

ASSESSMENT REPORT

1992

SURVEY PROGRAM

on the

RED MOUNTAIN AND SARAH PROPERTIES

SKEENA MINING DIVISION

LOCATED

8 KM NORTHWEST OF MT. ANDREAS VOGT
BRITISH COLUMBIA

CENTRED ON

LATITUDE: 55 57' NORTH
LONGITUDE: 129 42' WEST

NTS 103P/13 AND 104A/4

OWNER

LAC MINERALS LTD.

OPERATOR

LAC MINERALS LTD.

REPORT BY

ADRIAN D. BRAY

DATE: 06/11/92

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,598

PART 1 OF 2

LOG NO:	NOV 16 1992	RD.
ACTION:		
FILE NO:		

SUMMARY

1992 SURVEY PROGRAM ON THE RED MOUNTAIN AND SARAH PROPERTIES

The Red Mountain and Sarah properties are located approximately eight and seventeen kilometres northwest, respectively, from Mt. Andreas Vogt. The properties are situated in Stikinia Terrane and are underlain by volcanic and sedimentary rocks of the Lower Jurassic Hazelton Group. Several dykes and plutons of Tertiary, Jurassic and undetermined age intrude the volcanic and sedimentary sequences.

A survey program was conducted by LAC Minerals Ltd. on the Red Mountain and Sarah properties between July 7th and September 18th, 1992. The Red Mountain program consisted of detailed surveying and establishment of a semi-permanent northwest-trending grid over the main Marc Zone gold mineralization. Additional, less detailed survey was conducted over the remaining portion of Red Mountain. Surrounding claims, including the Sarah property, were surveyed for future detailed aerial photography.

The 1992 survey program allowed for detailed control points over the Red Mountain gold mineralization to be established. All survey control points should be digitized into the existing Red Mountain database. New vertical drill sections, plans and geological maps should be generated to include the detailed survey data. Additional survey control points surrounding Red Mountain will allow for future detailed aerial photography.

TABLE OF CONTENTS

	page
SUMMARY.....	i
1.0 INTRODUCTION.....	1
1.1 PROPERTY STATUS.....	4
1.2 RED MTN PROPERTY EXPLORATION HISTORY.....	8
1.3 SARAH PROPERTY EXPLORATION HISTORY.....	10
2.0 REGIONAL GEOLOGY AND MINERALIZATION.....	11
3.0 RED MTN PROPERTY GEOLOGY, STRUCTURE AND MINERALIZATION.....	18
3.1 SARAH PROPERTY GEOLOGY AND MINERALIZATION....	27
4.0 1992 SURVEY PROGRAM.....	30
5.0 CONCLUSIONS AND RECOMMENDATIONS.....	31
6.0 COST STATEMENT.....	32
7.0 CERTIFICATES OF QUALIFICATIONS.....	33
8.0 REFERENCES.....	34

LIST OF FIGURES

FIG. 92-01	LOCATION MAP.....	2
FIG. 92-02	1:50,000 CLAIM LOCATION MAP.....	5
FIG. 92-02A	1:50,000 CLAIM DISPOSITION MAP.....	IN POCKET
FIG. 92-03	1:2,500 RED MTN DETAILED GEOLOGY...	IN POCKET
FIG. 92-04	1:5,000 RED MTN COMPILATION.....	IN POCKET
FIG. 92-05	1:500 RED MTN DRILL PLAN.....	IN POCKET
FIG. 92-06	1:10,000 SARAH PROPERTY GEOLOGY....	IN POCKET
FIG. 92-07i	1:10,000 RED MTN SURVEY MAP.....	IN POCKET
FIG. 92-07ii	1:10,000 RED MOUNTAIN SURVEY MAP ..	IN POCKET
FIG. 92-07iii	1:10,000 RED MOUNTAIN SURVEY MAP ..	IN POCKET
FIG.92-07iv	1:10,000 RED MOUNTAIN SURVEY MAP ..	IN POCKET
FIG.92-07A	1:2,500 RED MTN SURVEY SHEET #1 ...	IN POCKET
FIG.92-07B	1:2,500 RED MTN SURVEY SHEET #2 ...	IN POCKET
FIG.92-07C	1:2,500 RED MTN SURVEY SHEET #3 ...	IN POCKET
FIG.92-07D	1:2,500 RED MTN SURVEY SHEET #4 ...	IN POCKET
FIG.92-07E	1:2,500 RED MTN SURVEY SHEET #5 ...	IN POCKET

LIST OF TABLES

TABLE 1	RED MTN PROPERTY STATUS SUMMARY ...	6
TABLE 2	SARAH PROPERTY STATUS SUMMARY	7

LIST OF APPENDICES

APPENDIX A	SURVEY DATA
APPENDIX B	SURVEY INSTRUMENT SPECIFICATIONS

1.0 INTRODUCTION

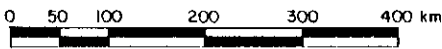
The Red Mountain and Sarah properties are located at the eastern flank of the Coast Mountains approximately fifteen and twenty kilometres northeast of Stewart, British Columbia (Figure 92-01), respectively. The nearest paved highway, # 37A, is approximately sixteen kilometres northwest of the Red Mountain property and seven kilometres north of the Sarah property. Access to the properties was gained by helicopter from the port town of Stewart. Extensions and upgrading of an existing logging road running south from Highway # 37A up the Bitter Creek Valley could provide future road access.

The Red Mountain property, centred on latitude 56 57' North and longitude 129 42' West, and the Sarah property, centred on latitude 56 02' North and longitude 129 45' West, cover rugged mountainous terrain with elevations ranging from 655 to 2150 metres above sea level. The slopes are mostly steep to precipitous, making the use of technical mountaineering techniques necessary in some locations. Occurrences of snow and debris avalanches are common, both in the Bitter Creek Valley and Red Mountain cirque.

Western hemlock is the dominant tree, while Sitka spruce, amabilis fir and black cotton wood are common subdominants. Common shrubs along valley bottoms include mountain alder, willows, red-osier dogwood, red elderberry, raspberry, devils



British Columbia



LAC MINERALS LTD.			
RED MOUNTAIN & SARAH PROPERTIES			
General Location Map			
Scale	Drawn by	Date	Figure
as shown		Oct, 1992	92-01
		N.T.S. 1:300,000	

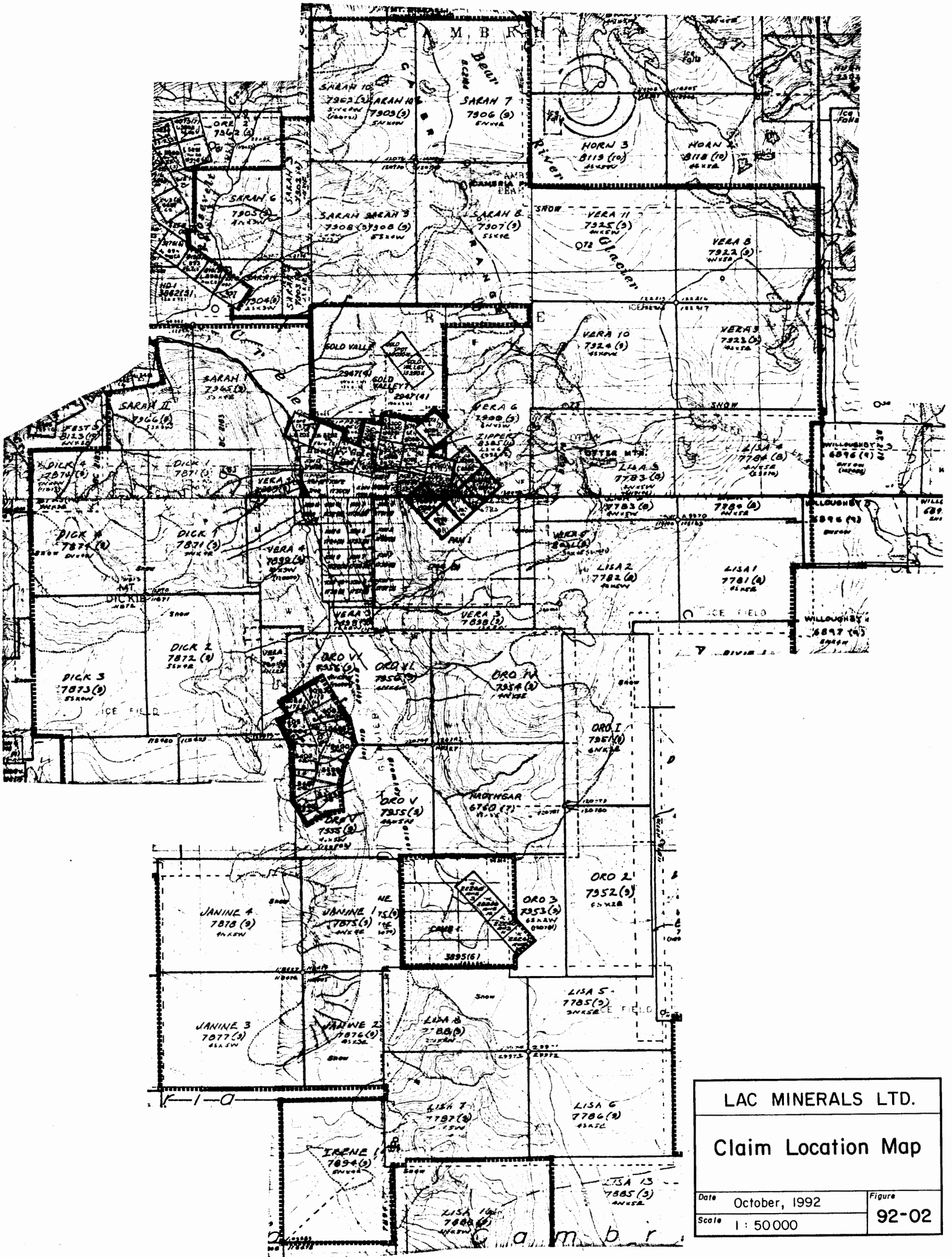
club, mountain maple and thimbleberry. Mountain alder is a widespread species on avalanche slopes and recently deglaciaded terrain. The subalpine mountain hemlock zone occurs from about 900 to 1350 metres. Alpine vegetation occurs intermittently between 1350 and 1600 metre levels, giving way to bare rock at higher elevations. Avalanche paths are commonly overgrown by an impassable cover of slide alder.

