58</u>	<u>12.81</u>	<u>0.02</u>	<u>0.02</u>			200	39	0.3	0.05	13	1	3 K feldspar
FK-N/C	65.13	18.42	0.10	0.003	-0.01	0.10	2.50	12.86	0.005	0.01			206	37	-1	-1	3	1	-5

Note Certificate data underlined are recommended values, other values are proposed except those preceded by a "(" which are information values
 Note The Fe2O3 for the standards is Total Fe2O3 and has not been adjusted for the FeO

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APPENDIX D

REPORT ON GRAVITY SURVEY



Logistical Summary
Gravity Survey; Monster Copper, Yukon

for Monster Copper Resources Limited

MWH Geo-Surveys Ltd
August 2002

INTRODUCTION

From July 1 to 18, 2002, MWH Geo-Surveys Ltd. carried out a gravity survey on Monster Copper properties in the Yukon Territories at the request of Monster Copper Resources Inc. The positional survey associated with this project was carried out by a differential post-processed GPS survey. Gravity stations were accessed on foot with limited helicopter support.

PROJECT SCHEDULE

The following is the project timeline:

- ♦ Mobilization to Dawson City, Yukon: July 1, 2
- ♦ Start of Survey: July 3
- ♦ Completion of surveys: July 16
- ♦ Demobilization: July 17, 18

A total of 184 unique stations and 4 repeats were occupied during thirteen production days. The new stations were integrated into the 2001 year survey for a complete data set consisting of 319 surveyed gravity points.

FIELD OPERATIONS

Survey Personnel The personnel involved on this project were:

- | | |
|--------------------|------------------------------------|
| ♦ Kevin MacNabb | Gravity surveyor / data processing |
| ♦ Marshall MacNabb | GPS surveyor |

Instrumentation The gravity meter used on this project was a LaCoste & Romberg Model G gravity meter, serial number 725. The positional survey was conducted using three Ashtech Z Surveyor dual frequency GPS receivers.

Field Procedures, Gravity All gravity readings were taken within closed loops to allow for correction of instrument drift. The gravity base station established at the field camp during the 2001 survey, after base ties from the IGSN base in Dawson City (9378-1978 value 982,076.911), was reoccupied for this survey.

Approximately 4 per cent of the 319 gravity stations (14 stations) were repeated on these surveys with an average repeatability 0.33 milligals.

Field Procedures, GPS Surveying Gravity stations were positioned by a differentially corrected GPS survey. The GPS survey technique was primarily rapid static observations from two static base stations. The base station receivers were mounted on tripods and the rover gps receiver was carried by backpack. The data rate was 2-second epochs. A section of detailed line (designed line M1) was surveyed by kinematic observations.

DATA REDUCTION and INTEGRITY

Gravity The L&R meter data was converted to milligals using the appropriate meter variables. Additional corrections were made for the tides, drift between base ties and an adjustment to the IGSN base value. The results from these calculations are listed as Observed Gravity. The Observed Gravity values were corrected to Bouguer Gravity using the following formula

$$g_B = g_{obs} - \gamma + (3086 \times h) - (0.4193 \rho \times h) + dg_T$$

where

g_B = Bouguer Gravity

g_{obs} = Observed Gravity

γ = Theoretical Gravity

dg_T = Terrain correction

h = Station elevation metres

ρ = Density gm/cc

There are several theoretical gravity formulae available. We have used the most recently published formula (1998) from The United States National Imagery and Mapping Agency (NIMA). According to this new formula, the theoretical gravity (γ) obtained from the gravity field of the WGS84 reference ellipsoid is

$$\gamma = (978032.53359) \left(\frac{1 + 0.00193185265241 \sin^2(\phi)}{\sqrt{1 - 0.00669437999014 \sin^2(\phi)}} \right) \text{ milligals}$$

where (ϕ) is the geodetic latitude. Using this formula requires a small Atmospheric Gravity Correction (δ) because the WGS84 Earth's gravitational constant includes the mass of the atmosphere. This correction is given by

$$\delta = 0.87e^{-0.118 \left[\left(\frac{h}{1000} \right)^{1.047} \right]}$$

where h is the elevation with respect to sea level

Bouguer gravity data was calculated using densities of 2.5, 2.67 and 2.75 gm/cc

Terrain Corrections The terrain observations are made by the operator in the field, using an optical inclinometer. Slope measurements are made in four sectors of Hammer Zone B (2.0 - 16.5 metres), six sectors of Zone C (16.5 - 53.3 metres) and six sectors of Zone D (53.3 - 170.0 metres). The measured slope is used with the sector midpoint distance to compute a vertical difference. Then using the standard formula for the gravitational attraction of a vertical hollow cylinder

$$g = 2\pi\gamma\delta [R_2 - R_1 + \sqrt{R_1^2 + h^2} - \sqrt{R_2^2 + h^2}]$$

where

g = terrain correction in milligals

γ = gravitational constant

δ = density

R_1 = inner zone radius

R_2 = outer zone radius

h = height of cylinder

correction in milligals is calculated for each zone sector

The listed terrain corrections are computed using a density of 2.0 gm/cc. During bouguer calculations, the terrain correction density is scaled to match the bouguer density.

GPS Surveying Our GPS data was downloaded into Trimble total Control version 2.50 processing software daily. All data was recorded at 2-second data intervals with an elevation mask angle of 10 degrees.

The local control site established in 2001 was reoccupied for this survey, therefore ensuring a common datum for the two surveys. In the absence of local survey control, the absolute position of the 2001 control point was derived from single point solutions of the gps base station data. Once the position of the gps bases were established, those points were fixed and all rover observations were processed relative to them. Two base stations were utilized and both base - rover solutions were analyzed and adjusted in a least squares adjustment.

SUMMARY

There were no technical or logistical problems during the course of this survey. The high accuracy of the gravity measurements and surveyed positions will yield a reliable data set from which geophysical decisions may be based.

Appendix I

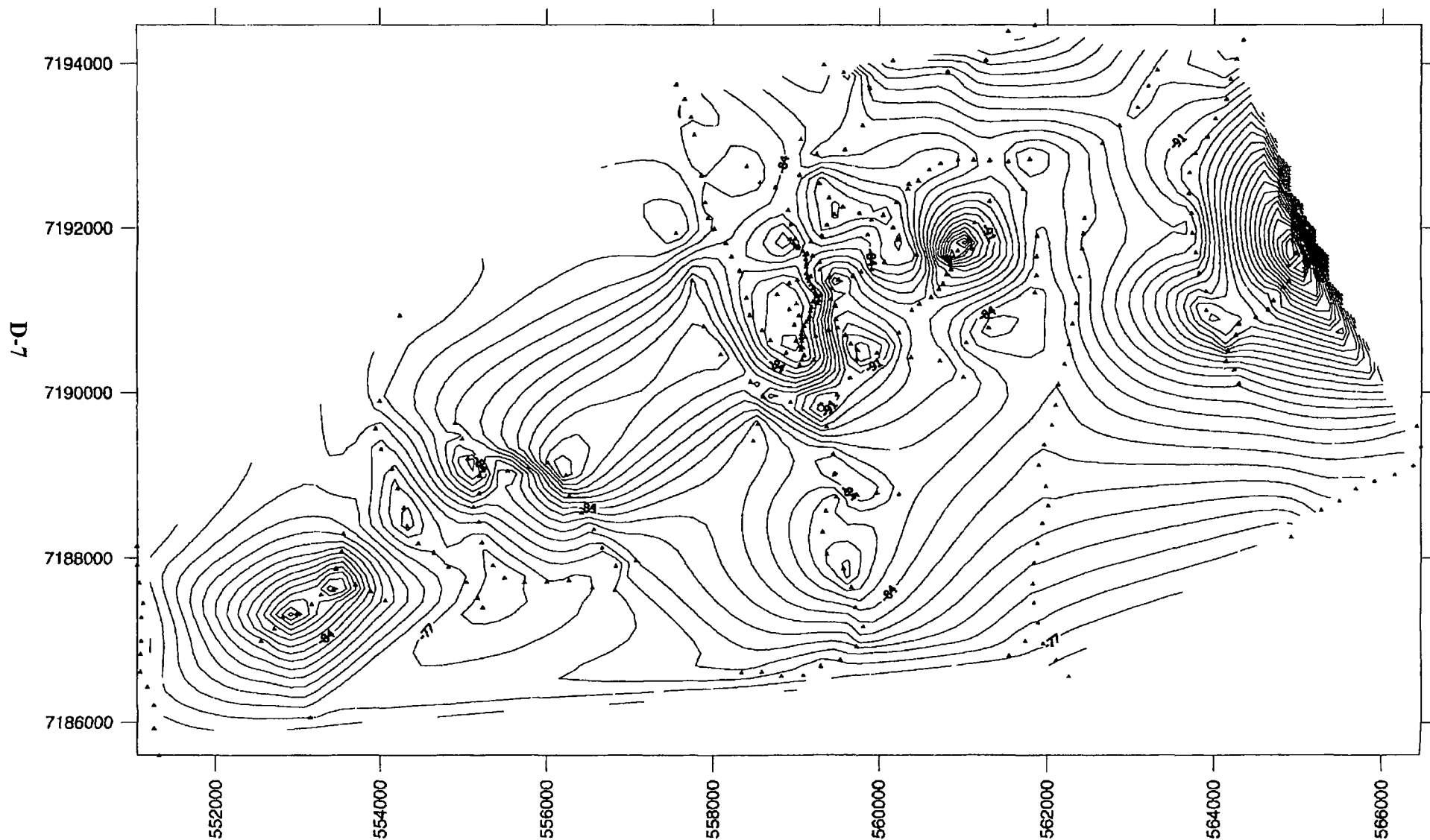
- ✓ Site Map & Bouguer Gravity Contours
 - ✓ Data Listing
 - ✓ GPS Receiver Specifications
 - ✓ Gravity Meter Specifications

NAD83 Zone 7
Bouguer Density 2.67 gm/cc

▲ 2001 Survey

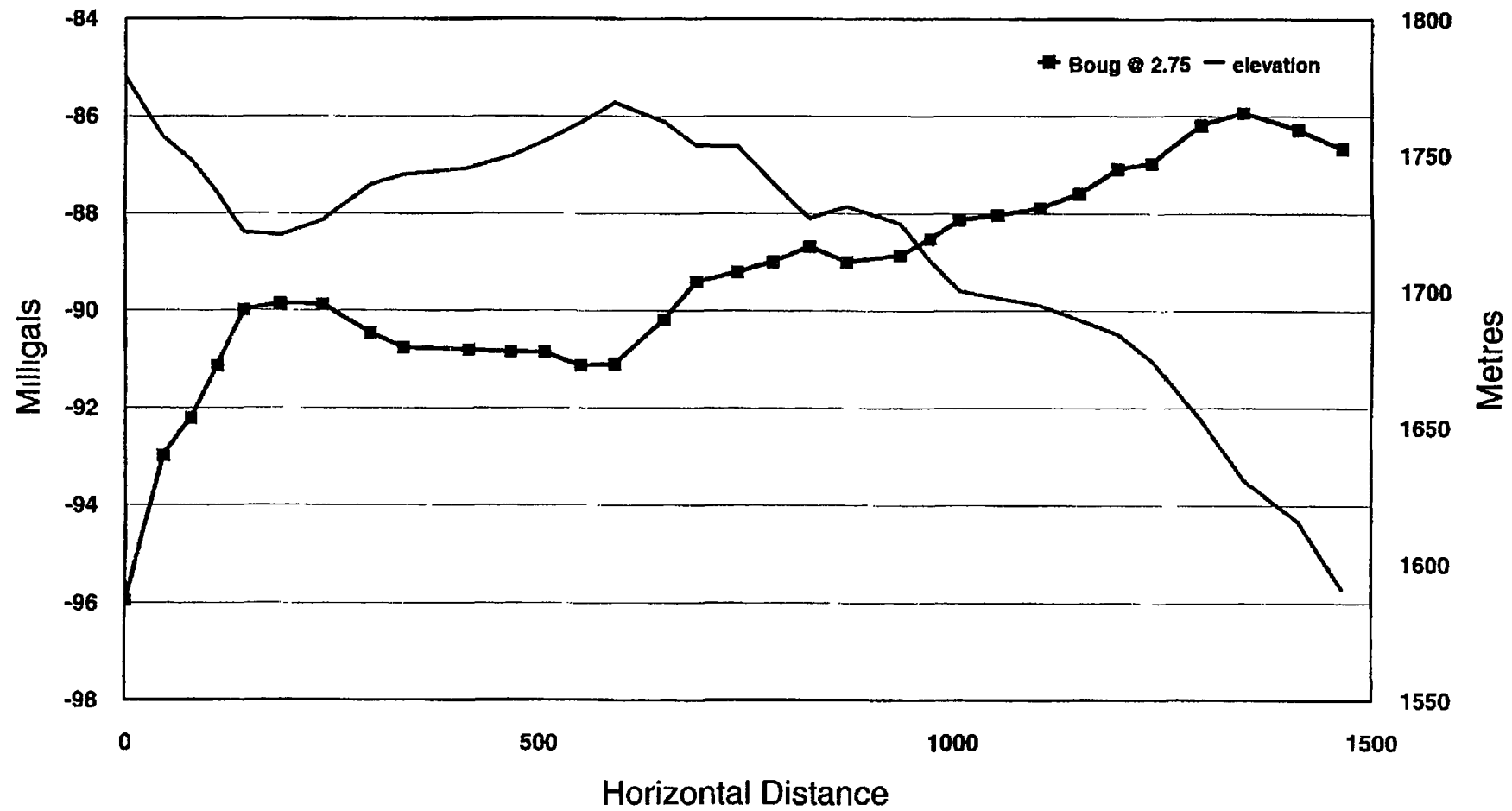
▲ 2002 Survey

Monster Copper Resources Inc.



D-8

Line M1





MWH
Geo-Surveys,
Inc.

GRAVITY SURVEY Monster Project, Yukon
for Monster Copper Resources Inc

Boug density #1	2.50	unique stations	319
Boug density #2	2.67	repeats	14
Boug density #3	2.75	avg repeatability	0.033

