#094354

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

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

-prepared for-
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Dates worked: July 3 to July 16, 2002

2002 EXPLORATION PROGRAM ON THE MONSTER PROPERTY

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This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 58,300.

M. B.

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

Costs associated with this report have been approved in the amount of $ 58,300 for assessment credit under Certificate of Work No. grDD0744-445

K. Leary

Mining Recorder
Dawson City Mining District

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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. 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.

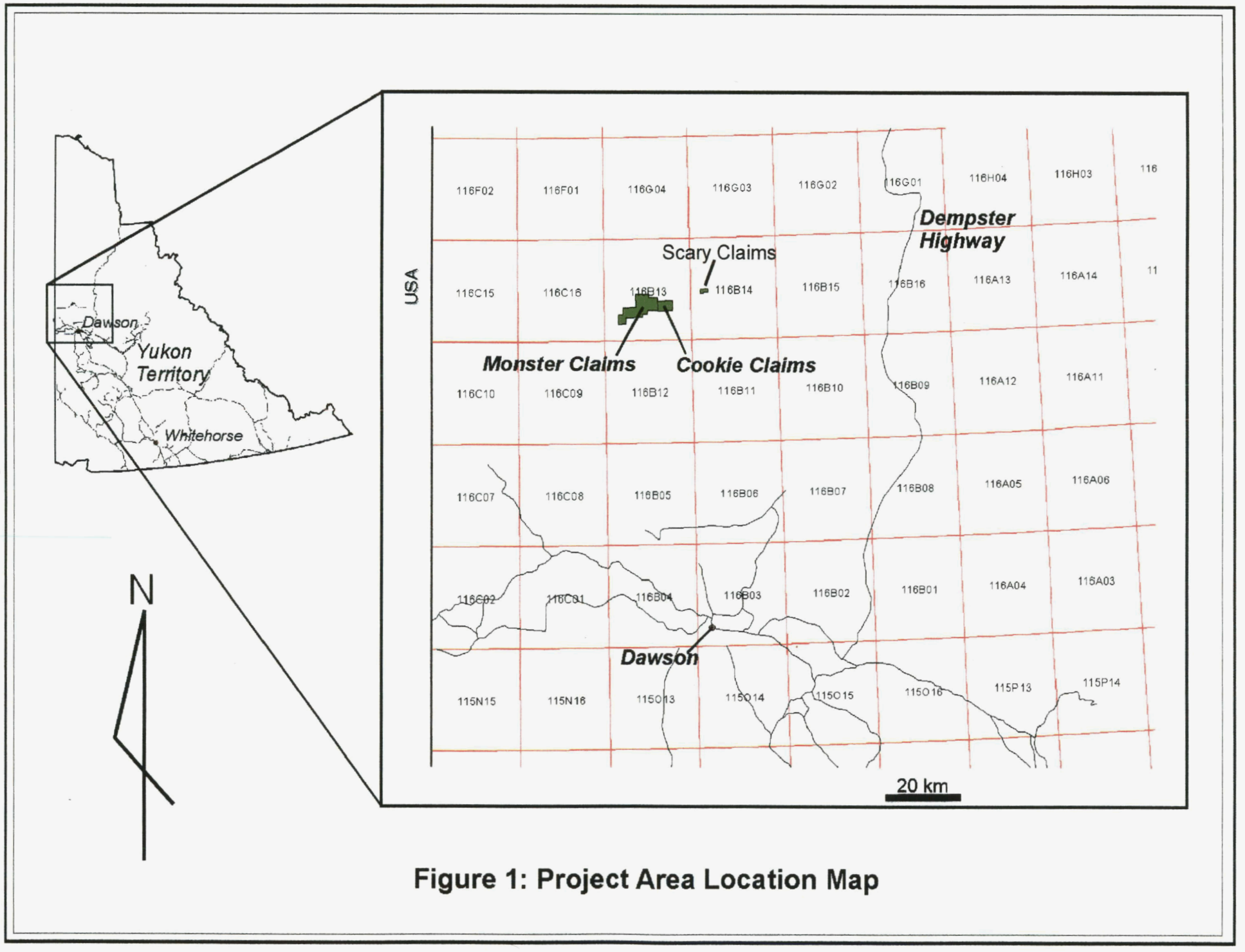


Figure 1: Project Area Location Map

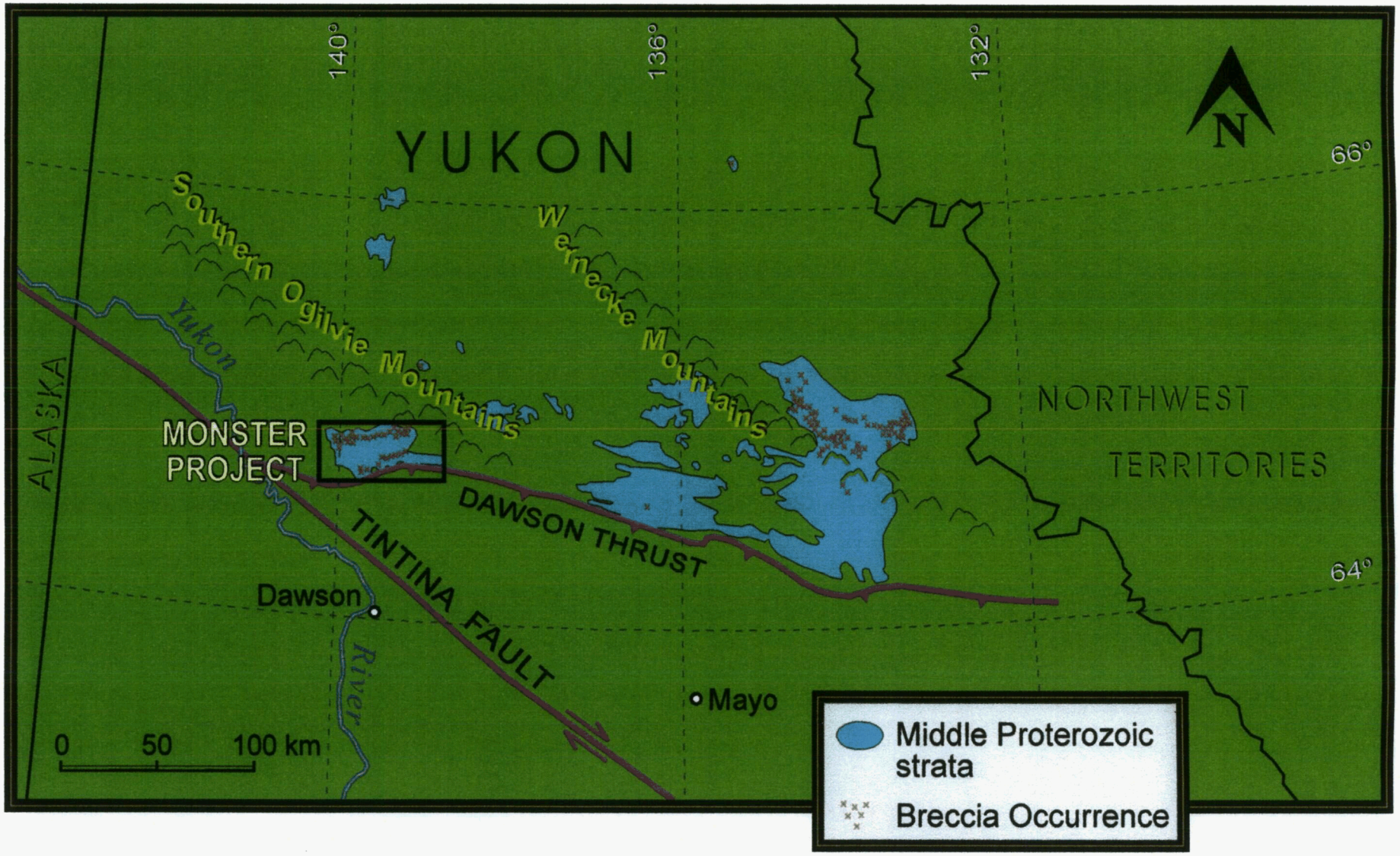
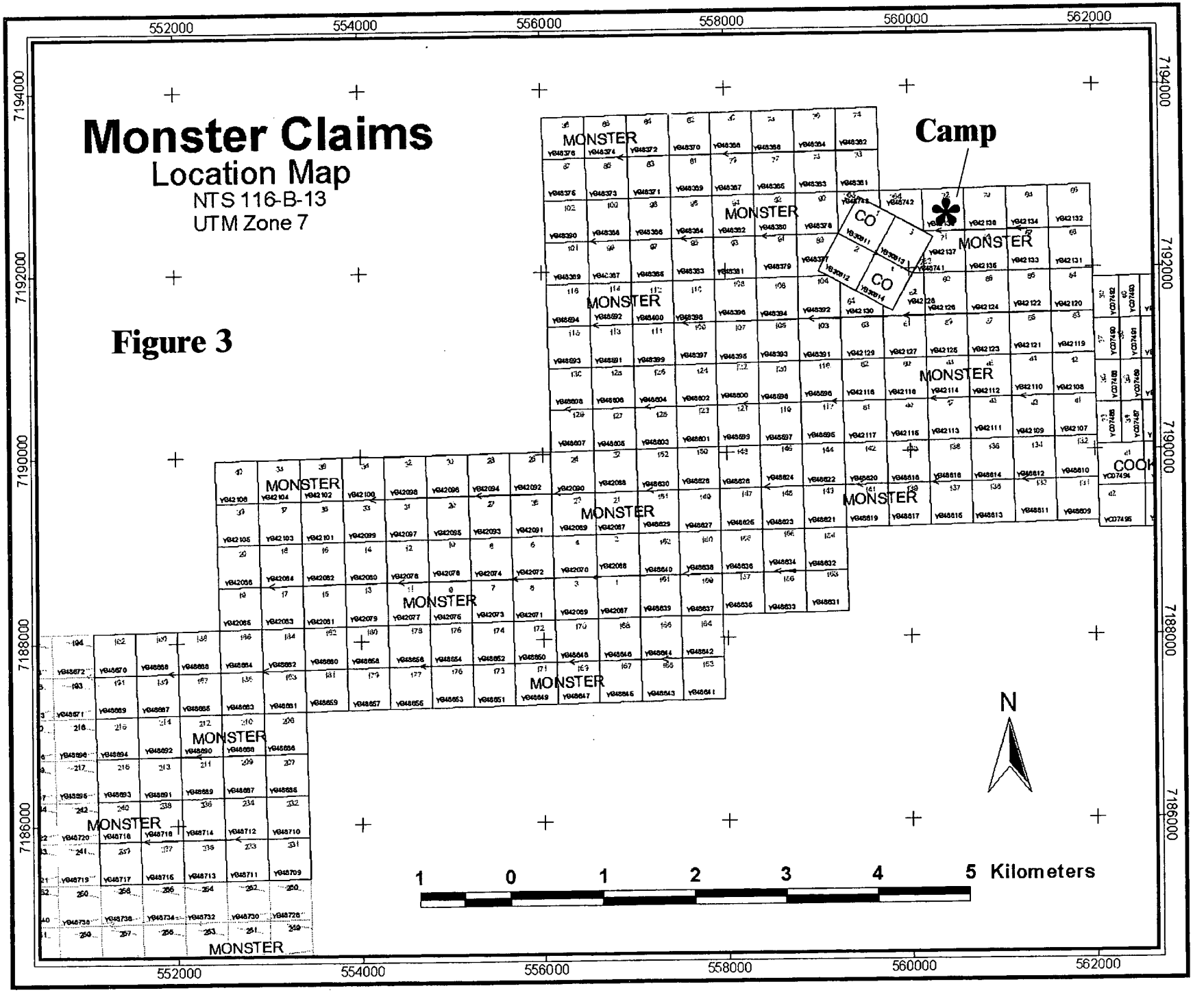


Figure 2: Location of Middle Proterozoic assemblages and occurrences of the Wernecke Breccia, Yukon Territory


Monster Claims
Location Map
NTS 116-B-13
UTM Zone 7
Figure 3
Camp
MONSTER
CO
552000
554000
556000
558000
560000
562000
7194000
7192000
7190000
7188000
7186000
N
1 0 1 2 3 4 5 Kilometers

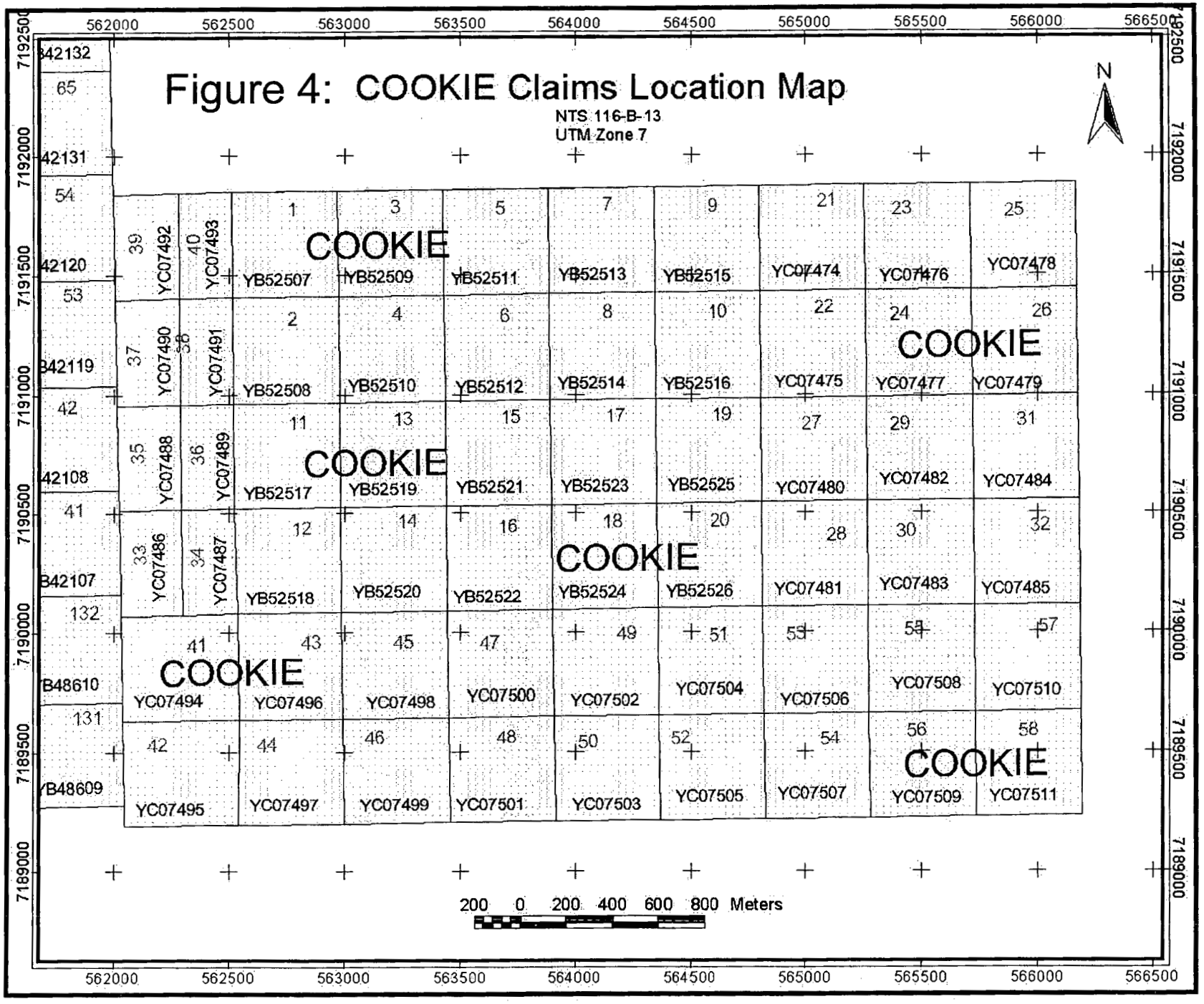


Figure 4: COOKIE Claims Location Map
NTS 116-B-13
UTM Zone 7
N
562000
562500
563000
563500
564000
564500
565000
565500
566000
566500
7192500
7192000
7191500
7191000
7190500
7190000
7189500
7189000
COOKIE
COOKIE
COOKIE
COOKIE
COOKIE
200 0 200 400 600 800 Meters

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, expediters, 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.

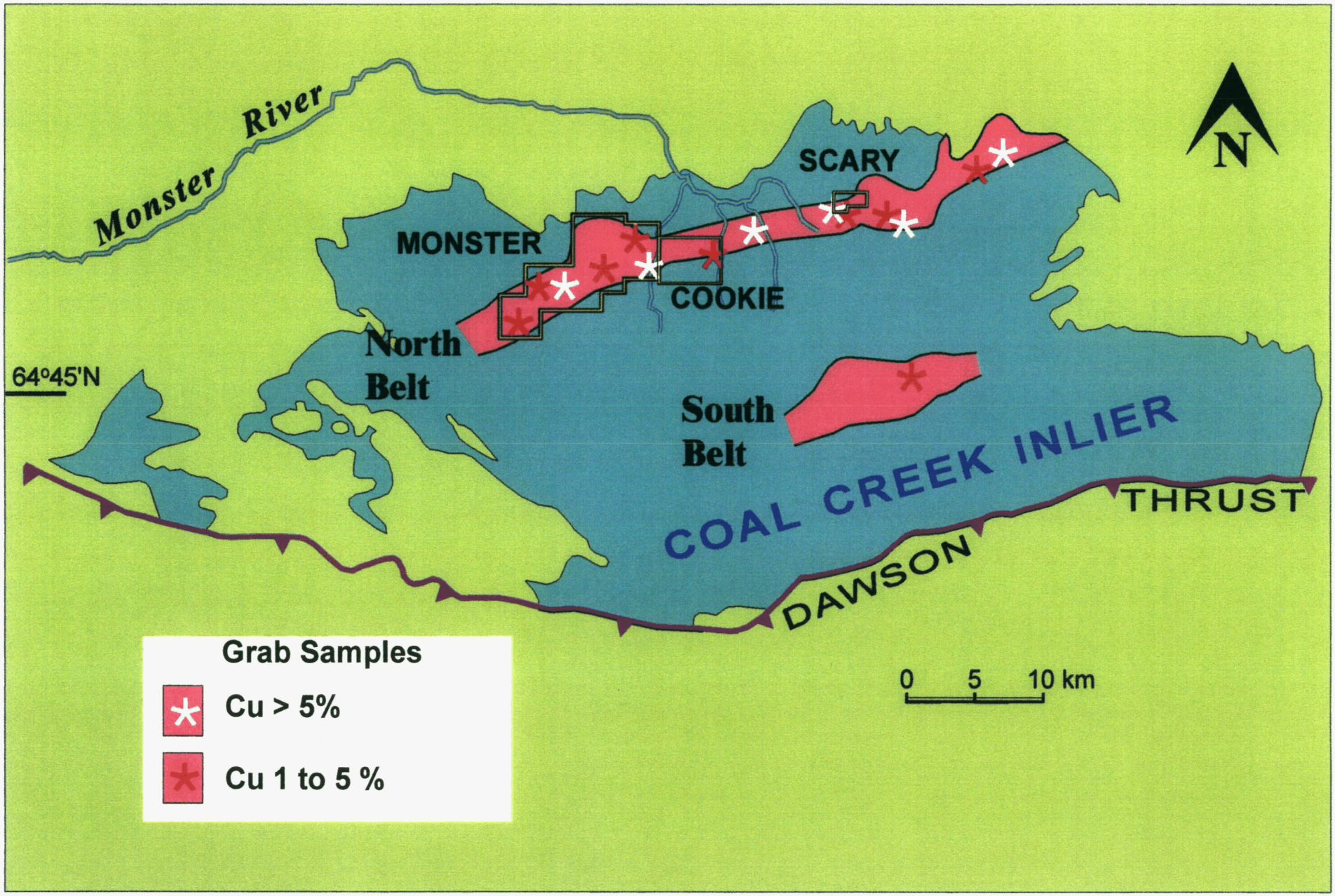


Figure 5: Location of belts of Wernecke Breccia, Monster Project properties and areas of known mineralization in the Coal Creek Inlier of the Ogilvie Mountains (cf. Fig. 2).