Wildlife consists of mountain goats, grizzly and black bears, wolverines, wolves, marmots, martens and ptarmigans.

The area has a coastal climate regime. Snowfall is heavy due to high elevations, northern latitude and proximity to the ocean. In the Stewart area, mean annual snowfall ranges from 520 centimetres at sea level and 1500 centimetres at 460 metres elevation (Bear Pass), and up to 2250 centimetres at an elevation of 915 metres (Tide Lake Flats).

1.1 PROPERTY STATUS

The LAC Minerals Ltd. 100%-owned Red Mountain and Sarah properties are located within the Skeena Mining Division of British Columbia. The two properties cover 549 mineral units within 32 claims. Relevant claim information is summarized in Tables 1 and 2. Figures 92-02 and 92-02A show the location and disposition of the claims, respectively.



LAC MINERALS LTD.	
Claim Location Map	
Date	October, 1992
Scale	1 : 50 000
Figure	92-02

TABLE 1

RED MOUNTAIN PROPERTY STATUS SUMMARY

CLAIM NAME	TITLE NO.	UNITS/HECTARES	RECORD DATE
DICK 1	253078	20/500	09/09/89
DICK 2	253079	20/500	09/09/89
DICK 3	253080	20/500	09/09/89
DICK 4	253081	20/500	09/09/89
HROTHGAR	252212	20/500	11/07/88
IRENE 1	253101	20/500	16/09/89
JANINE 1	253082	16/400	08/09/89
JANINE 3	253084	20/500	08/09/89
LISA 1	252990	20/500	12/08/89
LISA 2	252991	20/500	12/08/89
LISA 4	252993	20/500	12/08/89
LISA 7	252996	20/500	12/08/89
LISA 8	252997	15/375	12/08/89
ORO 1	253158	18/450	16/09/89
ORO 2	253159	18/450	16/09/89
ORO 3	253160	12/300	16/09/89
ORO 4	253161	20/500	23/09/89
ORO 5	253162	20/500	23/09/89
ORO 6	253163	20/500	23/09/89
VERA 4	253106	18/450	16/09/89
VERA 7	253108	8/200	16/09/89
VERA 8	253129	20/500	24/09/89
VERA 9	253130	20/500	24/09/89
WILLOUGHBY 3	252217	20/500	21/09/88
TOTAL		445 UNITS/11,125 HECTARES	

TABLE 2
SARAH PROPERTY STATUS SUMMARY

CLAIM NAME	TITLE NO.	UNITS/HECTARES	RECORD DATE
SARAH 3	253109	6/150	15/09/89
SARAH 4	253110	2/50	15/09/89
SARAH 5	253111	4/100	15/09/89
SARAH 6	253112	12/300	15/09/89
SARAH 7	253113	20/500	15/09/89
SARAH 8	253114	20/500	15/09/89
SARAH 9	253115	20/500	15/09/89
SARAH 10	253116	20/500	15/09/89
TOTAL		104 UNITS/2,600 HECTARES	

1.2 RED MOUNTAIN PROPERTY EXPLORATION HISTORY

Following limited gold exploration in the late 19th century and the early part of this century, the Red Mountain property was evaluated for molybdenum occurrences in the 1960's and 1970's. A molybdenum and native gold showing was discovered in 1965 on the south side of Red Mountain (Erin Stock showing, McAdam Point). Additional small molybdenum prospects were located during subsequent exploration programs in the central cirque of Red Mountain.

Significant gold values were obtained in 1973 from Lost Mountain (R.H.S. claims), a nunatak immediately south of Red Mountain and separated from the latter by the northern branch of Bromley Glacier. Gold here is associated with pyrite, galena and sphalerite, occurring in strike persistent narrow quartz veins within a sequence of black argillites.

Red Mountain remained unexplored for gold as it was mainly regarded as a setting for porphyry molybdenum mineralization. The reactivation of gold exploration in the area during the mid to late 1980's has focused on the Iskut and Sulphurets gold camps, and the surroundings of the historic Silbak-Premier mine. All of these areas are situated in geological environments similar to that of Red Mountain. The following summarizes exploration activities in the Red Mountain area:

- 1989: Exploration for placer gold in the Bitter Creek area
- 1900: Gold exploration in the upper reaches of Bitter Creek
- 1965: Discovery of molybdenite mineralization and visible gold at McAdam Point (Erin Showing: MI103P/220). Rock sampling, geological mapping, hand trenching, diamond drilling (one 70 m AX hole).
- 1967: Northgate Exploration Ltd.: geological mapping, geochemistry (263 samples analyzed for copper, molybdenum and zinc) and diamond drilling (613 m in 5 holes)
- 1976: Jack claims staked by J Howard (central and southern portion of Red Mountain), which were subsequently optioned to Zenore Resources Ltd.
- 1977/78: Zenore Resources Ltd.: logging and re-sampling of the 1967 drill core for molybdenum. Geological mapping, rock geochemistry (analyzed for copper, molybdenum and gold). Petrographic study.
- 1978/80: Falconbridge Nickel Mines Ltd.: reconnaissance program for porphyry copper-molybdenum targets in the Stewart area.
- 1988/89: Staking of the Red Mountain property by Wotan Resources
- 1989: Red Mountain property optioned to Bond Gold Canada Inc. (now LAC Minerals Ltd.). Discovery and drill testing of the Marc Zone (3,623 metres in 21 holes) and Brad Zone (1,107 metres in 6 holes) gold-silver mineralization. Geological mapping, trenching, rock geochemistry and 5,220 km airborne geophysical survey
- 1990: Continued evaluation of Red Mountain by LAC Minerals Ltd. Diamond drilling (13,350 metres on Marc Zone and geophysical targets), ground geophysics, geological mapping and rock geochemistry. Baseline environmental study initiated.
- 1991: Continued evaluation of Red Mountain by LAC Minerals Ltd. Diamond drilling of the Marc Zone (2,628 metres in 11 holes), geological mapping and rock geochemistry. Continuation of environmental base-line studies.
- 1992: Detailed surveying and semi-permanent grid establishment over Red Mountain, and surrounding regional claim surveying for future detailed aerial photography (this report).

1.3 SARAH PROPERTY EXPLORATION HISTORY

With the exception of a limited program by Bond Gold Canada Inc. (now LAC Minerals Ltd.) in 1991, no exploration is known from the Sarah property. The 1991 Bond Gold Canada Inc. exploration program consisted of 1:10,000 reconnaissance-style geological mapping and six lithogeochemical samples (Assessment Report # 21,942).

The 1992 program on the Sarah property consisted of establishing survey control points to be used for future detailed aerial photography.

2.0 REGIONAL GEOLOGY AND MINERALIZATION

GEOLOGY

The Red Mountain and Sarah properties are situated within a broad, north-northwest trending volcano-plutonic belt composed of Upper Triassic Stuhini Group and Upper Triassic to Lower - Middle Jurassic Hazelton Group. This belt has been termed the "Stewart Complex" by Grove (1986) and forms part of the Stikinia Terrane. The Stikinia Terrane together with the Cache Creek and Quesnel Terranes constitute the Intermontane Superterrane which is believed to have accreted to North America in Middle Jurassic time (Monger et al, 1982). To the west, the Stewart Complex is bordered by the Coast Plutonic Complex. Sedimentary rocks of the Middle to Upper Jurassic Bowser Lake Group overlay the complex to the east.