1	1	rp01214	11 47	689	5307 31	0 57	0 030	5400 76	981 845 934	0 17	0 43	2 24	1 84	982280 444	1710 96	64 8687974	139 6948646	561844 1	7194470 2	-83 56	95 60	-101.26
1	2	rp01214	12 17	689	5298 51	0 53	0 037	5391 80	981 836 973	0 11	0 20	0 72	1 03	982280 398	1755 26	64 8682014	139 7016702	561523 0	7194397 1	84 46	-96 89	102 73
1	3	rp01214	12 41	689	5306 55	0 75	0 042	5400 03	981 845 195	0 13	0 29	1 08	1 50	982280 186	1725 84	64 8651216	139 7072738	561264 5	7194048 5	81 44	-93 61	99 34
1	4	rp01214	13 10	689	5318 13	0 74	0 045	5411 81	981 856 973	0 12	0 23	0 65	0 99	982280 107	1688 19	64 8639460	139 7169409	560809 1	7193908 2	77 88	89 83	95 45
1	5	rp01214	13 50	689	5296 63	0 69	0 046	5389 92	981 835 084	0 06	0 19	0 87	1 12	982280 194	1785 76	64 8653154	139 7304997	560163 5	7194047 8	79 82	92 45	-98 40
1	6	rp01214	14 11	689	5311 09	0 69	0 046	5404 63	981 849 794	0 02	0 08	0 47	0 58	982279 991	1733 46	64 8623449	139 7364777	559886 8	7193711 2	76 24	88 55	-94 34
1	7	rp01214	14 35	689	5335 24	0 74	0 044	5429 21	981 874 374	0 00	0 04	0 47	0 51	982280 118	1632 29	64 8640250	139 7431793	559565 5	7193892 0	72 49	84 08	89 54
1	8	rp01214	14 51	689	5324 02	0 72	0 041	5417 79	981 862 951	0 04	0 19	0 98	1 20	982280 181	1658 67	64 8649755	139 7480923	559330 6	7193993 3	-75 70	87 49	-93 04
1	9	rp01214	15 53	689	5318 31	0 70	0 027	5411 96	981 857 119	0 05	0 15	0 67	0 87	982279 712	1701 71	64 8583065	139 7385670	559796 8	7193259 2	74 74	86 60	-92 47
1	10	rp01214	16 20	689	5313 95	0 75	0 018	5407 53	981 852 688	0 07	0 19	0 95	1 21	982279 530	1721 06	64 8557180	139 7431739	559584 2	7192966 4	-74 62	86 78	-92 50
1	11	rp01214	16 51	689	5313 19	0 67	0 008	5406 72	981 851 880	0 05	0 10	0 58	0 74	982279 496	1726 36	64 8552424	139 7502045	559251 9	7192906 8	74 91	-87 15	-92 91
1	11	rp01215	10 13	689	5313 24	0 69	-0 016	5406 76	981 851 905	0 05	0 10	0 58	0 74	982279 496	1726 36	64 8552424	139 7502045	559251 9	7192906 8	74 88	87 13	92 89
1	12	rp01215	10 35	689	5330 15	0 65	-0 008	5423 95	981 869 101	0 02	0 06	0 45	0 53	982279 621	1653 88	64 8569368	139 7541380	559061 7	7193091 9	72 84	84 59	-90 11
1	13	rp01215	11 04	689	5320 05	0 70	0 002	5413 70	981 858 846	0 06	0 13	0 60	0 78	982279 344	1700 59	64 8530362	139 7547618	559040 7	7192656 7	72 99	85 04	90 72
1	14	rp01215	11 35	689	5341 56	0 53	0 013	5435 54	981 880 683	0 09	0 17	0 61	0 87	982279 306	1601 42	64 8523671	139 7649656	558538 4	7192572 7	-71 20	-82 54	-87 88
1	15	rp01215	11 50	689	5351 85	0 65	0 018	5446 05	981 891 191	0 04	0 04	0 31	0 40	982279 432	1553 89	64 8541044	139 7680804	558407 0	7192763 4	71 10	-82 14	-87 34
1	16	rp01215	12 48	689	5327 08	0 94	0 033	5420 84	981 865 955	0 13	0 18	0 71	1 02	982279 258	1667 13	64 8517587	139 7609951	558748 2	7192508 6	72 30	-84 09	-89 65
1	17	rp01215	16 18	689	5445 42	0 65	0 024	5541 24	981 986 337	0 02	0 04	0 10	0 16	982279 600	1043 55	64 8558314	139 6783074	562638 8	7193041 7	80 41	-87 83	-91 33
1	18	rp01215	16 41	689	5448 12	0 63	0 017	5543 98	981 989 068	0 03	0 02	0 09	0 13	982279 735	1024 23	64 8577286	139 6738177	562867 2	7193257 5	-81 79	-89 08	-92 51
1	19	rp01215	17 04	689	5448 97	0 55	0 009	5544 81	981 989 895	0 02	0 01	0 06	0 10	982279 871	1023 63	64 8596776	139 6891273	563085 2	7193479 4	-81 26	-88 55	-91 98
1	20	rp01215	17 22	689	5450 13	0 49	0 003	5545 97	981 991 048	0 06	0 04	0 10	0 20	982280 032	1017 27	64 8619772	139 6662726	563214 8	7193738 5	-81 44	-88 67	-92 08
1	21	rp01215	17 33	689	5452 01	0 43	-0 001	5547 86	981 992 337	0 02	0 04	0 09	0 15	982280 150	1008 25	64 8636623	139 6640041	563318 4	7193928 5	81 58	-88 75	-92 13
1	22	rp01216	12 40	689	5318 07	0 65	0 016	5411 69	981 856 734	0 13	0 28	0 92	1 33	982279 076	1706 36	64 8591982	139 7578684	558901 8	7192226 2	-72 93	-84 98	-90 65
1	23	rp01216	13 22	689	5306 51	0 67	0 025	5399 94	981 844 987	0 08	0 14	0 62	0 83	982278 850	1756 66	64 8460378	139 7563330	558981 6	7191875 4	74 86	-87 31	-93 17
1	24	rp01216	13 36	689	5315 34	0 66	0 028	5408 93	981 853 968	0 02	0 05	0 27	0 34	982278 738	1776 14	64 8443817	139 7531117	559138 0	7191693 9	72 60	-84 88	-90 66
1	25	rp01216	14 01	689	5299 29	0 67	0 031	5392 60	981 837 643	0 09	0 21	0 63	0 94	982278 609	1795 44	64 8426341	139 7501269	559283 4	7191502 0	73 93	-86 65	-92 63
1	26	rp01216	14 33	689	5292 04	0 48	0 033	5385 17	981 830 209	0 12	0 23	0 75	1 11	982278 378	1831 13	64 8393645	139 7474778	559418 6	7191140 2	73 65	-86 60	92 70
1	27	rp01216	15 02	689	5272 49	0 99	0 033	5365 31	981 810 350	0 12	0 17	0 66	0 95	982278 152	1907 77	64 8362318	139 7459150	559497 2	7190792 5	77 86	91 38	-97 74
1	28	rp01216	11 26	689	5260 52	0 66	0 041	5353 08	981 798 104	0 05	0 19	1 01	1 26	982277 976	1950 59	64 8337686	139 7410382	559734 0	7190522 6	-80 82	94 62	-101 11
1	28	rp01219	17 50	689	5260 69	0 62	0 018	5353 27	981 798 127	0 05	0 19	1 01	1 26	982277 976	1950 59	64 8337686	139 7410382	559734 0	7190522 6	80 80	94 60	-101 09
1	28	rp01222	17 15	689	5260 73	0 65	0 052	5353 28	981 798 134	0 05	0 19	1 01	1 26	982277 976	1950 59	64 8337686	139 7410382	559734 0	7190522 6	80 79	94 59	-101 08
1	28	rp01216	15 30	689	5260 47	0 73	0 031	5353 13	981 798 162	0 05	0 19	1 01	1 26	982277 976	1950 59	64 8337686	139 7410382	559734 0	7190522 6	80 76	-94 56	-101 05
1	29	rp01218	11 52	689	5265 27	0 70	0 035	5357 94	981 802 952	0 16	0 39	1 35	1 91	982277 954	1924 57	64 8334141	139 7361054	559968 9	7190487 8	80 44	94 00	-100 38
1	29	rp01216	16 21	689	5265 27	0 69	0 022	5357 99	981 803 020	0 16	0 39	1 35	1 91	982277 954	1924 57	64 8334141	139 7361054	559968 9	7190487 8	80 37	93 93	-100 31
1	30	rp01216	17 04	689	5290 58	0 71	0 011	5383 73	981 828 763	0 23	0 48	1 54	2 25	982278 116	1816 53	64 8355967	139 7303383	560237 6	7190736 5	75 97	88 74	94 75
1	30	rp01217	16 55	689	5290 59	0 72	0 011	5383 75	981 828 775	0 23	0 48	1 54	2 25	982278 116	1816 53	64 8355967	139 7303383	560237 6	7190736 5	75 95	-88 72	-94 73
1	31	rp01216	17 44	689	5303 35	0 60	-0 002	5396 68	981 841 708	0 15	0 39	1 09	1 63	982278 292	1763 84	64 830491	139 7270306	560389 0	7191012 9	75 12	87 55	-93 40
1	32	rp01217	11 24	689	5368 78	0 69	-0 026	5463 25	981 908 255	0 15	0 40	1 46	2 01	982279 227	1434 53	64 8510120	139 6988152	561697 7	7192484 5	-76 14	86 20	-90 93
1	33	rp01217	12 18	689	5336 65	0 66	0 009	5404 57	981 875 581	0 10	0 27	1 22	1 59	982279 124	1591 15	64 8497388	139 7071705	561304 5	7192334 5	77 32	88 53	-93 80
1	34	rp01217	13 11	689	5310 55	0 68	0 006	5404 04	981 849 054	0 10	0 40	1 33	1 82	982278 949	1704 09	64 8473795	139 7109454	561130 8	7192068 0	80 36	92 36	-98 00
1	35	rp01217	14 07	689	5291 44	0 69	0 017	5384 61	981 829 628	0 21	0 50	1 47	2 19	982278 743	1783 22	64 8445325	139 7116840	561102 3	7191750 1	83 01	95 53	-101 43
1	36	rp01217	15 03	689	5302 61	0 47	0 022	5395 9														

1	64	np01221	11 14	689	5430 81	0 59	-0 059	5526 28	981 971 178	0 02	0 01	0 06	0 09	982277 601	1132 22	64 8273359	139 6915620	562096 1	7189853 5	75 59	83 65	87 44
1	65	np01221	11 27	689	5430 78	0 64	-0 058	5526 27	981 971 163	0 00	0 01	0 14	0 15	982277 451	1132 97	64 8251820	139 6926381	562050 0	7189612 4	75 23	83 29	87 08
1	66	np01221	11 39	689	5429 96	0 67	-0 058	5525 47	981 970 369	0 00	0 01	0 04	0 05	982277 307	1137 75	64 8231284	139 6946522	561959 1	7189336 1	75 03	83 13	86 95
1	67	np01221	11 59	689	5429 08	0 77	-0 057	5524 55	981 969 444	0 00	0 00	0 05	0 05	982277 150	1144 89	64 8208927	139 6961475	561893 3	7189131 0	74 35	82 51	86 34
1	68	np01221	12 16	689	5428 57	0 72	-0 055	5524 05	981 968 941	0 00	0 00	0 02	0 02	982276 991	1148 11	64 8162696	139 6944575	561978 7	7188880 5	74 07	82 25	86 10
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1	72	np01221	13 13	689	5426 58	0 70	-0 051	5522 02	981 966 914	0 00	0 00	0 00	0 00	982276 406	1166 99	64 8102795	139 6978479	561836 9	7187946 8	71 68	-80 00	83 92
1	73	np01221	13 25	689	5425 78	0 63	-0 050	5521 19	981 966 080	0 00	0 00	0 00	0 00	982276 246	1174 00	64 8080077	139 6982452	561823 3	7187693 2	70 93	79 30	83 24
1	74	np01221	13 47	689	5425 24	0 68	-0 047	5520 66	981 965 548	0 00	0 02	0 02	0 03	982276 098	1179 28	64 8058970	139 6980282	561838 4	7187458 3	70 20	78 61	82 56
1	75	np01221	14 02	689	5424 37	0 63	-0 046	5519 76	981 964 648	0 00	0 00	0 01	0 02	982275 944	1185 05	64 8036954	139 6970930	561887 9	7187213 9	-69 79	78 24	82 21
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1	77	np01221	14 34	689	5418 56	0 61	-0 043	5513 84	981 958 734	0 01	0 14	0 30	0 45	982275 694	1215 44	64 8001702	139 7047041	561534 4	7186813 7	-68 72	77 35	81 41
1	78	np01221	14 55	689	5422 81	0 50	-0 042	5518 13	981 961 024	0 00	0 00	0 02	0 02	982275 785	1197 26	64 8014435	139 6959397	561947 8	7186964 1	-68 76	77 29	81 31
1	79	np01221	15 09	689	5417 99	0 55	-0 040	5513 25	981 958 138	0 04	0 08	0 20	0 33	982275 655	1225 30	64 7996232	139 6926245	562109 5	7186764 5	-67 42	-76 13	80 22
1	80	np01221	15 26	689	5413 20	0 57	-0 039	5508 38	981 953 272	0 00	0 01	0 13	0 13	982275 523	1256 10	64 7977781	139 6885742	562258 6	7186561 9	-66 12	75 07	79 27
1	85	np01222	8 51	689	5351 03	0 56	-0 041	5445 13	981 890 029	0 05	0 12	0 82	0 98	982275 572	1550 01	64 7988684	139 7719817	558341 5	7186604 9	-68 47	79 44	84 60
1	86	np01222	9 11	689	5356 53	0 66	-0 042	5450 76	981 895 651	0 10	0 25	0 85	1 20	982275 578	1526 12	64 7989142	139 7668691	558584 2	7186614 7	67 44	78 21	83 28
1	87	np01222	9 25	689	5359 84	0 75	-0 044	5454 15	981 899 044	0 11	0 27	0 95	1 33	982275 544	1509 69	64 7984149	139 7618655	558823 0	7186653 7	-67 20	77 85	-82 86
1	88	np01222	9 38	689	5361 45	0 66	-0 044	5455 76	981 900 652	0 09	0 22	0 77	1 08	982275 547	1504 27	64 7984400	139 7562595	559089 3	7186571 8	67 01	77 61	82 64
1	89	np01222	10 00	689	5356 77	0 63	-0 045	5453 02	981 897 913	0 08	0 25	0 80	1 14	982275 614	1520 93	64 7959429	139 7518823	559295 0	7186685 6	-66 35	77 10	82 16
1	90	np01222	10 15	689	5351 33	0 66	-0 047	5445 43	981 890 320	0 11	0 21	0 65	0 97	982275 656	1557 75	64 8000775	139 7468972	559530 4	7186763 0	-66 70	77 72	82 91
1	91	np01222	10 37	689	5330 59	0 60	-0 048	5424 35	981 869 232	0 16	0 33	1 05	1 54	982275 742	1646 11	64 8014246	139 7427304	559725 3	7186917 0	-69 15	-80 76	86 22
1	92	np01222	11 02	689	5317 86	0 68	-0 049	5411 42	981 856 302	0 06	0 16	0 71	0 93	982275 892	1704 03	64 8036341	139 7408958	559907 6	7187164 9	71 19	-83 26	88 94
1	93	np01222	11 21	689	5315 36	0 60	-0 050	5408 85	981 853 732	0 10	0 24	0 77	1 11	982276 036	1717 30	64 8057122	139 7427914	559713 0	7187394 7	-70 98	-83 13	88 84
1	94	np01222	11 40	689	5299 34	0 70	-0 051	5392 58	981 837 462	0 05	0 26	0 87	1 18	982276 168	1777 29	64 8079613	139 7437266	559663 6	7187644 6	75 08	-87 65	-93 56
1	95	np01222	12 10	689	5294 43	0 70	-0 052	5387 99	981 832 462	0 18	0 35	1 10	1 63	982276 330	1794 14	64 8100223	139 7455263	559573 6	7187872 4	76 23	88 88	-94 83
1	96	np01222	12 32	689	5299 88	0 65	-0 052	5393 11	981 837 990	0 15	0 33	0 80	1 17	982276 448	1777 38	64 8116857	139 7497372	559370 0	7188053 8	74 80	87 37	-93 29
1	97	np01222	12 54	689	5305 40	0 64	-0 052	5398 73	981 841 603	0 15	0 34	1 05	1 53	982276 621	1752 86	64 8141268	139 7507328	559317 3	7188324 9	73 92	86 28	92 10
1	98	np01222	13 17	689	5302 80	0 64	-0 052	5396 08	981 844 355	0 21	0 39	1 18	1 78	982276 779	1761 15	64 8163973	139 7497824	559357 4	7188578 8	74 72	87 12	92 95
1	99	np01222	13 45	689	5302 37	0 62	-0 052	5395 64	981 840 510	0 10	0 26	1 09	1 46	982276 884	1767 41	64 8179052	139 7471384	559479 6	7188749 3	74 40	86 87	92 74
1	100	np01222	14 03	689	5319 02	0 65	-0 052	5412 59	981 857 454	0 12	0 29	0 79	1 20	982276 900	1700 75	64 8180531	139 7418072	559732 4	7188770 8	71 38	83 40	89 06
1	101	np01222	14 15	689	5324 71	0 64	-0 052	5418 37	981 863 238	0 12	0 24	0 74	1 10	982276 918	1673 70	64 8182743	139 7366917	559974 7	7188800 2	71 25	83 08	-88 65
1	102	np01222	14 31	689	5319 07	0 63	-0 051	5412 63	981 857 498	0 12	0 32	1 09	1 53	982276 904	1687 92	64 8180907	139 7311274	560239 3	7188785 1	-73 54	85 44	-91 04
1	103	np01222	15 16	689	5317 64	0 73	-0 051	5411 21	981 856 070	0 09	0 24	0 84	1 17	982277 055	1711 34	64 8202897	139 7474604	559459 1	7189014 7	70 79	82 89	-88 58
1	104	np01222	15 34	689	5312 54	0 67	-0 051	5406 00	981 850 862	0 06	0 19	0 89	1 13	982277 213	1735 30	64 8225780	139 7475840	559443 4	7189269 4	71 32	-83 26	-89 37
1	105	np01222	16 10	689	5281 13	0 63	-0 050	5374 03	981 818 890	0 08	0 17	0 85	1 10	982277 404	1867 63	64 8254783	139 7491697	559366 5	71895591 2	76 57	-89 79	-96 01
1	106	np01222	16 41	689	5272 35	0 69	-0 051	5365 12	981 809 973	0 10	0 24	0 79	1 13	982277 639	1905 94	64 8288888	139 7464968	559485 9	71899973 7	77 87	-91 36	-97 71
1	107	np01223	9 49	689	5406 71	0 65	-0 026	5501 82	981 946 671	0 07	0 18	0 66	0 91	982280 347	1253 09	64 8667564	139 6421909	564344 7	7194295 3	77 18	86 04	90 21
1	108	np01223	10 06	689	5396 45	0 65	-0 027	5491 38	981 936 234	0 11	0 25	0 76	1 12	982280 191	1301 03	64 8646468	139 6440358	564262 5	7194058 3	77 44	-66 62	-90 94
1	109	np01223	10 24	689	5382 33	0 63	-0 028	5477 01	981 921 864	0 13	0 34	1 06	1 53	982280 038	1365 52	64 8625302	139 6465638	564192 1	7193820 9	78 01	-87 61	-92 13
1	110	np01223	10 49	689	5363 64	0 66	-0 031	5458 00	981 902 859	0 10	0 24	0 87	1 21	982279 880	1449 46	64 8603862	139 6456256	564152 6	7193581 0	-80 14	90 37	95 19
1	111	np01223	11 08	689	5352 07	0 66	-0 033	5446 23	981 891 090	0 13	0 28	1 03	1 43	982279 728	1501 89	64 8582686	139 6494615	564020 3	7193342 1	-80 80	-91 38	-96 36
1	112	np01223	11 24	689	5344 89	0 59	-0 034	5438 90	981 883 764	0 18	0 33	0 97	1 48	982279 590	1534 72	64 8563365	139 6514022	563932 9	7193132 4	-81 24	-92 06	-97 14
1	113	np01223	11 49	689	5341 36	0 56	-0 037	5435 30	981 880 162	0 19	0 38	1 10	1 67	982279 465	1552 51	64 8545733	139 6546356	563783 9	7192925 2	-80 85	91 78	-96 92
1	114	np01223	12 05	689	5333 16	0 62	-0 039	5426 98	981 871 840	0 17	0 38	1 07	1 62	982279 317	1589 30	64 8524982	139 6562153	563713 9	7192692 3	81 59	-92 78	-98 05
1	115	np01223	12 23	689	5327 76	0 63	-0 040	5421 48	981 866 349	0 15	0 36	1 13	1 64	982279 153	1619 36	64 8501860	139 6565510	563703 4	7192434 4	80		