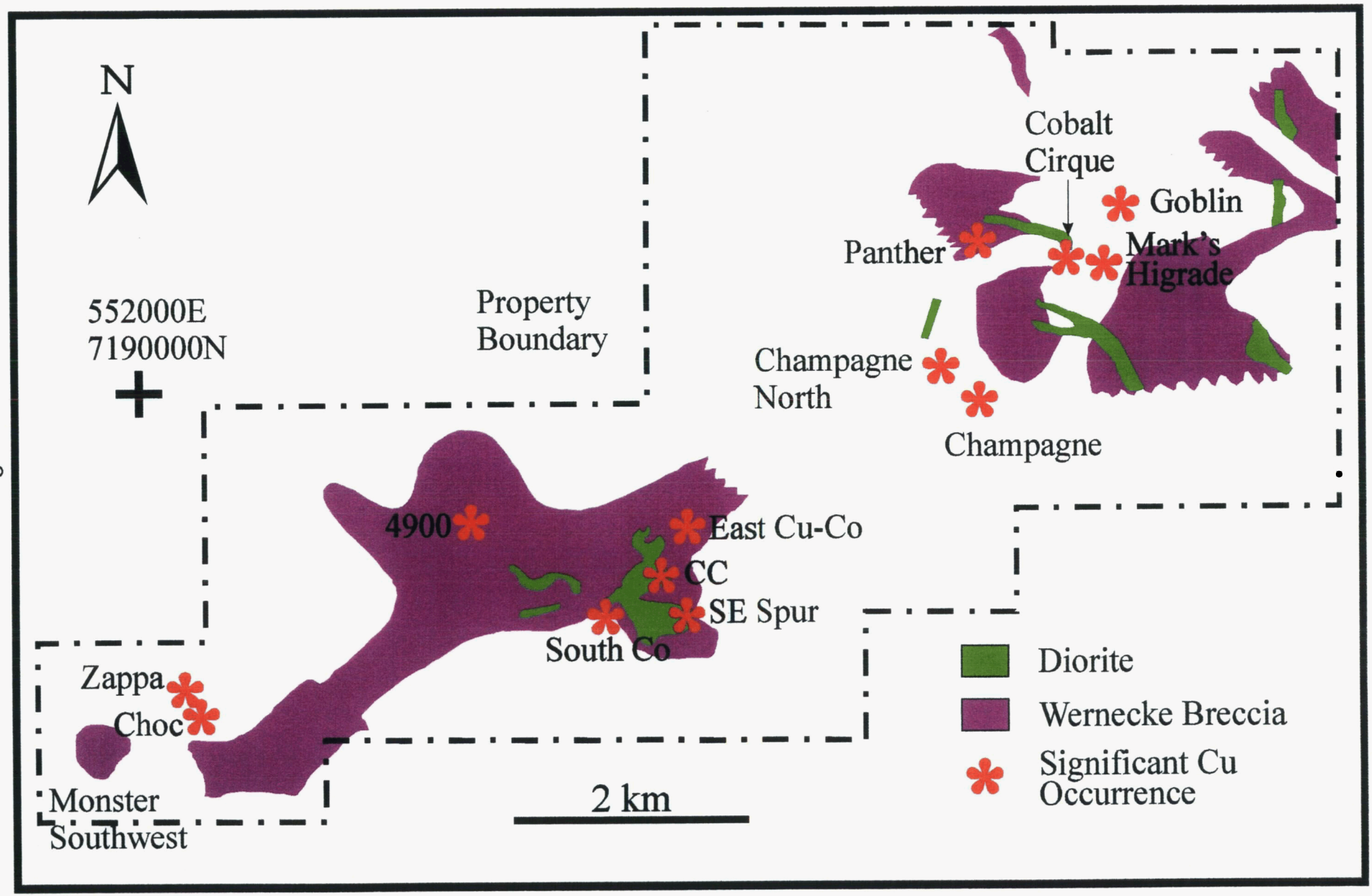


Figure 6: Location of significant Cu showings on the Monster Property. Modified after Caulfield, (1995).

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 km^2 (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 is 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 ± 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

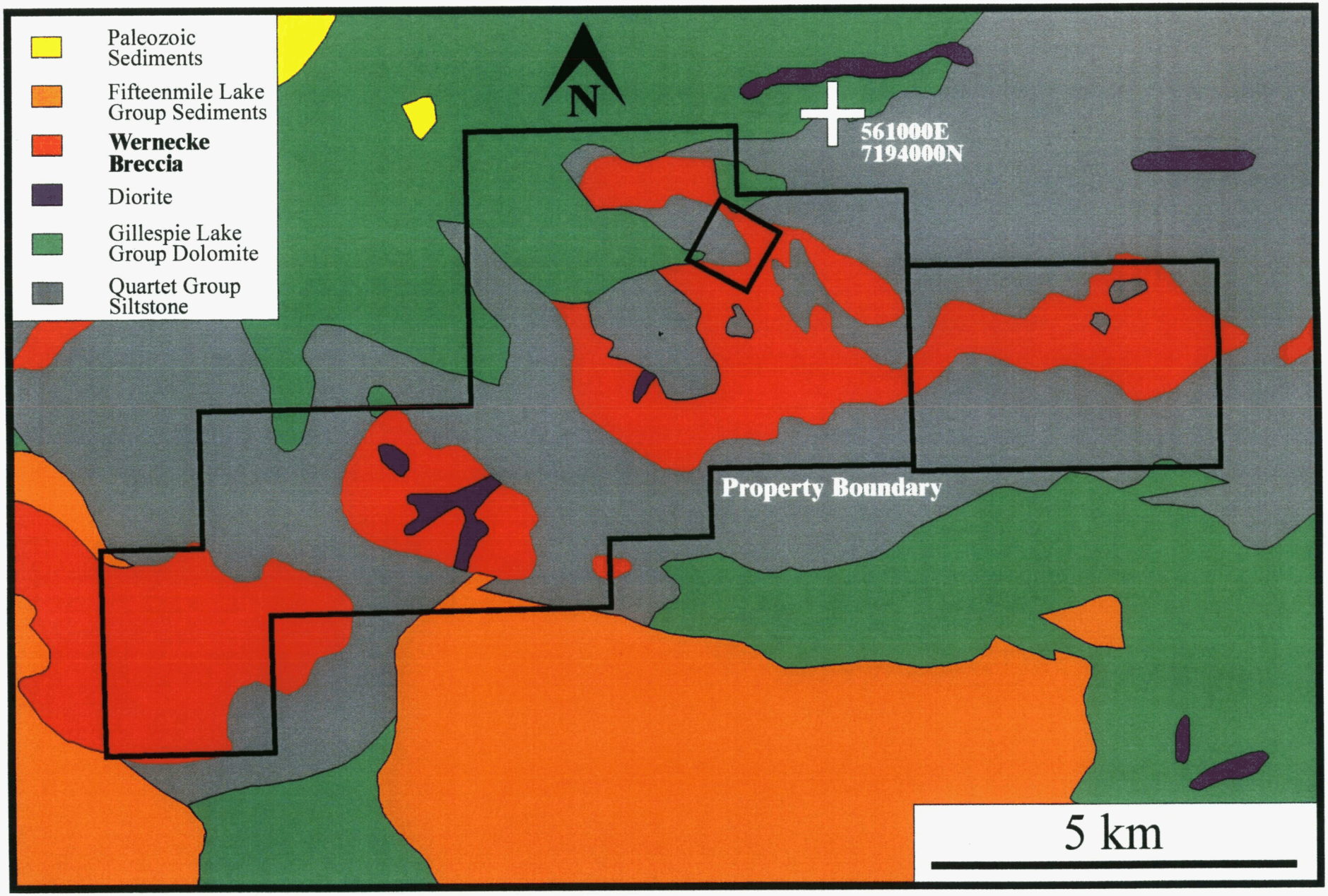


Figure 7: Geology of the Monster/Cookie Property. Modified after Thompson et al. (1992).

Plate 1: Camp

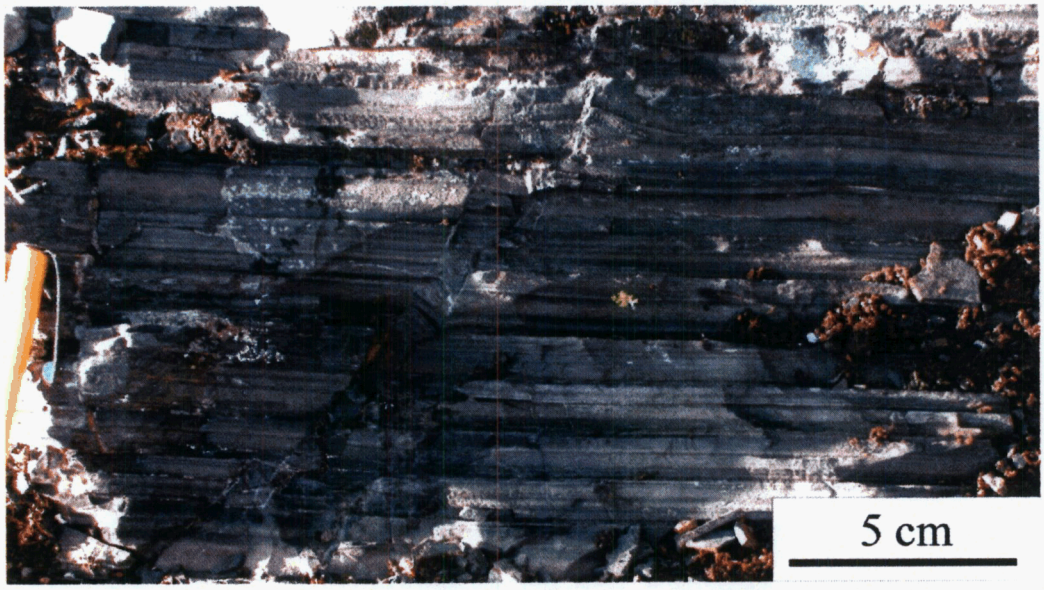


Plate 2:
Bedded shale

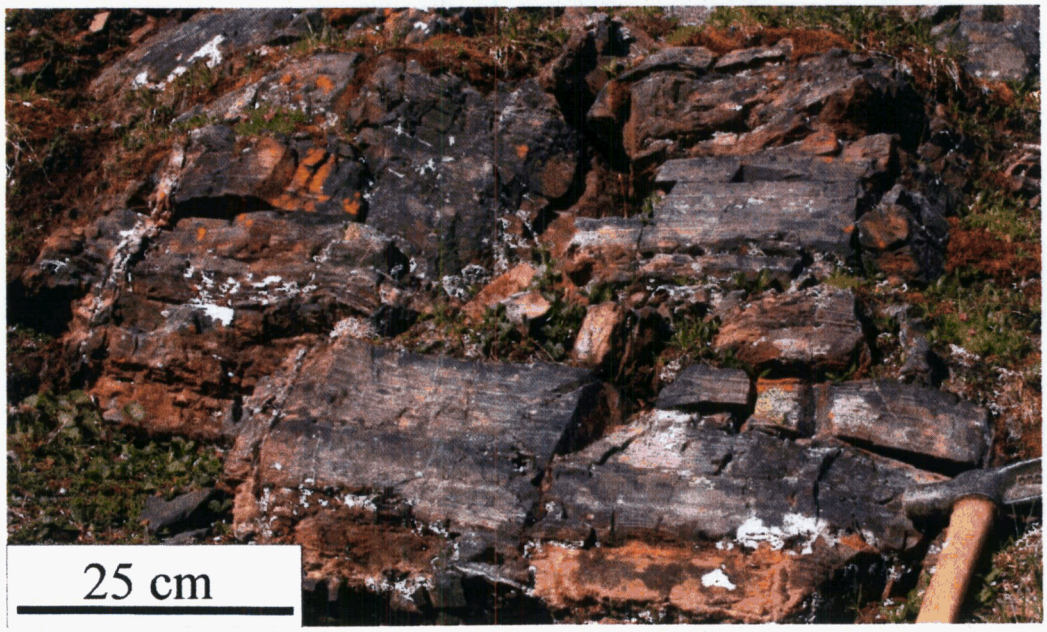


Plate 3: Partly carbonatized shale

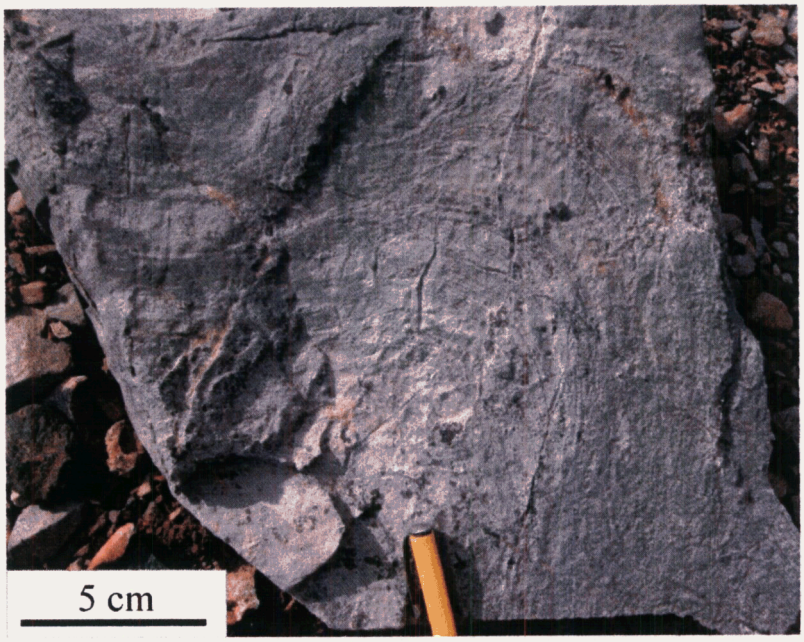


Plate 4: Stromatolitic Carbonate, Gillespie Lake Formation

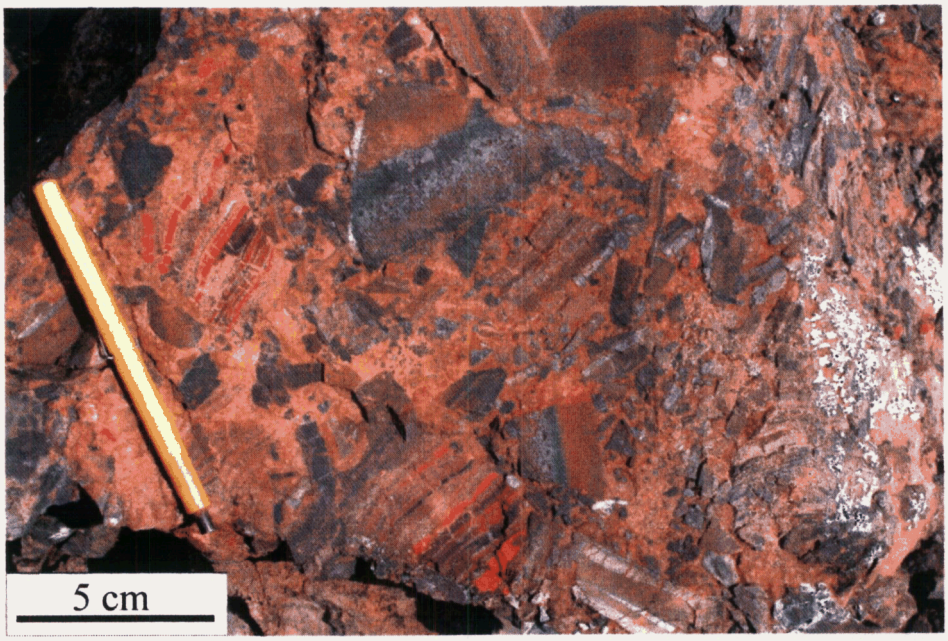


Plate 5: Wernecke Breccia with carbonate matrix

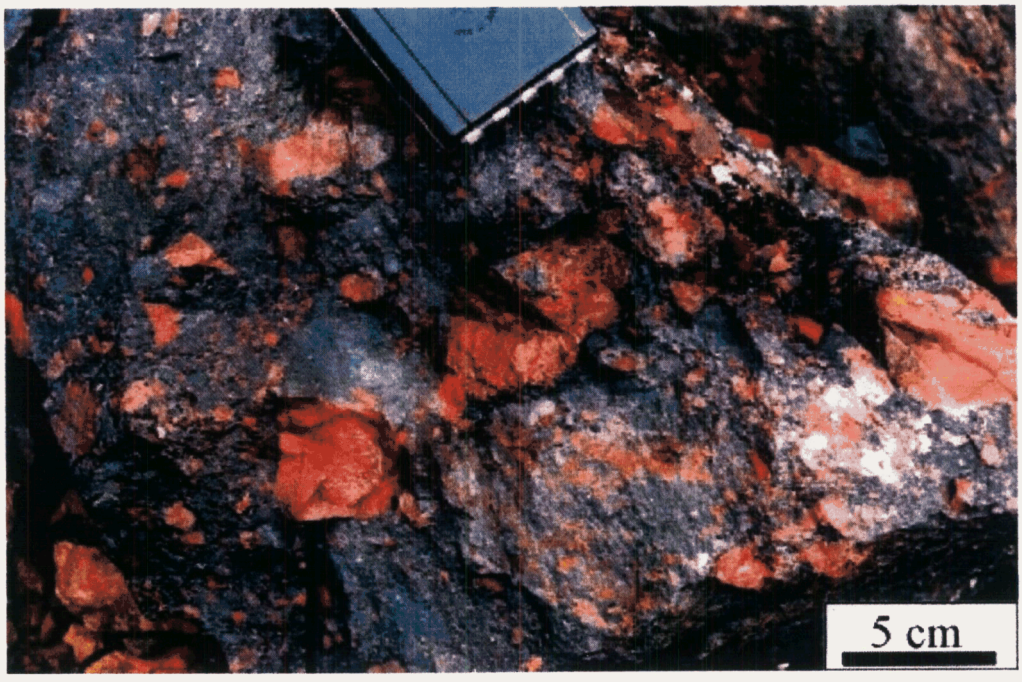


Plate 6: Wernecke Breccia with hematite rich matrix

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 ± 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 ± quartz (Plate 8), or along bedding planes and fractures in the sediment (Plate 9). Malachite/azurite, with minor amounts of chalcopyrite, 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, chalcopyrite, 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 chalcopyrite 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
M3iii	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