The Jurassic stratigraphy was established by Grove (1986) during regional mapping between 1964 and 1968. Formational subdivisions have been and are in the process of being modified and refined as a result of recent work being undertaken in the Stewart, Sulphurets, and Iskut areas by the Geological Survey Branch of the BCMEMPR (Alldrick, 1984, 1985, 1989), the Geological Survey of Canada (Anderson, 1989; Anderson and Thorkelson, 1990) and the Mineral Deposits Research Unit at the University of British Columbia. A sedimentological, stratigraphic, and structural synthesis is slowly emerging for this area.

The Hazelton Group represents an evolving (alkalic/calc-alkalic) island arc complex capped by a thick succession of turbidites (Bowser Lake Group). Grove (1986) subdivided the Hazelton Group into four litho-stratigraphic units (time intervals defined by Alldrick, 1987): the Upper Triassic to Lower Jurassic (Norian to Pliensbachian) Unuk River Formation, the Middle Jurassic Betty Creek (Pliensbachian to Toarcian) and Salmon River (Toarcian to Bajocian) Formations, and the Middle to Upper Jurassic (Bathonian to Oxfordian- Kimmeridgian) Nass Formation. Alldrick assigned formational status (Mt. Dilworth Formation) to a Toarcian rhyolite unit (Monitor Rhyolite) overlying the Betty Creek Formation. Rocks of the Salmon River Formation are transitional between the mostly volcanic Hazelton Group and the wholly sedimentary Bowser Lake Group and are presently treated either as the uppermost formation of the former or the basal formation of the latter (Anderson and Thorkelson, 1990). The Nass Formation has now been assigned to the Bowser Lake Group.

The Unuk River Formation, a thick sequence of andesitic flows and tuffs with minor interbedded sedimentary rocks, hosts several major gold deposits in the Stewart area. The unit is unconformably overlain by heterogeneous maroon to green, epiclastic volcanic conglomerates, breccias, greywackes and finer grained clastic rocks of the Betty Creek Formation. Felsic tuffs and tuff breccias characterize the Mt. Dilworth Formation. The Mt. Dilworth Formation represents the climactic and penultimate volcanic event

of the Hazelton Group volcanism and forms an important regional marker horizon. The overlying Salmon River Formation has been subdivided in the Iskut area into an Upper Lower Jurassic and a Lower Middle Jurassic member (Anderson and Thorkelson, 1990). The Upper member has been further subdivided into three north-trending facies belts: the eastern Troy Ridge facies (starved basin), the medial Eskay Creek facies (back-arc basin), and the western Snippaker Mountain facies (volcanic arc).

Sediments of the Bowser Lake Group rest conformably on the Hazelton Group rocks. They include shales, argillites, silt- and mudstones, greywackes and conglomerates. The contact between the Bowser Lake Group and the Hazelton Group passes between Strohn Creek in the north and White River in the south. The contact appears to be a thrust zone with Bowser Lake Group sediment "slices" occurring within, and overlying, the Hazelton Group pyroclastic rocks to the west.

Two main intrusive episodes occur in the Stewart area: a Lower Jurassic suite of dioritic to granodioritic porphyries (Texas Creek Suite) that is comagmatic with extrusive rocks of the Hazelton Group and an Upper Cretaceous to Early Tertiary intrusive complex (Coast Plutonic Complex and satellite intrusions). The Early Jurassic suite is characterized by the occurrence of coarse hornblende, orthoclase and plagioclase phenocrysts and, locally, potassium feldspar megacrysts.

The Eocene Hyder quartz-monzonite, comprising a main batholith, several smaller plugs, and a widespread dyke phase, represents the Coast Plutonic Complex.

Middle Cretaceous regional metamorphism (Alldrick et. al., 1987) is predominantly of the lower greenschist facies. This metamorphic event may be related to west-vergent compression and concomitant crustal thickening at the Intermontane - Insular superterrane boundary (Rubin et. al., 1990). Biotite hornfels zones are associated with a majority of the quartz monzonite and granodiorite stocks.

Recent structural studies by Evenchick (1991b) indicate that Bowser Basin strata are part of a regional Skeena fold and thrust belt. This tectonism developed between latest Jurassic and early Tertiary time and involved strata at least as young as Lower and Middle Jurassic Hazelton Group. This implies that the thrust faults of this belt have affected rocks of Stikinia, and may root in the Coast Plutonic Complex.

No significant deformation has been described for the interval between the deposition of the Hazelton and Bowser Lake Groups. Evenchick (1991b) concludes that folds in the Hazelton Group are likely to be the result of shortening during the formation of the Skeena fold belt.

MINERALIZATION

The Stewart Complex is the setting for the Stewart (Silbak-Premier, Big Missouri), Iskut (Snip, Johnny Mountain, Eskay Creek), Sulphurets, and Kitsault (Alice Arm) gold/silver mining camps. Mesothermal to epithermal, depth-persistent gold-silver veins form one of the most significant types of economic gold deposits. There is a spatial, as well as temporal, association of this gold mineralization with Lower Jurassic calc-alkaline intrusions and volcanic centres. These intrusions are often characterized by 1-2 cm-sized potassium feldspar megacrysts and correspond to the top of the Unuk River Formation.

The most prominent example of this type of deposit is the historic Silbak-Premier gold-silver mine which has produced 56,600 kg gold and 1,281,400 kg silver between 1918 and 1976. Current open pit reserves are 5.9 million tonnes grading 2.16 g Au/t and 80.23 g Ag/t (Randall, 1988). The ore is hosted by Unuk River Formation andesites and comagmatic Texas Creek porphyritic dacite sills and dikes. The ore bodies comprise a series of en echelon lenses developed over a strike length of 1,800 metres and through a vertical range of 600 metres (Grove, 1986; McDonald, 1988). The mineralization is controlled by northwesterly and northeasterly trending structures and their intersections, but also occurs locally concordant with andesitic flows and breccias. Two main vein types occur: silica-rich, low-sulphide precious metal veins and sulphide-rich base metal veins. The precious metal veins are

more prominent in the upper level of the deposit and contain polybasite, pyrargyrite, argentiferous tetrahedrite, native silver, electrum, and argentite. Pyrite, sphalerite, chalcopyrite and galena combined are generally less than 5%. The base metal veins crosscut the precious metal veins and increase in abundance with depth. They contain 25 to 45% combined pyrite, sphalerite, chalcopyrite and galena with minor amounts of pyrrhotite, argentiferous tetrahedrite, native silver, electrum and arsenopyrite. Quartz is the main gangue material, with lesser amounts of calcite, barite, and some adularia. Mineralization is associated with strong silicification, feldspathization, and pyritization. A temperature range of 250 to 260 degrees celsius has been determined for the deposition of the precious and base metals (McDonald, 1990).

The Eskay Creek gold deposits are underlain by Lower to Middle Jurassic volcanic and sedimentary rocks of the Hazelton Group. Mineralization occurs in two separate zones, the 21A zone and the 21B zone. The former shows epithermal deposit characteristics, while the latter shows volcanogenic massive sulphide characteristics. The 21A zone is a rhyolite-hosted, stockwork and disseminated sulphide suite containing stibnite +/- realgar +/- orpiment +/- tetrahedrite +/- cinnabar. Vertical geochemical and mineralogical zonation indicates increasing temperatures and base metal content with depth. The 21B zone is a stratabound massive sulphide hosted by a graphitic argillite unit which overlies a

rhyolite unit. Gold mineralization occurs along with sphalerite, galena, tetrahedrite and Pb-sulfosalts. Probable reserves, using a 8.6 gram gold cut-off and a minimum 2 metre thickness, for the 21A and 21B zones have been published as 183,000 tonnes at 24.3 grams gold and 233.1 grams silver per ton, and 1,073,000 tonnes at 56.9 grams gold and 1,484.6 grams silver per ton, respectively (Blackwell, 1990).

Middle Eocene silver-lead-zinc veins are characterized by high silver to gold ratios and by spatial association with molybdenum and/or tungsten occurrences. They are structurally controlled and lie within north, northwest, and east-trending faults. This mineralization is less significant in economic terms.

Porphyry molybdenum deposits are associated with the Tertiary Alice Arm Intrusions, a belt of quartz-monzonite intrusions parallel to the eastern margin of the Coast Plutonic Complex. An example of this type of deposits is the B.C. Molybdenum Mine at Lime Creek.