M1	S70	km02195	8 35	775	5378 78	0 00	0 083	5484 00	981,837 529	0 06	0 24	0 85	1 16	982278 845	1778 53	64 8459899	139 7576003	558921 6	7191868 9	77 45	-90 03	95 94
M1	S21	km02195	8 45	725	5386 17	0 00	0 083	5491 54	981,845 070	0 09	0 16	0 66	0 91	982278 818	1756 49	64 8455681	139 7567537	558962 6	7191822 7	74 68	87 12	92 98
M1	S22	km02195	8 50	725	5388 80	0 10	-0 082	5494 26	981,847 785	0 02	0 11	0 52	0 66	982278 797	1748 09	64 8452641	139 7561917	558990 0	7191789 4	73 97	86 38	-92 21
M1	S23	km02195	8 56	725	5392 22	0 00	0 082	5497 72	981,851 244	0 03	0 10	0 45	0 59	982278 778	1736 16	64 8449681	139 7554233	559027 0	7191757 1	73 01	85 34	91 14
M1	S24	km02195	9 03	725	5396 34	0 00	0 082	5501 92	981,855 488	0 02	0 05	0 34	0 41	982278 758	1721 57	64 8446636	139 7543183	559080 1	7191724 9	71 99	84 22	89 98
M1	S25	km02195	9 07	725	5396 46	0 00	0 082	5502 04	981,855 571	0 05	0 08	0 40	0 53	982278 730	1720 56	64 8442691	139 7536943	559110 6	7191680 8	71 89	-84 11	89 86
M1	S26	km02195	9 14	725	5395 00	0 00	0 082	5500 55	981,854 081	0 13	0 16	0 50	0 79	982278 698	1726 19	64 8438127	139 7535867	559116 7	7191630 1	71 88	84 12	89 88
M1	S27	km02195	9 20	725	5391 95	0 00	0 082	5497 44	981,850 969	0 11	0 17	0 49	0 77	982278 660	1739 20	64 8432913	139 7534373	559124 9	7191572 1	72 32	-84 65	-90 45
M1	S28	km02195	9 27	725	5391 11	0 00	0 081	5496 58	981,850 113	0 06	0 14	0 42	0 63	982278 635	1742 94	64 8429414	139 7532523	559121 6	7191533 0	72 57	84 95	90 77
M1	S29	km02195	9 35	725	5390 92	0 00	0 081	5496 39	981,849 919	0 03	0 06	0 29	0 37	982278 585	1745 29	64 8422296	139 7535333	559122 7	7191453 7	72 56	-84 87	90 81
M1	S30	km02195	9 43	725	5390 14	0 00	0 081	5495 60	981,849 124	0 00	0 02	0 24	0 27	982278 553	1749 71	64 8417692	139 7532214	559138 5	7191402 7	72 55	-85 00	90 85
M1	S31	km02195	9 50	725	5389 08	0 00	0 080	5494 51	981,848 043	0 01	0 04	0 22	0 27	982278 527	1755 18	64 8413981	139 7528857	559155 2	7191361 7	72 49	-84 98	90 85
M1	S32	km02195	9 58	725	5387 35	0 00	0 080	5492 75	981,846 278	0 01	0 05	0 32	0 38	982278 499	1761 93	64 8410074	139 7523856	559179 6	7191318 6	72 71	85 23	91 13
M1	S33	km02195	10 06	725	5385 83	0 00	0 079	5491 20	981,844 728	0 03	0 09	0 38	0 49	982278 472	1769 18	64 8406373	139 7518433	559206 3	7191277 9	72 61	-85 18	91 10
M1	S34	km02195	10 11	725	5387 34	0 00	-0 079	5492 74	981,846 270	0 15	0 22	0 63	1 00	982278 435	1762 16	64 8400987	139 7513697	559230 0	7191218 3	71 84	-84 31	90 18
M1	S35	km02195	10 22	725	5389 26	0 00	-0 078	5494 70	981,848 230	0 18	0 32	0 87	1 37	982278 411	1753 28	64 8397459	139 7506967	559262 7	7191179 6	71 20	-83 58	89 41
M1	S36	km02195	10 30	725	5389 11	0 00	-0 077	5494 55	981,848 078	0 20	0 39	1 03	1 62	982278 380	1753 11	64 8392984	139 7505267	559271 7	7191129 9	71 04	-83 39	89 21
M1	S37	km02195	10 39	725	5391 66	0 00	-0 076	5497 15	981,850 681	0 22	0 39	1 11	1 72	982278 355	1739 90	64 8389186	139 7507994	559299 9	7191087 3	70 98	-83 23	89 00
M1	S38	km02195	10 55	725	5394 62	0 00	-0 075	5500 17	981,853 702	0 23	0 32	1 01	1 55	982278 329	1726 95	64 8385348	139 7523111	559188 8	7191043 1	70 78	-82 95	88 68
M1	S39	km02195	11 04	725	5393 56	0 00	-0 073	5499 09	981,852 623	0 14	0 30	1 04	1 48	982278 300	1731 25	64 8381272	139 7526273	559174 7	7190997 4	71 04	-82 26	89 00
M1	S40	km02195	11 13	725	5394 75	0 00	-0 072	5500 31	981,853 839	0 18	0 31	1 08	1 57	982278 261	1724 81	64 8375598	139 7529074	559162 6	7190933 9	70 98	-83 14	88 87
M1	S41	km02195	11 22	725	5397 77	0 00	-0 071	5503 39	981,856 921	0 20	0 33	0 98	1 51	982278 239	1710 95	64 8372280	139 7531396	559152 3	7190896 7	70 78	-82 85	88 52
M1	S42	km02195	11 33	725	5400 26	0 00	-0 069	5505 94	981,859 467	0 17	0 32	1 00	1 48	982278 218	1699 98	64 8369154	139 7537620	559123 5	7190861 3	70 49	-82 48	88 12
M1	S43	km02195	11 40	725	5400 74	0 00	-0 068	5506 43	981,859 958	0 19	0 31	1 02	1 52	982278 191	1697 48	64 8365173	139 7544663	559091 0	7190816 3	70 43	-82 40	88 03
M1	S44	km02195	11 48	725	5401 56	0 00	-0 066	5507 27	981,860 796	0 17	0 28	0 93	1 38	982278 160	1694 71	64 8360670	139 7548551	559073 5	7190765 8	70 30	-82 26	87 89
M1	S45	km02195	11 58	725	5402 76	0 00	-0 066	5508 49	981,862 021	0 17	0 29	0 96	1 41	982278 131	1689 59	64 8356534	139 7551399	559060 9	7190719 4	70 05	-81 97	87 58
M1	S46	km02195	12 07	725	5404 14	0 00	-0 063	5509 90	981,863 433	0 17	0 29	1 02	1 48	982278 103	1684 27	64 8352398	139 7551692	559060 4	7190673 3	-69 61	-81 49	87 08
M1	S47	km02195	12 15	725	5406 15	0 00	-0 061	5511 95	981,865 486	0 17	0 29	0 96	1 43	982278 078	1674 46	64 8348695	139 7550387	559067 4	7190632 2	-69 60	-81 41	86 97
M1	S48	km02195	12 25	725	5410 87	0 15	-0 059	5516 82	981,870 350	0 17	0 31	0 99	1 47	982278 043	1652 85	64 8343406	139 7552051	559060 9	7190573 1	-69 04	-80 70	86 18
M1	S49	km02195	12 37	725	5415 48	0 00	-0 057	5521 48	981,875 010	0 16	0 30	0 89	1 35	982278 013	1630 78	64 8338870	139 7553476	559054 9	7190522 4	-69 00	-80 51	85 92
M1	S50	km02195	13 23	725	5418 07	0 56	-0 047	5524 30	981,877 836	0 18	0 24	0 73	1 15	982277 972	1615 63	64 8332881	139 7545393	559094 6	7190456 4	-69 48	-80 90	86 27
M1	S51	km02195	13 50	725	5423 08	0 22	-0 041	5529 32	981,882 849	0 03	0 10	0 55	0 68	982277 942	1590 76	64 8328202	139 7550501	559071 4	7190403 8	70 08	-81 36	-86 67
Monster	16	km02196	9 18	725	5357 00	0 00	-0 066	5461 80	981,815 313	0 13	0 20	0 61	0 94	982277 926	1854 95	64 8329288	139 7647823	564158 1	7190520 3	83 45	-96 59	102 77
Monster	17	km02196	8 50	725	5375 19	0 00	-0 066	5480 36	981,833 879	0 13	0 23	0 78	1 13	982277 848	1788 13	64 8317324	139 7648322	564137 4	7190386 5	78 18	-90 83	96 78
Monster	18	km02196	8 32	725	5382 97	0 00	-0 066	5488 29	981,841 818	0 06	0 18	0 61	0 84	982277 785	1758 14	64 8307924	139 7646239	564236 0	7190283 8	76 65	-89 11	-94 97
Monster	19	km02196	16 22	725	5384 11	0 00	-0 040	5489 48	981,842 950	0 11	0 24	0 76	1 11	982277 678	1754 85	64 8292558	139 7645267	564288 3	7190113 6	75 74	88 16	94 00
Monster	24	km02196	9 45	725	5351 49	0 20	-0 066	5456 23	981,809 751	0 13	0 37	1 05	1 56	982278 040	1681 33	64 8345985	139 7645707	564254 8	7190708 5	82 97	-96 25	102 50
Monster	24	km02189	11 12	725	5395 37	0 00	0 039	5501 05	981,853 878	0 02	0 05	0 27	0 34	982278 737	1727 09	64 8434747	139 7530956	559138 7	7191693 1	72 50	84 78	-90 56
Monster	25	km02196	15 16	725	5348 48	0 00	-0 046	5453 32	981,806 595	0 04	0 29	0 86	1 19	982278 121	1894 89	64 8357686	139 7644811	564294 1	7190839 8	83 91	-97 31	103 62
Monster	25	km02196	10 05	725	5348 39	0 15	-0 066	5453 06	981,806 568	0 04	0 29	0 86	1 19	982278 121	1894 89	64 8357686	139 7644811	564294 1	7190839 8	83 94	-97 34	103 65
Monster	26	km02196	10 27	725	5351 80	0 00	-0 066	5456 49	981,809 999	0 03	0 21	0 67	0 91	982278 173	1883 47	64 8364968	139 7640778	564487 4	7190925 1	83 24	-96 59	-102 87
Monster	27	km02196	11 20	725	5342 53	0 00	-0 066	5447 03	981,800 533	0 15	0 35	1 08	1 60	982278 227	1912 33	64 8373026	139 76375620	564634 6	7191018 1	86 01	-99 51	-105 86
Monster	28	km02196	11 53	725	5345 25	0 00	-0 065	5449 81	981,803 307	0 08	0 33	1 14	1 55	982278 295	1904 57	64 8382736	139 76361796	564697 9	7191127 7	84 95	-98 39	104 72
Monster	29	km02196	12 18	725	5340 27	0 28	-0 063	5444 81	981,798 309	0 09	0 30	0 96	1 36	982278 394	1924 25	64 8397170	139 7636094	564816 3	7191291 1	86 27	-99 87	106 27
Monster	30	km02196	12 47	725	5323 04	0 00	-0 061	5427 15	981,780 642	0 27	0 50	1 63	2 39	982278 432	1977 94	64 8400329	139 76320666	564888 0	7191361 3	91 75	-105 64	112 18
Monster	31	km02196	13 12	725	5315 16	0 00	-0 060	5419 11	981,772 598	0 20	0 40	1 36	1 96	982278 548	2006 00	64 8420258	139 76319734	564888 4	7191550 1	94 73	108 87	115 52
Monster	32	km02196	13 46	725	5306 77	0 00	-0 056	5410 55	981,764 038	0 22	0 51	1 52	2 25	982278 636	2027 76	64 8433118	139 76300634	564975 8	7191695 3	-98 58	112 85	119 36
Monster	88	km02185	14 32	725	5486 24	0 65	-0 023	5593 91	981,946 768	0 14	0 29	0 90	1 33	982278 452	1254 09	64 8396794	139 7662306	561846 2	7191224 3	74 47	83 3	

Monster	27	km02193	10 31	725	5448.20	0.00	0.058	5554.86	981,908.743	0.07	0.14	0.19	0.40	982278.185	1461.58	64.8361314	139.7651562	558584.7	7190763.4	71.61	82.00	86.88
Monster	128	km02193	10 45	725	5442.83	0.05	0.053	5549.40	981,902.785	0.08	0.16	0.48	0.73	982278.105	1493.01	64.8350287	139.7631000	558684.6	7190642.4	70.17	80.75	-85.73
Monster	129	km02193	11 10	725	5433.13	0.00	0.044	5539.50	981,892.883	0.05	-0.10	0.41	0.57	982278.001	1591.40	64.8335981	139.7580461	558880.3	7190486.8	70.17	81.25	-86.40
Monster	130	km02193	11 58	725	5422.37	0.00	0.028	5528.54	981,881.922	0.08	0.13	0.39	0.60	982277.902	1594.36	64.8322514	139.7556690	559043.3	7190339.9	70.34	81.65	-86.88
Monster	131	km02193	12 27	725	5414.05	0.00	0.013	5520.06	981,873.449	0.05	0.19	0.74	0.99	982277.935	1633.49	64.8327734	139.7521234	559209.9	7190401.3	70.39	81.95	-87.39
Monster	132	km02189	12 07	725	5367.52	0.00	0.054	5472.65	981,825.463	0.15	0.20	0.65	1.00	982278.546	1845.42	64.8417889	139.7476569	559402.4	7191410.1	-75.78	88.85	-95.00
Monster	133	km02189	12 27	725	5369.95	0.00	0.058	5475.13	981,827.943	0.15	0.19	0.54	0.87	982278.457	1837.09	64.8405060	139.7471238	559430.5	7191267.6	75.07	88.09	94.22
Monster	134	km02191	17 14	725	5362.95	0.00	0.035	5467.97	981,821.083	0.11	0.20	0.44	0.75	982278.325	1864.28	64.8386567	139.7463486	559471.3	7191062.3	76.41	89.63	95.86
Monster	135	km02191	16 50	725	5357.54	0.00	0.044	5462.46	981,815.561	0.07	0.14	0.39	0.60	982278.218	1888.04	64.8371442	139.7463452	559474.8	7190893.8	77.17	-90.58	96.89
Monster	136	km02191	16 29	725	5348.67	0.00	0.052	5453.41	981,806.514	0.06	0.15	0.51	0.72	982278.093	1923.52	64.8354125	139.7441530	559582.6	7190702.9	78.72	-92.37	-98.79
Monster	137	km02191	16 10	725	5344.93	0.00	0.056	5449.60	981,802.699	0.13	0.27	0.58	0.98	982278.025	1935.46	64.8344484	139.7427754	559650.1	7190596.8	79.71	-93.42	-99.87
Monster	138	km02189	11 25	725	5381.42	0.00	0.044	5486.82	981,839.647	0.13	0.18	0.58	0.89	982278.666	1785.27	64.8434269	139.7501691	559279.6	7191590.3	74.11	-86.76	92.72
Monster	139	km02186	14 02	725	5391.52	0.10	-0.000	5497.11	981,849.997	0.07	0.13	0.37	0.57	982278.720	1743.85	64.8441545	139.7518320	559199.1	7191669.8	-72.66	-85.05	-90.87
Monster	140	km02186	13 24	725	5392.82	0.06	0.007	5498.44	981,851.327	0.03	0.05	0.19	0.28	982278.793	1739.44	64.8451932	139.7552731	559031.7	7191787.3	72.66	-85.04	-90.86
Monster	141	km02186	13 00	725	5394.64	0.00	0.010	5500.28	981,853.172	0.14	0.32	1.13	1.59	982278.964	1723.30	64.8476138	139.7573016	558932.2	7192050.1	72.64	-84.79	-90.51
Monster	142	km02195	15 47	725	5344.42	0.00	-0.018	5499.01	981,802.543	0.07	0.17	0.51	0.75	982277.908	1935.65	64.8327697	139.7413363	559722.1	7190411.1	79.99	-93.72	100.19
Monster	143	km02195	16 10	725	5352.94	0.00	-0.015	5457.70	981,811.240	0.15	0.24	0.83	1.22	982277.767	1902.43	64.8307195	139.7431567	559640.3	7190180.9	77.34	90.79	-97.13
Monster	144	km02189	13 18	725	5355.08	0.00	0.062	5459.96	981,812.761	0.07	0.30	1.11	1.48	982278.522	1883.64	64.8414958	139.7454482	559507.8	7191379.5	-80.07	-93.37	-99.63
Monster	145	km02189	13 55	725	5373.66	0.00	0.061	5478.92	981,831.714	0.22	0.46	1.68	2.36	982278.555	1805.07	64.8418686	139.7418047	559679.7	7191424.5	76.06	-88.72	-94.68
Monster	146	km02189	14 30	725	5388.38	0.00	0.056	5493.94	981,846.718	0.21	0.40	1.35	1.96	982278.594	1741.99	64.8423407	139.7396873	559779.1	7191479.1	74.45	86.70	-92.47
Monster	147	km02189	15 02	725	5405.87	0.00	0.049	5511.78	981,864.550	0.28	0.50	1.45	2.23	982278.619	1662.80	64.8425987	139.7369878	559906.6	7191510.4	72.44	84.11	-89.60
Monster	148	km02189	15 36	725	5425.91	0.36	0.039	5532.33	981,885.093	0.23	0.39	1.53	2.14	982278.677	1568.52	64.8433059	139.7336262	560064.4	7191592.4	71.28	-82.28	-87.45
Monster	149	km02191	11 32	725	5384.04	0.00	0.019	5489.47	981,842.484	0.14	0.21	0.67	1.02	982278.421	1778.69	64.8399159	139.7498926	559300.4	7191199.3	72.21	-84.80	-90.73
Monster	150	km02191	12 03	725	5399.78	0.05	0.032	5505.56	981,839.132	0.19	0.28	1.14	1.62	982278.375	1704.43	64.8391656	139.7519612	559204.0	7191113.8	70.45	-82.46	-88.11
Monster	151	km02191	12 35	725	5415.32	0.00	0.045	5521.42	981,874.447	0.13	0.20	0.65	0.97	982278.367	1635.43	64.8395678	139.7561627	559005.1	7191087.8	-69.45	81.02	-86.47
Monster	152	km02191	13 05	725	5421.89	0.10	0.054	5528.16	981,881.203	0.08	0.20	0.70	0.98	982278.330	1601.44	64.8393815	139.7580550	558916.6	7191020.7	-69.57	80.90	-86.23
Monster	155	km02187	14 42	725	5373.14	0.06	0.011	5478.36	981,831.136	0.18	0.43	1.29	1.90	982278.556	1788.98	64.8418585	139.7428909	560795.0	7191445.7	-89.50	-93.09	-99.02
Monster	156	km02187	15 14	725	5380.89	0.00	0.002	5486.24	981,839.012	0.15	0.27	1.07	1.50	982278.499	1766.49	64.8408769	139.7419162	560755.8	7191335.5	77.64	-90.10	-95.97
Monster	157	km02187	15 40	725	5389.53	0.00	-0.006	5495.05	981,847.818	0.08	0.24	0.95	1.27	982278.389	1734.00	64.8394007	139.7221775	560616.2	7191168.1	75.64	-87.69	-93.66
Monster	158	km02187	16 10	725	5385.40	0.00	-0.016	5490.82	981,843.591	0.25	0.46	2.01	2.90	982278.336	1750.32	64.8386698	139.7250801	560480.1	7191083.9	74.45	-86.68	92.43
Monster	160	km02187	17 58	725	5349.00	0.00	-0.048	5453.65	981,806.410	0.26	0.51	1.73	2.50	982278.726	1861.80	64.8439442	139.7513920	560926.7	7191731.1	89.81	102.87	-109.01
Monster	206	km02192	15 37	725	5399.35	0.00	0.058	5505.13	981,856.483	0.10	0.15	0.52	0.77	982277.103	1685.93	64.8390417	139.7837442	555186.6	7190905.8	74.11	-86.06	-91.69
Monster	207	km02192	16 02	725	5397.62	0.00	0.056	5503.36	981,856.716	0.11	0.26	0.88	1.26	982277.235	1683.21	64.8228224	139.8404321	555040.9	7189212.8	75.95	87.84	-93.44
Monster	208	km02192	16 30	725	5420.21	0.00	0.052	5526.41	981,879.764	0.06	0.14	0.62	0.82	982277.393	1596.95	64.8249774	139.8416582	554978.3	7189451.9	71.19	-82.50	87.83
Monster	209	km02192	16 56	725	5421.47	0.00	0.047	5527.69	981,881.045	0.04	0.14	0.64	0.83	982277.515	1582.73	64.8267003	139.8433338	554895.3	7189642.4	72.92	-84.13	-89.40
Monster	210	km02192	15 02	725	5409.92	0.00	0.058	5515.92	981,869.270	0.14	0.24	0.76	1.15	982276.975	1638.53	64.8190428	139.8377453	555176.1	7188794.0	-77.38	-83.96	-89.41
Monster	211	km02192	14 17	725	5429.60	0.00	0.052	5535.99	981,889.343	0.20	0.26	0.85	1.31	982276.877	1554.01	64.8175317	139.8392076	555109.8	7188624.3	-69.23	-80.19	85.35
Monster	212	km02192	8 39	725	5516.21	0.28	-0.074	5624.32	981,977.667	0.02	0.05	0.31	0.38	982276.265	1119.18	64.8081970	139.8037634	556812.1	7187615.5	70.06	-78.01	81.75
Monster	213	km02192	9 05	725	5511.86	0.00	0.067	5619.82	981,973.171	0.04	0.10	0.35	0.48	982276.282	1147.66	64.8084848	139.8094490	556541.5	7187642.5	-68.64	76.78	-80.61
Monster	214	km02192	9 50	725	5502.96	0.00	0.051	5610.74	981,964.086	0.08	0.17	0.40	0.64	982276.338	1194.07	64.8093483	139.8154292	556255.7	7187733.4	68.13	76.59	80.57
Monster	215	km02192	10 29	725	5514.55	0.00	0.035	5622.58	981,975.927	0.03	0.08	0.35	0.45	982276.338	1131.37	64.8092647	139.8209306	55994.6	7187719.2	-69.30	77.33	81.10
Monster	216	km02192	10 59	725	5502.67	0.34	0.026	5610.57	981,963.921	0.13	0.19	0.33	0.64	982276.330	1202.05	64.8092469	139.8266992	555720.7	7187712.1	-66.66	-75.17	-79.18
Monster	217	km02192	11 40	725	5492.71	0.00	0.004	5600.33	981,953.678	0.06	0.12	0.37	0.55	982276.360	1253.46	64.8097370	139.8317106	555481.7	7187762.3	-66.57	75.46	-79.65
Monster	231	km02190	9 58	725	5403.49	0.00	0.007	5509.29	981,862.065	0.14	0.31	0.96	1.41	982276.547	1671.53	64.8129624	139.8277737	553525.4	7188086.4	72.11	83.90	89.45
Monster	232	km02190	10 19	725	5422.77	0.00	0.006	5528.98	981,881.748	0.08	0.26	0.89	1.22	982276.688	1591.39	64.8148755	139.8221527	553548.1	7188300.0	69.12	80.36	-85.65
Monster	239	km02190	9 34	725	5381.43	0.05	-0.014	5486.79	981,839.561	0.14	0.36	1.08	1.59	982276.408	1758.29	64.8110834	139.8741911	553461.8	7187875.8	76.57	88.97	-94.80
Monster	240	km02190	9 01	725	5370.08	0.00	-0.029	5475.18	981,827.951	0.15	0.30	1.09	1.54	982276.237	1802.05	64.8086965	139.8750252	553426.9	7187609.1	79.14	-91.86	-97.84
Monster	241	km02190	12 36	725	5385.75	0.00	0.058	5491.25	981,844.019	0.19	0.35	1.15	1.69	982276.283	1739.27	64.8092778	139.8692844					