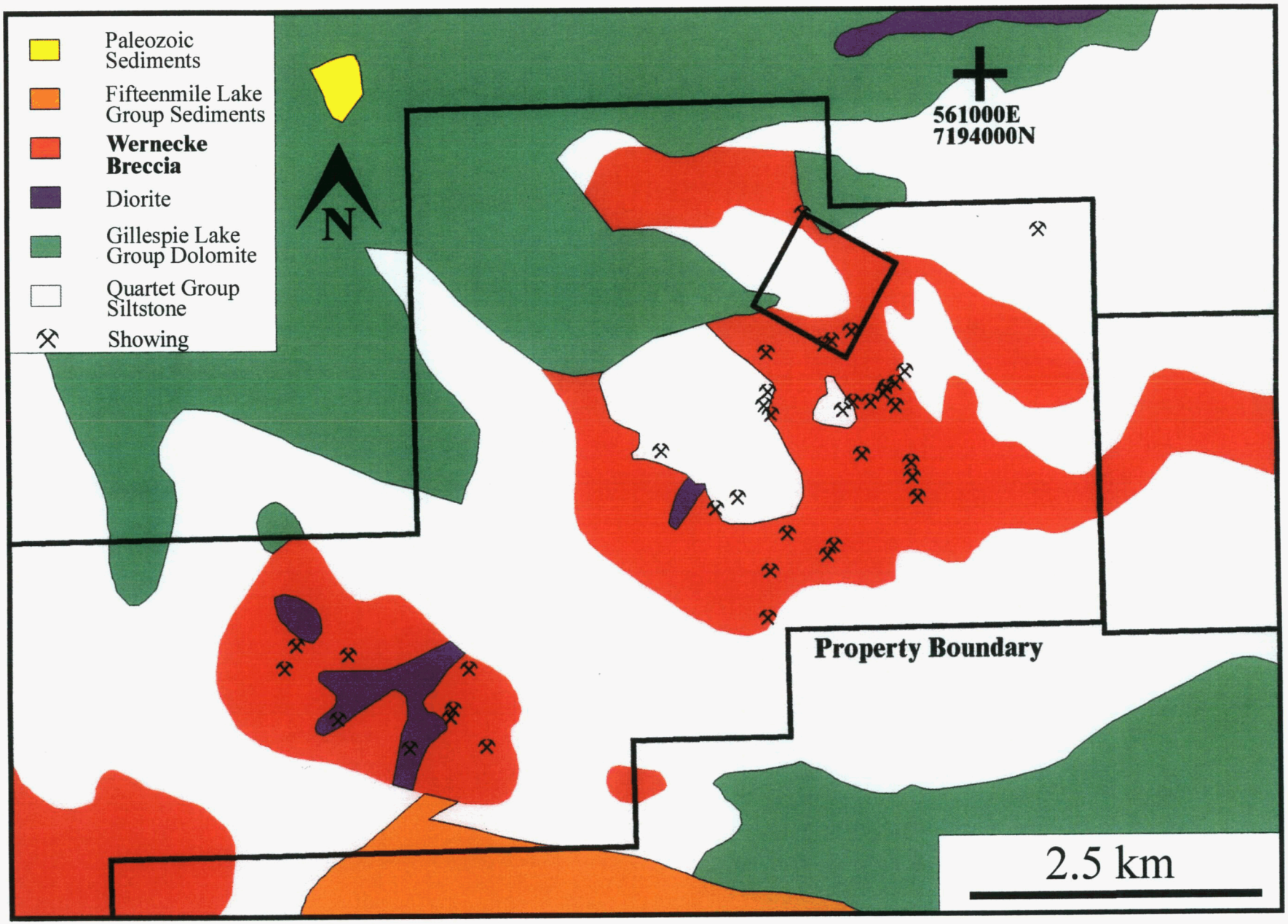


Figure 8: Showings in the core of the Monster Claims

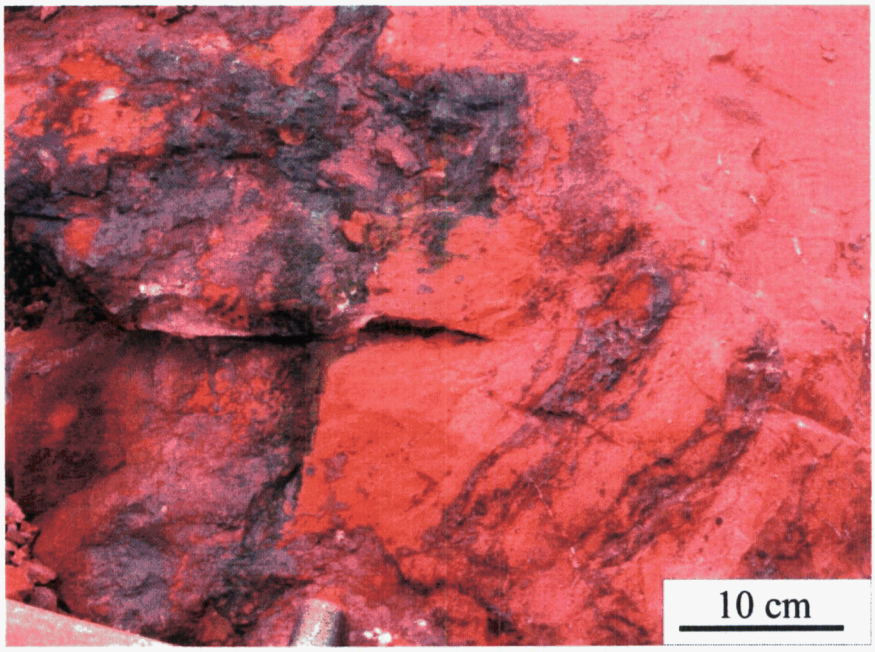


Plate 10: Malachite in carbonate-rich Wernecke Breccia

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

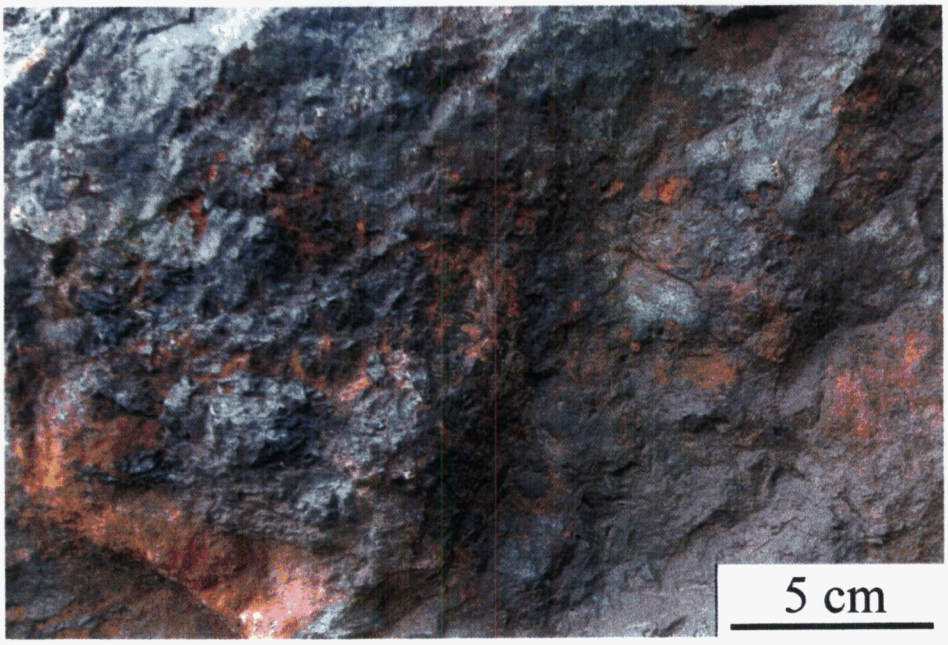


Plate 12: Malachite in siderite-Mn vein

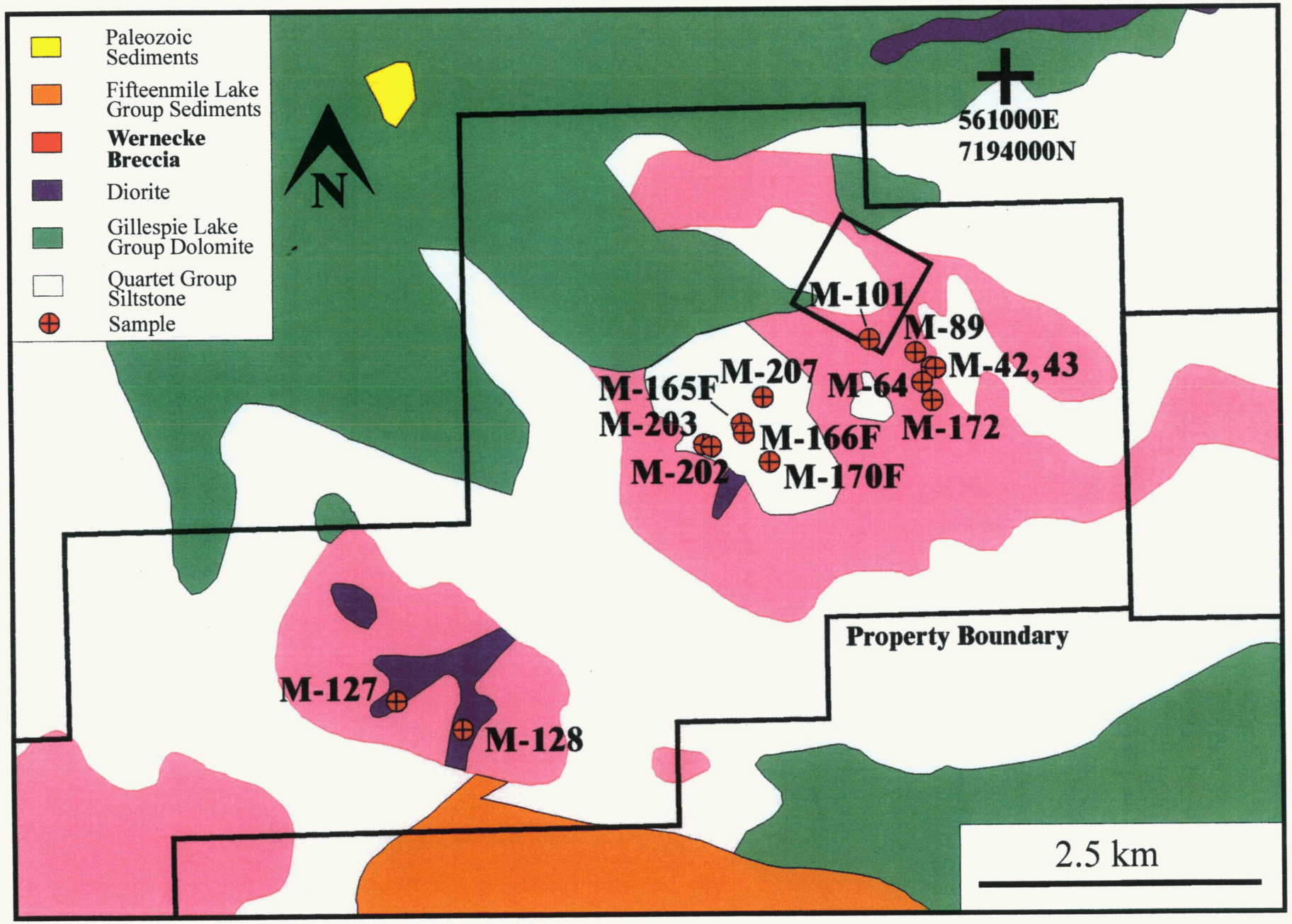


Figure 9: Samples Taken for Assay During the 2002 Exploration Program

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% chalcopyrite
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 chalcopyrite
M-166F	558568	7190842	Siderite-Mn boulder with minor chalcopyrite
M-170F	558788	7190562	Boulder of quartz-pyrite-chalcopyrite-azurite
M-172	560252	7191114	Pyrite, chalcopyrite bearing Wernecke Breccia; Mark's HiGrade showing
M-202	558241	7190719	Siderite-Mn veins with trace pyrite-chalcopyrite
M-203	558214	7190722	Siderite-Mn veins with pyrite-chalcopyrite
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

sample number	density (g/cm^3)	mag susc ($1e^{-3}$ SI)	description
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
average	*2.78*	*0.15*	
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-hemati
M 35	2.77	0.16	Wernecke Breccia with carbonate matrix
M153-F	2.80	0.36	Wernecke Breccia w hematite matrix
average	*2.76*	*0.23*	
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
average	*3.56*	*4.15*	

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 implemention 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

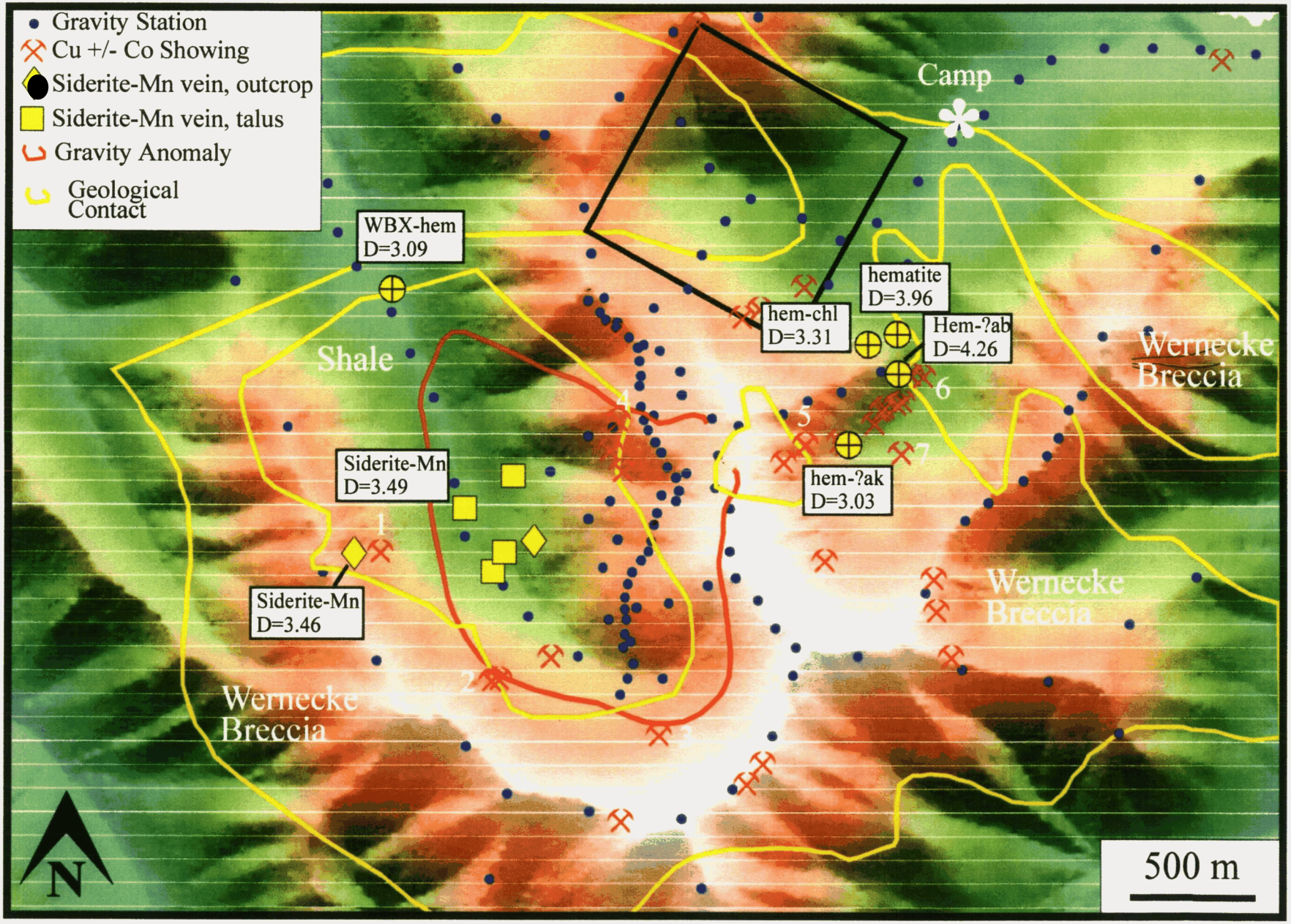


Figure 10: Main Gravity Anomaly, Showings and Dense Samples. 1: M-203 (2.2% Cu, grab, Siderite-Mn vein); 2: Champagne North (11.35% Cu, grab); 3: Champagne East (3.4% Cu, grab); 4: Panther (1.3% Cu, grab); 5: Cobalt Cirque (4.2% Cu, 295 ppb Au, grab); 6: Goblin (0.34% Cu, 0.04% Co, 1 m chip): 7: Mark's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

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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 StonebriarDrive
Nepean, ON
K2G 5X9

Christine Purves (Cook)
Aurora Geosciences
Suites 11 & 12 - 4078 4th Avenue
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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

Table B1: Expenses Incurred in Planning, Undertaking and Interpreting Monster Copper's 2002 Exploration Program in the Ogilvie Mountains

Expense	Amount
Monster Personnel Salaries: Planning, Mobilization	$ 1,350.00
Monster Personnel Salaries: Fieldwork	$ 9,450.00
Monster Personnel Salaries: Interpretation, Reporting	$ 3,318.75
Travel & Accommodation	$ 4,432.39
Meals, Groceries	$ 1,620.09
Courier	$ 91.39
Vehicle Rental	$ 1,495.31
Helicopter Charter	$27,852.72
Airplane Charter	$ 3,262.50
Geophysical Contractor Fees	$18,200.00
Geophysical Contractor Mobilization	$ 3,000.00
Camp Costs (Rental, Maintenance, Consumables)	$ 8,977.80
Chemical Analyses	$ 437.50
Total	**$83,488.45**

At the time the claim renewal was completed, the relative costs for undertaking the program on the different claim groups was calculated as: Monster claims- 91.0%, Cookie Claims-5.1%, and CO claims-3.9%. Accordingly, the expenditures for the claim groups are: Monster-$75,974.49, Cookie-$4,257.91 and CO-$3,256.05.

APPENDIX C

CERTIFICATES OF ANALYSIS

Quality Analysis... Actlabs 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)

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 :

DR E.HOFFMAN/GENERAL MANAGER

ACTIVATION LABORATORIES LTD.
1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL ancaster@actlabs.com ACTLABS GROUP WEBSITE http://www.actlabs.com

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

C-3

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	

C-4

'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**	**(.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	**(.027**	**(.182**	**96**	**1154**	**(.7**	**247**	**6.3**	**66**	**9.687**	**1**	**(.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**	**(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 paritally extracted.
Sulphur associated with barite will not be extracted. Rutile, ilmenite and monazite may not be fully extracted.

C-5

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.

Adrienne I. Rittau, B.Sc., C.Chem
ICP Technical Manager
ICP Technical Manager

Negative values indicate less than the reporting limit
99999 indicates greater than 10%

Activation Laboratories Ltd. Work Order No. 26143 Report No. 25959C

SAMPLE	SiO2 %	Al2O3 %	Fe2O3 %	MnO %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	LOI %	TOTAL %	Ba ppm	Sr ppm	Y ppm	Sc ppm	Zr ppm	Be ppm	V 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	59.62	11.75	6.49	0.32	2.67	8.26	4.12	4.23	0.15	0.54	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	11.20	1.80	0.79	0.01	0.33	43.60	0.86	0.51	0.11	30.20									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	52.44	15.35	10.74	0.163	6.37	10.87	2.14	0.627	1.06	0.131	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	47.04	18.30	9.93	0.149	10.05	11.27	1.87	0.229	0.48	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	38.20	10.07	12.84	0.200	13.15	13.87	3.18	1.39	2.610	1.05			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	72.78	12.96	3.21	0.140	0.16	0.59	2.57	5.43	0.30	0.05			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	49.24	28.43	11.13	0.020	0.799	2.11	0.271	2.26	1.32	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	59.64	18.39	5.22	0.22	0.101	1.09	8.94	4.28	0.135	0.158			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	41.20	0.15	55.85	0.042	1.89	1.55	0.032	0.012	0.014	0.063			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	65.02	18.61	0.09	0.005	0.01	0.11	2.58	12.81	0.02	0.02			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.

C-6

Adrienne I. Rittau, B.Sc., C.Chem
ICP Technical Manager

Negative values indicate less than the reporting limit
LOI values less than -0.01% represent a Gain on Ignition

Quality Analysis... Actlabs 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)

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 :

DR E.HOFFMAN/GENERAL MANAGER

ACTIVATION LABORATORIES LTD.
1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613

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

C-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	

C-9

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**	**(.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	**(.027**	**(.182**	**96**	**1154**	**(.7**	**247**	**6.3**	**66**	**9.687**	**1**	**(.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**	**(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 paritally extracted.
Sulphur associated with barite will not be extracted. Rutile, ilmenite and monazite may not be fully extracted.

C-10

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.