3.0 RED MTN PROPERTY GEOLOGY, STRUCTURE & MINERALIZATION (FIGURES 92-03 to 92-05)

GEOLOGY

The only available published geological map that covers the Red Mountain property area is the 1:100,000 Unuk River-Salmon River-Anyox map by Grove (1986). According to Grove (1986) the property area is underlain by Lower to Middle Jurassic rocks of the Hazelton Group (Unuk River and Salmon River Formations) which have been intruded by Middle Jurassic and Early Tertiary stocks and dykes. The younger intrusive sequence forms part of the Coast Plutonic Complex.

The portion of the property located east of Bromley Glacier is underlain by rocks of the Lower Jurassic Unuk Formation. This formation consists of clastic sediments, volcanic breccias, crystal and lithic tuffs and limestones. Rocks of the Upper Jurassic Salmon River Formation, a sequence of fine to coarse-grained clastic sediments, limestones, rhyolites, and crystal and lithic tuffs are exposed west of Bromely Glacier (Oro V and VI claims). The Betty Creek and Mt. Dilworth Formations, which stratigraphically underlie the Salmon River Formation, appear to have been thinned out or eroded in the Red Mountain area.

Stratified rocks occupy the ridges and the southern and northern slopes at Red Mountain and consist of intermediate pyroclastics, finely banded, partially carbonaceous argillites and tuffaceous

sediments, and chert (units 1-5, 13 and 16). The strata generally strike northwest and dip steeply towards the southwest, but strike and dip are locally highly variable as a result of up-doming by a hornblende-feldspar porphyry (Goldslide Intrusion) and satellite intrusions. Top indicators within the tuffaceous sediments (load casts, graded bedding) indicate that the sequence is right side up.

A distinct volcanoclastic unit northeast of the Marc Zone at the edge of the Cambria Icefield consists of coarse limestone fragments in a fine-grained dacitic tuff. Due to finely disseminated pyrite within the matrix, the unit weathers to a rusty brown colour. A similar rock occurs at Lost Mountain, further to the south.

The volcano-sedimentary sequence appears to represent an intermediate to distal volcanic facies. The closest recognized Lower Jurassic volcanic centre is located in the Big Missouri-Premier area about 15 kilometres to the north (Alldrick, 1989).

A hypabbysal, hornblende-plagioclase porphyritic intrusion (Goldslide Intrusion, units 6 and 8) of granodiorite to diorite composition occupies the cirque as well as the western and eastern slopes of Red Mountain. The groundmass of the porphyry grades from weakly phaneritic at deeper levels to aphanitic at higher levels and closer to the country rock contact. Euhedral hornblende crystals constitute up to 25% of the rock and are up to 2.0 centimetres long. Plagioclase crystals are usually smaller than

2.0 mm and constitute up to 25% of the rock. The ratio of hornblende to plagioclase varies. A fine-grained and more equigranular phase of the intrusion is dominated by densely disseminated plagioclase. Phenocrysts of pyroxene, biotite, orthoclase and quartz are less abundant.

A wide contact zone occurs between the volcano-sedimentary package and the intrusion. This zone is strongly brecciated and contains argillite and/or pyroclastic rock fragments within an intrusive matrix. Quartz stockwork is locally developed within the border phase of this intrusion. Weak to intense silicification, sericitization and propylitization are associated with these quartz stockwork zones. An extensive zone of pyritization and sericitization surrounds the Goldslide Intrusion and is responsible for the gossaneous appearance of Red Mountain. A lower Jurassic date of 200 Ma has been determined on a hornblende sample (argon-argon) for the Goldslide Intrusion.

A granodioritic to quartz-monzonitic intrusion, the Erin Stock (unit 12), is exposed at the southern tip of Red Mountain and appears to continue south under the Bromley Glacier onto Lost Mountain. The stock and associated aplitic dykes intrude a sequence of thinly bedded argillites, calcareous sediments and intermediate pyroclastics. The sediments have been extensively skarnified and hornfelsed. The stock itself is cut by a number of fine-grained basaltic dykes. A Lower Tertiary age of 45 +/- 2 Ma

has been determined from a biotite sample by argon-argon methods.

Several sets of dykes cut the sedimentary and pyroclastic rocks at Red Mountain, and include:

a) potassium feldspar porphyritic dykes- light grey with subhedral feldspar crystal and quartz eyes in aphanitic matrix; mainly northeast trending; the appearance and relative age relationships indicate that these dykes may correlate with the Early Jurassic Texas Creek intrusive suite.

b) microdioritic dykes- green-grey, fine grained feldspar-hornblende porphyritic, generally northwest trending and southwest dipping; plagioclase occurs as anhedral grains up to 1 mm, with hornblende as anhedral to prismatic crystals up to 1.5 mm.

c) lamprophyre dykes- green-grey, with minor vesicles and typically composed of green acicular hornblende and plagioclase in a dense matrix; these dykes have a north-northwesterly trend and cut all other types of dykes; they appear to be related to the Oligocene-Miocene lamprophyre dyke suite known from the Stewart area.

STRUCTURE

The most prominent fold in the Red Mountain area is a large antiform with a north-northwest trending axis running from the Bromley Glacier north to Bear River. Grove (1986) recognized a fold in this same area which he described as a syncline. However, detailed mapping by Dihedral Exploration (1991) geologists show this structure to be an antiform. Most of the rocks on the east side of the Bromley Glacier dip steeply to the east and many of the rocks on the west side dip steeply to the west. Where tops indicators can be determined, most face outward. Rocks of the Upper Jurassic Salmon River Formation, a sequence of fine to coarse-grained clastic sediments and fossiliferous limestones, are

exposed west of Bromley Glacier. The Betty Creek and Mount Dilworth Formations, which stratigraphically underlie the Salmon River, are not present in the Red Mountain area.

Discussions by Dihedral Exploration geologists with Anderson, Alldrick and Greig (pers. comm., 1991) lend support to the identification of the Salmon River Formation unit. This creates a problem with the structural interpretation as the sequence outwards from the centre of the fold is Salmon River then Unuk River Formation rocks. The correlations in the Red Mountain area are based largely on lithologic similarities. It is possible that the lithologic similarities are coincidental and that the apparent "Salmon River Formation: is in fact Triassic in age. If, however, the correlations are correct, then a major structural dislocation must be hypothesized in order to place younger rocks in the centre of the apparent antiform. It is possible that Unuk River Formation rocks have been thrust over Salmon River Formation rocks and that the resulting sequence was then warped into an antiform.

MINERALIZATION

Red Mountain is characterized by an extensive gossan, covering approximately 12 square kilometres. The property has attracted exploration activities for porphyry molybdenum-type targets in the 1960's. The molybdenite mineralization is controlled by northerly trending fractures along the northern contact of the Erin Stock (McAdam Point). The most significant mineralization is restricted

to within 25 metres of the contact and overall occurrences were judged as non-economic. An occurrence of visible gold with values up to 27.42 gAu/t over 0.91 metres, 30.85 gAu/t over 0.61 metres and 64.45 gAu/t over 0.61 metres have been mentioned for this area in reports from the 1960's. The exact location and mode of occurrence for this gold mineralization has not been reported.

The northern tip of Lost Mountain covers the southern contact of the Erin Stock. The molybdenite-bearing quartz veins extend likewise for only a limited distance from the southern contact of the Erin Stock into the skarn and hornfels. Significant gold and silver mineralization is associated with sphalerite, pyrite, pyrrhotite, galena and chalcopyrite within narrow quartz veins and occurs further south on Lost Mountain (Mandy, Middle, Handy and Andy veins). The veins are predominantly hosted by a sequence of carbonaceous argillites and have a northwesterly strike and dip steeply to the southwest.

No other occurrences of gold were known at Red Mountain prior to Bond Gold Canada Inc.'s (now LAC Minerals Ltd.) 1989 exploration program. Several gold showings were subsequently discovered during the 1989, 1990 and 1991 programs (Assessment Reports #20,133, #20,971 and #22,417, respectively), all of which are spatially related to the contact of the Goldslide Intrusion and the surrounding pyroclastic and sedimentary rocks. Mineralization occurs both within the intrusion as well as in the surrounding

country rocks.

The Marc Zone, located just south of the Red Mountain summit, is the most significant gold occurrence discovered on the property to date. The Marc Zone mineralization occurs as irregularly shaped sulphide lenses associated with the brecciated contact of the Goldslide Intrusion. Breccia fragments are strongly corroded and partly digested by the hydrothermal alteration. The hydrothermal alteration consists of strong to pervasive sericitization, moderate to strong pyritization, moderate chloritization and moderate silicification. The silicification reflects mainly an increase in modal quartz as a consequence of sericitization. Moderate to strong potassic alteration as well as albitization occur locally. The presence of tourmaline is restricted to silicified zones within the hornblende-feldspar porphyry intrusion.