Monster	296	km02187	12 36	725	5437 84	0 00	0 0J2	5544 38	981 897 168	0 14	0 36	1 21	1 71	982278 736	1510 74	64 8440763	139 7254782	560449 1	7191686 0	71 58	82 20	87 20
Monster	500	km02186	10 35	725	5456 32	0 32	0 011	5563 31	981 916 237	0 01	0 06	0 18	0 24	982279 067	1430 12	64 8487159	139 7399536	559752 3	7192189 2	71 10	81 28	-86 06
Monster	501	km02188	9 43	725	5453 75	0 04	0 011	5560 61	981 913 300	0 01	0 03	0 16	0 21	982279 114	1447 52	64 8494158	139 7440866	559554 8	7192263 3	70 59	-80 89	-85 74
Monster	501	km02186	10 55	725	5453 56	0 05	0 012	5560 42	981 913 337	0 01	0 03	0 16	0 21	982279 114	1447 52	64 8494158	139 7440866	559554 8	7192263 3	70 55	80 85	-85 70
Monster	502	km02186	11 15	725	5445 70	0 03	0 014	5552 39	981 905 307	0 06	0 09	0 31	0 46	982279 186	1486 55	64 8504912	139 7474124	559393 8	7192380 0	70 38	80 93	-85 90
Monster	503	km02186	11 57	725	5427 18	0 00	0 015	5533 49	981 886 397	0 17	0 33	1 08	1 57	982279 289	1577 56	64 8520918	139 7497751	559279 2	7192556 2	-69 46	80 57	85 80
Monster	504	km02192	12 15	725	5485 71	0 00	0 012	5593 20	981 946 552	0 10	0 19	0 55	0 85	982276 451	1287 84	64 8110860	139 8345608	555343 6	7187910 1	66 41	75 52	79 80
Monster	505	km02192	12 43	725	5476 85	0 00	0 023	5584 17	981 937 524	0 02	0 10	0 33	0 45	982276 626	1334 63	64 8136495	139 8373133	555207 7	7188193 4	66 57	76 05	-80 51
Monster	506	km02192	13 27	725	5453 93	0 00	0 039	5560 80	981 914 154	0 23	0 30	0 88	1 41	982276 772	1440 80	64 8158807	139 8379941	555170 8	7188441 4	-67 26	77 41	-82 19
Monster	507	km02193	9 09	725	5473 45	0 00	-0 081	5580 60	981 933 979	0 02	0 13	0 56	0 71	982278 766	1320 82	64 8442576	139 7723817	558224 4	7191662 2	74 75	84 11	88 51
Monster	508	km02193	13 00	725	5410 43	0 33	0 000	5516 48	981 869 873	0 15	0 27	0 85	1 28	982278 026	1654 97	64 8341012	139 7547076	559084 8	7190546 9	-69 32	81 01	86 51
Monster	509	km02193	13 42	725	5416 75	0 00	0 015	5522 85	981 876 235	0 15	0 29	0 87	1 31	982278 209	1622 44	64 8366814	139 7568585	558977 1	7190832 4	-69 72	-81 18	-86 57
Monster	510	km02193	14 13	725	5410 30	0 53	0 025	5516 44	981 869 830	0 14	0 29	0 81	1 23	982278 273	1652 86	64 8376337	139 7555782	559035 8	7190939 7	70 09	81 77	-87 26
Monster	511	km02193	15 23	725	5398 72	0 00	0 038	5504 47	981 857 864	0 02	0 06	0 29	0 37	982278 829	1710 55	64 8456727	139 7522935	559173 9	7191838 5	71 93	84 09	-89 82
Monster	512	km02193	15 47	725	5412 67	0 18	0 040	5518 76	981 872 159	0 23	0 34	0 84	1 42	982278 880	1641 57	64 8463172	139 7494971	559305 1	7191913 0	70 44	82 02	-87 47
Monster	513	km02193	16 10	725	5430 76	0 00	0 040	5537 17	981 890 563	0 14	0 23	0 62	0 99	982278 968	1555 28	64 8474637	139 7481655	559365 7	7192042 0	-70 24	-81 24	-86 42
Monster	514	km02193	16 35	725	5445 52	0 44	0 039	5552 36	981 905 758	0 08	0 15	0 47	0 69	982279 057	1484 00	64 8486449	139 7462269	559455 0	7192175 4	70 03	-80 55	85 50
Monster	552	km02197	8 24	725	5508 65	0 00	-0 045	5616 55	981 970 147	0 01	0 03	0 19	0 23	982276 141	1171 82	64 8064957	139 8373438	555220 9	7187396 2	-66 92	75 26	79 18
Monster	218	km02197	8 45	725	5508 88	0 00	-0 044	5616 79	981 970 379	0 14	0 21	0 29	0 64	982276 216	1166 04	64 8075659	139 8385406	555161 8	7187514 4	-67 42	75 68	79 57
Monster	219	km02197	9 02	725	5510 17	0 00	-0 044	5618 10	981 971 685	0 01	0 06	0 27	0 34	982276 340	1153 55	64 8093155	139 8412182	555031 1	7187707 0	-69 17	77 36	81 22
Monster	220	km02197	9 21	725	5503 61	0 00	-0 043	5611 41	981 964 989	0 02	0 14	0 50	0 66	982276 457	1187 99	64 8110471	139 8457373	554813 0	7187896 1	68 56	76 97	80 93
Monster	221	km02197	9 42	725	5498 10	0 16	-0 044	5605 84	981 959 414	0 04	0 11	0 19	0 34	982276 566	1219 00	64 8126473	139 8495280	554629 8	7188071 1	-68 32	76 98	81 06
Monster	222	km02197	10 03	725	5492 27	0 00	-0 044	5599 84	981 953 405	0 05	0 06	0 33	0 44	982276 633	1252 21	64 8136420	139 8533675	554445 5	7188178 6	-67 51	76 40	80 59
Monster	223	km02197	10 27	725	5482 60	0 10	-0 045	5590 00	981 943 564	0 00	0 00	0 05	0 05	982276 762	1316 71	64 8155768	139 8560386	554314 7	7188391 9	64 82	74 20	78 61
Monster	224	km02197	10 40	725	5486 18	0 00	-0 045	5593 63	981 947 184	0 03	0 04	0 14	0 20	982276 903	1296 39	64 8175586	139 8567928	554274 9	7188612 1	-65 29	74 52	78 86
Monster	225	km02197	10 55	725	5490 69	0 06	-0 046	5598 25	981 951 800	0 02	0 06	0 18	0 26	982277 056	1269 43	64 8197142	139 8582740	554200 3	7188851 1	-66 25	75 27	79 52
Monster	226	km02197	11 22	725	5496 65	0 26	-0 048	5604 39	981 957 929	0 05	0 16	0 28	0 50	982277 213	1231 58	64 8219114	139 8595455	554135 5	7189094 8	-67 69	76 43	80 54
Monster	227	km02197	11 15	725	5502 47	0 32	-0 048	5610 34	981 963 885	0 03	0 08	0 23	0 34	982277 363	1196 86	64 8240080	139 8621371	554008 3	7189326 2	-69 17	77 67	-81 67
Monster	228	km02197	12 12	725	5506 10	0 00	-0 051	5613 94	981 967 469	0 09	0 17	0 38	0 64	982277 518	1176 64	64 8262016	139 8634435	553941 9	7189569 5	-69 48	77 82	-81 74
Monster	229	km02197	12 42	725	5516 61	0 00	-0 053	5624 66	981 978 184	0 11	0 27	0 94	1 33	982277 731	1102 67	64 8291469	139 8623116	553989 7	7189898 7	73 19	80 94	-84 58
Monster	553	km02197	14 07	725	5531 99	0 00	-0 056	5640 35	981 993 843	0 00	0 05	0 09	0 13	982278 390	1038 43	64 8384971	139 8567783	554233 5	7190945 3	72 78	80 17	83 65



Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Cooper

4

7

2002

GMT
Operator
Drift Rate.

7

-0.055 km

D-14



-0.079 km

D-15



Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Cooper

6

7

-7
km
-0.043

D-16

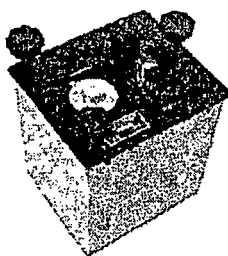


Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Copper

7

7

D-17



MWH
Geo-Surveys,
Inc.

Data Reduction for LaCrosse & Romberg G Meters
Gravity Survey at Monster Project
for Monster Copper

dd/mm/yyyy
1 Base Value.
2 Base Value.

8

7

2002
981943.492
981943.492

GMT
Operator
Drift Rate.

7
km
-0.122

Station	GPS1000	km02189	11.22	725	5483.22	0.00	0.039	5501.051	981,853.878	0.01	0.05	0.20	0.25
Monster	24	km02189	11.12	725	5395.37	0.00	0.039	5501.051	981,853.878	0.01	0.05	0.20	0.25
Monster	138	km02189	11.25	725	5381.42	0.00	0.044	5486.822	981,839.647	0.13	0.18	0.58	0.89
Monster	132	km02189	12.07	725	5367.52	0.00	0.054	5472.650	981,825.463	0.15	0.20	0.65	1.00
Monster	133	km02189	12.27	725	5369.95	0.00	0.058	5475.133	981,827.943	0.15	0.19	0.54	0.87
Monster	144	km02189	13.18	725	5355.08	0.00	0.062	5459.964	981,812.761	0.07	0.30	1.11	1.48
Monster	145	km02189	13.55	725	5373.66	0.00	0.061	5478.921	981,831.714	0.22	0.46	1.68	2.36
Monster	146	km02189	14.30	725	5388.38	0.00	0.056	5493.936	981,846.718	0.21	0.40	1.35	1.96
Monster	147	km02189	15.02	725	5405.87	0.00	0.049	5511.779	981,864.550	0.28	0.50	1.45	2.23
Monster	148	km02189	15.36	725	5425.91	0.36	0.039	5532.326	981,885.093	0.23	0.39	1.53	2.14

10%	10%	24%	8%	15%	20%	8%	10%	12%	20%	8%	28%	8%	14%
30%	30%	30%	30%	30%	30%	30%	30%	23%	23%	37%	40%	23%	33%
35%	35%	45%	45%	25%	15%	45%	30%	13%	23%	45%	45%	30%	35%
30%	35%	45%	45%	25%	27%	10%	47%	40%	30%	10%	30%	32%	40%
20%	25%	25%	23%	30%	40%	40%	70%	20%	60%	40%	70%	30%	45%
40%	80%	20%	80%	30%	80%	65%	55%	30%	90%	70%	75%	15%	80%
40%	60%	40%	70%	20%	65%	55%	70%	40%	65%	55%	45%	65%	45%
60%	60%	60%	60%	10%	48%	72%	95%	10%	48%	65%	90%	40%	50%
65%	40%	80%	35%	20%	55%	70%	85%	30%	30%	20%	55%	70%	45%



Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Copper

9

7

GMT
Operator
Drift Rate...

7
km
-0.028

D-19



Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
 for Monster Copper

-7
km
0.145

D-20



Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Cooper

7
1000
0 007

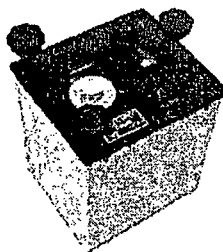
D-21



Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Copper

0 027

D-22



MWH
Geo-Surveys,
Inc.

Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Copper

dd/mm/yyyy ..
1 Base Value.
2 Base Value.