Adrienne I. Rittau, B.Sc., C.Chem
ICP Technical Manager
ICP Technical Manager

Negative values indicate less than the reporting limit
99999 indicates greater than 10%

Activation Laboratories Ltd. Work Order No. 26143 Report No. 25959C

SAMPLE	SiO2 %	Al2O3 %	Fe2O3 %	MnO %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	LOI %	TOTAL %	Ba ppm	Sr ppm	Y ppm	Sc ppm	Zr ppm	Be ppm	V 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	59.62	11.75	6.49	0.32	2.67	8.26	4.12	4.23	0.15	0.54	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	11.20	1.80	0.79	0.01	0.33	43.60	0.86	0.51	0.11	30.20									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	52.44	15.35	10.74	0.163	6.37	10.87	2.14	0.627	1.06	0.131	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	47.04	18.30	9.93	0.149	10.05	11.27	1.87	0.229	0.48	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	38.20	10.07	12.84	0.200	13.15	13.87	3.18	1.39	2.610	1.05			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	72.78	12.96	3.21	0.140	0.16	0.59	2.57	5.43	0.30	0.05			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	49.24	28.43	11.13	0.020	0.799	2.11	0.271	2.26	1.32	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	59.64	18.39	5.22	0.22	0.101	1.09	8.94	4.28	0.135	0.158			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	41.20	0.15	55.85	0.042	1.89	1.55	0.032	0.012	0.014	0.063			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	65.02	18.61	0.09	0.005	0.01	0.11	2.58	12.81	0.02	0.02			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.

C-11

Adrienne I. Rittau, B.Sc., C.Chem
ICP Technical Manager

Negative values indicate less than the reporting limit
LOI values less than -0.01% represent a Gain on Ignition

APPENDIX D

REPORT ON GRAVITY SURVEY

MWH Geo-Surveys Ltd.

Logistical Summary
Gravity Survey; Monster Copper, Yukon

for Monster Copper Resources Limited

MWH Geo-Surveys Ltd.
August 2002

2916 - 29th Street, Vernon, British Columbia, Canada V1T 5A6 • (250) 542-9897 • mwh@mindlink.net

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 .033 milligals.

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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:

$$g_B = g_{obs} - \gamma + (.3086 \times h) - (.04193\rho \times h) + dg_T$$

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.

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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.

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Appendix I

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

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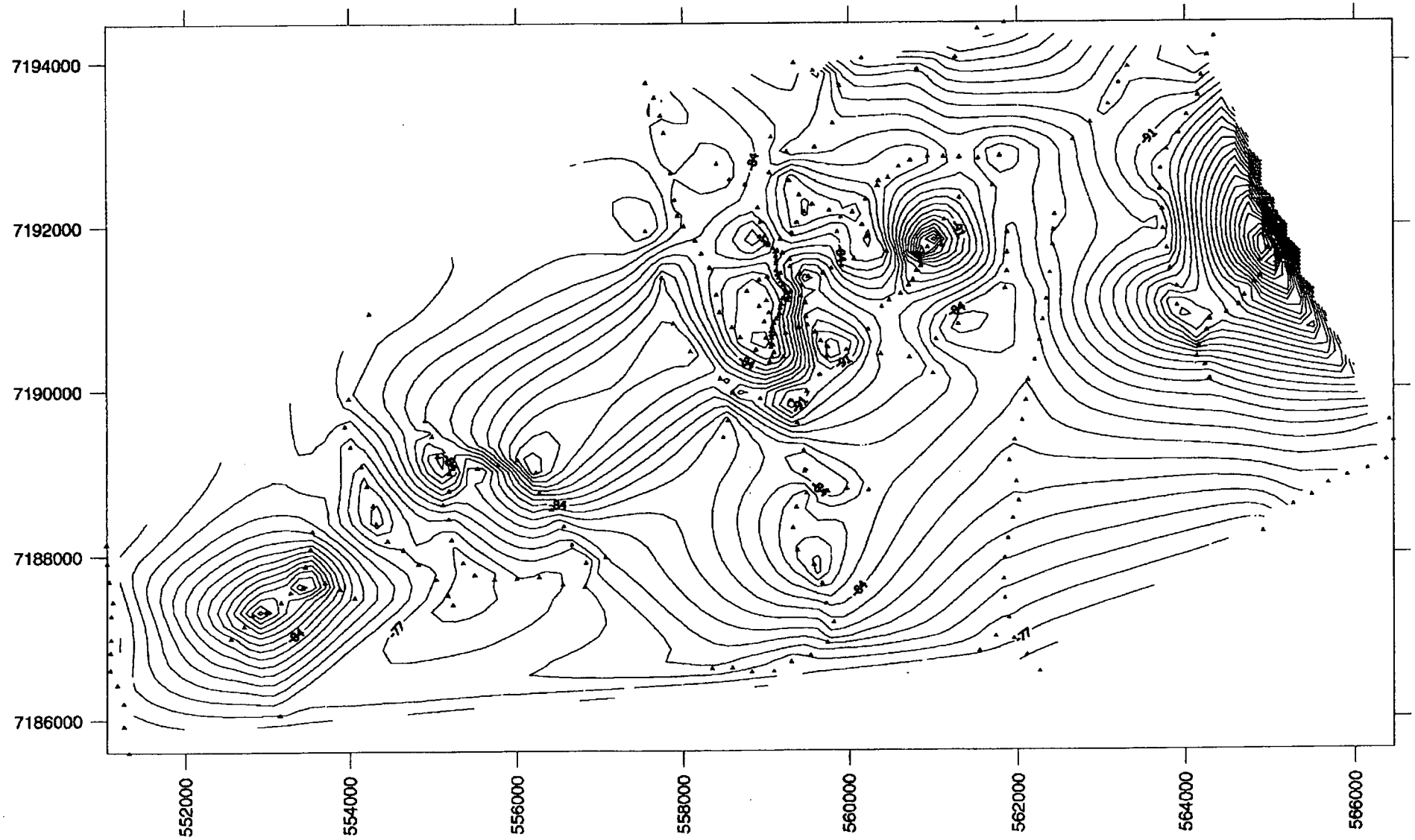
NAD83 Zone 7
Bouguer Density 2.67 gm/cc

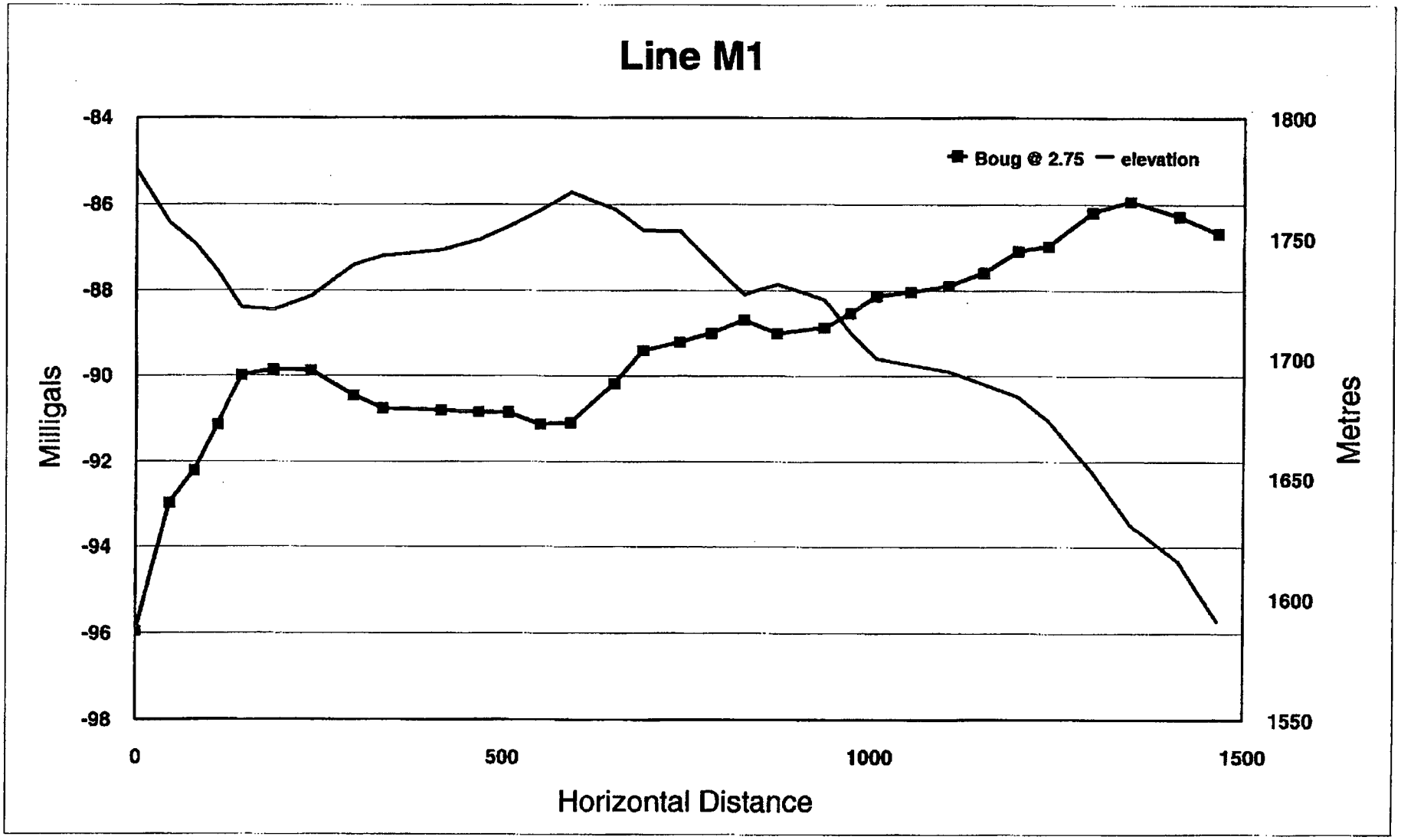
▲ 2001 Survey

▲ 2002 Survey

Monster Copper Resources Inc.

MWH Geo-Surveys, Inc.




Line M1
Boug @ 2.75
elevation
-84
-86
-88
-90
-92
-94
-96
-98
Milligals
1800
1750
1700
1650
1600
1550
Metres
0
500
1000
1500
Horizontal Distance

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	

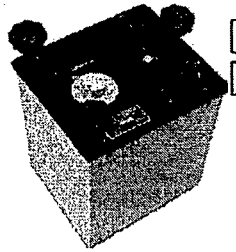
1	1	rp01214	11.47	689	5307.31	0.67	0.030	5400.76	981,845.934	0.17	0.43	1.24	1.84	982280.444	1710.96	64.8687974	139.6948646	561844.1	7194470.2	-83.56	-95.60	-101.26
1	2	rp01214	12.17	689	5298.51	0.53	0.037	5391.80	981,836.973	0.11	0.20	0.72	1.03	982280.398	1755.26	64.8682014	139.7016702	561523.0	7194397.1	-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	-86.80	-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	7192968.4	-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	0.54	0.033	5420.84	981,865.965	0.13	0.18	0.71	1.02	982278.258	1667.13	64.8517587	139.7609915	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	562658.8	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	139.6691223	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	981,992.937	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	1706.56	64.8491882	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	1726.14	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	139.7474278	559418.6	7191140.2	-73.65	-86.60	-92.70
1	27	rp01216	15.02	689	5272.49	0.59	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	rp01218	11.26	689	5260.52	0.66	-0.041	5353.08	981,798.104	0.05	0.19	1.01	1.26	982277.976	1950.53	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	1818.53	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	1818.53	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	64.8380491	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	5430.57	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	5395.91	981,840.934	0.11	0.19	0.76	1.06	982278.594	1758.61	64.8423644	139.7171462	560848.1	7191503.2	-77.98	-90.42	-96.28
1	37	rp01217	15.40	689	5304.38	0.55	0.021	5397.74	981,842.760	0.13	0.28	1.13	1.53	982278.448	1751.85	64.8402699	139.7201967	560708.2	7191266.9	-76.79	-89.15	-94.96
1	38	rp01218	12.31	689	5303.38	0.64	-0.023	5396.70	981,841.710	0.03	0.19	0.79	1.01	982277.930	1767.07	64.8328712	139.7275381	560376.5	7190435.5	-74.67	-87.38	-93.26
1	39	rp01218	12.58	689	5309.04	0.77	-0.018	5402.51	981,847.509	0.08	0.25	0.86	1.18	982277.900	1732.58	64.8324049	139.7203659	560717.9	7190390.4	-75.85	-88.10	-93.87
1	40	rp01218	13.37	689	5326.03	0.62	-0.006	5419.76	981,864.749	0.19	0.43	1.33	1.95	982277.781	1645.11	64.8305828	139.7147262	560989.6	7190192.7	-75.36	-86.92	-92.36
1	41	rp01218	14.17	689	5334.48	0.61	0.001	5428.36	981,873.340	0.13	0.34	1.14	1.61	982278.047	1618.34	64.8343544	139.7137180	561028.8	7190614.0	-72.92	-84.32	-89.68
1	42	rp01218	14.40	689	5361.83	0.60	0.005	5456.18	981,901.160	0.04	0.20	0.87	1.12	982278.169	1492.18	64.8359444	139.7081224	561290.7	7190796.5	-71.55	-82.09	-87.05
1	43	rp01221	9.39	689	5434.99	0.64	-0.059	5530.55	981,975.448	0.05	0.07	0.15	0.28	982278.377	1103.91	64.8383966	139.6858368	562342.2	7191091.5	-77.64	-85.48	-89.17
1	43	rp01218	15.31	689	5434.90	0.65	0.008	5530.53	981,975.499	0.05	0.07	0.15	0.28	982278.377	1103.91	64.8383966	139.6858368	562342.2	7191091.5	-77.58	-85.43	-89.12
1	44	rp01218	16.04	689	5438.75	0.42	0.007	5534.37	981,979.334	0.02	0.01	0.08	0.11	982278.794	1079.52	64.8443409	139.6839566	562417.6	7191755.8	-79.35	-87.03	-90.65
1	45	rp01218	16.35	689	5439.82	0.59	0.005	5535.51	981,980.469	0.04	0.06	0.18	0.28	982279.029	1076.90	64.8476994	139.6832312	562444.2	7192130.7	-78.77	-86.42	-90.02
1	47	rp01219	11.14	689	5365.34	0.66	-0.056	5459.71	981,904.589	0.01	0.06	0.63	0.69	982278.932	1494.39	64.8468717	139.7866468	557542.3	7191940.4	-68.96	-79.56	-84.54
1	48	rp01219	12.16	689	5313.48	0.58	-0.042	5406.94	981,851.818	0.02	0.16	0.81	1.00	982278.555	1714.94	64.8417505	139.7826048	557744.9	7191373.5	-76.03	-88.17	-93.88
1	49	rp01219	12.46	689	5299.20	0.55	-0.035	5392.41	981,837.286	0.06	0.19	0.94	1.20	982278.197	1780.91	64.8367150	139.7799077	557883.7	7190814.8	-76.51	-89.10	-95.02
1	50	rp01219	13.19	689	5289.98	0.65	-0.027	5383.07	981,827.942	0.08	0.23	0.90	1.21	982277.975	1822.71	64.8335922	139.7756526	558092.2	7190470.8	-77.10	-89.99	-96.05
1	51	rp01219	13.53	689	5288.84	0.64	-0.021	5381.91	981,826.784	0.11	0.24	0.95	1.30	982277.762	1835.70	64.8305567	139.7683405	558445.7	7190139.3	-75.28	-88.26	-94.36
1	52	rp01219	14.14	689	5282.54	0.45	-0.017	5375.45	981,820.318	0.13	0.22	0.93	1.29	982277.642	1860.04	64.8288735	139.7650964	558603.3	7189954.7	-76.69	-89.84	-96.02
1	53	rp01219	14.45	689	5320.28	0.53	-0.012	5413.87	981,858.742	0.12	0.28	0.81	1.21	982277.448	1703.67	64.8258967	139.7666081	558538.0	7189621.6	-70.03	-82.07	-87.73
1	54	rp01219	15.05	689	5326.57	0.60	-0.010	5420.29	981,865.162	0.09	0.24	0.77	1.10	982277.332	1670.20	64.8241868	139.7678195	558484.3	7189429.9	-70.45	-82.26	-87.82
1	55	rp01219	16.15	689	5278.13	0.57	-0.007	5371.01	981,815.870	0.07	0.33	1.07	1.47	982277.595	1882.94	64.8282229	139.7583114	558926.7	7189888.5	-76.19	-89.49	-95.75
1	56	rp01219	17.02	689	5263.71	0.55	-0.010	5356.33	981,801.187	0.09	0.28	1.00	1.36	982277.568	1936.96	64.8279083	139.7507501	559286.2	7189860.5	-79.98	-93.67	-100.11
1	58	rp01221	9.04	689	5439.80	0.55	-0.057	5535.42	981,980.315	0.02	0.05	0.09	0.16	982278.909	1074.03	64.8459729	139.6836473	562428.5	7191937.9	-79.54	-87.18	-90.78
1	59	rp01221	9.23	689	5436.80	0.53	-0.058	5532.36	981,977.256	0.01	0.03	0.05	0.09	982278.579	1091.63	64.8412723	139.6847531	562386.9	7191413.1	-78.76	-85.53	-90.19
1	60	rp01221	9.50	689	5435.10	0.56	-0.059	5530.64	981,975.535	0.02	0.02	0.08	0.11	982278.225	1103.52	64.8362249	139.6868738	562298.0	7190848.5	-77.68	-85.54	-89.23
1	61	rp01221	10.01	689	5433.49	0.54	-0.059	5528.99	981,973.890	0.04	0.05	0.14	0.24	982278.069	1113.26	64.8340075	139.6877904	562259.7	7190600.6	-77.03	-84.94	-88.67
1	62	rp01221	10.14	689	5431.84	0.62	-0.059	5527.34	981,972.236	0.07	0.08	0.14	0.29	982277.914	1122.94	64.8317953	139.6891158	562201.9	7190352.8	-76.49	-84.47	-88.23
1	63	rp01221	10.53	689	5431.71	0.66	-0.059	5527.22	981,972.116	0.04	0.03	0.13	0.20	982277.760	1125.57	64.8295978	139.6908132	562126.4	7190106.2	-76.03	-84.03	-87.80