Marc Zone mineralization consists of densely disseminated to massive (>60%) pyrite and/or pyrite stringers and veinlets, variable amounts of associated pyrrhotite and sphalerite as well as minor chalcopyrite, arsenopyrite, galena, tetrahedrite and various tellurides. Several phases of mineralization and deformation are indicated by the presence of different generations of pyrite as well as breccia fragments consisting of pyrite. High grade gold values are usually associated with the semi-massive, coarse-grained pyrite aggregates, but also occur with stockwork pyrite stringers and veinlets. Gold occurs as native gold, electrum and as

tellurides. Visible gold is rare.

Native gold, as observed in polished thin sections, ranges in size from 10 to 500 microns and occurs as threads, interstitial pockets, and partial networks within the pyrite as well as moulded on to the periphery of pyrite fragments within the gangue and altered wall rock. Hessite (Ag_2Te), altaite (PbTe), petsite (Ag_3AuTe_2), calaverite (AuTe_2), sylvanite (AuAgTe_4), native tellurium, aurostibnite (AuSb), bournontite (PbCuSb_3), hedleyite (? , Bi_7Te_3), native bismuth and bismuthinite (Bi_7S_3) contain a significant amount of the gold and are closely associated with native gold and electrum.

Continuous Marc Zone mineralization has been outlined between sections -0+25N and 1+25N. The most significant intersections were obtained from hole MC90.35 with a core interval of 55.5 metres yielding 12.08 gAu/t and from hole MC90.40 which yielded 36.37 gAu/t over 25.50 metres. In addition, Marc Zone style mineralization with values of up to 8.78 gAu/t over a core length of 18 metres was intersected in holes on sections 2+25N to 2+75N. A Marc Zone mineral inventory of 933,000 tonnes with a grade of 12.20 gAu/t (uncut) and 36.08 gAg/t has been calculated. Mineral inventory blocking was calculated using a 3 gram cut-off over a minimum width of 3 metres.

A UTEM geophysical zone (UTEM Zone) overlying the north end of the

Marc Zone is a silver-rich sphalerite and pyrrhotite zone with anomalous gold, lead and copper values. This zone was intersected in holes on sections 2+25N and 2+75N, up to 200 metres above Marc Zone style mineralization. The mineralization consists of 5-8% sphalerite, 3-5% pyrrhotite, 2-4% pyrite and traces of chalcopyrite. The sulphides occur as matrix fill, anastomosing stringers and fine laminae parallel to bedding within a moderately to highly brecciated sequence of tuffs. Values range up to 0.58 gAu/t, 69.22 gAg/t, 5.60% zinc, 0.47% lead and 0.06% copper over a core length of 9.0 metres. Silver/gold ratios for the UTEM zone are considerably higher (40 to > 100) than those for the Marc Zone gold mineralization (1-10).

3.1 SARAH PROPERTY GEOLOGY AND MINERALIZATION (FIGURE 92-06)

GEOLOGY

The Sarah property is underlain by Early Jurassic Hazelton Group volcanic and sedimentary rocks which have been intruded by dykes and plutons of undetermined age.

Volcanic Rocks: The bulk of the volcanics (including pyroclastics and flows) in the map area do not contain mappable marker beds. As a result, the distinction between units is sometimes difficult. For example, the vapg and vapm units are differentiated by the colour of the rocks, However, with time it is clear that maroon colouration due to hematite content in the volcanics can vary down to centimetre scales. Thus, there are maroon volcanics included in the vapg unit and green volcanoclastics within the vapm unit. In fact, it is the presence of sedimentary structures in reworked maroon tuffs that distinguishes the vapm unit rocks. Each of the volcanic units is described as follows:

vapg - green andesitic pyroclastics. The vapg unit includes agglomerate (volcanic clasts > 64 mm), lapilli (clasts 2-64 mm), and coarse to fine ash tuff, crystal tuffs, and a subordinate percentage of green volcanic flows and maroon pyroclastics and flows. The agglomerates contain rounded to subangular volcanic clasts, most of which are of intermediate composition. A subordinate percentage of the clasts may be non-volcanic. Tuffs are often difficult to distinguish from very fine-grained flows, competency of crystals is the determining factor. Crystals other than plagioclase, whether euhedral or subhedral to anhedral, are rare. Outcrops of the vapg unit occur throughout the map area.

vapm - maroon andesitic pyroclastics. This unit includes maroon agglomerates, lapilli to fine ash tuffs, wackes, lithic sandstones,

siltstones and rare flows, and green pyroclastics and flows. The presence of rocks of volcanic material with sedimentary structures is the determining factor in identifying this unit. Cross-bedding, grading and channel features are common in the sedimentary interbeds, allowing for recognition of tops. Outcrops of the vapm unit occur on the northeastern and southwestern portions of Sarah 9 and Sarah 10, respectively.

vfpw - white to buff-weathering felsic (dacitic?) tuff. This unit is comprised dominantly of lapilli tuff (to pebble conglomerate), with less common agglomerate, conglomerate and coarse ash tuff. Clasts are primarily rounded to subrounded felsic igneous rocks, with minor angular to subrounded sedimentary clasts. The matrix is generally light to dark grey, fine-grained to aphanitic and very siliceous. Outcrops of the vfpw unit occur on the west central portion of the Sarah 7 claim.

vafg - green andesitic volcanic flows. The vafg unit is discriminated in areas where medium to dark green porphyritic andesite flows dominate. Crystals are generally 1-2 mm in size, and they are rarely anything other than plagioclase feldspar. Subordinate green pyroclastics may be included in this unit. Volcanic flows are uncommon in the region, so areas where they dominate may be significant with respect to facies relationships and distance from vents. Unfortunately, no flows are aerially extensive enough to utilize as marker beds in the stratigraphy. Outcrops of the vafg unit occur on the northwestern portion of the Sarah 9 claim.

vafm - maroon andesitic volcanic flows. Maroon feldspar-porphyritic andesite with subordinate maroon or green pyroclastics. Similar to the vafg unit, but the groundmass is hematite-rich. Outcrops of the unit occur on the northwestern portion of the Sarah 7 claim.

vdf - dacitic flows. These rocks are quite rare, and are comprised of pale green to grey porphyritic flows. This unit is similar to the vafg unit, but the groundmass is lighter in colour. The dacite flow on the Sarah 3 claim contains about 5% 3-5 mm hornblende phenocrysts and up to 2% 1-2 mm epidote phenocrysts.

Sedimentary Rocks: Sedimentary rocks on the claim group have been divided into three units, described as follows:

ssw - siltstone and wacke. Thinly-bedded, dark grey to black siltstones and minor fine-grained grey to pale green wacke. These rocks are turbidite-derived, although the Bouma sequences have not been defined. The ssw unit occurs on the northeastern corner of the Sarah 5 claim.

swbr - brown weathering wackes and tuffs. Brown or grey weathering, coarse-grained wackes, sandstones and conglomerates with minor siltstone and limestone. This unit usually occurs within volcanic-dominant sections. The unit resembles some of the other sedimentary units, but the following are characteristic for the unit: the sediments are interbeds in dominantly volcanic units and non-siltstone sediments predominate. This unit occurs predominately on the Sarah 9 claim, where they are notably brown on their weathering surfaces, with smaller outcrop areas on the Sarah 7 and Sarah 10 claims.

svbl - black sediments and volcanics. These rocks are characterized by a black matrix, most likely due to a high carbon content. Southwest of Cambria Peak, on the Sarah 9 claim, they have a brown weathering surface which makes a visual distinction between the svbl and swbr units difficult. The svbl unit includes tuffs, flows, conglomerates and siltstones.

Plutonic Rocks: Two plutonic rock types are recognized on the property, and are described as follows:

Tid - felsic to intermediate dykes of probable Tertiary age. These dykes occur on the Sarah 8 claim.

ip - a felsic to intermediate pluton of undetermined age located on the northwestern portion of the Sarah 10 claim.

MINERALIZATION

Mineralization on the Sarah property consists of disseminated pyrite and locally chalcopyrite. Three samples collected in 1991 returned anomalous silver with good correlation to elevated lead and arsenic. All of the samples assayed background values for gold.

4.0 1992 SURVEY PROGRAM (FIGURES 92-07i to 92-07iv, 92-07A to 92-07E)

All surveying on the Red Mountain and Sarah properties was conducted using SOKKISHA Set 4 electronic total station. Survey data (survey point UTM coordinates and elevations) is provided in Appendix A. Instrument specifications are listed in Appendix B.