13

7

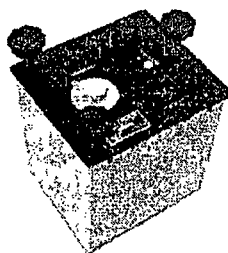
2002
981943 492
981943 492

GMT
Operator ..
Drift Rate

7
km
-0.078

Station	GPS1000	km02194	7 52	7 5	5402.71	0.00	0.003	5520.85	981,943.492										
Station	GPS1000	km02194	10 07	7 25	5531.84	0.00	-0.067	5640.168	981,993.578	0.00	0.00	0.09	0.09						
Monster	264	km02194	9 08	725	5533.65	0.00	-0.079	5642.023	981,995.424	0.00	0.00	0.06	0.06						
Monster	266	km02194	10 21	725	5534.19	0.10	-0.076	5642.608	981,998.008	0.02	0.08	0.20	0.30						
Monster	267	km02194	10 40	725	5535.60	0.00	-0.071	5644.021	981,997.419	0.01	0.07	0.15	0.23						
Monster	268	km02194	10 55	725	5536.64	0.00	-0.069	5645.084	981,998.180	0.01	0.00	0.06	0.08						
Monster	269	km02194	11 15	725	5539.01	0.00	-0.063	5647.508	982,000.900	0.00	0.01	0.06	0.07						
Monster	270	km02194	11 42	725	5540.95	0.00	-0.064	5649.496	982,002.894	0.06	0.13	0.24	0.43						
Monster	271	km02194	12 13	725	5543.26	0.00	-0.045	5651.862	982,005.244	0.01	0.05	0.14	0.20						
Monster	272	km02194	12 37	725	5548.00	0.00	-0.038	5656.705	982,010.085	0.00	0.01	0.29	0.30						
Monster	273	km02194	13 13	725	5550.45	0.00	-0.026	5659.217	982,012.590	0.01	0.02	0.23	0.26						
Monster	274	km02194	14 05	725	5553.44	0.00	-0.010	5662.284	982,015.649	0.00	0.05	0.36	0.41						
Monster	275	km02194	15 05	725	5556.77	0.00	0.006	5665.697	982,019.053	0.00	0.06	0.36	0.42						

10%																			
10%	15%	15%																	
20%		15%																	
10%																			
25%	20%	25%	20%																
10%	10%	10%																	
15%																			
15%																			



MWH
Geo-Surveys,
Inc.

Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Copper

dd/mm/yyyy
1 Base Value.
2 Base Value.

14

7

2002
981943 492
981943 492

GHT --
Operator
Drift Rate

7
km
0.013

Station	GPS1000	km02195	71.23	725	5462.63	0.00	-0.083	5494.002	981,837.529	0.06	0.24	0.85	1.16	20%	30%	30%	25%	35%	18%	64%	35%	40%	20%	40%	25%	65%	35%	45%		
camp	GPS1000	km02195	78.10	725	5462.55	0.00	-0.083	5494.253	981,844.192	0.05	0.24	0.85	1.16	20%	20%	30%	18%	32%	14%	64%	5%	22%	18%	45%	25%	70%	10%	20%		
M1	520	km02195	8.35	725	5378.78	0.00	-0.083	5494.002	981,837.529	0.09	0.16	0.67	0.92	15%	15%	15%	15%	20%	15%	40%	30%	5%	30%	20%	60%	15%	25%			
M1	521	km02195	8.45	725	5378.78	0.00	-0.083	5494.002	981,837.529	0.02	0.10	0.50	0.62	15%	15%	15%	15%	20%	15%	40%	30%	5%	30%	20%	60%	15%	25%			
M1	522	km02195	8.50	725	5388.80	0.10	-0.082	5494.258	981,847.785	0.02	0.10	0.50	0.62	15%	15%	15%	15%	20%	15%	40%	30%	5%	30%	20%	60%	15%	25%			
M1	523	km02195	8.56	725	5392.22	0.00	-0.082	5497.717	981,851.244	0.03	0.12	0.48	0.63	15%	15%	15%	15%	20%	15%	40%	30%	5%	30%	20%	60%	15%	25%			
M1	524	km02195	9.03	725	5396.34	0.00	-0.082	5501.920	981,855.448	0.02	0.03	0.27	0.31	10%	10%	10%	15%	12%	13%	8%	22%	4%	7%	10%	13%	15%	45%	10%	15%	
M1	525	km02195	9.07	725	5396.46	0.00	-0.082	5502.043	981,855.571	0.05	0.06	0.39	0.50	20%	20%	20%	20%	5%	5%	15%	30%	10%	25%	5%	10%	15%	50%	15%	35%	
M1	526	km02195	9.14	725	5395.00	0.00	-0.082	5500.553	981,854.081	0.13	0.18	0.55	0.86	35%	30%	35%	40%	5%	10%	55%	27%	35%	38%	10%	25%	55%	30%	40%		
M1	527	km02195	9.20	725	5391.95	0.00	-0.082	5497.441	981,850.969	0.11	0.17	0.51	0.80	40%	25%	25%	40%	10%	68%	30%	18%	30%	5%	8%	62%	35%	18%	25%		
M1	528	km02195	9.27	725	5391.11	0.00	-0.081	5496.585	981,850.113	0.06	0.16	0.45	0.67	30%	30%	30%	20%	14%	17%	62%	26%	8%	30%	8%	54%	35%	25%	15%		
M1	529	km02195	9.35	725	5390.92	0.00	-0.081	5496.391	981,849.919	0.03	0.04	0.25	0.32	20%	20%	20%	20%	5%	7%	5%	21%	22%	13%	7%	10%	15%	28%	13%	35%	
M1	530	km02195	9.43	725	5390.14	0.00	-0.081	5495.595	981,849.124	0.00	0.02	0.23	0.25	5%	10%	5%	10%	5%	10%	5%	10%	10%	12%	10%	10%	25%	25%	25%	16%	
M1	531	km02195	9.50	725	5389.08	0.00	-0.080	5494.515	981,848.043	0.01	0.04	0.18	0.23	10%	10%	10%	10%	15%	15%	10%	10%	5%	20%	15%	15%	22%	15%	18%		
M1	532	km02195	9.58	725	5387.35	0.00	-0.080	5492.749	981,846.278	0.01	0.05	0.35	0.41	10%	10%	10%	10%	16%	16%	12%	20%	14%	14%	20%	10%	45%	20%	20%	18%	
M1	533	km02195	10.06	725	5385.83	0.00	-0.079	5491.199	981,844.728	0.03	0.06	0.30	0.38	10%	10%	30%	30%	8%	14%	37%	12%	13%	16%	18%	47%	12%	16%	30%		
M1	534	km02195	10.13	725	5387.34	0.00	-0.079	5492.740	981,846.270	0.15	0.23	0.63	1.01	40%	40%	40%	40%	25%	15%	47%	66%	23%	30%	10%	15%	68%	40%	18%	30%	
M1	535	km02195	10.22	725	5389.26	0.00	-0.078	5494.700	981,848.230	0.18	0.32	0.90	1.41	45%	45%	45%	45%	15%	44%	72%	66%	44%	10%	40%	60%	62%	20%	40%		
M1	536	km02195	10.30	725	5389.11	0.00	-0.077	5494.548	981,848.078	0.20	0.41	1.06	1.67	50%	50%	50%	50%	15%	50%	76%	72%	30%	55%	30%	26%	76%	55%	38%	38%	
M1	537	km02195	10.39	725	5391.66	0.00	-0.076	5497.151	981,850.681	0.22	0.41	1.20	1.82	50%	55%	55%	50%	10%	70%	70%	75%	10%	55%	15%	60%	60%	75%	20%	50%	
M1	538	km02195	10.55	725	5394.62	0.00	-0.075	5500.172	981,853.702	0.23	0.30	0.94	1.47	55%	55%	55%	55%	20%	30%	72%	74%	15%	30%	40%	35%	72%	65%	10%	10%	
M1	539	km02195	11.04	725	5393.56	0.00	-0.073	5499.093	981,852.623	0.14	0.29	1.03	1.47	38%	38%	38%	40%	30%	45%	50%	60%	20%	40%	30%	45%	60%	60%	20%	45%	
M1	540	km02195	11.13	725	5394.75	0.00	-0.072	5500.308	981,853.839	0.18	0.32	1.15	1.65	45%	45%	45%	45%	22%	33%	55%	64%	55%	28%	30%	33%	60%	64%	60%	34%	
M1	541	km02195	11.22	725	5397.77	0.00	-0.071	5503.391	981,856.921	0.20	0.33	0.93	1.47	50%	70%	30%	50%	45%	30%	67%	72%	35%	10%	44%	10%	55%	70%	15%	40%	
M1	542	km02195	11.33	725	5400.26	0.00	-0.069	5505.937	981,859.457	0.17	0.32	0.99	1.47	45%	40%	40%	45%	20%	40%	60%	70%	28%	37%	25%	60%	70%	20%	60%		
M1	543	km02195	11.40	725	5400.74	0.00	-0.068	5506.427	981,859.958	0.19	0.33	1.07	1.59	47%	47%	47%	47%	35%	45%	60%	60%	17%	45%	35%	45%	60%	60%	15%	50%	
M1	544	km02195	11.48	725	5401.56	0.00	-0.066	5507.265	981,860.796	0.17	0.27	0.87	1.31	40%	45%	44%	45%	45%	28%	38%	58%	64%	18%	20%	30%	40%	58%	66%	20%	15%
M1	545	km02195	11.58	725	5402.76	0.00	-0.066	5508.490	981,862.021	0.17	0.29	0.95	1.41	45%	45%	40%	40%	35%	50%	56%	60%	20%	20%	35%	50%	60%	58%	20%	24%	
M1	546	km02195	12.07	725	5404.14	0.00	-0.063	5509.902	981,863.433	0.17	0.30	1.07	1.53	40%	45%	40%	45%	25%	44%	55%	65%	24%	34%	25%	50%	55%	65%	20%	50%	
M1	547	km02195	12.15	725	5406.15	0.00	-0.061	5511.954	981,865.486	0.17	0.28	0.93	1.38	45%	50%	35%	45%	27%	28%	66%	67%	20%	28%	27%	28%	66%	67%	25%	28%	
M1	548	km02195	12.25	725	5410.87	0.15	-0.059	5516.818	981,870.350	0.17	0.33	1.03	1.53	40%	40%	45%	45%	32%	45%	64%	68%	25%	26%	36%	45%	64%	68%	20%	26%	
M1	549	km02195	12.37	725	5415.48	0.00	-0.057	5521.478	981,875.010	0.16	0.31	0.92	1.39	40%	40%	45%	40%	37%	42%	62%	63%	20%	27%	35%	40%	60%	60%	22%	25%	
M1	550	km02195	13.23	725	5418.07	0.56	-0.047	5524.303	981,877.836	0.18	0.26	0.74	1.18	45%	45%	45%	45%	30%	37%	58%	53%	18%	25%	25%	37%	68%	40%	18%	20%	
M1	551	km02195	13.50	725	5423.08	0.22	-0.041	5529.316	981,882.049	0.03	0.10	0.55	0.68	20%	25%	25%	25%	18%	24%	25%	40%	5%	14%	37%	23%	54%	15%	33%		
Monster	142	km02195	15.47	725	5344.42	0.00	-0.018	5449.007	981,802.543	0.07	0.17	0.51	0.75	35%	40%	40%	40%	18%	25%	30%	50%	38%	18%	18%	18%	53%	35%	32%		
Monster	143	km02195	16.10	725	5352.94	0.00	-0.015	5457.703	981,811.240	0.15	0.24	0.83	1.22	50%	35%	35%	40%	18%	28%	48%	74%	18%	24%	12%	30%	72%	55%	22%	28%	



Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Copper

-7
km
-0.071

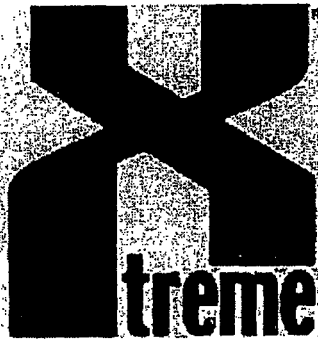
D-25



Data Reduction for LaCoste & Romberg G Meters
Gravity Survey at Monster Project
for Monster Cooper

-7
km
-0.132

D-26



Powered by

Instant-RTK Technology

Sub-Centimeter Accuracy • Compact, Lightweight Design • Integrated & Flexible System Solutions

Z-Xtreme™ is a rugged, weather-proof, dual-frequency GPS receiver designed to provide Surveyors with cost-effective, centimeter-accurate positions in a variety of system configurations.

Key Features

The Z-Xtreme receiver begins with state-of-the-art satellite electronics coupled with Ashtech's patented Z-Tracking to deliver the highest level of GPS signal commercially available. A removable battery and flash memory card provides enough capacity to last all day for maximum utility. Components are completely integrated inside a weather-proof, high impact plastic housing, ensuring your investment is safe, rain or shine. Use the easy-to-operate interface on the front panel for important functions such as site information entry, checking survey status, and set-up of RTK base stations without the additional cost of a handheld controller. The result: Z-Xtreme with Instant-RTK outperforms all other receivers in its class!

Key Features

The Z-Xtreme survey system provides a range of solutions designed for the vast array of positioning needs – from entry level static or kinematic post-processed surveys, all the way up to real-time functions such as stake out. The entry level ZX Solutions™ system dramatically increases your productivity for control surveys and other post-processed applications. Add an optional kinematic kit to make topographic feature collection more cost effective. Use Ashtech Solutions™ software to easily process the field data, export results and generate reports. Purchase only what you need for the job at hand because ZX Solutions are fully upgradeable.

Key Features

Eclipse the productivity of optical instrument stake out with a ZX SuperStation™. The ZX SuperStation is a field-to-finish turnkey GPS surveying system that combines the Z-Xtreme receiver with a powerful data collector and wireless modems for centimeter accuracy in real-time. Instant-RTK gives you the ability to initialize the centimeter solution in a fraction of the time of conventional RTK systems. Powerful data collection software gives you the ability to efficiently perform GPS surveying techniques and to interface seamlessly with optical total stations.



Z-Xtreme. And the only truly
integrated, turnkey, variable accuracy
GPS receiver system.
Call your dealer today to set up a demo
or visit us at www.ashtech.com

Ashtech
PRECISION PRODUCTS



Ashtech Technology

- 12 channel all-in-view operation
- Full-wavelength carrier on L1 and L2
- Z Tracking
- Multipath mitigation
- Dual frequency smoothing for improved code differential

Standard Features

- 16 MB PCMCIA removable memory card
- NMEA 0183 output
- Selectable update rate from 999 sec to 10 Hz
- Event marker
- Point positioning
- 1 PPS timing signal
- Session programming
- Wide array of coordinate transformations
- Removable internal battery
- 8-character alphanumeric LED display with 4-button interface
- 3 function LED display - Radio, Memory, Satellites/Power
- Multi-function audible alarm
- Quick reference card holder
- External mount capabilities
- External power input
- 4 RS-232 ports (115,200 baud max, 3 external, 1 internal)
- 1-year warranty
- Free factory technical support

Standard Accessories

- Communications software
- Padded system bag and hard case
- RS 232 data cable
- Receiver operating manual
- Quick reference field card

Optional Features

- Instant-RTK firmware
- Real-time kinematic (base and rover modes) for cm-accuracy
- RTCM 2.2 (Types 1, 2, 3, 9, 16, 18, 19, 20, 21, 22)
- Internal UHF or spread spectrum radio for RTK rover operations
- External UHF or spread spectrum radio for RTK base and rover operations
- Geodetic 4 antenna ground plane kit
- Kinematic antenna kit
- Aircraft antenna kit
- AC power cable
- Choke ring antenna
- Long haul backpack kit
- All on-a pole kit

Technical Specifications

Typical Survey Performance

Static, Rapid Static

- Horizontal: 5 mm + 1 ppm

- Vertical: 10 mm + 1 ppm

Post-Processed Kinematic

- Horizontal: 1 cm + 1 ppm

- Vertical: 2 cm + 1 ppm

Real-Time Code Differential Position

- <1 m

Real-Time Z Kinematic Position (Fine Mode)

- Horizontal: 1 cm + 2 ppm

- Vertical: 2 cm + 2 ppm

- Azimuth (arc sec): 0.4 + 2.0/baseline (km)

RTK Occupation Time

- 2 seconds (typical - sub-centimeter accuracy with longer occupation time)

Instant-RTK Initialization

- 99.9% reliability

- Typically <2 seconds with 6 or more satellites, PDOP <5, baseline length <7 km, open sky and low multipath conditions

RTK Operating Range

- Recommended: ≤10 km

- Maximum: 40 km

Environmental

Z-Xtreme Receiver (with Internal Battery)

- Meets MIL-STD 883C for wind driven rain and dust

- Operating temperature: -30° to +55°C

- Storage temperature: -40° to +85°C

Geodetic 4 Antenna

- Meets IPX7 specifications for submersion

- Operating temperature: -40° to +65°C

- Storage temperature: -55° to +75°C

Physical

Weight

- Receiver: 3.5 lb

- Antenna: 1.81 lb

- Battery: 0.96 lb

Dimensions

- 3" h x 7.75" w x 8.75" d

Power

- 10 - 28 VDC, 6.0 W

Internal Battery

- Capacity: 5400 mAh

- 10 hours (typical)

- Operating temperature: -30° to +55°C

- Storage temperature: -40° to +60°C

PC Card

- ATA Type II PCMCIA memory card
- Temperature range: -40° to +85°C
- Data capacity: 4500 epochs per 2 MB*

*Based on one session, 8 satellites' data and full measurements. This number can vary significantly depending on the conditions of the session.

Optional Software

- Ashtech Solutions Software Package
- Ashtech Office Suite for Survey
- TDS Survey Pro GPS
- GPS Field Mate
- Seismark II
- Mine Surveyor II

* Specifications assume operation follows all the procedures recommended in the product manual utilizing Instant-RTK, post processing with Ashtech Solutions or Ashtech Office Suite for Survey. High-multipath areas, high PDOP values, low satellite visibility, and periods of adverse atmospheric conditions and/or other adverse circumstances will degrade system performance. All accuracy specifications are RMS values.

Specifications are subject to change without notice. Please contact Magellan Corporation for the latest product information.