1	64	rp01221	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	rp01221	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	rp01221	11.39	689	5429.96	0.77	-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	7189381.6	-75.03	-83.13	-86.95
1	67	rp01221	11.59	689	5429.08	0.67	-0.057	5524.55	981,969.444	0.00	0.00	0.05	0.05	982277.150	1144.89	64.8208922	139.6961475	561893.3	7189131.0	-74.35	-82.51	-86.34
1	68	rp01221	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	64.8186296	139.6944575	561978.7	7188880.5	-74.07	-82.25	-86.10
1	69	rp01221	12.29	689	5427.63	0.71	-0.055	5523.09	981,967.982	0.00	0.00	0.01	0.01	982276.843	1153.74	64.8165179	139.6939774	562006.4	7188645.7	-73.74	-81.97	-85.84
1	70	rp01221	12.41	689	5427.47	0.62	-0.054	5522.90	981,967.793	0.00	0.00	0.01	0.02	982276.708	1157.29	64.8145894	139.6955250	561937.3	7188429.3	-73.07	-81.31	-85.20
1	71	rp01221	12.56	689	5426.90	0.71	-0.053	5522.35	981,967.241	0.00	0.01	0.01	0.02	982276.554	1160.99	64.8123904	139.6969127	561876.5	7188182.9	-72.70	-80.98	-84.87
1	72	rp01221	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	64.8102799	139.6978479	561836.9	7187946.8	-71.68	-80.00	-83.92
1	73	rp01221	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	rp01221	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	rp01221	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
1	76	rp01221	14.21	689	5422.37	0.68	-0.044	5517.74	981,962.631	0.02	0.03	0.06	0.10	982275.804	1198.65	64.8017104	139.7005291	561729.2	7186989.3	-68.79	-77.32	-81.34
1	77	rp01221	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	rp01221	14.55	689	5422.81	0.50	-0.042	5518.13	981,963.024	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	rp01221	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	rp01221	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	139.6895742	562258.6	7186561.9	-66.12	-75.07	-79.27
1	85	rp01222	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	rp01222	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	rp01222	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	7186563.7	-67.20	-77.85	-82.86
1	88	rp01222	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	-77.64	-82.64
1	89	rp01222	10.00	689	5358.77	0.63	-0.045	5453.02	981,897.913	0.08	0.25	0.80	1.14	982275.614	1520.93	64.7994249	139.7518823	559295.0	7186685.6	-66.35	-77.10	-82.16
1	90	rp01222	10.15	689	5351.30	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	rp01222	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	rp01222	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	559807.6	7187164.9	-71.19	-83.26	-88.94
1	93	rp01222	11.21	689	5315.36	0.60	-0.050	5408.85	981,853.732	0.10	0.24	0.77	1.11	982275.036	1717.30	64.8057122	139.7427914	559713.0	7187394.7	-70.98	-83.13	-88.84
1	94	rp01222	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	7187644.4	-75.08	-87.65	-93.56
1	95	rp01222	12.10	689	5294.43	0.70	-0.052	5387.59	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	rp01222	12.32	689	5299.88	0.65	-0.052	5393.11	981,837.990	0.15	0.23	0.80	1.17	982276.448	1777.38	64.8116857	139.7497372	559370.0	7188053.8	-74.80	-87.37	-93.29
1	97	rp01222	12.54	689	5305.40	0.64	-0.052	5398.73	981,843.603	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	rp01222	13.17	689	5302.80	0.64	-0.052	5396.08	981,840.955	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	rp01222	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	rp01222	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	rp01222	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	rp01222	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	rp01222	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	rp01222	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	139.7476840	559443.4	7189269.4	-71.32	-83.60	-89.37
1	105	rp01222	16.10	689	5281.13	0.63	-0.050	5374.07	981,818.890	0.08	0.17	0.85	1.10	982277.404	1867.63	64.8254783	139.7491697	559366.5	7189591.2	-76.57	-89.79	-96.01
1	106	rp01222	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	139.7464960	559485.9	7189973.7	-77.87	-91.36	-97.71
1	107	rp01223	9.49	689	5406.71	0.65	-0.026	5501.82	981,946.671	0.07	0.18	0.66	0.91	982280.343	1253.09	64.8667564	139.6421909	564344.7	7194295.3	-77.18	-86.04	-90.21
1	108	rp01223	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	139.6440304	564262.5	7194058.3	-77.44	-86.62	-90.94
1	109	rp01223	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	139.6456238	564192.1	7193820.9	-78.01	-87.61	-92.13
1	110	rp01223	10.49	689	5361.64	0.66	-0.031	5458.00	981,902.859	0.10	0.24	0.87	1.21	982279.880	1449.46	64.8603862	139.6465655	564152.6	7193581.0	-80.14	-90.37	-95.19
1	111	rp01223	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	rp01223	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	7193124.9	-81.24	-92.06	-97.14
1	113	rp01223	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	rp01223	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	rp01223	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	-80.77	-92.18	-97.54
1	116	rp01223	12.16	689	5338.24	0.61	-0.040	5432.14	981,877.004	0.12	0.29	0.87	1.28	982279.003	1585.96	64.8479998	139.6560292	563733.3	7192191.3	-77.22	-88.42	-93.69
1	117	rp01223	13.02	689	5333.73	0.62	-0.044	5427.55	981,872.420	0.15	0.36	1.02	1.52	982278.846	1603.52	64.8457780	139.6560369	563738.2	7191943.7	-77.76	-89.06	-94.38
1	118	rp01223	13.22	689	5323.87	0.52	-0.046	5417.49	981,862.357	0.19	0.41	1.21	1.81	982278.692	1649.34	64.8436275	139.6551653	563784.7	7191705.0	-77.98	-89.59	-95.05
1	119	rp01223	13.49	689	5305.81	0.59	-0.049	5399.13	981,844.006	0.17	0.40	1.25	1.82	982278.532	1725.80	64.8414393	139.6544392	563824.3	7191461.9	-80.58	-92.73	-98.44
1	120	rp01223	14.16	689	5292.92	0.66	-0.051	5386.04	981,830.913	0.15	0.30	0.99	1.44	982278.384	1786.60	64.8393921	139.6527486	563909.3	7191235.5	-81.61	-94.22	-100.16
1	121	rp01223	14.48	689	5269.42	0.74	-0.054	5362.15	981,807.028	0.25	0.48	1.08	1.81	982278.231	1877.78	64.8373302	139.6528503	563909.4	7191005.6	-86.30	-99.53	-105.75
1	123	rp01224	9.45	689	5411.64	0.64	-0.005	5506.85	981,951.697	0.01	0.04	0.26	0.32	982276.553	1254.01	64.8124968	139.6328396	564918.4	7188258.9	-68.92	-77.83	-82.02
1	124	rp01224	10.01	689	5414.39	0.60	-0.006	5509.64	981,954.486	0.04	0.05	0.33	0.42	982276.755	1221.53	64.8153500	139.6249295	565287.0	7188585.0	-72.82	-81.49	-85.57
1	125	rp01224	10.15	689	5415.10	0.60	-0.007	5510.36	981,955.209	0.02	0.03	0.21	0.25	982276.825	1218.81	64.8163401	139.6203480	565502.1	7188700.0	-72.93	-81.60	-85.68
1	126	rp01224	10.30	689	5417.57	0.58	-0.007	5512.86	981,957.716	0.02	0.02	0.20	0.24	982276.916	1202.23	64.8176263	139.6161494	565698.3	7188847.7	-73.91	-82.46	-86.48
1	127	rp01224	10.43	689	5419.88	0.56	-0.008	5515.21	981,960.059	0.03	0.06	0.35	0.43	982276.975	1186.77	64.8184555	139.6115477	565914.7	7188944.9	-74.54	-82.96	-86.93
1	128	rp01224	11.01	689	5425.53	0.57	-0.010	5520.95	981,965.813	0.00	0.04	0.38	0.43	982277.022	1155.21	64.8190856	139.6064759	566153.9	7189020.4	-75.27	-83.47	-87.33
1	129	rp01224	11.15	689	5429.52	0.66	-0.012	5525.04	981,969.898	0.00	0.00	0.04	0.04	982277.087	1137.12	64.8199773	139.6017870	566374.3	7189124.6	-75.42	-83.52	-87.33
1	130	rp01224	11.30	689	5431.54	0.68	-0.014	5527.10	981,971.958	0.00	0.00	0.07	0.07	982277.232	1124.22	64.8220384	139.5998492	566461.2	7189356.3	-76.10	-84.11	-87.87
1	131	rp01224	11.47	689	5432.13	0.65	-0.016	5527.69	981,972.548	0.00	0.00	0.06	0.07	982277.383	1118.07	64.8241935	139.6008538	566408.2	7189595.4	-76.91	-84.88	-88.63
1	147	rp01225	7.59	689	5350.72	0.52	-0.003	5444.84	981,889.790	0.00	0.01	0.37	0.39	982277.148	1567.47	64.8214329	139.8304564	555517.2	7189066.7	-67.46	-78.60	-83.85
1	148	rp01225	8.27	689	5329.52	0.65	0.004	5423.33	981,868.271	0.15	0.23	0.73	1.10	982277.163	1648.09	64.8217483	139.8251765	555767.2	7189106.5	-71.67	-83.33	-88.81
1	149	rp01225	8.51	689	5303.15	0.60	0.008	5396.49	981,841.434	0.15	0.34	1.05	1.53	982277.191	1744.00	64.8222650	139.8201764	556003.4	7189168.5	-78.46	-90.76	-96.55
1	150	rp01225	9.12	689	5297.12	0.62	0.011	5390.36	981,835.307	0.12	0.26	0.93	1.31	982277.091	1767.44	64.8208627	139.8156452	556221.4	7189016.2	-79.99	-92.48	-98.36
1	151	rp01225	9.32	689	5316.82	0.61	0.012	5410.40	981,855.348	0.12	0.25	0.89	1.25	982276.939	1690.42	64.8185998	139.8150259	556255.5	7188764.6	-75.56	-87.50	-93.12
1	152	rp01225	9.59	689	5343.21	0.67	0.014	5437.27	981,882.214	0.17	0.33	0.86	1.36	982276.817	1581.13	64.8167043	139.8119798	556404.1	7188556.1	-70.71	-81.87	-87.12
1	153	rp01225	10.12	689	5359.10	0.80	0.014	5453.41	981,898.358	0.11	0.28	0.86	1.24	982276.694	1508.02	64.8148578	139.8089324	556552.6	7188353.1	-69.49	-80.13	-85.14
1	154	rp01225	10.29	689	5379.34	0.65	0.014	5474.02	981,918.963	0.14	0.26	0.89	1.28	982276.561	1412.07	64.8128283	139.8069359	556651.7	7188128.7	-68.25	-78.20	-82.89
1	155	rp01225	11.07	689	5412.59	0.53	0.012	5507.80	981,952.750	0.20	0.38	0.83	1.41	982276.439	1246.06	64.8108584	139.8033980	556823.8	7187912.4	-68.01	-76.78	-80.90
1	156	rp01225	11.41	689	5427.90	0.57	0.009	5523.41	981,968.363	0.06	0.20	0.62	0.89	982276.484	1153.56	64.8113835	139.7983648	557061.7	7187975.4	-71.95	-80.10	-83.93
1	2000	rp01224	18.45	689	5405.08	0.56	-0.078	5500.08	981,945.007	0.00	0.01	0.04	0.05	982279.407	1273.23	64.8533709	139.7218476	560600.4	7192725.1	-74.89	-83.96	-88.23
1	2000	rp01217	8.57	689	5405.02	0.53	-0.069	5500.02	981,945.020	0.00	0.01	0.04	0.05	982279.407	1273.23	64.8533709	139.7218476	560600.4	7192725.1	-74.87	-83.94	-88.21
1	2000	rp01214	8.43	689	5404.83	0.58	-0.032	5499.88	981,945.059	0.00	0.01	0.04	0.05	982279.407	1273.23	64.8533709	139.7218476	560600.4	7192725.1	-74.83	-83.91	-88.17
1	2000	rp01218	18.36	689	5405.10	0.56	-0.021	5500.16	981,945.093	0.00	0.01	0.04	0.05	982279.407	1273.23	64.8533709	139.7218476	560600.4	7192725.1	-74.80	-83.87	-88.14
camp	1000	km02186	8.45	725	5483.13	0.00	-0.013	5590.55	981,943.492	0.00	0.02	0.09	0.12	982279.298	1275.97	64.8518182	139.7270970	560355.0	7192547.1	-75.65	-84.74	-89.01

M1	520	km02195	8.35	725	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	521	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	522	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	523	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	139.7554253	559027.0	7191757.1	-73.01	-85.34	-91.14
M1	524	km02195	9.03	725	5396.34	0.00	-0.082	5501.92	981,855.448	0.02	0.05	0.34	0.41	982278.758	1721.57	64.8446696	139.7543183	559080.1	7191724.9	-71.99	-84.22	-89.98
M1	525	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	526	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	527	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	528	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	139.7535223	559121.6	7191533.0	-72.57	-84.95	-90.77
M1	529	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	-84.97	-90.81
M1	530	km02195	9.43	725	5390.14	0.00	-0.081	5495.60	981,849.129	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	531	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	532	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	559179.8	7191318.6	-72.71	-85.23	-91.13
M1	533	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	534	km02195	10.13	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	535	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	536	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	537	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	139.7507941	559259.9	7191087.3	-70.98	-83.23	-89.00
M1	538	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	539	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	-83.26	-89.00
M1	540	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	541	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	542	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	543	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	544	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	545	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	546	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	547	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	548	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	139.7552015	559060.9	7190573.1	-69.04	-80.70	-86.18
M1	549	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	550	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	551	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	-70.06	-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	139.6478283	564158.1	7190520.7	-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	139.6483232	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	139.6462932	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	139.6452687	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	1881.33	64.8345985	139.6457047	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	64.8443747	139.7530956	559138.7	7191693.1	-72.50	-84.78	-90.56
Monster	25	km02196	15.16	725	5348.48	0.00	-0.046	5453.12	981,806.595	0.04	0.29	0.86	1.19	982278.121	1894.89	64.8357686	139.6448181	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	139.6448181	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	1883.42	64.8364968	139.6407078	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	139.6375620	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	139.6361796	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	139.6336094	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	64.8403329	139.6320666	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	139.6319734	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	139.6300634	564975.8	7191695.3	-98.58	-112.85	-119.56
Monster	88	km02185	14.32	725	5486.24	0.65	-0.023	5593.91	981,946.769	0.14	0.29	0.90	1.33	982278.452	1254.09	64.8396794	139.6962306	561846.2	7191224.3	-74.47	-83.30	-87.45
Monster	89	km02185	14.11	725	5485.31	0.29	-0.020	5592.85	981,945.714	0.08	0.16	0.69	0.93	982278.583	1258.00	64.8415492	139.6958027	561862.2	7191433.1	-75.36	-84.24	-88.43
Monster	90	km02185	13.50	725	5481.73	0.65	-0.017	5589.31	981,942.179	0.17	0.34	1.09	1.59	982278.725	1273.40	64.8436052	139.6955802	561868.1	7191662.4	-75.07	-84.01	-88.21
Monster	91	km02185	13.27	725	5483.16	0.28	-0.013	5590.66	981,943.529	0.11	0.29	0.87	1.27	982278.885	1267.76	64.8458870	139.6954983	561866.7	7191916.7	-75.42	-84.35	-88.55
Monster	97	km02185	12.20	725	5499.77	0.07	-0.006	5607.55	981,960.427	0.03	0.04	0.11	0.18	982279.479	1196.99	64.8543049	139.6969142	561780.3	7192853.3	-74.92	-83.43	-87.44
Monster	98	km02185	15.55	725	5496.62	0.24	-0.037	5604.36	981,957.211	0.00	0.05	0.23	0.28	982279.463	1201.85	64.8540785	139.7022038	561530.0	7192822.9	-76.99	-85.54	-89.56
Monster	98	km02185	12.00	725	5496.57	0.24	-0.004	5604.34	981,957.218	0.00	0.05	0.23	0.28	982279.463	1201.85	64.8540785	139.7022038	561530.0	7192822.9	-76.99	-85.53	-89.55
Monster	99	km02185	11.40	725	5494.37	0.17	-0.004	5602.08	981,954.956	0.02	0.06	0.26	0.33	982279.474	1206.53	64.8542488	139.7068581	561309.0	7192837.4	-78.24	-86.81	-90.85
Monster	100	km02185	11.07	725	5490.89	0.14	-0.004	5598.52	981,951.398	0.07	0.07	0.22	0.36	982279.479	1233.45	64.8543556	139.7108473	561119.6	7192845.4	-76.29	-85.05	-89.17
Monster	101	km02185	10.52	725	5485.51	0.00	-0.004	5597.06	981,949.951	0.01	0.00	0.07	0.08	982279.480	1244.89	64.8543760	139.7148082	560931.8	7192843.9	-75.75	-84.62	-88.79
Monster	102	km02185	10.32	725	5486.80	0.06	-0.006	5594.32	981,947.204	0.05	0.05	0.07	0.17	982279.454	1262.50	64.8540296	139.7191161	560728.4	7192801.1	-74.77	-83.76	-87.98
Monster	103	km02185	10.11	725	5483.83	0.00	-0.007	5591.27	981,944.155	0.00	0.00	0.00	0.00	982279.322	1275.12	64.8521590	139.7247592	560465.1	7192587.3	-75.33	-84.41	-88.69
Monster	104	km02185	9.42	725	5483.57	0.07	-0.011	5591.02	981,943.913	0.00	0.00	0.04	0.04	982279.259	1272.26	64.8512532	139.7274455	560339.7	7192483.8	-76.04	-85.11	-89.38
Monster	105	km02185	16.47	725	5479.33	0.07	-0.047	5586.66	981,939.501	0.04	0.09	0.32	0.45	982279.160	1305.79	64.8498748	139.7303416	560205.5	7192327.5	-73.01	-82.28	-86.64
Monster	106	km02186	9.28	725	5468.43	0.38	-0.002	5575.68	981,928.612	0.03	0.05	0.36	0.44	982279.058	1365.13	64.8484999	139.7337875	560045.2	7192171.0	-71.72	-81.41	-85.97
Monster	107	km02186	9.50	725	5466.88	0.38	0.003	5574.10	981,927.033	0.03	0.13	0.32	0.48	982279.017	1367.70	64.8479205	139.7368231	559902.5	7192103.5	-72.68	-82.39	-86.96
Monster	108	km02186	10.05	725	5464.52	0.15	0.006	5571.62	981,924.551	0.06	0.11	0.47	0.64	982278.908	1368.82	64.8463549	139.7379061	559854.7	7191928.1	-74.63	-84.33	-88.90
Monster	112	km02187	12.00	725	5456.92	0.00	0.033	5563.85	981,916.638	0.04	0.09	0.42	0.55	982278.862	1423.44	64.8457634	139.7301913	560221.8	7191869.5	-71.47	-81.57	-86.32
Monster	113	km02187	11.38	725	5462.25	0.00	0.032	5569.29	981,922.078	0.02	0.10	0.39	0.51	982278.954	1396.31	64.8470534	139.7313504	560164.0	7192012.1	-71.71	-81.62	-86.28
Monster	114	km02188	17.32	725	5513.90	0.00	-0.028	5621.92	981,974.658	0.00	0.02	0.36	0.38	982280.103	1127.20	64.8631397	139.7856358	557555.4	7193754.1	-75.27	-83.28	-87.04
Monster	115	km02188	16.58	725	5507.13	0.00	-0.011	5615.03	981,967.764	0.04	0.07	0.22	0.33	982279.986	1172.78	64.8615338	139.7835742	557656.6	7193577.0	-72.83	-81.16	-85.08
Monster	116	km02188	16.40	725	5501.42	0.04	-0.003	5609.23	981,961.958	0.04	0.06	0.22	0.32	982279.844	1196.18	64.8595316	139.7820366	557733.7	7193355.3	-73.73	-82.23	-86.23
Monster	117	km02188	16.18	725	5494.92	0.00	0.001	5602.59	981,955.318	0.01	0.11	0.30	0.42	982279.708	1214.95	64.8576083	139.7812536	557775.0	7193141.7	-76.29	-84.91	-88.97
Monster	119	km02188	15.42	725	5489.03	0.15	0.014	5596.64	981,949.364	0.01	0.08	0.18	0.28	982279.397	1254.97	64.8532035	139.7796457	557860.7	7192652.4	-73.96	-82.88	-87.08
Monster	120	km02188	15.16	725	5486.77	0.04	0.023	5594.31	981,947.032	0.00	0.05	0.15	0.20	982279.187	1262.98	64.8502135	139.7789239	557901.3	7192319.9	-74.54	-83.53	-87.76
Monster	121	km02188	14.58	725	5483.44	0.00	0.031	5590.91	981,943.627	0.00	0.02	0.02	0.04	982279.065	1283.84	64.8484902	139.7782319	557937.8	7192128.5	-73.78	-82.92	-87.23
Monster	122	km02193	8.34	725	5480.84	0.31	-0.088	5588.23	981,941.607	0.00	0.00	0.00	0.00	982278.982	1292.00	64.8473145	139.7766858	558013.7	7191998.9	-74.09	-83.30	-87.64
Monster	123	km02193	8.53	725	5478.29	0.00	-0.085	5585.54	981,938.912	0.00	0.09	0.34	0.43	982278.869	1299.07	64.8457057	139.7738431	558151.9	7191822.2	-74.70	-83.92	-88.26
Monster	124	km02193	9.27	725	5469.32	0.00	-0.077	5576.39	981,929.771	0.02	0.13	0.56	0.71	982278.656	1342.48	64.8427077	139.7704513	558319.3	7191491.3	-74.43	-83.94	-88.41
Monster	125	km02188	13.07	725	5463.18	0.00	0.049	5570.25	981,922.966	0.05	0.10	0.33	0.48	982278.443	1381.10	64.8397111	139.7688804	558400.3	7191158.8	-73.45	-83.25	-87.87
Monster	126	km02193	9.57	725	5457.81	0.00	-0.071	5564.65	981,918.033	0.02	0.08	0.45	0.54	982278.309	1405.74	64.8378273	139.7681510	558439.0	7190949.6	-73.14	-83.12	-87.81