A detailed northwest-trending UTM grid consisting of fifteen one hundred metre-spaced survey lines was established south of the Red Mountain summit. Survey lines are approximately one kilometre in length with 50 metre station spacings. Semi-permanent station spacings were marked by orange pitons, each with an aluminum tag denoting the station location. Station location survey accuracy varies from 1/60,000 to 1/150,000, with vertical closures varying between 1 and 3 centimetres. The detailed UTM survey grid covers the main Marc Zone gold mineralization and immediate surrounding areas. Additional, less densely-spaced survey points were established throughout Red Mountain proper (Oro I to Oro VI claims). Figure 92-07 illustrates the Red Mountain property surveying at a 1:10,000 regional scale. Figures 92-07A to 92-07E illustrate Red Mountain detailed surveying in five 1:2,500 scale map sheets.

Topographic points on claims surrounding Red Mountain, including the Sarah property, were surveyed and marked by rock cairns for future detailed aerial photography.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The 1992 Red Mountain property program consisted of detailed surveying and establishment of a semi-permanent northwest-trending grid over the main Marc Zone gold mineralization. Additional, less detailed survey was conducted over the remaining portion of Red Mountain. Surrounding regional claims, including the Sarah property, were surveyed for future detailed aerial photography.

The 1992 survey program allowed for detailed control points over the Red Mountain gold mineralization to be established. All survey control points should be digitized into the existing Red Mountain database. New vertical drill sections, plans and geological maps should be generated to include the detailed survey data. Additional survey control points surrounding Red Mountain will allow for future detailed aerial photography.

6.0 COST STATEMENT

<u>EXPENDITURE TYPE</u>		<u>TOTAL</u>
	\$	
Salaries		10,640
Vehicle Rental and Expenses		250
Camp Expenses		4,500
Aircraft Charter Rotary		10,640
Postage, Courier and Shipping		200
Office Supplies		50
Reproduction, Drafting, Photos and Maps		200
Telephone and Fax		50
Survey Equipment Rental		4,720
Supplies		650
Report Preparation (Estimate)		500

Total	\$	32,400
		=====

7.0 CERTIFICATE OF QUALIFICATIONS

I, Adrian Dana Bray, of 1041 Comox St. Apt. 46, Vancouver B.C., do hereby certify that:

1. I have studied Geology at Acadia University in Wolfville, Nova Scotia and have received a Bachelor of Sciences degree with Honours in Geology in October of 1986.
2. I am an associate member in good standing of the Geological Association of Canada.
3. I have continuously practised my profession since graduation in Nova Scotia, Ontario, Quebec and British Columbia.
4. I am employed by LAC Minerals Ltd.
5. The statements in this report are based on office compilation on the Red Mountain and Sarah properties. The field work was conducted from July 7th to September 18th, 1992. I have personally conducted or supervised the work described in this report.

Dated at Vancouver this 6th day of November, 1992.



ADRIAN D. BRAY

8.0 REFERENCES

- ALLDRICK, D.J. (1984): Geologic setting of the precious metal deposits in the Stewart Area; in: Geological Fieldwork 1983, BCMEMPR, Paper 1984-1, p. 149-164.
- ALLDRICK, D.J. (1985): Stratigraphy and Petrology of the Stewart Mining Camp (104B/1); in: Geological Fieldwork 1984, BCMEMPR, Paper 1985-1, p.316-341.
- ALLDRICK, D.J. (1989): Geology and Mineral Deposits of the Salmon River Valley - Stewart Area, 1:50,000. BCMEMPR Open File Map 1987-22.
- ALLDRICK, D.J. (1989): Volcanic Centres in the Stewart Complex (103P and 104A,B); in: Geological Fieldwork 1988, BCMEMPR, Paper 1989-1, p. 223-240.
- ALLDRICK, D.J., GABITES, J.E. and GODWIN, C.I. (1987): Lead Isotope Data from the Stewart Mining Camp, in: Geological Fieldwork 1986, BCMEMPR Paper 1987-1, p. 93-102.
- ALLDRICK, D.J., BROWN, D.A., HARAKAL, J.E., MORTENSEN, J.K. and ARMSTRONG, R.L. (1987): Geochronology of the Stewart Mining Camp (104B/1); in: Geological Fieldwork 1986, BCMEMPR, Paper 1987-1, p. 81-92.
- ANDERSON, R.G. (1989): A stratigraphic, plutonic, and structural framework of the Iskut River Map Area, northwestern British Columbia; in: Current Research, Part E, Geological Survey of Canada, Paper 89-1E, p. 145-154.
- ANDERSON, R.G. and THORKELSON, D.J. (1990): Mesozoic stratigraphy and setting for some mineral deposits in Iskut map area, northwestern British Columbia; in: Current Research, Part E, Geological Survey of Canada, Paper 90-1E, p. 131-139.
- EVENCHICK, C.A., 1991a: Geometry, evolution and tectonic framework of the Skeena Fold Belt, North Central British Columbia, in: Tectonics, 10, p. 527-546.
- EVENCHICK, C.A., 1991b: Structural relationships of the Skeena Fold Belt west of the Bowser Basin, northwest British Columbia, in: Canadian Journal of Earth Sciences, 28, p. 973-983.
- GROVE, E.W. (1986): Geology and Mineral Deposits of the Unuk River-Salmon River-Anyox Area; BCMEMPR, Bulletin 63, 434p.

McDONALD, D. (1989): Metallic Minerals in the Silbak Premier Silver-Gold Deposits, Stewart; in: Geological Fieldwork 1987, BCMEMPR, Paper 1988-1, p. 349-352.

McDONALD, D. (1990): Temperature and Composition of Fluids in the base metal rock Silbak Premier Ag-Au Deposits, Stewart, B.C., in: Geological Fieldwork 1989, BCMEMPR, Paper 1990-1, p. 323-335.

MONGER, J.W., PRICE, R.A., and TEMPELMAN-KLUIT, J.D. (1982): Tectonic accretion and the origin of the two major metamorphic and plutonic belts in the Canadian Cordillera. *Geology*, v.10, p. 70-75.

RANDALL, A.W. (1988): Geological Setting and Mineralization of the Silbak Premier and Big Missouri Deposits, in: Field Guide Book, Major Gold-Silver Deposits of the Northern Canadian Cordillera, Society of Economic Geologists, p. 85-99.

RUBIN, C.M., SALEEBY, J.B., COWAN, D.S., BRANDON, M.T., and MCGRODER, M.F. (1990): Regionally extensive mid-Cretaceous west-vergent thrust system in the northwestern Cordillera: Implications for continent-margin tectonism. *Geology*, v.18, p. 276-280.

APPENDIX A
SURVEY DATA

SURVEY.UTM

TP-OTTER
6203101.7580
450536.4000
1993.2390
TP-CAM
6202763.3040
456381.4570
2158.7600
TP114
6203794.2499
456765.2126
2144.9870
TX18
6204226.3116
457246.8779
2059.5400
TP115
6204078.5604
456261.0861
2146.8950
TX17
6205167.7036
455949.7023
2014.0910
TP116
6206120.5407
455800.1384
2073.8060
TP117
6206641.2873
455678.3787
2156.5860
TP118
6206286.8903
456326.8897
2275.1430
TX20
6206655.4173
455645.9864
2146.0720
TP119
6206193.7704
457079.9230
2358.8920
TX20A
6206270.6876
456334.6841
2271.5760
TP120
6205551.5190
457881.2231
2226.9530
TX19
6206990.5361
457915.1714
2434.1820
TP30
6202792.6548
455998.9254
2066.1060

TP90
6202905.7469
455871.3573
2007.6350

TP221
6203960.9303
455584.6307
1849.2790

TP222
6204911.9120
455150.8970
1641.5250

TX16
6205672.7949
454149.1546
1477.4540

TX21
6207249.3015
454151.2874
1500.4390

TP232
6207753.1657
453625.4816
1459.3270

TP233
6208029.8672
453733.9415
1511.4720

TP234
6209438.0043
453432.8327
1564.3210

TP235
6210252.8078
453176.7795
1667.7050

TP236
6211164.4972
452400.0059
1578.8500

TP237
6211362.5551
453677.7868
1931.9900

TP238
6210698.0472
454289.1361
2083.4880

TX29
6211569.2283
454949.1366
2442.7500

TP239
6210036.0288
454933.7392
1991.2790

TP240
6210840.8993
454999.2351
2186.5750

TX27
6209301.7091
455701.2641
2391.8060
TP241
6210935.8454
455951.3618
2019.6470
TX28
6211341.6491
457310.0540
1934.2000
TP242
6211164.8694
451924.8461
1390.5060
TX30
6211455.2761
450683.8576
701.7500
TP243
6212665.9274
451546.5512
1089.1280
TP244
6212501.4238
450167.9604
1372.7160
TP245
6212145.5349
450077.6652
1338.8110
TP246
6211656.1190
449455.1523
0.0000
TP257
6212572.5456
450144.7521
1380.2960
TP258
6212495.0991
449524.1861
1592.1860
TP259
6213053.2793
448616.2914
1689.9530
TP260
6212369.0391
448086.3204
1630.3930
TP261
6212383.3419
446549.3009
1249.5560
TX31
6211064.5753
447001.4028
1606.4770