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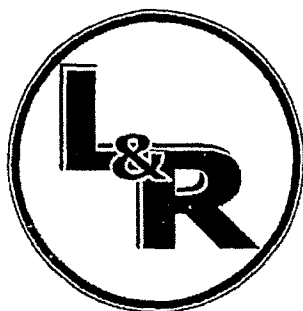
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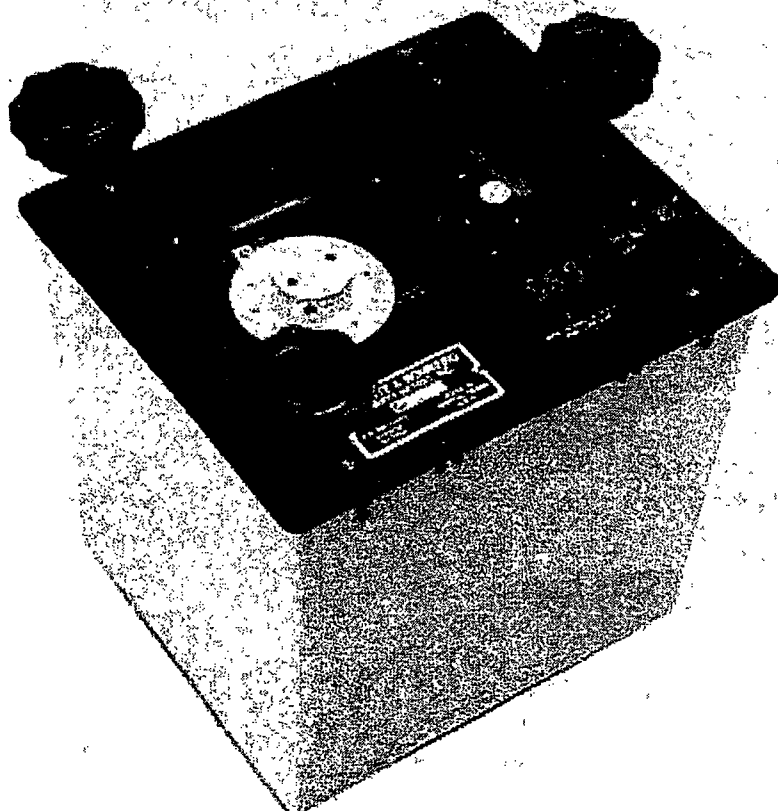
LaCoste & Romberg LLC

The first name in gravity since 1939

Model G Gravity Meter

LaCoste & Romberg, manufacturer of high precision gravity meters since 1939, introduced the world's first worldwide range gravity meter - the Model G meter - in 1959. The Model G land gravity meters have set the standard by which all other gravity meters are measured. They have a proven record of reliability and durability, so much so that virtually all L&R meters manufactured to date are still in use.

The Model G (geodetic) meter uses the famous patented L&R zero-length™ spring and suspension system. The Model G has been the standard of the industry for over 40 years. We estimate that more than 10 million gravity stations have been observed with this meter on every continent.



Technical Features the Model G

- ✓ **Reliability** - Our meters employ components that are designed for long life and require little maintenance. Our sensors contain rugged metal components which can reliably withstand extreme field conditions.
- ✓ **Range** - The G meter has a worldwide range of 7,000 mGal without resetting.
- ✓ **Drift** - Gravity meter drift for a new meter is less than 1 mGal per month. As a LaCoste & Romberg meter ages, the drift often improves to rates of less than 0.5 mGal per month. Once initial expansion takes place, the sensor does not radically change its characteristics with time, in fact they become more stable.
- ✓ **Stable Factory Calibration** - The calibration depends on a hardened micrometer screw and metal lever system. It is stable over the life of the meter and is not affected by loss of operating temperature.

Options

- ✓ **Electronic Readout** - A Capacitive Positioning Indicator (CPI) system allows beam position to be read without using the optical system. Improves the meter repeatability to below 0.005 mGal.
- ✓ **Aliod 100 Electronic Feedback System** - High accuracy, user friendly 100 mGal range feedback system displays gravity in mGals as well as meter temperature and battery voltage. Electronic levels and the dial clamp option are required.
- ✓ **Ceramic Levels** - A resistive liquid electronic level indicator system.
- ✓ **Nulling Dial Clamp** - Used to prevent the counter dial from moving during measurements. Recommended for meters with the Aliod 100 option or when monitoring earth tides.
- ✓ **High Speed Crank** - Useful for resetting the counter over a large interval between surveys.

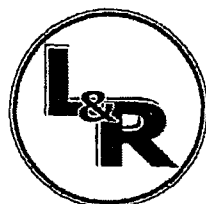
Reliable Factory Service

LaCoste & Romberg's famous reliable factory service stands behind every gravity meter we produce. Our trained technicians have many years of experience at building and maintaining gravity meters.

G Meter Specifications

System Performance	Sensor Type	Zero Length™ Metal Spring
	Data Resolution	0.005 mGal
	Repeatability	In field conditions (Repeatability depends completely on care in handling meter) 0.01 to 0.02 mGal
	Accuracy	0.04 mGal or better
	Range	Worldwide
	Temp. Range	0° to +45°C
Physical Dimensions	Absolute Drift:	<1.0 mGal per month <0.5 mGal per month after aging
	Size and Weight	19.7 x 17.8 x 25.1 cm 7.75 x 7.0 x 9.875 in
	Meter	7 lbs, 3.2 kg
	Battery	5 lbs, 2.3 kg
	Meter, Battery & Case	22 lbs, 10 kg
	Warranty	Standard 1 year, parts and labor

Specifications subject to change.



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E-mail: info@LaCosteRomberg.com

05/03/02

APPENDIX E

COMPLETE BOUGER GRAVITY ANOMALY DATA LISTING

**Complete Bouguer Gravity Anomaly
Data Listing
for
2001 and 2002 Monster-Cookie Gravity Surveys**

Station	Year of acquisition	Easting UTM Zone 7 NAD 27 (m)	Northing UTM Zone 7 NAD 27 (m)	Elevations (m) (m)	Inner Terrain* Corrected Bouguer Anomaly (mGal)	Complete** Bouguer Anomaly (mGal)
1	2001	561954	7194308	1710 96	-101 26	-86 81
2	2001	561633	7194235	1755 26	-102 73	-84 39
3	2001	561375	7193886	1725 84	-99 34	-83 96
4	2001	560919	7193746	1688 19	-95 45	-84 09
5	2001	560274	7193886	1785 76	-98 4	-81 97
6	2001	559997	7193549	1733 46	-94 34	-82 67
7	2001	559676	7193730	1632 29	-89 54	-81 6
8	2001	559441	7193831	1668 67	-93 04	-82 63
9	2001	559907	7193097	1701 71	-92 47	-81 59
10	2001	559694	7192804	1721 06	-92 5	-81 99
11	2001	559362	7192745	1726 36	-92 91	-81 48
11	2001	559362	7192745	1726 36	-92 89	-81 45
12	2001	559172	7192930	1653 88	-90 11	-82 25
13	2001	559151	7192495	1700 59	-90 72	-81
14	2001	558669	7192411	1601 42	-87 88	-79 78
15	2001	558517	7192601	1553 89	-87 34	-79 81
16	2001	558858	7192347	1667 13	-89 65	-79 5
17	2001	562769	7192880	1043 55	-91 33	-81 49
18	2001	562977	7193095	1024 23	-92 51	-82 52
19	2001	563195	7193317	1023 63	-91 98	-81 9
20	2001	563325	7193576	1017 27	-92 08	-82 62
21	2001	563429	7193766	1008 25	-92 13	-83 06
22	2001	559012	7192064	1706 56	-90 65	-81 3
23	2001	559092	7191713	1756 66	-93 17	-80 88
24	2001	559248	7191532	1726 14	-90 66	-80 56
25	2001	559394	7191340	1795 44	-92 63	-79 67
26	2001	559529	7190978	1831 13	-92 7	-78 26
27	2001	559607	7190631	1907 77	-97 74	-80
28	2001	559844	7190361	1950 59	-101 11	-81 84
28	2001	559844	7190361	1950 59	-101 09	-81 82
28	2001	559844	7190361	1950 59	-101 08	-81 81
28	2001	559844	7190361	1950 59	-101 05	-81 78
29	2001	560079	7190326	1924 57	-100 38	-82 17
29	2001	560079	7190326	1924 57	-100 31	-82 11
30	2001	560348	7190574	1818 53	-94 75	-80 8
30	2001	560348	7190574	1818 53	-94 73	-80 79
31	2001	560499	7190851	1763 84	-93 4	-80 05
32	2001	561808	7192322	1434 53	-90 93	-83 55
33	2001	561415	7192172	1591 15	-93 8	-82 86
34	2001	561241	7191906	1704 09	-98	-82 79
35	2001	561212	7191588	1783 22	-101 43	-82 35
36	2001	560958	7191341	1758 61	-96 28	-78 4
37	2001	560818	7191105	1751 85	-94 96	-80 54
38	2001	560487	7190273	1767 07	-93 26	-81 43
39	2001	560828	7190228	1732 58	-93 87	-80 51
40	2001	561100	7190031	1645 11	-92 36	-80 66
41	2001	561139	7190452	1618 34	-89 68	-80 56
42	2001	561401	7190634	1492 18	-87 05	-80 49
43	2001	562452	7190929	1103 91	-89 17	-79 73
43	2001	562452	7190929	1103 91	-89 12	-79 68
44	2001	562528	7191594	1079 52	-90 65	-80 89
45	2001	562554	7191969	1076 9	-90 02	-80 57
47	2001	557652	7191778	1494 39	-84 54	-79 84

Station	Year of acquisition	Easting UTM Zone 7 NAD 27 (m)	Northing UTM Zone 7 NAD 27 (m)	Elevations (m) (m)	Inner Terrain* Corrected Bouguer Anomaly (mGal)	Complete** Bouguer Anomaly (mGal)
48	2001	557855	7191212	1714 94	-93 88	-81 46
49	2001	557994	7190653	1780 91	-95 02	-80 77
50	2001	558202	7190309	1822 71	-96 05	-81 07
51	2001	558556	7189977	1835 7	-94 36	-80 73
52	2001	558713	7189793	1860 04	-96 02	-80 5
53	2001	558648	7189460	1703 67	-87 73	-78 33
54	2001	558594	7189268	1670 2	-87 82	-78 72
55	2001	559037	7189727	1882 94	-95 75	-81 32
56	2001	559396	7189699	1936 96	-100 11	-80 7
58	2001	562539	7191776	1074 03	-90 78	-81 18
59	2001	562497	7191251	1091 63	-90 19	-80 17
60	2001	562408	7190686	1103 52	-89 23	-80
61	2001	562370	7190439	1113 26	-88 67	-79 82
62	2001	562312	7190191	1122 94	-88 23	-79 83
63	2001	562237	7189944	1125 57	-87 8	-79 67
64	2001	562206	7189691	1132 22	-87 44	-79 59
65	2001	562160	7189450	1132 97	-87 08	-79 53
66	2001	562069	7189220	1137 75	-86 95	-79 36
67	2001	562003	7188969	1144 89	-86 34	-78 9
68	2001	562089	7188718	1148 11	-86 1	-78 95
69	2001	562117	7188484	1153 74	-85 84	-78 33
70	2001	562047	7188267	1157 29	-85 2	-77 73
71	2001	561987	7188021	1160 99	-84 87	-78 02
72	2001	561947	7187785	1166 99	-83 92	-77 33
73	2001	561933	7187531	1174	-83 24	-77 21
74	2001	561949	7187296	1179 28	-82 56	-76 95
75	2001	561998	7187052	1185 05	-82 21	-76 93
76	2001	561839	7186827	1198 65	-81 34	-75 98
77	2001	561645	7186652	1215 44	-81 41	-75 99
78	2001	562058	7186802	1197 26	-81 31	-75 93
79	2001	562220	7186602	1225 3	-80 22	-75 39
80	2001	562369	7186400	1256 1	-79 27	-74 76
85	2001	558452	7186443	1550 01	-84 6	-77 16
86	2001	558694	7186453	1526 12	-83 28	-76 93
87	2001	558933	7186402	1509 69	-82 86	-77 12
88	2001	559199	7186410	1504 27	-82 64	-76 71
89	2001	559405	7186523	1520 93	-82 16	-75 54
90	2001	559641	7186601	1557 75	-82 91	-74 85
91	2001	559835	7186755	1646 11	-86 22	-74 56
92	2001	559918	7187003	1704 03	-88 94	-78 92
93	2001	559823	7187233	1717 3	-88 84	-78 03
94	2001	559774	7187482	1777 29	-93 56	-78 25
95	2001	559684	7187710	1794 14	-94 83	-81 67
96	2001	559480	7187892	1777 38	-93 29	-81 44
97	2001	559427	7188163	1752 86	-92 1	-81 73
98	2001	559468	7188417	1761 15	-92 95	-81 28
99	2001	559590	7188587	1767 41	-92 74	-81 29
100	2001	559843	7188609	1700 75	-89 06	-81 26
101	2001	560085	7188638	1673 7	-88 65	-79 74
102	2001	560349	7188623	1687 92	-91 04	-81 12
103	2001	559569	7188853	1711 34	-88 58	-80 88
104	2001	559554	7189107	1735 3	-89 37	-80 32
105	2001	559477	7189429	1867 63	-96 01	-81 88
106	2001	559596	7189812	1905 94	-97 71	-81 06
107	2001	564455	7194133	1253 09	-90 21	-84 77
108	2001	564373	7193896	1301 03	-90 94	-84 74
109	2001	564302	7193659	1365 52	-92 13	-85 03
110	2001	564263	7193419	1449 46	-95 19	-85 66
111	2001	564131	7193180	1501 89	-96 36	-85 07
112	2001	564043	7192963	1534 72	-97 14	-85 51

Station	Year of acquisition	Easting UTM Zone 7 NAD 27 (m)	Northing UTM Zone 7 NAD 27 (m)	Elevations (m) (m)	Inner Terrain* Corrected Bouguer Anomaly (mGal)	Complete** Bouguer Anomaly (mGal)
113	2001	563894	7192763	1552 51	-96 92	-85 26
114	2001	563824	7192530	1589 3	-98 05	-86 21
115	2001	563814	7192272	1619 36	-97 54	-85 44
116	2001	563844	7192029	1585 96	-93 69	-82 91
117	2001	563848	7191782	1603 52	-94 38	-85 93
118	2001	563895	7191543	1649 34	-95 05	-85 37
119	2001	563935	7191300	1725 8	-98 44	-85 69
120	2001	564020	7191073	1786 6	-100 16	-85 66
121	2001	564020	7190844	1877 78	-105 75	-86 12
123	2001	565029	7188097	1254 01	-82 02	-75 67
124	2001	565397	7188423	1221 53	-85 57	-79 84
125	2001	565612	7188538	1218 81	-85 68	-80 06
126	2001	565808	7188686	1202 23	-86 48	-80 41
127	2001	566025	7188783	1186 77	-86 93	-80 82
128	2001	566264	7188858	1155 21	-87 33	-81 47
129	2001	566484	7188963	1137 12	-87 33	-81 12
130	2001	566571	7189194	1124 22	-87 87	-82
131	2001	566518	7189433	1118 07	-88 63	-82 06
147	2001	555627	7188905	1567 47	-83 85	-76 15
148	2001	555877	7188944	1648 09	-88 81	-75 94
149	2001	556114	7189006	1744	-96 55	-78 82
150	2001	556332	7188854	1767 44	-98 36	-79 12
151	2001	556366	7188603	1690 42	-93 12	-77 87
152	2001	556514	7188394	1581 13	-87 12	-77
153	2001	556663	7188191	1508 02	-85 14	-76 99
154	2001	556762	7187967	1412 07	-82 89	-75 98
155	2001	556934	7187750	1246 06	-80 9	-75 08
156	2001	557172	7187813	1153 56	-83 93	-76 79
2000	2001	560711	7192563	1273 23	-88 23	-81 15
2000	2001	560711	7192563	1273 23	-88 21	-81 14
2000	2001	560711	7192563	1273 23	-88 17	-81 1
2000	2001	560711	7192563	1273 23	-88 14	-81 06
1000	2002	560465	7192385	1275 97	-89 01	-81 55
16	2002	564268	7190358	1854 95	-102 77	-86 07
17	2002	564248	7190224	1788 13	-96 78	-82 11
18	2002	564346	7190122	1758 14	-94 97	-83 82
19	2002	564398	7189952	1754 85	-94	-83 8
24	2002	559249	7191531	1727 09	-90 56	-80 46
24	2002	564365	7190546	1881 33	-102 5	-83 13
25	2002	564404	7190678	1894 89	-103 65	-85 28
25	2002	564404	7190678	1894 89	-103 62	-85 25
26	2002	564598	7190763	1883 42	-102 87	-83 85
27	2002	564745	7190856	1912 33	-105 86	-84 07
28	2002	564808	7190966	1904 57	-104 72	-84 57
29	2002	564927	7191129	1924 25	-106 27	-79 86
30	2002	564998	7191199	1977 94	-112 18	-87 33
31	2002	564999	7191388	2006	-115 52	-83 94
32	2002	565086	7191533	2027 76	-119 56	-88 98
88	2002	561956	7191062	1254 09	-87 45	-80 43
89	2002	561972	7191271	1258	-88 43	-80 57
90	2002	561978	7191500	1273 4	-88 21	-80 26
91	2002	561977	7191755	1267 76	-88 55	-81
97	2002	561891	7192691	1196 99	-87 44	-80 35
98	2002	561640	7192661	1201 85	-89 56	-82 07
98	2002	561640	7192661	1201 85	-89 55	-82 06
99	2002	561419	7192675	1206 53	-90 85	-83 19
100	2002	561230	7192683	1233 45	-89 17	-81 47
101	2002	561042	7192682	1244 89	-88 79	-81 34
102	2002	560839	7192639	1262 5	-87 98	-80 88
103	2002	560575	7192425	1275 12	-88 69	-81 45