Monster	127	km02193	10.31	725	5448.20	0.00	-0.058	5554.86	981,908.243	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	1541.40	64.8335981	139.7590416	558880.3	7190486.8	-70.31	-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	-86.98
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	139.7521324	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	16.28	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	559033.7	7191782.3	-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	5449.01	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	139.7359878	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	981,858.586	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	64.8389678	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	64.8383815	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	139.7182909	560795.0	7191445.7	-80.50	-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	982278.489	1766.49	64.8408769	139.7191629	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	-87.89	-93.66
Monster	158	km02187	16.10	725	5385.40	0.00	-0.016	5490.82	981,843.591	0.25	0.64	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	64.8443942	139.7153920	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	64.8209417	139.8374422	555186.6	7189005.8	-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	-72.38	-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	555994.6	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	139.8727737	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	139.8722157	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	5370.06	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	553698.4	7187678.7	-75.74	-87.99	-93.76
Monster	242	km02190	11.30	725	5404.76	0.00	0.037	5510.63	981,863.400	0.20	0.34	1.19	1.73	982276.234	1662.77	64.8084786	139.8653862	553685.1	7187593.0	-71.84	-83.55	-89.06
Monster	243	km02190	11.53	725	5420.86	0.00	0.044	5527.09	981,879.854	0.13	0.23	0.78	1.14	982276.173	1591.89	64.8075101	139.8617652	554059.0	7187488.2	-70.50	-81.75	-87.05
Monster	244	km02190	8.41	725	5378.28	0.00	-0.038	5483.54	981,836.310	0.14	0.42	1.43	1.99	982276.207	1775.14	64.8082365	139.8780438	553284.5	7187555.3	-75.67	-88.16	-94.03
Monster	245	km02190	13.20	725	5382.87	0.00	0.066	5488.32	981,841.086	0.07	0.19	0.60	0.86	982276.137	1759.70	64.8072095	139.8804918	553170.3	7187438.8	-75.39	-87.86	-93.72
Monster	246	km02190	13.50	725	5367.63	0.00	0.069	5472.78	981,825.538	0.18	0.45	1.51	2.13	982276.061	1805.20	64.8061914	139.8842618	552993.3	7187322.2	-80.00	-92.69	-98.66
Monster	247	km02190	14.15	725	5373.88	0.00	0.069	5479.15	981,831.914	0.18	0.36	1.23	1.77	982276.040	1784.49	64.8058553	139.8879554	552818.5	7187281.7	-78.27	-90.84	-96.76
Monster	248	km02190	14.45	725	5391.07	0.00	0.067	5496.69	981,849.451	0.18	0.36	1.22	1.76	982275.960	1719.52	64.8046290	139.8901054	552718.8	7187143.2	-73.91	-86.02	-91.71
Monster	249	km02190	15.08	725	5405.09	0.00	0.062	5511.00	981,863.753	0.05	0.28	0.94	1.27	982275.870	1661.31	64.8032644	139.8936038	552555.3	7186988.2	-71.99	-83.73	-89.25
Monster	264	km02194	9.08	725	5531.84	0.00	-0.087	5640.17	981,993.578	0.00	0.00	0.09	0.09	982276.673	1051.54	64.8139385	139.9248018	551053.2	7188152.2	-68.70	-76.19	-79.71
Monster	265	km02194	10.04	725	5533.65	0.00	-0.079	5642.02	981,995.424	0.00	0.00	0.06	0.06	982276.531	1040.32	64.8118923	139.9247502	551059.6	7187924.2	-69.03	-76.44	-79.93
Monster	266	km02194	10.21	725	5534.19	0.10	-0.076	5642.61	981,996.008	0.02	0.08	0.20	0.30	982276.390	1037.42	64.8098826	139.9242815	551085.6	7187700.6	-68.61	-75.98	-79.44
Monster	267	km02194	10.40	725	5535.60	0.00	-0.071	5644.02	981,997.419	0.01	0.07	0.15	0.23	982276.234	1030.40	64.8076353	139.9234584	551129.0	7187450.9	-68.56	-75.88	-79.33
Monster	268	km02194	10.55	725	5536.64	0.00	-0.069	5645.08	981,998.480	0.01	0.00	0.06	0.08	982276.126	1026.80	64.8060859	139.9239627	551108.0	7187277.8	-68.21	-75.62	-79.06
Monster	269	km02194	11.15	725	5539.01	0.00	-0.063	5647.51	982,000.900	0.00	0.01	0.06	0.07	982275.945	1015.01	64.8034898	139.9241643	551103.3	7186988.4	-68.12	-75.35	-78.75
Monster	270	km02194	11.42	725	5540.95	0.00	-0.054	5649.50	982,002.884	0.06	0.13	0.24	0.43	982275.847	1003.99	64.8020642	139.9243771	551095.9	7186829.3	-67.83	-74.95	-78.30
Monster	271	km02194	12.13	725	5543.26	0.00	-0.045	5651.86	982,005.244	0.01	0.05	0.14	0.20	982275.714	992.05	64.8001460	139.9245058	551093.4	7186615.5	-68.07	-75.12	-78.44
Monster	272	km02194	12.37	725	5548.00	0.00	-0.038	5656.71	982,010.085	0.00	0.01	0.29	0.30	982275.600	958.36	64.7984688	139.9227508	551180.0	7186430.0	-69.85	-76.65	-79.86
Monster	273	km02194	13.13	725	5550.45	0.00	-0.026	5659.22	982,012.590	0.01	0.02	0.23	0.26	982275.460	947.39	64.7964574	139.9211832	551258.2	7186207.1	-69.49	-76.22	-79.39
Monster	274	km02194	14.05	725	5553.44	0.00	-0.010	5662.28	982,015.649	0.00	0.05	0.36	0.41	982275.287	934.74	64.7939599	139.9212420	551260.2	7185928.8	-68.65	-75.28	-78.40
Monster	275	km02194	15.05	725	5556.77	0.00	0.006	5665.70	982,019.053	0.00	0.06	0.36	0.42	982275.080	920.87	64.7909910	139.9201595	551317.3	7185598.8	-67.85	-74.38	-77.45
Monster	278	km02190	17.15	725	5526.40	0.00	0.020	5634.72	981,987.477	0.05	0.19	0.80	1.04	982275.335	1064.95	64.7948361	139.8813851	553152.2	7186059.3	-69.54	-77.05	-80.58
Monster	288	km02188	11.23	725	5388.51	0.00	0.041	5494.05	981,846.757	0.07	0.08	0.32	0.47	982278.561	1757.83	64.8418972	139.7523811	559178.1	7191417.7	-73.01	-85.50	-91.38
Monster	288	km02191	11.14	725	5388.34	0.00	0.011	5493.85	981,846.842	0.07	0.08	0.32	0.47	982278.561	1757.83	64.8418972	139.7523811	559178.1	7191417.7	-72.93	-85.42	-91.30
Monster	289	km02188	11.45	725	5395.11	0.06	0.045	5500.81	981,853.515	0.13	0.45	1.39	1.97	982278.541	1724.77	64.8415631	139.7558303	559015.2	7191377.3	-71.10	-83.23	-88.93
Monster	290	km02188	12.12	725	5412.36	0.00	0.048	5518.40	981,871.107	0.20	0.42	1.48	2.10	982278.526	1643.70	64.8412406	139.7579154	558917.0	7191339.4	-69.85	-81.38	-86.81
Monster	291	km02188	12.37	725	5439.77	0.05	0.050	5546.38	981,899.093	0.09	0.20	0.75	1.04	982278.455	1508.33	64.8400480	139.7610674	558770.1	7191203.6	-70.70	-81.36	-86.38
Monster	292	km02191	15.42	725	5365.89	0.29	0.063	5471.08	981,824.170	0.13	0.21	0.71	1.05	982278.139	1854.27	64.8359781	139.7482657	559386.3	7190762.0	-74.81	-87.94	-94.11
Monster	293	km02191	14.58	725	5386.18	0.00	0.068	5491.70	981,844.774	0.13	0.21	0.71	1.04	982278.104	1770.89	64.8353710	139.7515217	559233.2	7190691.3	-71.16	-83.70	-89.59
Monster	294	km02191	14.20	725	5398.77	0.06	0.067	5504.57	981,857.631	0.14	0.24	0.77	1.15	982278.102	1718.88	64.8352707	139.7541766	559107.4	7190677.7	-68.76	-80.92	-86.64
Monster	295	km02191	13.39	725	5414.17	0.23	0.062	5520.33	981,873.360	0.19	0.34	1.07	1.60	982278.083	1637.66	64.8348928	139.7564688	558999.5	7190633.4	-68.99	-80.53	-85.96

Monster	296	km02187	12.36	725	5437.84	0.00	0.002	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	139.7474324	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



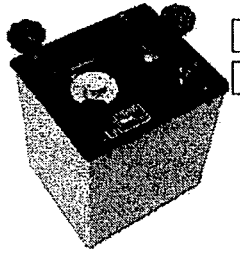
MWH
Geo-Surveys,
Inc.

Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project
for Monster Copper

dd/mm/yyyy...	4	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	-0.055

Monster	104	km02185	9.42	725	5483.57	0.07	-0.011	5591.019	981,943.913	0.00	0.00	0.04	0.04												10%	10%	15%				
Monster	103	km02185	10.11	725	5483.83	0.00	-0.007	5591.267	981,944.155	0.00	0.00	0.00	0.00					10%													
Monster	102	km02185	10.32	725	5486.80	0.06	-0.006	5594.316	981,947.204	0.05	0.05	0.07	0.17			20%	20%	30%		20%	20%	15%	20%			15%	15%	10%	10%		
Monster	101	km02185	10.52	725	5489.51	0.00	-0.004	5597.065	981,949.951	0.01	0.00	0.07	0.08		10%	10%		10%								15%	20%				
Monster	100	km02185	11.07	725	5490.89	0.14	-0.004	5598.516	981,951.398	0.07	0.07	0.22	0.36		15%	25%	30%	25%		5%	15%	22%	35%	15%		25%	35%	10%	5%	15%	
Monster	99	km02185	11.40	725	5494.37	0.17	-0.004	5602.076	981,954.956	0.02	0.06	0.26	0.33		15%	15%				15%	35%	20%	5%			10%	42%	25%	5%		
Monster	98	km02185	12.00	725	5496.57	0.24	-0.004	5604.342	981,957.218	0.00	0.05	0.23	0.28							10%	10%	40%				20%	42%	15%			
Monster	97	km02185	12.20	725	5499.77	0.07	-0.006	5607.553	981,960.427	0.03	0.04	0.11	0.18		30%	10%				10%	10%	10%	20%	22%		5%	20%	15%	15%	10%	5%
Monster	91	km02185	13.27	725	5483.16	0.28	-0.013	5590.663	981,943.528	0.11	0.29	0.87	1.27		30%	35%	30%	35%		30%	30%	60%	62%	40%	20%	25%	35%	50%	62%	24%	38%
Monster	90	km02185	13.50	725	5481.73	0.65	-0.017	5589.314	981,942.179	0.17	0.34	1.09	1.59		40%	45%	40%	45%		30%	30%	70%	70%	35%	35%	30%	30%	70%	70%	35%	38%
Monster	89	km02185	14.11	725	5485.31	0.29	-0.020	5592.853	981,945.714	0.08	0.16	0.69	0.93		15%	28%	20%	40%		32%	15%	48%	30%	20%	25%	32%	30%	50%	42%	20%	30%
Monster	88	km02185	14.32	725	5486.24	0.65	-0.023	5593.910	981,946.769	0.14	0.29	0.90	1.33		60%	15%	5%	65%		53%	30%	30%	74%	10%	40%	50%	37%	70%	25%	10%	40%
Monster	98	km02185	15.55	725	5495.62	0.24	-0.037	5604.360	981,957.211	0.00	0.00	0.00	0.00																		
Monster	105	km02185	16.47	725	5479.33	0.07	-0.047	5586.657	981,939.501	0.04	0.09	0.32	0.45		30%	10%	15%			26%	10%	30%	25%	15%	20%	20%	15%	25%	32%	15%	25%



MWH Geo-Surveys, Inc.

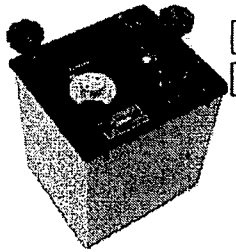
Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project.

for Monster Copper

dd/mm/yyyy...	5	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	-0.079

Monster	106	km02186	9.28	725	5468.43	0.38	-0.002	5575.676	981,928.612	0.03	0.05	0.36	0.44		20%	25%			15%	20%	10%	28%			10%	15%	15%	28%	50%	10%
Monster	107	km02186	9.50	725	5466.88	0.38	0.003	5574.099	981,927.033	0.03	0.13	0.32	0.48		20%	25%			10%	25%	55%	30%			10%	20%	45%	30%		
Monster	108	km02186	10.05	725	5464.52	0.15	0.006	5571.623	981,924.551	0.06	0.11	0.47	0.64		10%	35%	30%		10%	20%	40%	40%			10%	28%	46%	48%		
Monster	500	km02186	10.35	725	5456.32	0.32	0.011	5563.314	981,916.237	0.01	0.06	0.18	0.24		10%	10%			10%	20%	34%	10%			38%	21%				
Monster	501	km02186	10.55	725	5453.56	0.05	0.012	5560.416	981,913.337	0.01	0.03	0.16	0.21		15%				15%	20%	20%				10%	25%	15%	25%		
Monster	502	km02186	11.15	725	5445.70	0.03	0.014	5552.392	981,905.307	0.06	0.09	0.31	0.46		20%	20%	20%	25%	20%	5%	30%	25%	30%	10%	23%	10%	20%	30%	30%	15%
Monster	503	km02186	11.57	725	5427.18	0.00	0.015	5533.487	981,886.397	0.17	0.33	1.08	1.57		30%	37%	70%	37%	25%	37%	65%	55%	55%	25%	30%	41%	65%	57%	55%	32%
Monster	141	km02186	13.00	725	5394.64	0.00	0.010	5500.278	981,853.172	0.14	0.32	1.13	1.59		40%	40%	35%	35%	30%	35%	60%	65%	35%	35%	37%	38%	59%	65%	38%	42%
Monster	140	km02186	13.24	725	5392.82	0.06	0.007	5498.436	981,851.327	0.03	0.05	0.19	0.28		25%	20%	5%		25%	5%	5%	15%	20%	15%	20%	25%	5%	20%	20%	
Monster	139	km02186	14.02	725	5391.52	0.10	-0.000	5497.115	981,849.997	0.07	0.13	0.37	0.57		20%	10%	30%	30%	25%	10%	35%	35%	15%	30%	14%	10%	27%	35%	28%	25%
Monster	1000	km02186	8.45	725	5483.13	0.00	-0.013	5590.547	981,943.492	0.00	0.02	0.09	0.12		10%				15%	20%							5%	15%	25%	



MWH Geo-Surveys, Inc.

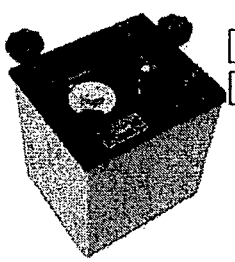
Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project

for Monster Copper

dd/mm/yyyy...	6	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	-0.043

| Area | Station | Meter | Hour | Time | Tide | Drift | Reading | Gravity | Terrain | Free Air | Bouguer | Complete | | | | |



MWH Geo-Surveys, Inc.

Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project

for Monster Copper

dd/mm/yyyy...	7	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	0.048

Monster	501	km02188	9.43	725	5453.75	0.04	0.011	5560.605	981,913.300	0.00	0.00	0.00	0.00																			
Monster	288	km02188	11.23	725	5388.51	0.00	0.041	5494.054	981,846.757	0.07	0.08	0.32	0.47		23%	25%	23%	25%	15%	25%	13%	32%	20%		23%	28%	14%	20%	36%	
Monster	289	km02188	11.45	725	5395.11	0.06	0.045	5500.810	981,853.515	0.13	0.45	1.39	1.97		30%	40%	40%	35%	46%	60%	70%	72%	38%	40%	45%	60%	70%	70%	35%	40%
Monster	290	km02188	12.12	725	5412.36	0.00	0.048	5518.399	981,871.107	0.20	0.42	1.48	2.10		60%	45%	45%	90%	30%	55%	75%	75%	30%	45%	40%	55%	75%	75%	45%	45%
Monster	291	km02188	12.37	725	5439.77	0.05	0.050	5546.383	981,899.093	0.09	0.20	0.75	1.04		20%	40%	24%	30%	38%	38%	40%	10%	50%		10%	55%	38%	42%	10%	48%
Monster	125	km02188	13.07	725	5463.18	0.00	0.049	5570.253	981,922.966	0.05	0.10	0.33	0.48		18%	40%			12%	25%	18%	44%	5%	12%	10%	12%	24%	43%	12%	25%
Monster	122	km02188	14.42	725	5481.13	0.06	0.033	5588.570	981,941.290	0.00	0.00	0.00	0.00						10%											
Monster	121	km02188	14.58	725	5483.44	0.00	0.031	5590.907	981,943.627	0.00	0.02	0.02	0.04						15%	15%					10%	10%				
Monster	120	km02188	15.16	725	5486.77	0.04	0.023	5594.309	981,947.032	0.00	0.05	0.15	0.20							20%	20%	20%	15%		10%	35%	15%			
Monster	119	km02188	15.42	725	5489.03	0.15	0.014	5596.640	981,949.364	0.01	0.08	0.18	0.28		15%				30%	30%	30%				20%	25%	15%	20%	10%	
Monster	118	km02188	16.03	725	5493.14	0.22	0.007	5600.847	981,953.575	0.00	0.04	0.28	0.32						12%	20%	15%	20%			10%	10%	10%	43%	29%	
Monster	117	km02188	16.18	725	5494.92	0.00	0.001	5602.590	981,955.318	0.01	0.11	0.30	0.42		15%				5%	15%	35%	40%	11%	20%	10%	15%	20%	37%	20%	23%
Monster	116	km02188	16.40	725	5501.42	0.04	-0.003	5609.228	981,961.958	0.04	0.06	0.22	0.32		20%	30%			10%	14%	14%	20%	30%		10%	14%	25%	25%	25%	
Monster	115	km02188	16.58	725	5507.13	0.00	-0.011	5615.034	981,967.764	0.04	0.07	0.22	0.33		20%	15%	15%	20%	15%	20%	15%	32%	15%		10%	15%	15%	35%	10%	17%
Monster	114	km02188	17.32	725	5513.90	0.00	-0.028	5621.924	981,974.658	0.00	0.02	0.36	0.38								15%	10%	20%		15%	44%	27%	15%	25%	

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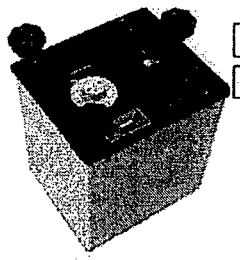
Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project
for Monster Copper

dd/mm/yyyy...	8	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	-0.122

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		10%	10%				24%	8%	15%	20%	8%	10%	12%	20%	8%	28%	8%	14%					
Monster	138	km02189	11.25	725	5381.42	0.00	0.044	5486.822	981,839.647	0.13	0.18	0.58	0.88		30%	30%	40%	40%		30%	24%	37%	40%	24%	30%	28%	25%	37%	40%	28%	35%					
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		35%	35%	45%	45%		25%	15%	45%	45%	30%	35%	18%	25%	45%	45%	30%	35%					
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		30%	35%	45%	45%		25%	27%	10%	47%	40%	35%	24%	30%	10%	38%	32%	40%					
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		20%	25%	25%	25%		30%	40%	40%	70%	25%	45%	30%	60%	40%	70%	30%	45%					
Monster	145	km02189	13.55	725	5373.66	0.00	0.061	5478.921	981,831.714	0.22	0.45	1.68	2.36		40%	80%	20%	80%		30%	80%	65%	55%	15%	80%	30%	90%	70%	75%	15%	80%					
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		40%	60%	40%	70%		30%	65%	55%	70%	30%	55%	40%	65%	35%	45%	65%	45%					
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		60%	60%	60%	80%		10%	48%	72%	95%	30%	90%	10%	48%	85%	90%	40%	50%					
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		65%	40%	80%	35%		20%	55%	70%	85%	30%	30%	20%	55%	70%	90%	60%	45%					



MWH Geo-Surveys, Inc.