TP108
6203950.5897
449419.4026
1727.9140

TP108A
6203096.1086
448770.7162
1629.8180

TX13
6202344.5942
448276.9576
1607.4760

TP109
6202109.8941
450951.6713
2018.3870

TP110
6201191.5526
451540.6528
1874.3770

TP111
6200010.0561
451141.4386
1922.6990

TP112
6198231.5958
451679.2551
1929.7970

TP113
6197762.0001
451788.7847
1958.8920

TX7
6197658.7295
451815.7300
1961.1470

TP262
6204712.0163
449738.0973
1973.0460

TP263
6205086.3428
448393.6754
1820.8190

TP264
6206260.0962
447207.8135
1623.8930

TX23
6206516.8507
447001.2117
1522.9410

TP265
6206251.3267
445656.4403
1271.5760

TX24
6207268.8587
444610.7644
944.3670

TP41
6201721.8441
456746.8299
1854.9140
TP14
6202346.3009
456734.4272
1855.5000
TP44
6202473.7464
456176.9442
1988.5380
TP42
6202457.3993
455964.6798
1974.0570
TP49
6201884.1389
456406.4902
1682.1620
TP88
6201310.1907
455691.3724
1469.7640
TP201
6201307.6372
455221.0903
1475.2330
TP202
6201191.4547
455380.5193
1447.9160
TP203
6201052.9914
455438.8682
1485.8050
TP224
6201275.4907
454941.1489
1373.5010
TP223
6200938.7252
454868.4268
1257.8260
TP104
6201089.3361
454264.4255
1036.8080
TP103
6199593.1705
454551.2419
915.4980
TP225
6201457.6575
454048.8221
1030.2020
TX11
6202872.3837
453927.8848
795.9520

TP226
6203449.0197
453436.1890
754.1060

TX15
6204619.8299
452483.7808
524.9400

TP227
6206023.8856
452017.5190
352.7720

TP228
6206891.1387
451752.7135
339.1170

TX22
6207651.8384
451511.7667
331.8800

TP229
6208870.1530
450948.7478
441.0140

TP230
6208949.5398
449533.9243
273.0220

TP231
6208965.0858
449046.5092
259.2600

TP231A
6209106.7407
448768.9793
253.2100

TX26
6209056.2503
448728.0754
252.9400

TP248
6209035.6559
448367.8479
252.8410

TP249
6208808.6684
448335.1746
296.3530

TP250
6208774.9302
447749.0448
229.1470

TP251
6207838.6396
446443.0340
440.7980

TP252
6208211.3299
446489.4212
272.6130

TP253
6208535.4638
445242.3641
172.9620
TP254
6208695.6576
445090.0379
168.8190
TX25
6208644.5439
445116.6707
166.7530
TP255
6208864.8476
444720.1467
162.7310
TP256
6208861.4584
444453.4343
160.7320
TP283
6209133.4723
444269.7120
153.3640
TP284
6209561.1166
444045.3961
146.7440
TP285
6209779.1835
443989.5756
144.9930
TP286
6209987.3838
443951.1308
141.5870
TP287
6210348.1650
443781.1288
139.7190
TP288
6210528.7229
443332.0667
127.9990
TP289
6210772.9486
442627.5228
118.0850
TP290
6210807.7967
442592.1852
116.9510
TX32
6211114.2952
442574.0755
117.3160
TP291
6210465.5988
443205.3142
128.5640

TP292
6210246.0551
443027.0120
124.3290

TP293
6209904.1320
442618.4670
108.6370

TP294
6209385.3700
442239.7147
99.6720

TP295
6208718.1707
442068.7068
93.1660

TX33
6208901.8318
442041.6253
94.1570

TP296
6207966.8422
441777.4197
88.7300

TP297
6207105.0313
441570.2110
81.3490

TP298
6206346.2110
441388.1344
75.5390

TP299
6206358.8770
441137.6364
80.9450

TX34
6206575.2820
441149.0914
75.5330

T-BOND-00
6202517.1072
456731.0347
1941.2600

T-GRD45-00
6198186.0794
453990.9940
0.0000

TP43
6202278.6193
455925.7845
0.0000

TP55
6200887.9134
455840.0360
0.0000

TP22
6202252.9600
455532.3830
1820.2540

TP1
6201643.6020
455070.5120
1560.0610

TP25
6202411.8208
455648.4259
0.0000

TP24
6202161.3826
455644.8999
0.0000

TP23
6202305.6273
455628.1455
0.0000

TP51
6202481.1630
455737.4368
0.0000

TP26
6202512.0378
455801.6944
0.0000

TP27
6202619.9448
455891.5709
0.0000

TP28
6202607.1928
456002.5032
0.0000

TP29
6202550.0001
455956.9960
0.0000

TP39
6202231.8110
456843.7750
0.0000

TP40
6202098.9134
456814.3262
0.0000

TP38
6202118.8870
456922.1580
0.0000

TP32
6201969.1791
456919.2798
0.0000

TP33
6201773.0022
456837.7893
0.0000

TP35
6201365.7404
456546.5719
0.0000

TP45
6201804.1336
456745.1815
0.0000

TP46
6202232.2734
456736.6920
0.0000

TP34
6201712.1463
456807.6396
0.0000

TP47
6201516.6681
456518.0771
0.0000

TP52
6201932.9762
456952.6731
0.0000

TP303
6202711.2470
456816.6110
0.0000

TP20
6202735.8445
456729.8172
0.0000

TP-RED1
6202722.2479
456439.0012
0.0000

TP54
6200876.6972
456169.7164
0.0000

TP-LCP-OR
6200678.7073
456499.6026
0.0000

TP56
6200427.2209
455917.3709
0.0000

TP57
6200345.1496
455730.1652
0.0000

TP59
6200202.8743
455399.4734
0.0000

TP58
6200200.4293
455533.0116
0.0000

TP64
6200746.6900
455386.2550
0.0000

TP60
6199833.9807
455494.6125
0.0000

TP61
6200005.4861
454984.4038
0.0000

TP-BLK-RK
6200002.8633
454986.4826
0.0000

TP62
6200155.4512
454900.0673
0.0000

T-TENTFLR
6199835.4548
455522.5737
0.0000

TP63
6200858.5929
455836.7870
0.0000

TP65
6200910.6970

455414.7268
0.0000

TP66
6200939.7422
455596.8105
0.0000

TP67
6200972.1954
455666.5588
0.0000

TP68
6200926.8192
455735.5480
0.0000

TP69
6200941.7993
455727.6297
0.0000

TP70
6200941.9423
455979.6847
0.0000

TP71
6200968.2056
455867.3192
0.0000

MC92-71
6202575.3295
456485.4186
2027.0180

MC92-72
6202659.6011
456663.6285

2038.0000
MC92-73
6202636.9822
456428.7657
2062.2940
MC92-74
6202637.2202
456429.1596
2062.4040
MC92-75
6202697.6546
456384.7645
2122.0320
MC92-76
6202410.6268
456593.5372
1871.8420
MC92-77
6202697.3741
456384.5345
2121.9160
MC92-78
6202697.4957
456384.4152
2121.9750
MC92-79
6202819.4705
456363.2300
2151.6000
MC92-80
6202600.9529
457284.7160
-135.8400
MC92-81
6202601.3424
457283.3637
-135.5520
MC92-82
6202600.7219
457284.5240
-135.8110
MC92-83
6202599.9537
457285.3174
-136.3260
TP48
6202782.3907
456524.5315
2142.0580
TX1
6200679.9292
456498.8401
0.0000
TX2
6200211.1702
456272.1118
0.0000
TP101
6200426.1217
456471.3147

0.0000
TP102
6200068.3287
456928.2869
0.0000
TP84
6201089.7557
456688.5533
0.0000
TP85
6201170.6535
456898.6346
0.0000
TX3
6200252.8966
457175.8506
0.0000
TX4
6198593.6564
456960.7680
0.0000
TP72
6201517.1539
456881.0539
0.0000
TP73
6201648.8985
456962.2645
0.0000
TP74
6201513.6508
456902.7103
0.0000
TP75
6201670.3500
457104.0209
0.0000
TP76
6201480.0548
457100.8259
0.0000
TP77
6201348.9896
456996.4719
0.0000
TP78
6201313.8316
456824.0265
0.0000
TP79
6201276.3093
456671.8032
0.0000
TP80
6201240.3625
456403.3213
0.0000
TP81
6201087.0336
456265.6857