Station	Year of acquisition	Easting UTM Zone 7 NAD 27 (m)	Northing UTM Zone 7 NAD 27 (m)	Elevations (m) (m)	Inner Terrain* Corrected Bouguer Anomaly (mGal)	Complete** Bouguer Anomaly (mGal)
104	2002	560450	7192322	1272 26	-89 38	-81 63
105	2002	560316	7192165	1305 79	-86 64	-78 55
106	2002	560155	7192009	1365 13	-85 97	-79 77
107	2002	560013	7191941	1367 7	-86 96	-80 45
108	2002	559965	7191766	1368 82	-88 9	-79 44
112	2002	560332	7191707	1423 44	-86 32	-79 73
113	2002	560274	7191850	1396 31	-86 28	-80 25
114	2002	557666	7193592	1127 2	-87 04	-80 93
115	2002	557767	7193415	1172 78	-85 08	-79 2
116	2002	557844	7193193	1196 18	-86 23	-80 47
117	2002	557885	7192980	1214 95	-88 97	-82 36
119	2002	557971	7192490	1254 97	-87 08	-79 36
120	2002	558011	7192158	1262 98	-87 76	-79 59
121	2002	558048	7191967	1283 84	-87 23	-79 14
122	2002	558124	7191837	1292	-87 64	-79 22
123	2002	558262	7191660	1299 07	-88 26	-79 58
124	2002	558429	7191329	1342 48	-88 41	-79 11
125	2002	558510	7190997	1381 1	-87 87	-79 03
126	2002	558549	7190788	1405 74	-87 81	-79 04
127	2002	558695	7190601	1461 58	-86 88	-78 47
128	2002	558795	7190480	1493 01	-85 73	-77 86
129	2002	558990	7190325	1541 4	-86 4	-78 38
130	2002	559153	7190178	1594 36	-86 98	-79 01
131	2002	559320	7190239	1633 49	-87 39	-78 03
132	2002	559513	7191248	1845 42	-95	-79 51
133	2002	559541	7191106	1837 09	-94 22	-78 89
134	2002	559581	7190900	1864 28	-95 86	-80 17
135	2002	559585	7190732	1888 04	-96 89	-79 72
136	2002	559693	7190541	1923 52	-98 79	-80 7
137	2002	559760	7190435	1935 46	-99 87	-81 27
138	2002	559390	7191428	1785 27	-92 72	-80 26
139	2002	559309	7191508	1743 85	-90 87	-80 13
140	2002	559144	7191620	1739 44	-90 86	-79 74
141	2002	559042	7191888	1723 3	-90 51	-80 68
142	2002	559832	7190249	1935 65	-100 19	-80 05
143	2002	559750	7190019	1902 43	-97 13	-81 26
144	2002	559618	7191217	1883 64	-99 63	-82 9
145	2002	559790	7191262	1805 07	-94 68	-82 18
146	2002	559889	7191317	1741 99	-92 47	-80 8
147	2002	560017	7191348	1662 8	-89 6	-80 68
148	2002	560175	7191430	1568 52	-87 45	-80 54
149	2002	559411	7191037	1778 69	-90 73	-78 63
150	2002	559314	7190952	1704 43	-88 11	-78 24
151	2002	559115	7190926	1635 43	-86 47	-78 53
152	2002	559027	7190859	1601 44	-86 23	-79 04
155	2002	560905	7191284	1788 98	-99 02	-81 75
156	2002	560866	7191173	1766 49	-95 97	-80 25
157	2002	560726	7191006	1734	-93 66	-80 94
158	2002	560590	7190922	1750 32	-92 43	-80 89
160	2002	561037	7191569	1861 8	-109 01	-83 66
206	2002	555297	7188844	1685 93	-91 69	-76 44
207	2002	555151	7189051	1683 21	-93 44	-79 97
208	2002	555088	7189290	1596 95	-87 83	-78 45
209	2002	555005	7189480	1582 73	-89 4	-78 95
210	2002	555286	7188632	1638 53	-89 41	-76 49
211	2002	555220	7188462	1554 01	-85 35	-75 22
212	2002	556922	7187454	1119 18	-81 75	-75 32
213	2002	556652	7187481	1147 66	-80 61	-74 82
214	2002	556366	7187571	1194 07	-80 57	-74 82
215	2002	556105	7187557	1131 37	-81 1	-74 89

Station	Year of acquisition	Easting UTM Zone 7 NAD 27 (m)	Northing UTM Zone 7 NAD 27 (m)	Elevations (m) (m)	Inner Terrain* Corrected Bouguer Anomaly (mGal)	Complete** Bouguer Anomaly (mGal)
216	2002	555831	7187550	1202 05	-79 18	-73 94
217	2002	555592	7187600	1253 46	-79 65	-74 99
218	2002	555272	7187352	1166 04	-79 57	-73 89
219	2002	555141	7187545	1153 55	-81 22	-74 92
220	2002	554923	7187734	1187 99	-80 93	-75 01
221	2002	554740	7187909	1219	-81 06	-74 81
222	2002	554556	7188017	1252 21	-80 59	-74 81
223	2002	554425	7188230	1316 71	-78 61	-74 62
224	2002	554385	7188450	1296 39	-78 86	-75 22
225	2002	554310	7188689	1269 43	-79 52	-75 07
226	2002	554246	7188933	1231 58	-80 54	-75 54
227	2002	554118	7189164	1196 86	-81 67	-75 14
228	2002	554052	7189407	1176 64	-81 74	-74 78
229	2002	554100	7189737	1102 67	-84 58	-76 65
231	2002	553636	7187924	1671 53	-89 45	-76 32
232	2002	553658	7188138	1591 39	-85 65	-76 04
239	2002	553572	7187714	1758 29	-94 8	-78 09
240	2002	553537	7187447	1802 05	-97 84	-75
241	2002	553809	7187517	1739 27	-93 76	-77 45
242	2002	553995	7187431	1662 77	-89 06	-75 57
243	2002	554169	7187326	1591 89	-87 05	-75 76
244	2002	553395	7187393	1775 14	-94 03	-74 19
245	2002	553280	7187277	1759 7	-93 72	-75 13
246	2002	553103	7187160	1805 2	-98 66	-77 23
247	2002	552929	7187120	1784 49	-96 76	-73 57
248	2002	552829	7186981	1719 52	-91 71	-74 65
249	2002	552665	7186826	1661 31	-89 25	-72 52
264	2002	551163	7187990	1051 54	-79 71	-70 68
265	2002	551170	7187762	1040 32	-79 93	-70 53
266	2002	551196	7187539	1037 42	-79 44	-70 05
267	2002	551239	7187289	1030 4	-79 33	-69 22
268	2002	551218	7187116	1026 8	-79 06	-69 54
269	2002	551213	7186826	1015 01	-78 75	-69 45
270	2002	551206	7186667	1003 99	-78 3	-69 02
271	2002	551204	7186454	992 05	-78 44	-68 98
272	2002	551290	7186268	958 36	-79 86	-69 25
273	2002	551368	7186045	947 39	-79 39	-69 22
274	2002	551370	7185767	934 74	-78 4	-68 82
275	2002	551427	7185437	920 87	-77 45	-68 73
278	2002	553262	7185897	1064 95	-80 58	-71 9
288	2002	559288	7191256	1757 83	-91 38	-79 74
288	2002	559288	7191256	1757 83	-91 3	-79 66
289	2002	559125	7191215	1724 77	-88 93	-79 33
290	2002	559027	7191177	1643 7	-86 81	-78 25
291	2002	558880	7191042	1508 33	-86 38	-79 01
292	2002	559496	7190600	1854 27	-94 11	-78 84
293	2002	559343	7190529	1770 89	-89 59	-77 9
294	2002	559218	7190516	1718 88	-86 64	-76 91
295	2002	559110	7190471	1637 66	-85 96	-77 86
296	2002	560559	7191524	1510 74	-87 2	-79 99
500	2002	559862	7192027	1430 12	-86 06	-79 92
501	2002	559665	7192101	1447 52	-85 74	-79 54
501	2002	559665	7192101	1447 52	-85 7	-79 5
502	2002	559504	7192218	1486 55	-85 9	-79 77
503	2002	559389	7192394	1577 56	-85 8	-79 82
504	2002	555454	7187748	1287 84	-79 8	-74 93
505	2002	555318	7188031	1334 63	-80 51	-75 81
506	2002	555281	7188279	1440 8	-82 19	-75 49
507	2002	558335	7191500	1320 82	-88 51	-79 59
508	2002	559195	7190385	1654 97	-86 51	-77 85

Station	Year of acquisition	Easting UTM Zone 7 NAD 27 (m)	Northing UTM Zone 7 NAD 27 (m)	Elevations (m) (m)	Inner Terrain* Corrected Bouguer Anomaly (mGal)	Complete** Bouguer Anomaly (mGal)
509	2002	559087	7190670	1622 44	-86 57	-78 59
510	2002	559146	7190778	1652 86	-87 26	-78 82
511	2002	559284	7191676	1710 55	-89 82	-80 44
512	2002	559415	7191751	1641 57	-87 47	-79 85
513	2002	559476	7191880	1555 28	-86 42	-79 81
514	2002	559565	7192013	1484	-85 5	-79 73
520	2002	559032	7191707	1778 53	-95 94	-82 7
521	2002	559073	7191661	1756 49	-92 98	-80 9
522	2002	559100	7191627	1748 09	-92 21	-80 45
523	2002	559137	7191595	1736 16	-91 14	-80 58
524	2002	559190	7191563	1721 57	-89 98	-80 26
525	2002	559221	7191519	1720 56	-89 86	-80 11
526	2002	559227	7191468	1726 19	-89 88	-79 9
527	2002	559235	7191410	1739 2	-90 45	-80 05
528	2002	559232	7191371	1742 94	-90 77	-80 14
529	2002	559233	7191292	1745 29	-90 81	-79 53
530	2002	559249	7191241	1749 71	-90 85	-79 01
531	2002	559265	7191200	1755 18	-90 85	-78 93
532	2002	559290	7191157	1761 93	-91 13	-79 25
533	2002	559316	7191116	1769 18	-91 1	-79 06
534	2002	559340	7191056	1762 16	-90 18	-78 96
535	2002	559373	7191018	1753 28	-89 41	-78 2
536	2002	559382	7190968	1753 11	-89 21	-78 19
537	2002	559370	7190925	1739 9	-89	-78 39
538	2002	559299	7190881	1726 95	-88 68	-78 88
539	2002	559285	7190835	1731 25	-89	-79 25
540	2002	559273	7190772	1724 81	-88 87	-79 18
541	2002	559262	7190735	1710 95	-88 52	-78 73
542	2002	559234	7190699	1699 98	-88 12	-78 7
543	2002	559201	7190654	1697 48	-88 03	-79 01
544	2002	559184	7190604	1694 71	-87 89	-78 86
545	2002	559171	7190557	1689 59	-87 58	-78 68
546	2002	559171	7190511	1684 27	-87 08	-78 28
547	2002	559178	7190470	1674 46	-86 97	-78 09
548	2002	559171	7190411	1652 85	-86 18	-77 76
549	2002	559165	7190360	1630 78	-85 92	-77 48
550	2002	559205	7190294	1615 63	-86 27	-77 43
551	2002	559182	7190242	1590 76	-86 67	-77 74
552	2002	555331	7187234	1171 82	-79 18	-73 92
553	2002	554344	7190783	1038 43	-83 65	-76 96

Note *Inner Terrain Corrected Bouguer Anomaly from 0m to 170m from station point

** Complete Bouguer Anomaly terrain corrected from 0m to 22km from station point

APPENDIX F

GEOSCIENTISTS' CERTIFICATES

GEOSCIENTIST CERTIFICATE

I, Tom Setterfield of 21 Tripp Crescent, Ottawa, in the Province of Ontario, DO HEREBY CERTIFY

- 1 THAT I am a Consulting Geologist and sole proprietor of TNS Consulting with an office at 21 Tripp Crescent, Ottawa, Ontario, as well as Vice President Exploration for Monster Copper Resources Inc
- 2 THAT I am a graduate of Carleton University with a Bachelor of Science Honours degree in Geology and Chemistry (1980), the University of Western Ontario with a Masters of Science degree in Geology (1984), and the University of Cambridge with a Doctor of Philosophy degree in Earth Sciences (1991)
- 3 THAT I am a Professional Geoscientist (P Geo) registered in good standing with the Association of Professional Geoscientists of Ontario (No 0103)
- 4 THAT this report is based on property work I conducted and/or supervised between July 3 and July 16, 2002, as well as government and academic publications and assessment reports filed with the Yukon Territory

DATED at Ottawa, Ontario, this 15th day of January, 2003

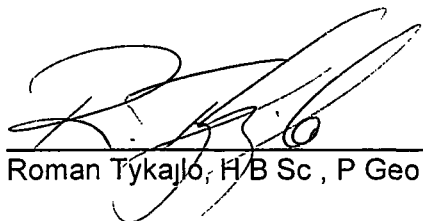

Tom Setterfield, PhD, P Geo

GEOSCIENTIST CERTIFICATE

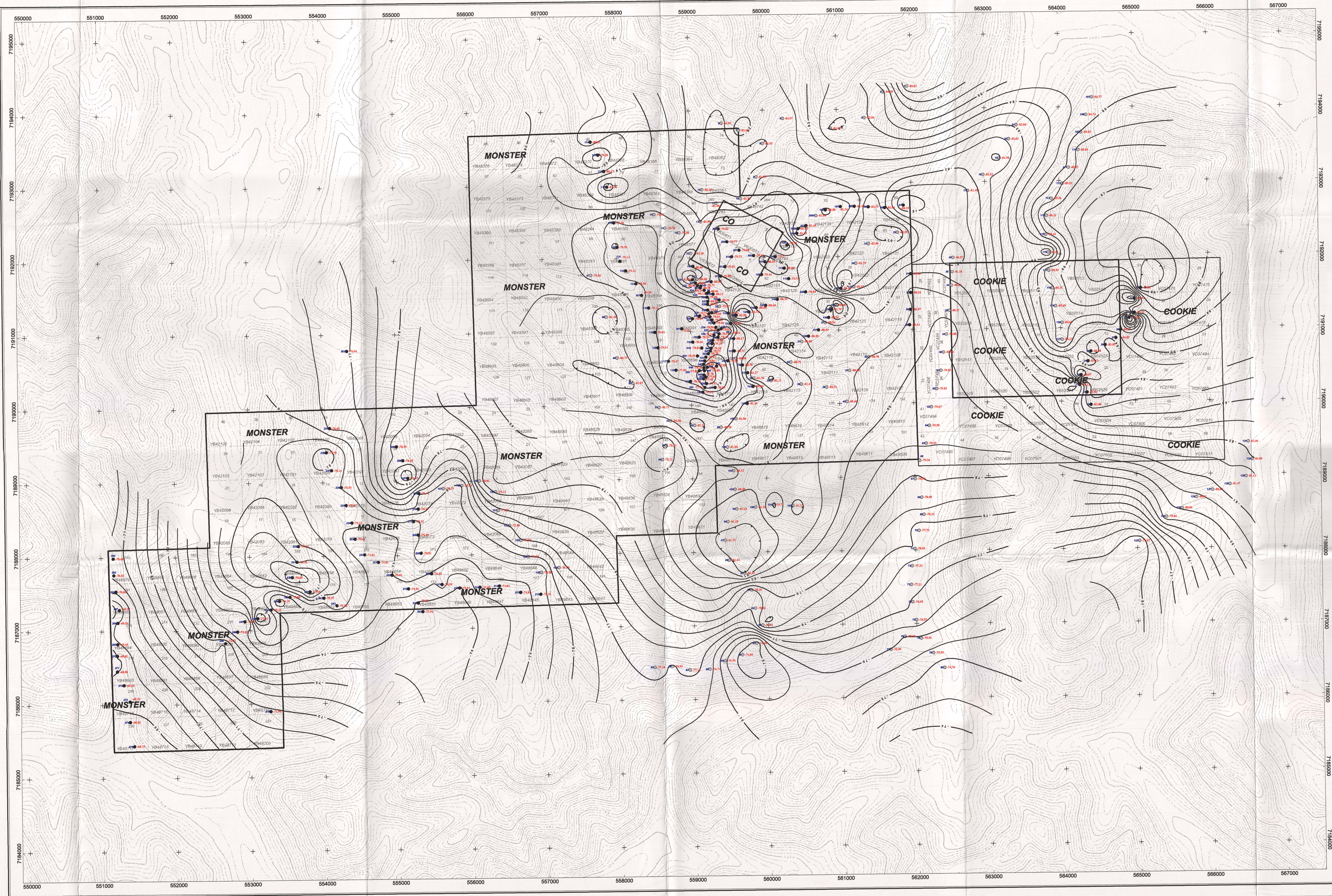
I, Roman Tykajlo of 74 Stonebriar Drive, Ottawa, in the Province of Ontario
DO HEREBY CERTIFY

- 1 THAT I am a Consulting Geoscientist with Artik Geoscience Limited with an office at 74 Stonebriar Drive, Ottawa, Ontario
- 2 THAT I am a graduate of Lakehead University with a Bachelor of Science Honours degree in Geology/Physics (1978)
- 3 THAT I am a Professional Geoscientist (P Geo) registered in good standing with the Association of Professional Geoscientists of Ontario (APGO), and a Professional Geologist (P Geol) registered in good standing with the Association of Professional Engineers, Geologists, and Geophysicists of Alberta (APEGGA)
- 4 THAT this report is based on property work conducted by MWH Geo-Surveys Ltd and designed by me between July 3 and July 16, 2002

DATED at Ottawa, Ontario, this 15th day of January, 2003



Roman Tykajlo, H/B Sc , P Geo , P Geol



Symbol Legend

- 45.46 Complete Bouguer Anomaly Value (mGal)
- Station number Gravity Station 2002
- 77.94 Complete Bouguer Anomaly Value (mGal)
- Station number Gravity Station 2001
- contour interval 0.5 mGal

Technical Note:

Bouguer Density used for data reduction was 2.75 gm/cc.