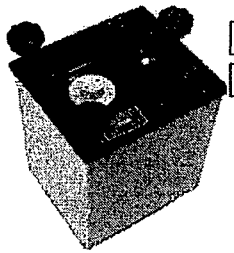
Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project

for Monster Copper

dd/mm/yyyy...	9 7 2002	GMT...	-7
1 Base Value...	981943.492	Operator...	km
2 Base Value...	981943.492	Drift Rate...	-0.028

Camp	Line	Station	Elev	Time	Tide	Drift	Corr	Grav	Err																						
Monster	244	km02190	8.41	725	5378.28	0.00	-0.038	5483.537	981,836.310	0.14	0.42	1.43	1.99		53%	25%	35%	40%	65%	25%	72%	65%	33%	50%	65%	30%	80%	75%	30%	45%
Monster	240	km02190	9.01	725	5370.08	0.00	-0.029	5475.179	981,827.951	0.15	0.30	1.09	1.54		35%	30%	45%	50%	10%	10%	65%	60%	33%	55%	10%	25%	65%	65%	38%	60%
Monster	239	km02190	9.34	725	5381.43	0.05	-0.014	5486.790	981,839.561	0.14	0.36	1.08	1.59		50%		30%	60%	15%	55%	60%	60%	60%	25%	15%	55%	60%	60%	60%	
Monster	231	km02190	9.58	725	5403.49	0.00	-0.007	5509.294	981,862.065	0.14	0.31	0.96	1.41		90%	30%	80%	60%	5%	15%	50%	85%	40%	45%	15%		50%	40%	45%	80%
Monster	232	km02190	10.19	725	5422.77	0.00	0.006	5528.979	981,881.748	0.08	0.26	0.89	1.22		10%	50%	20%	15%	10%	50%	50%	45%	10%	50%	10%	50%	50%	55%	50%	10%
Monster	242	km02190	11.30	725	5404.76	0.00	0.037	5510.634	981,863.400	0.20	0.34	1.19	1.73		90%	40%	50%	60%	50%	20%	75%	45%	50%	25%	25%	50%	45%	80%	25%	60%
Monster	243	km02190	11.53	725	5420.88	0.00	0.044	5527.088	981,879.854	0.13	0.23	0.78	1.14		35%	50%	30%	50%	15%	35%	35%	45%	60%	10%	15%	35%	35%	50%	10%	65%
Monster	241	km02190	12.36	725	5385.75	0.00	0.058	5491.255	981,844.019	0.19	0.35	1.15	1.69		70%		50%	60%	80%		40%	60%	20%	55%	60%		50%	70%	30%	55%
Monster	245	km02190	13.20	725	5382.87	0.00	0.066	5488.324	981,841.086	0.07	0.19	0.60	0.86		20%	40%	25%		10%	30%	50%	60%	10%	10%	10%	50%	50%	60%	10%	10%
Monster	246	km02190	13.50	725	5367.63	0.00	0.069	5472.777	981,825.538	0.18	0.45	1.51	2.13		45%	45%	45%	45%	40%	45%	70%	75%	45%	50%	40%	45%	70%	75%	55%	55%
Monster	247	km02190	14.15	725	5373.88	0.00	0.059	5479.154	981,831.914	0.18	0.36	1.23	1.77		40%	60%	40%	40%	60%	35%	45%	65%	20%	55%	25%	60%	60%	65%	60%	20%
Monster	248	km02190	14.45	725	5391.07	0.00	0.057	5496.692	981,849.451	0.18	0.38	1.22	1.76		50%	55%	30%	45%	15%	50%	60%	75%	20%	55%		50%	65%	75%	25%	60%
Monster	249	km02190	15.08	725	5405.09	0.00	0.062	5510.996	981,863.753	0.05	0.28	0.94	1.27		35%		25%		20%	45%	45%	70%	25%	30%	20%	45%	50%	70%	30%	30%
Monster	278	km02190	17.15	725	5526.40	0.00	0.020	5634.725	981,987.477	0.05	0.19	0.80	1.04		15%	20%	15%	30%	45%	20%	30%	40%	40%		30%	50%	35%	45%	50%	



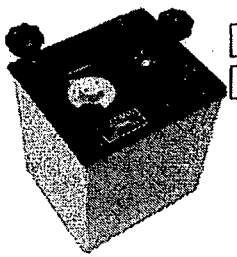
MWH
Geo-Surveys,
Inc.

Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project
for Monster Copper

dd/mm/yyyy...	10	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	0.145

Monster	288	km02191	11.14	725	5388.34	0.00	0.011	5493.850	981,846.860	0.00	0.00	0.00	0.00																			
Monster	149	km02191	11.32	725	5384.04	0.00	0.019	5489.471	981,842.484	0.14	0.21	0.67	1.02		40%	40%	30%	40%	32%	30%	54%	45%	10%	25%	25%	30%	60%	25%	45%			
Monster	150	km02191	12.03	725	5399.78	0.05	0.032	5505.560	981,858.586	0.19	0.28	1.14	1.62		40%	45%	60%	55%	30%	20%	60%	65%	20%	40%	20%	45%	60%	75%	20%	55%		
Monster	151	km02191	12.35	725	5415.32	0.00	0.045	5521.416	981,874.447	0.13	0.20	0.65	0.97		30%	35%	35%	40%	20%	30%	40%	42%	15%	45%	25%	30%	42%	45%	10%	40%		
Monster	152	km02191	13.05	725	5421.89	0.10	0.054	5528.159	981,881.203	0.08	0.20	0.70	0.98		40%	20%		35%	35%	35%	40%	40%	10%	30%	20%	35%	50%	50%	10%	35%		
Monster	295	km02191	13.39	725	5414.17	0.23	0.062	5520.331	981,873.380	0.19	0.34	1.07	1.60		50%	45%	50%	45%	35%	38%	65%	65%	25%	40%	35%	38%	65%	65%	25%	40%		
Monster	294	km02191	14.20	725	5398.77	0.06	0.067	5504.567	981,857.631	0.14	0.24	0.77	1.15		35%	45%	30%	40%	22%	28%	58%	50%	30%	27%	22%	28%	60%	50%	30%	27%		
Monster	293	km02191	14.58	725	5386.18	0.00	0.068	5491.703	981,844.774	0.13	0.21	0.71	1.04		35%	35%	35%	35%	25%	25%	45%	55%	25%	25%	25%	25%	50%	55%	25%	25%		
Monster	292	km02191	15.42	725	5365.89	0.29	0.063	5471.084	981,824.170	0.13	0.21	0.71	1.05		35%	35%	35%	35%	15%	25%	45%	50%	15%	45%	15%	25%	45%	50%	15%	50%		
Monster	137	km02191	16.10	725	5344.93	0.00	0.056	5449.601	981,802.699	0.13	0.27	0.58	0.98		20%	40%	40%	40%	10%	40%	63%	60%	10%	35%	20%		40%	63%	30%	10%		
Monster	136	km02191	16.28	725	5348.67	0.00	0.052	5453.413	981,806.514	0.06	0.15	0.51	0.72		20%	25%	20%	25%	15%	23%	35%	45%	15%	26%	20%	23%	30%	50%	20%	26%		
Monster	135	km02191	16.50	725	5357.54	0.00	0.044	5462.456	981,815.561	0.07	0.14	0.39	0.60		20%	30%	20%	25%	20%	25%	35%	40%	25%		20%	30%	15%	40%	15%	25%		
Monster	134	km02191	17.14	725	5352.95	0.00	0.035	5457.968	981,821.083	0.11	0.20	0.44	0.75		30%	30%	35%	35%	20%	36%	45%	26%	20%	45%	15%	30%	20%	25%	20%	45%		



MWH Geo-Surveys, Inc.

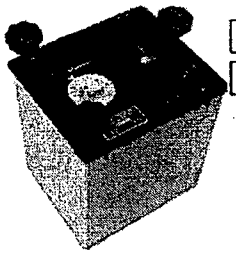
Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project

for Monster Copper

dd/mm/yyyy...	11	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	0.007

Monster	212	km02192	8.39	725	5516.21	0.28	-0.074	5634.321	981,977.667	0.02	0.05	0.31	0.38	15%		15%		10%	15%	30%	10%	15%		20%	23%	12%	40%	20%	10%
Monster	213	km02192	9.05	725	5511.88	0.00	-0.067	5619.824	981,973.171	0.04	0.10	0.35	0.48	15%	20%	15%	20%	15%	22%	28%	35%	10%	15%	15%	22%	30%	40%	10%	15%
Monster	214	km02192	9.50	725	5502.96	0.00	-0.051	5610.739	981,964.086	0.08	0.17	0.40	0.64	30%		30%	30%	25%	38%	40%	25%	35%		40%		24%		33%	30%
Monster	215	km02192	10.29	725	5514.55	0.00	-0.035	5622.580	981,975.927	0.03	0.08	0.35	0.45	20%		20%		20%	22%	34%		20%	10%	20%	22%	28%	34%	14%	20%
Monster	216	km02192	10.59	725	5502.67	0.34	-0.026	5610.573	981,963.921	0.13	0.19	0.33	0.64	35%	35%	35%	33%	15%	30%	46%	45%	22%	25%	5%	25%	13%	40%	22%	22%
Monster	217	km02192	11.40	725	5492.71	0.00	-0.004	5600.330	981,953.678	0.06	0.12	0.37	0.55	15%	30%	30%		10%	28%	28%	35%	30%	5%	10%	28%	30%	35%	10%	25%
Monster	504	km02192	12.15	725	5485.71	0.00	0.012	5593.204	981,946.552	0.10	0.19	0.55	0.85	35%	40%	35%		40%	35%	45%	45%	5%		15%	35%	35%	45%	35%	
Monster	505	km02192	12.43	725	5476.85	0.00	0.023	5584.175	981,937.524	0.00	0.00	0.00	0.00																
Monster	506	km02192	13.27	725	5453.93	0.00	0.039	5560.805	981,914.154	0.00	0.00	0.00	0.00																
Monster	211	km02192	14.17	725	5429.60	0.00	0.052	5535.993	981,889.343	0.00	0.00	0.00	0.00																
Monster	210	km02192	15.02	725	5409.92	0.00	0.058	5515.920	981,869.270	0.00	0.00	0.00	0.00																
Monster	206	km02192	15.37	725	5399.35	0.00	0.058	5505.132	981,858.483	0.00	0.00	0.00	0.00																
Monster	207	km02192	16.02	725	5397.62	0.00	0.056	5503.364	981,856.716	0.00	0.00	0.00	0.00																
Monster	208	km02192	16.30	725	5420.21	0.00	0.052	5526.413	981,879.764	0.00	0.00	0.00	0.00																
Monster	209	km02192	16.56	725	5421.47	0.00	0.047	5527.693	981,881.045	0.00	0.00	0.00	0.00																



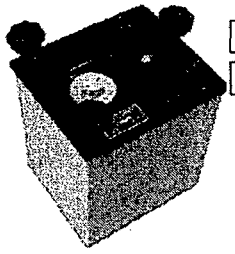
MWH Geo-Surveys, Inc.

Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project
for Monster Copper

dd/mm/yyyy...	12	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	0.027

Monster	122	km02193	8.34	725	5480.84	0.31	-0.088	5588.231	981,941.607	0.00	0.00	0.00	0.00							10%															
Monster	123	km02193	8.53	725	5478.29	0.00	-0.085	5585.536	981,938.912	0.00	0.09	0.34	0.43			10%				5%	20%	10%	10%	15%	50%	30%	25%	40%	5%	20%					
Monster	507	km02193	9.09	725	5473.45	0.00	-0.081	5580.601	981,933.979	0.02	0.13	0.56	0.71			10%		20%		36%	10%	50%	18%	20%		18%	35%	33%	60%	5%	15%				
Monster	124	km02193	9.27	725	5469.32	0.00	-0.077	5576.392	981,929.771	0.02	0.13	0.56	0.71			10%	20%			10%	25%	30%	50%	5%	22%	10%	25%	48%	55%	22%					
Monster	126	km02193	9.57	725	5457.81	0.00	-0.071	5564.654	981,918.033	0.02	0.08	0.45	0.54			10%	20%			12%	30%	35%	18%			34%	26%	48%	7%	25%					
Monster	127	km02193	10.31	725	5448.20	0.00	-0.058	5554.862	981,908.243	0.07	0.14	0.19	0.40			35%	10%	35%		40%	15%	50%	10%	20%		25%	13%	18%	25%	5%	10%				
Monster	128	km02193	10.45	725	5442.83	0.05	-0.053	5549.403	981,902.785	0.08	0.16	0.48	0.73			30%	35%	30%		34%	28%	34%	47%	15%	7%	25%	40%	5%	55%	17%					
Monster	129	km02193	11.10	725	5433.13	0.00	-0.044	5539.499	981,892.883	0.05	0.10	0.41	0.57			20%	20%	20%	20%	10%	37%	20%	22%	10%	30%	20%	40%	22%	23%	16%	30%				
Monster	130	km02193	11.58	725	5422.37	0.00	-0.028	5528.537	981,881.922	0.08	0.13	0.39	0.60			25%	30%	20%	25%	10%	24%	20%	44%	15%	35%	20%	34%	44%	10%	23%					
Monster	131	km02193	12.27	725	5414.06	0.00	-0.013	5520.062	981,873.449	0.05	0.19	0.74	0.99					20%	40%	10%	22%	38%	38%	5%	60%	10%	37%	34%	52%	60%					
Monster	508	km02193	13.00	725	5410.43	0.33	0.000	5516.484	981,869.873	0.15	0.27	0.85	1.28			40%	40%	40%	40%	20%	35%	65%	65%	20%	20%	20%	35%	65%	65%	20%	20%				
Monster	509	km02193	13.42	725	5416.75	0.00	0.015	5522.845	981,876.235	0.15	0.29	0.87	1.31			35%	45%	35%	45%	27%	40%	65%	60%	20%	27%	25%	40%	55%	65%	22%	25%				
Monster	510	km02193	14.13	725	5410.30	0.53	0.025	5516.437	981,869.830	0.14	0.29	0.81	1.23			35%	35%	35%	45%	26%	45%	58%	60%	10%	35%	26%	27%	58%	57%	30%	25%				
Monster	511	km02193	15.23	725	5398.72	0.00	0.038	5504.469	981,857.864	0.02	0.06	0.29	0.37			10%	10%	20%		13%	13%	15%	30%	12%	16%	6%	25%	12%	38%	24%	11%				
Monster	512	km02193	15.47	725	5412.67	0.18	0.040	5518.763	981,872.159	0.23	0.34	0.84	1.42			55%	55%	55%	55%	30%	46%	78%	78%	20%	6%	30%	38%	62%	45%	38%	15%				
Monster	513	km02193	16.10	725	5430.76	0.00	0.040	5537.165	981,890.563	0.14	0.23	0.62	0.99			45%	40%	25%	40%	30%	48%	47%	37%	35%	6%	14%	35%	33%	45%	26%	38%				
Monster	514	km02193	16.35	725	5445.52	0.44	0.039	5552.359	981,905.758	0.08	0.15	0.47	0.69			25%	25%	25%	25%	21%	23%	36%	39%	22%	23%	14%	28%	33%	41%	20%	26%				



MWH
Geo-Surveys,
Inc.

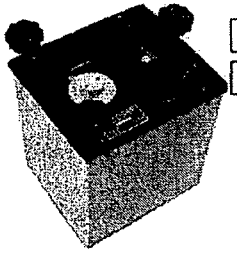
Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project

for Monster Copper

dd/mm/yyyy...	13	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	-0.078

Monster	264	km02194	9.08	725	5531.84	0.00	-0.087	5640.168	981,993.578	0.00	0.00	0.09	0.09		10%													15%	25%					
Monster	265	km02194	10.04	725	5533.65	0.00	-0.079	5642.023	981,995.424	0.00	0.00	0.06	0.06															25%					
Monster	266	km02194	10.21	725	5534.19	0.10	-0.076	5642.608	981,996.008	0.02	0.08	0.20	0.30		10%	15%	15%			20%	24%	15%	10%	37%			6%	15%	12%	40%	6%		
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				15%			15%	15%	30%	30%	10%			10%	15%	15%	30%			
Monster	268	km02194	10.55	725	5536.64	0.00	-0.069	5645.084	981,998.480	0.01	0.00	0.06	0.08		20%					10%							10%	10%	20%				
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										10%	15%			15%	10%	15%				
Monster	270	km02194	11.42	725	5540.95	0.00	-0.054	5649.496	982,002.884	0.06	0.13	0.24	0.43		25%	20%	25%	20%		27%	14%	41%	30%	25%			18%	14%	20%	28%	25%		
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		10%	10%	10%			10%	10%	20%	22%	15%	15%		10%	10%	20%	15%	15%	15%	
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									10%	15%				25%	27%	37%	15%			
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		15%					10%	13%	15%	13%				25%	27%	20%	15%	15%		
Monster	274	km02194	14.06	725	5553.44	0.00	-0.010	5662.284	982,015.649	0.00	0.05	0.36	0.41							15%	32%	17%					15%	32%	50%	15%			
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								15%	5%	10%	10%	40%		5%	15%	40%	15%	10%		



MWH Geo-Surveys, Inc.

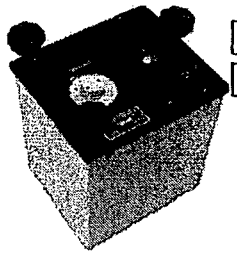
Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project

for Monster Copper

dd/mm/yyyy...	14	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	0.013

M1	520	km02195	8.35	725	5378.78	0.00	-0.083	5484.002	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%
M1	521	km02195	8.45	725	5386.17	0.00	-0.083	5491.543	981,845.070	0.09	0.16	0.67	0.92	20%	20%	30%	40%	18%	32%	14%	64%	5%	22%	18%	45%	25%	70%	10%	20%
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%	5%	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%	8%	38%	20%	28%	20%	30%	8%	35%	22%	48%	20%	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%	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%	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%			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%	10%	12%	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%			15%	15%	10%	10%	5%	20%	15%	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%			15%	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%		30%		8%	14%	37%	12%	13%		16%	18%	47%	12%	16%	
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%	28%	76%	56%	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	60%	55%	55%	50%	10%	70%	70%	75%	10%	55%	15%	60%	60%	76%	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	981,859.467	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%	28%	38%	58%	64%	18%	20%	30%	40%	58%	68%	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%	56%	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%	45%	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%	45%	40%	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%	55%	18%	25%	25%	37%	68%	40%	18%	20%
M1	551	km02195	13.50	725	5423.08	0.22	-0.041	5529.316	981,882.849	0.03	0.10	0.55	0.68	20%	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%			18%	25%	30%	50%	38%		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%	46%	74%	18%	24%	12%	30%	72%	55%	22%	28%



MWH Geo-Surveys, Inc.