Inner terrain corrections were calculated for Hammer Zones 8 to 10 (0-170m radius from gravity station) using local slope corrections. Local slopes were acquired at the gravity station. Terrain density used was 2.75 gm/cc.

Complete Bouguer Gravity Anomaly includes the inner terrain correction applied above, plus an outer terrain correction from 170m out to 220m. Terrain density used was 2.75 gm/cc. A detailed Digital Elevation Model (DEM) and a regional DEM were used for digital terrain correction (see report).

Gravity station elevations were determined using differential GPS.

Elevation contours are based on a 90m cell DEM supplied by Yukon Department of Renewable Resources Geographic Information System (RGIS). This DEM was one of two used in the outer terrain correction calculation.

Scale 1:20000

metres

NAD83 / UTM zone 11N

0 250 500 750 1000 1250 1500

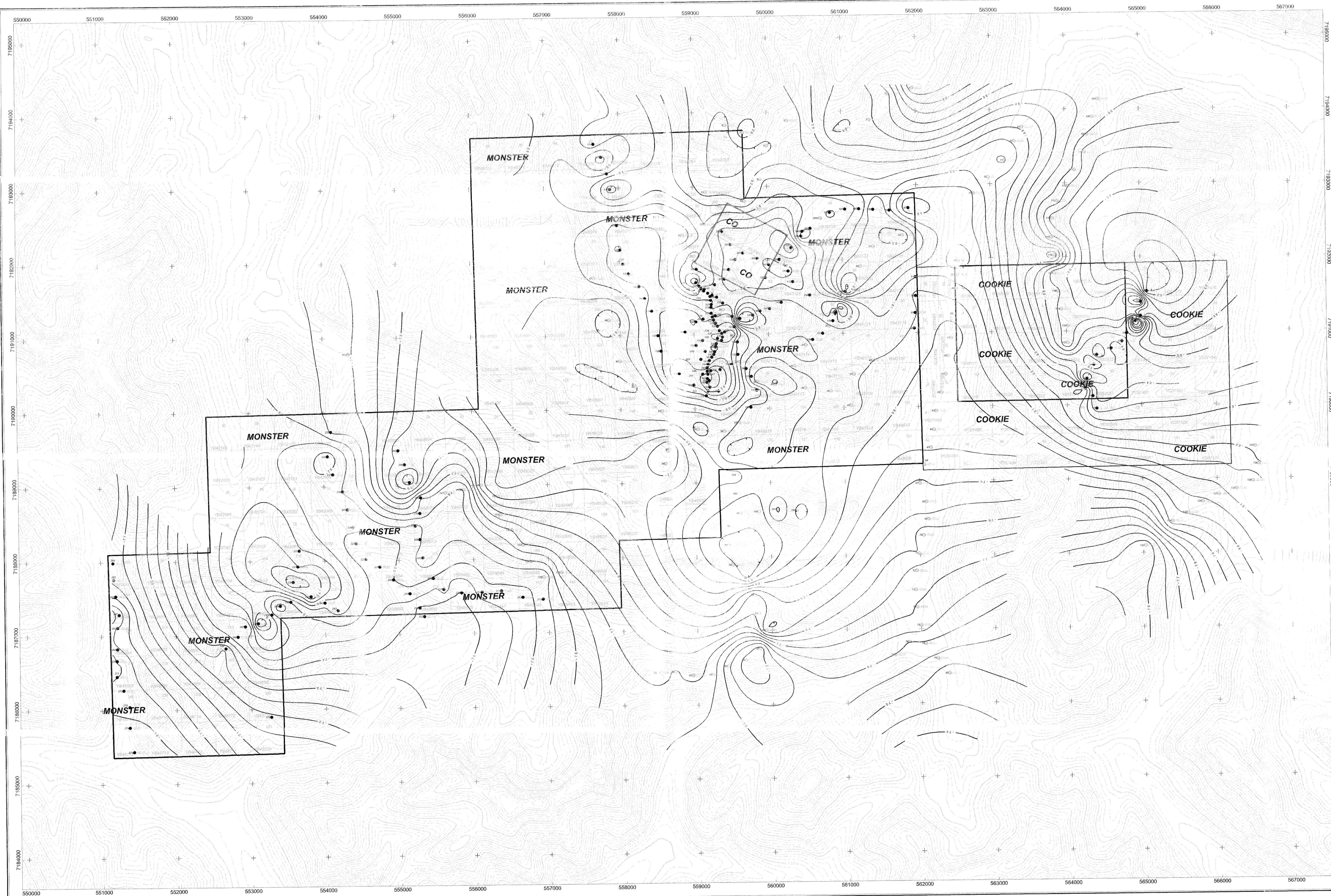
Monster Copper Resources Inc.

Monster Project
Monster and Cookie Claims
NTS 116-B-13
Dawson Mining District, Yukon

Gravity Survey Stations
Complete Bouguer Gravity Contours
and
Data Postings

MAP 3

surveyed 2001 and 2002 by MHR Geomatics Ltd.
map prepared January 2003 by Arctic Geoservices Limited



Symbol Legend

5 ● $\bullet$ $\bullet$ Complete Bouguer Anomaly Value (mGal)
 Station number
 Gravity Station 2002
 37 ● $\bullet$ $\bullet$ Complete Bouguer Anomaly Value (mGal)
 Station number
 Gravity Station 2001
 contour interval 0.5 mGal

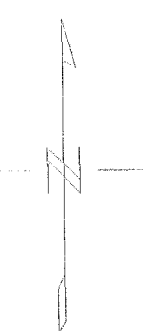
Technical Note:

Douglas Density used for data reduction was 2.75 qu/oz.

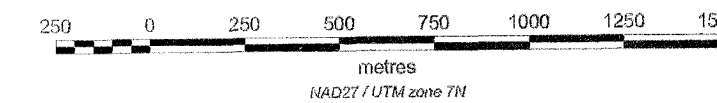
Inner terrain corrections were calculated for Hammer Zones B to D (0-170m radius from gravity station) using local slope corrections. Local slopes were acquired at the gravity station. Terrain density used was 2.75 gm/cc.

Complete Bouguer Gravity Anomaly includes the inner terrain correction applied above, plus an outer terrain correction from 170m out to 22km. Terrain density used was 2.75 gm/cc. A detailed Digital Elevation Model (DEM) and a regional D were used for digital terrain correction (see report).

Elevation contours are based on a 90m cell DEM supplied by Yukon Department of Renewable Resources Geographic Information System (RFGIS). This DEM was one of two used in the outer terrain correction calculation.



Scale 1:20000



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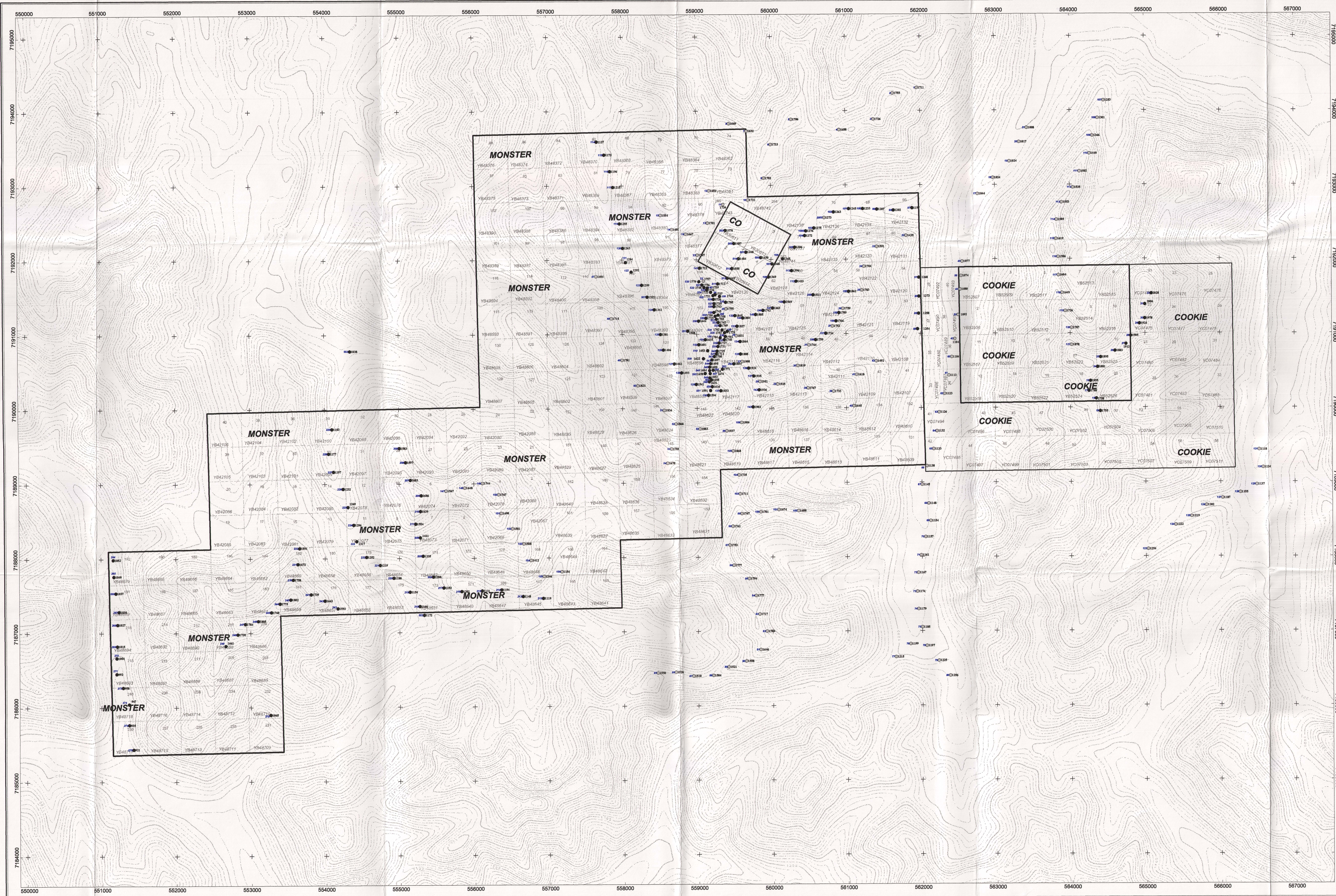
Monster Copper Resources Inc.

Monster Project
Monster and Cookie Claims
NTS 116-B-13
Dawson Mining District, Yukon

**Gravity Survey Stations
Complete Bouguer Gravity Contours
and
Data Postings**

MAP 3

surveyed 2001 and 2002 by MWH Geosurveys Ltd.
map prepared January 2003 by Artik Geoscience Limited



Symbol Legend

- 1253 DGPS elevation (m)
- Station number
- Gravity Station 2002
- 1626 DGPS elevation (m)
- Station number
- Gravity Station 2001

Technical Note:

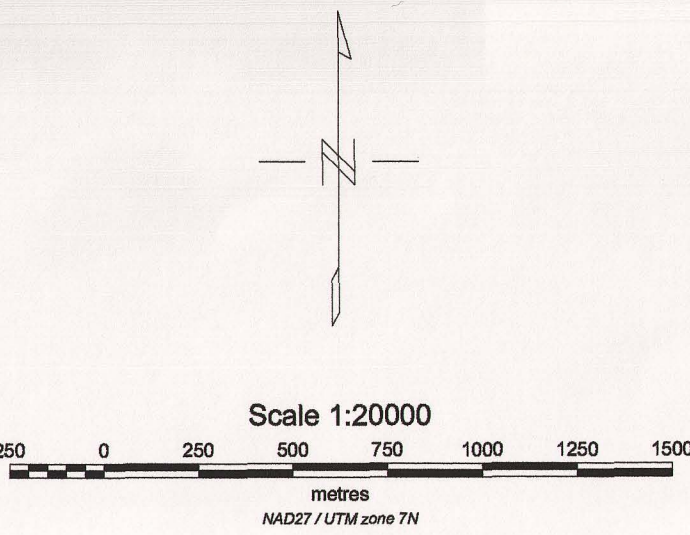
Bouguer Density used for data reduction was 2.75 gm/cc.

Inner terrain corrections were calculated for Hammer Zones B to D (0-170m radius from gravity station) using local slope corrections. Local slopes were acquired at the gravity station. Terrain density used was 2.75 gm/cc.

Complete Bouguer Gravity Anomaly includes the inner terrain correction applied above, plus an outer terrain correction from 170m out to 22km. Terrain density used was 2.75 gm/cc. A detailed Digital Elevation Model (DEM) and a regional DEM were used for digital terrain correction (see report).

Gravity station elevations were determined using differential GPS.

Elevation contours are based on a 90m cell DEM supplied by Yukon Department of Renewable Resources Geographic Information System (RGIS). This DEM was one of two used in the outer terrain correction calculation.



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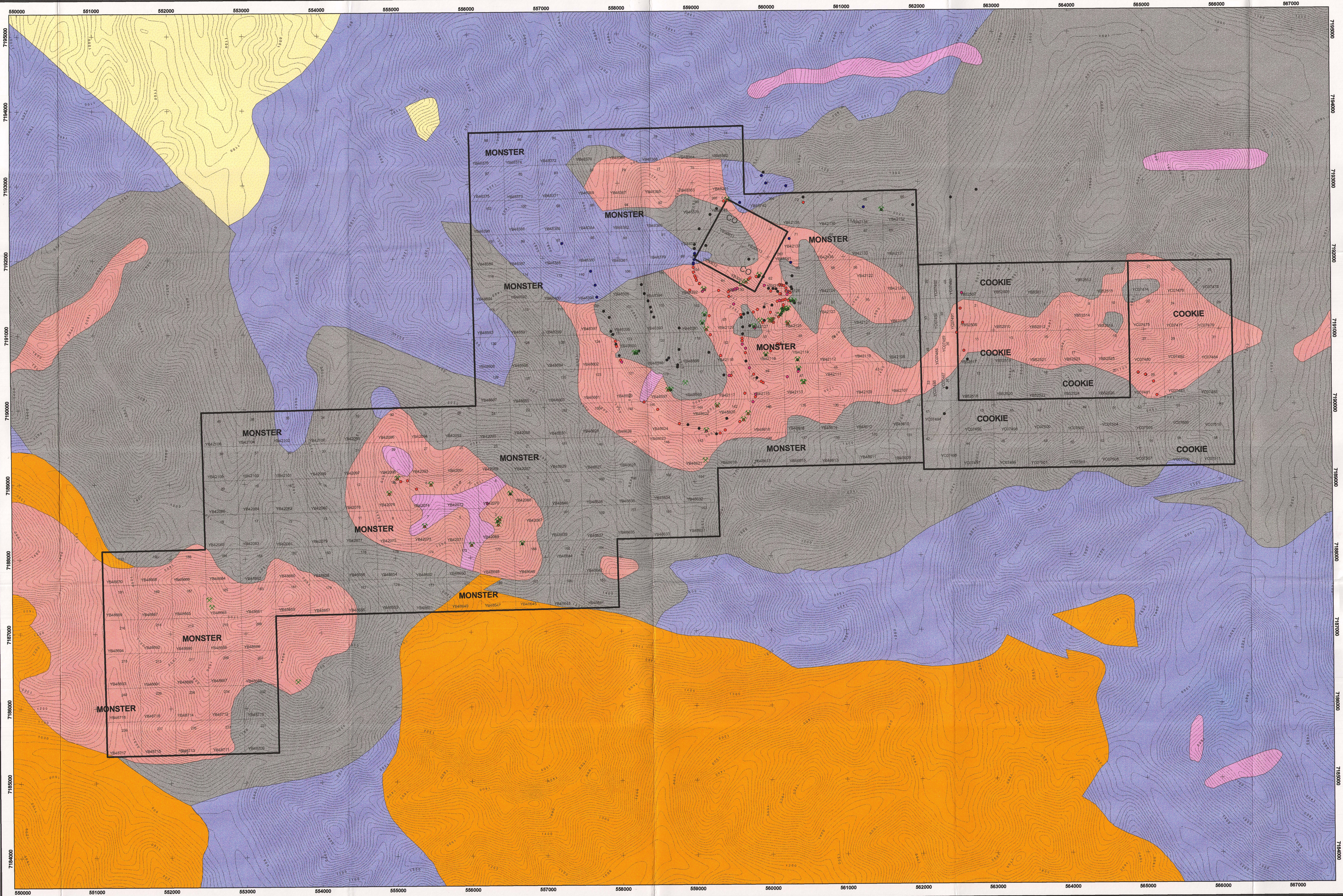
Monster Copper Resources Inc.

Monster Project
Monster and Cookie Claims
NTS 116-B-13
Dawson Mining District, Yukon

Gravity Survey Stations
and
GPS Elevation Data Postings

MAP 2

Surveyed 2001 and 2002 by MMH Geosurvey Ltd.
Map prepared January 2003 by Arkh Geoscience Limited



Legend

Outcrop Geology

- Wernecke Breccia
- Diorite
- Gillespie Lake Dolomite
- Quartet Group Siltstone Shale

Geology

- Yellow: Paleozoic Sediments
- Orange: Fifteen Mile Lake Group
- Pink: Wernecke Breccia
- Light Pink: Diorite
- Blue: Gillespie Lake Group Dolomite
- Grey: Quartet Group Siltstone
- Green X: Cu Showing

Geology Modified after Thompson et al. (1992)

Scale 1:20000

metres

200 0 200 400 600 800 1000 1200 1400 1600

NAD83 / UTM zone 18N

North Arrow

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Dawson Mining District, Yukon

Geology

MAP 1

map prepared January 2003 by Artik Geoscience Limited