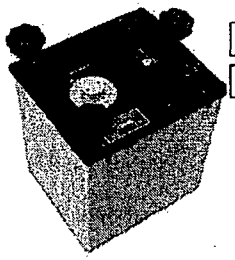
Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project

for Monster Copper

dd/mm/yyyy...	15	7	2002	GMT...	-7
1 Base Value...			981943.492	Operator...	km
2 Base Value...			981943.492	Drift Rate...	-0.071

Monster	18	km02196	8.32	725	5382.97	0.00	-0.066	5488.294	981,841.818	0.06	0.18	0.61	0.84		20%	10%	10%	40%	8%	25%	40%	56%	8%	30%		25%	45%	69%	10%	30%
Monster	17	km02196	8.50	725	5375.19	0.00	-0.066	5480.356	981,833.879	0.13	0.23	0.78	1.13		30%	40%	30%	40%	24%	28%	45%	56%	10%	40%	24%	28%	43%	60%	15%	45%
Monster	16	km02196	9.18	725	5357.00	0.00	-0.066	5461.795	981,815.313	0.13	0.20	0.61	0.94		45%	20%	20%	55%	5%	50%	15%	44%	18%	47%	5%	45%	10%	47%	15%	50%
Monster	24	km02196	9.45	725	5351.49	0.20	-0.066	5456.235	981,809.751	0.13	0.37	1.05	1.56		25%	45%	25%	50%	40%	25%	60%	80%	14%	60%	35%	25%	60%	75%	14%	50%
Monster	25	km02196	10.05	725	5348.39	0.15	-0.066	5453.056	981,806.568	0.04	0.29	0.86	1.19		20%	20%	10%	20%	28%	40%	58%	60%	24%	30%	30%	30%	58%	60%	24%	30%
Monster	26	km02196	10.27	725	5351.80	0.00	-0.066	5456.489	981,809.999	0.03	0.21	0.67	0.91		15%		15%	20%	8%	35%	45%	67%	8%	22%	14%	30%	48%	67%	10%	18%
Monster	27	km02196	11.20	725	5342.53	0.00	-0.066	5447.030	981,800.533	0.15	0.35	1.09	1.60		40%	40%	40%	40%	24%	36%	78%	75%	25%	36%	35%	36%	78%	75%	30%	8%
Monster	28	km02196	11.53	725	5345.25	0.00	-0.065	5449.807	981,803.307	0.08	0.33	1.14	1.55		20%	30%	20%	30%	26%	40%	72%	30%	25%	68%	30%	50%	75%	30%	25%	68%
Monster	29	km02196	12.18	725	5340.27	0.28	-0.063	5444.814	981,798.309	0.09	0.30	0.96	1.36		30%	20%	30%	30%	45%	25%	70%	55%	5%	40%	25%	50%	45%	45%	70%	
Monster	30	km02196	12.47	725	5323.04	0.00	-0.061	5427.148	981,780.642	0.27	0.50	1.63	2.39		110%	60%	40%	60%	50%	58%	68%	90%	34%	50%	45%	55%	95%	70%	60%	34%
Monster	31	km02196	13.12	725	5315.16	0.00	-0.060	5419.109	981,772.598	0.20	0.40	1.36	1.96		20%	40%	60%	80%	20%	50%	70%	80%	32%	45%	35%	50%	70%	85%	35%	40%
Monster	32	km02196	13.46	725	5306.77	0.00	-0.056	5410.552	981,764.038	0.22	0.51	1.52	2.25		60%	50%	50%	60%	45%	68%	70%	75%	56%	45%	45%	58%	75%	70%	48%	45%
Monster	25	km02196	15.16	725	5348.48	0.00	-0.046	5453.121	981,806.595	0.00	0.00	0.00	0.00																	
Monster	19	km02196	16.22	725	5384.11	0.00	-0.040	5489.484	981,842.950	0.11	0.24	0.76	1.11		30%	30%		60%	23%	15%	48%	72%	38%	6%	20%	25%	50%	72%	6%	30%



MWH
Geo-Surveys,
Inc.

Data Reduction for LaCoste & Romberg G Meters

Gravity Survey at Monster Project

for Monster Copper

dd/mm/yyyy...	16 7 2002	GMT...	-7
1 Base Value...	981943.492	Operator...	km
2 Base Value...	981943.492	Drift Rate...	-0.132

Monster	552	km02197	8.24	725	5508.65	0.00	-0.045	5616.550	981,970.147	0.01	0.03	0.19	0.23																
Monster	218	km02197	8.45	725	5508.89	0.00	-0.044	5616.786	981,970.379	0.14	0.21	0.29	0.64																
Monster	219	km02197	9.02	725	5510.17	0.00	-0.044	5618.102	981,971.685	0.01	0.06	0.27	0.34																
Monster	220	km02197	9.21	725	5503.61	0.00	-0.043	5611.410	981,964.989	0.02	0.14	0.50	0.66																
Monster	221	km02197	9.42	725	5498.10	0.16	-0.044	5605.839	981,959.414	0.04	0.11	0.19	0.34																
Monster	222	km02197	10.03	725	5492.27	0.00	-0.044	5599.841	981,953.405	0.05	0.06	0.33	0.44																
Monster	223	km02197	10.27	725	5482.60	0.10	-0.045	5590.004	981,943.564	0.00	0.00	0.05	0.05																
Monster	224	km02197	10.40	725	5486.18	0.00	-0.045	5593.626	981,947.184	0.03	0.04	0.14	0.20																
Monster	225	km02197	10.55	725	5490.68	0.06	-0.046	5598.245	981,951.800	0.02	0.06	0.18	0.26																
Monster	226	km02197	11.22	725	5496.65	0.26	-0.048	5604.386	981,957.929	0.05	0.16	0.28	0.50																
Monster	227	km02197	11.15	725	5502.47	0.32	-0.048	5610.341	981,963.885	0.03	0.08	0.23	0.34																
Monster	228	km02197	12.12	725	5506.10	0.00	-0.051	5613.943	981,967.469	0.09	0.17	0.38	0.64																
Monster	229	km02197	12.42	725	5516.61	0.00	-0.053	5624.664	981,978.184	0.11	0.27	0.94	1.33																
Monster	553	km02197	14.07	725	5531.99	0.00	-0.056	5640.352	981,993.843	0.00	0.05	0.09	0.13																

Xtreme

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.

The Receiver

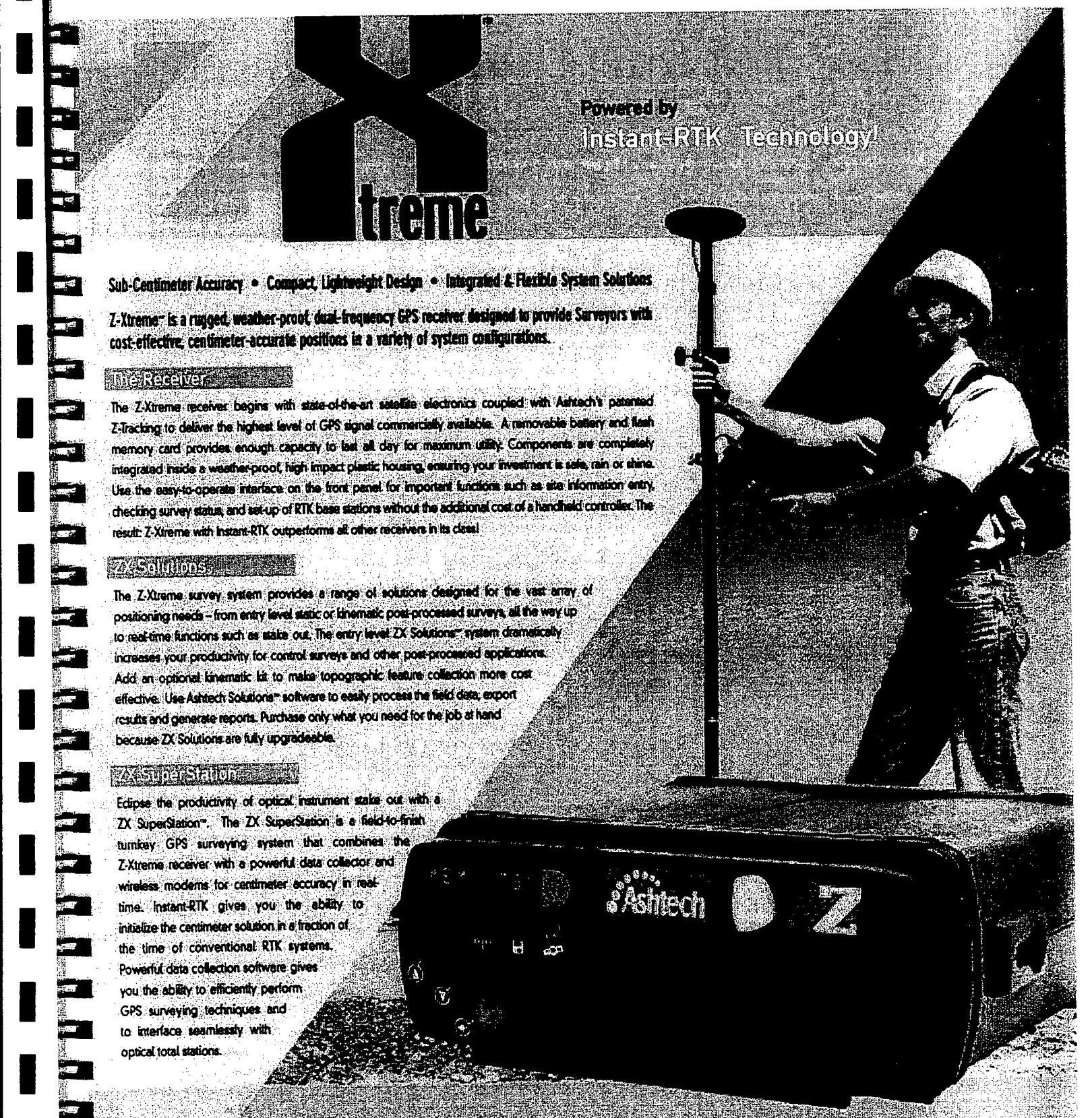
The Z-Xtreme receiver begins with state-of-the-art satellite electronics coupled with Ashtech's patented Z-Tracking to deliver the highest level of GPS signal commercially available. A removable battery and flash memory card provides enough capacity to last all day for maximum utility. Components are 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!

ZX Solutions™

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.

ZX SuperStation™

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 – increased flexibility and productivity available only from Ashtech Precision Products

Call your dealer today to set up a demo or visit our website at www.magellangps.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[1]

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 810E 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

[1] 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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Ashtech® is a registered trademark of Magellan Corporation. Z-Xtreme, Instant-RTK, ZX SuperStation, ZX Solutions, Z-Tracking, RZ, GPS FieldMate, and Ashtech Solutions are trademarks of Magellan Corporation. All other product and brand names are trademarks or registered trademarks of their respective holders.
Ashtech P-code GPS technology has been FCC tested and is capable of performing first order surveys (report available upon request).
Rev 10/26/00

www.magellangps.com

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Ashtech
PRECISION PRODUCTS

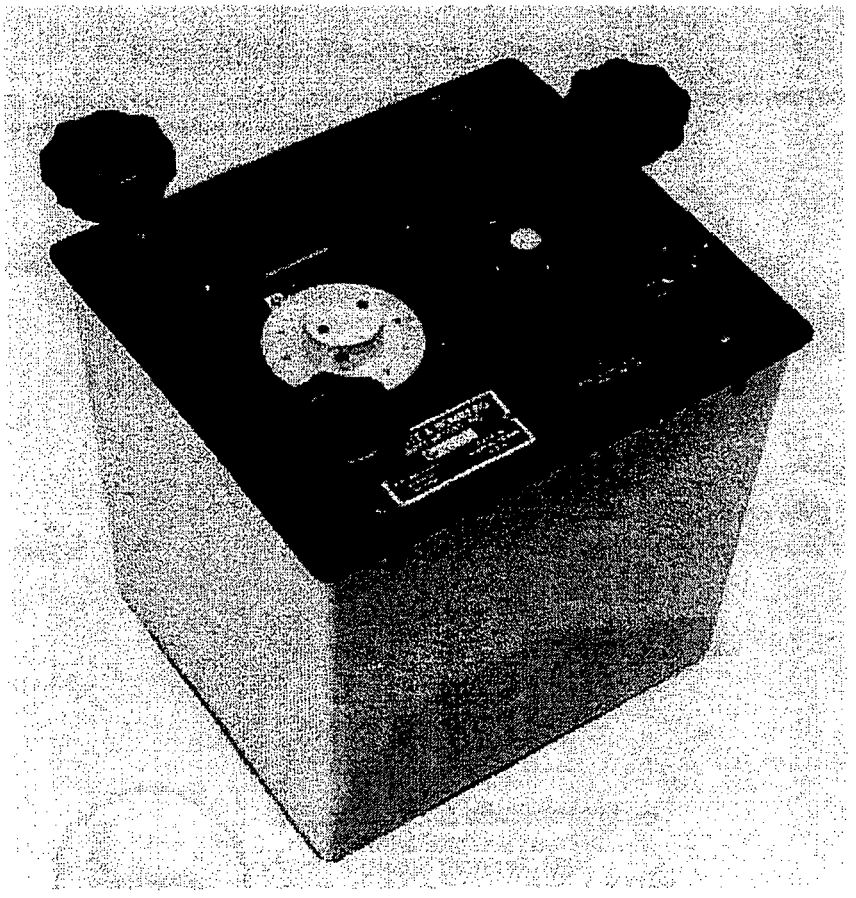
LaCoste & Romberg LLC

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 (Repeatibility 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
	Absolute Drift:	<1.0 mGal per month <0.5 mGal per month after aging
Physical Dimensions	**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

Tom Setterfield, PhD, P.Geo.

GEOSCIENTIST CERTIFICATE

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

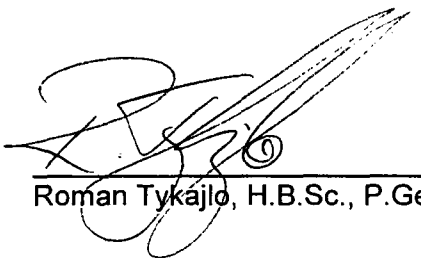
1. THAT I am a Consulting Geoscientist with Artik Geoscience Limited with an office at 74 Stonebriar Drive, Ottawa, Ontario.

2. THAT I am a graduate of Lakehead University with a Bachelor of Science Honours degree in Geology/Physics (1978).

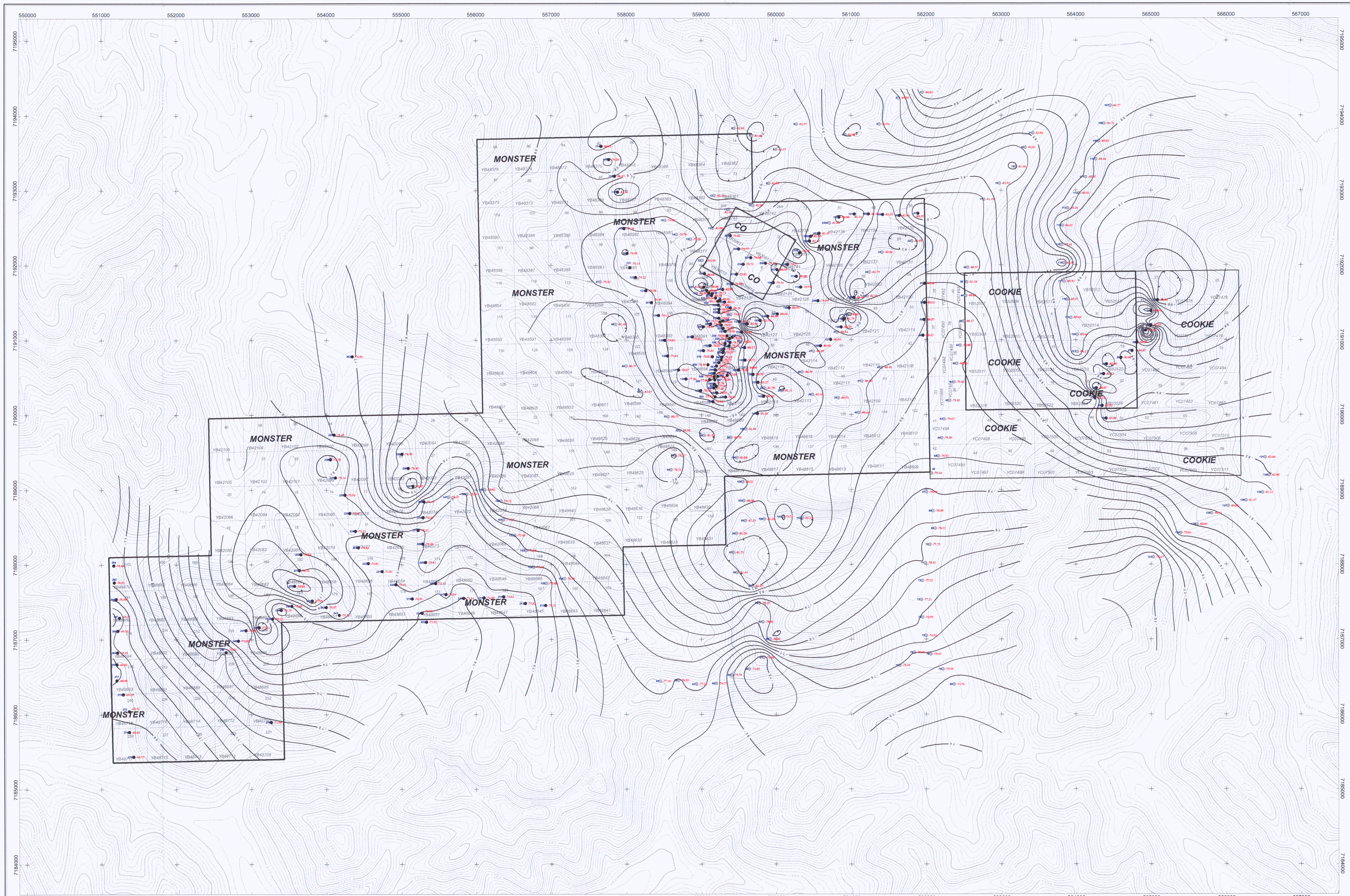
3. THAT I am a Professional Geoscientist (P.Geo.) registered in good standing with the Association of Professional Geoscientists of Ontario (APGO), and a Professional Geologist (P. Geol.) registered in good standing with the Association of Professional Engineers, Geologists, and Geophysicists of Alberta (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

- 5 ● -85.46 — Complete Bouguer Anomaly Value (mGal)
- Station number
- Gravity Station 2002
- 37 ◎ -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 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 (RRGIS). This DEM was one of two used in the outer terrain correction calculation.

N

Scale 1:20000

250 0 250 500 750 1000 1250 1500
metres
NAD27 / UTM zone 7N

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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

5 ● 1253 — DGPS elevation (m)
Station number
Gravity Station 2002

37 ◎ 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 (RRGIS). This DEM was one of two used in the outer terrain correction calculation.

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Scale 1:20000

250 0 250 500 750 1000 1250 1500
metres
NAD27 / UTM zone 7N

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Gravity Survey Stations and GPS Elevation Data Postings

MAP 2

surveyed 2001 and 2002 by MMH Geosurveys Ltd.
map prepared January 2003 by Arctk Geoscience Limited

MONSTER

COOKIE

CO

Legend

Outcrop Geology

- Wernecke Breccia
- Diorite
- Gillespie Lake Dolomite
- Quartet Group Siltstone Shale
- Paleozoic Sediments
- Fifteen Mile Lake Group
- Wernecke Breccia
- Diorite
- Gillespie Lake Group Dolomite
- Quartet Group Siltstone
- Cu Showing

Geology Modified after Thompson et al. (1992)

094 354

Scale 1:20000

250 0 250 500 750 1000 1250 1500

metres

NAD27 / UTM zone 7N

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Dawson Mining District, Yukon

Geology

MAP 1

map prepared January 2003 by Artk Geoscience Limited

#094354

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

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

-prepared for-
MONSTER COPPER RESOURCES INC.
11 Rocksprings Ave
Richmond Hill, ON, Canada
L4S 1R2

-prepared by-
Tom Setterfield, PhD, P.Geo. and Roman Tykajlo, BSc, P.Geo.
MONSTER COPPER RESOURCES INC.
c/o 21 Tripp Crescent
Ottawa, ON, Canada
K2J 1C5

Dates worked: July 3 to July 16, 2002