0.0000
TP82
6201003.3199
456143.1236
0.0000
TP83
6201053.7324
456570.5084
0.0000
TP86
6201321.7197
456107.1743
0.0000
TP87
6201148.0924
455983.2079
0.0000
TP89
6201020.4563
455781.4235
0.0000
TP99
6202171.9466
455354.7202
0.0000
TP91
6202848.7832
455681.7618
0.0000
T-RB-STA1
6202916.7332
455910.8372
0.0000
T-91G1
6202906.4991
455874.5704
0.0000
T-R92B
6203027.7266
455926.6098
0.0000
TP92
6202984.0584
455987.8823
0.0000
T-R92C
6203067.3276
455945.6456
0.0000
T-H1A
6202960.3698
455772.9279
0.0000
TP93
6203090.3939
455906.1914
0.0000
TP94
6202969.0492
455708.2548

0.0000
T-H2A
6202959.4316
455651.2630
0.0000
T-R92L1
6202447.9100
455502.7429
1854.2740
TP95
6203190.1388
455587.4760
0.0000
TP96
6203291.1491
455503.5961
0.0000
TP97
6203368.6083
455471.8471
0.0000
TP98
6202515.5954
455135.4355
0.0000
TX9
6202412.4494
457305.3320
0.0000
TX5
6200177.8386
454892.8436
0.0000
TX6
6200046.2093
453729.5918
0.0000
TP105
6198868.0046
455098.1753
0.0000
TP106
6198256.9844
454766.9253
0.0000
TP107
6197020.2573
454392.6664
0.0000
TP206
6201429.1622
455567.8268
0.0000
TP205
6201182.8305
455818.2733
0.0000
TP204
6201091.5176
455584.7118

0.0000

TP207

6201270.0991

455515.2048

0.0000

TP208

6201415.6715

455210.8688

0.0000

TP209

6201214.1390

455173.7183

0.0000

SURVEY1.DAT

TP-OTTER
6203101.5220
450540.4730
1993.2390
TP-CAM
6202763.3040
456381.4570
2158.7600
TP-RED1
6202681.2790
456498.9180
2120.0100
TP42
6202453.2340
455967.8120
1974.0570
TP30
6202788.7450
455998.6440
2066.1060
TP44
6202471.7320
456179.9060
1988.5380
TP40
6202103.3480
456821.0320
1868.3880
TP14
6202349.9140
456738.6500
1855.5000
TP43
6202274.0830
455930.7260
1909.2300
TP24
6202154.0100
455651.0140
1809.3090
TP22
6202244.4550
455537.5840
1820.2540
TP23
6202298.0770
455632.8080
1852.0880
TP25
6202404.4660
455652.0230
1889.6950
TP26
6202506.2200
455804.2740
1948.6430
TP41
6201725.6060
456757.3340
1854.9140

STA-5
6202466.5404
456706.0989
1903.7350
STA-1
6202424.3537
456680.5552
1873.0700
STA-2
6202437.4748
456555.9961
1896.5970
STA-3
6202442.3613
456422.6691
1930.5550
STA-4
6202531.4579
456369.3915
1991.1380
STA-50
6202476.9153
456457.0259
1945.2580
STA-6
6202489.3231
456736.1143
1918.1890
STA-7
6202522.4779
456774.1212
1942.0030
STA-51
6202505.0475
456490.2256
1973.3200
STA-52
6202543.0528
456528.9901
1990.3560
STA-8
6202551.7686
456804.6428
1953.5350
STA-9
6202640.3673
456840.9339
1956.1900
MC-X
6202492.4468
456610.2780
1932.2780
STA-11
6202503.0591
456619.2709
1938.6660
STA-12
6202523.9387
456653.4216
1961.0770

STA-13
6202409.2486
456390.0646
1912.7870
GL15/550S
6202291.3627
456000.5908
1915.2160
STA-55
6202295.3800
456001.7413
1916.8960
STA-56
6202248.2509
455973.1970
1892.9160
STA-57
6202211.1333
455930.5374
1875.3260
STA-58
6202175.1945
455890.2539
1855.2060
GL15/700S
6202180.7826
455893.1311
1858.3860
STA-59
6202176.8522
455608.3875
1809.2650
GL17/900S
6202191.6830
455619.7751
1811.5850
STA-60
6202242.3166
455659.3583
1833.5890
STA-61
6202225.9407
455783.6896
1856.7990
STA-62
6202192.9480
455735.4261
1830.0350
STA-63
6202168.4727
455715.1434
1815.9150
GL16/850S
6202155.0572
455700.6930
1807.7350
STA-64
6202118.5959
455664.9297
1793.2850

STA-65
6202063.3827
455795.6222
1783.7350
GL15/850S
6202067.9921
455787.8540
1784.5550
STA-66
6202521.1573
455952.5812
1984.6480
STA-67
6202550.4919
455981.0150
1994.5780
STA-68
6202591.7400
456012.0858
2013.6880
STA-70
6202412.2608
455956.3730
1962.5820
STA-69
6202628.4023
456050.3030
2022.1420
STA-71
6202445.7168
455989.3160
1973.1420
GL16/400S
6202481.2975
456026.7077
1981.4220
TP51
6202474.6907
455740.3407
1921.6360
STA-78
6202500.9977
456222.7799
1995.0070
STA-79
6202551.9003
456265.3157
2008.5510
STA-80
6202580.3655
456283.9779
2030.7770
STA-81
6202652.6073
456347.8178
2078.2370
STA-82
6202685.1475
456384.3799
2113.4870

STA-83
6202436.5995
456143.1857
1961.7760
GL15/050N
6202713.5634
456424.5137
2134.0610
MC-X1
6202455.7233
456160.6648
1975.0510
STA-88
6202653.2574
456489.6773
2091.1270
STA-84
6202405.4038
456112.1461
1941.8260
STA-89
6202617.5564
456450.8799
2050.8310
STA-85
6202370.3776
456070.2804
1933.2210
STA-90
6202544.5914
456384.9032
1998.4770
STA-86
6202330.6127
456037.7743
1931.4660
STA-91
6202520.4861
456359.6202
1986.5270
GL14/500S
6202269.8065
456106.2201
1863.6010
STA-92
6202479.7847
456316.1983
1961.2270
STA-87
6202307.3160
456144.0515
1882.1510
STA-93
6202452.8261
456279.3752
1952.5470
STA-94
6202336.2490
456174.2755
1898.6360

STA-95
6202415.0776
456250.9271
1934.0610
STA-111
6202847.8745
455986.0780
2061.7900
STA-112
6202926.7875
456022.3901
2064.5900
GL19/100S
6202920.3070
456061.6017
2076.6000
GL18/050S
6202876.0694
456161.1019
2107.9230
GL17/00N
6202859.6447
456260.1237
2132.0600
STA-113
6202824.0158
456234.3529
2122.4430
STA-114
6202775.0196
456318.7724
2141.6230
TP48
6202783.8320
456524.3318
2142.0630
STA-116
6202813.1189
456519.6482
2142.0640
GL15/200N
6202821.3995
456533.1606
2137.9590
MCX2
6202790.1956
456572.9239
2128.3020
STA-117
6202779.2606
456510.5270
2142.0820
MC90-49
6202738.6510
456552.2390
2126.3290
STA-118
6202748.7543
456458.3868
2147.4660

STA-119
6202726.8796
456561.8670
2123.0860
MCX3
6202772.7549
456527.3080
2139.0970
TP49
6201884.4780
456415.3810
1682.1620
GL9/900S
6201633.5856
456211.1975
1589.0940
GL11/550S
6202018.3035
456287.9208
1682.5440
GL11/800S
6201829.7294
456113.3461
1617.7040
STA-115
6202813.1458
456356.4575
2152.5230
STA-120
6202383.3282
455809.8073
1909.7780
STA-121
6202412.1710
455835.8359
1928.4880
STA-54
6202454.7223
455863.2599
1947.0880
STA-122
6202362.6343
455525.2088
1841.1840
GL19/850S
6202366.8813
455528.9396
1842.5440
STA-125
6202372.2131
455921.7900
1939.5880
STA-123
6202391.9503
455559.0558
1852.7040
STA-126
6202333.0085
455878.5174
1915.4680

STA-124
6202434.7607
455602.3783
1869.2940
STA-127
6202301.5047
455842.0499
1896.2880
STA-130
6202372.1803
455665.3655
1878.1340
STA-128
6202263.6567
455805.1239
1876.8180
STA-129
6202350.0352
455641.9713
1858.8840
STA-131
6202274.9438
455666.1850
1849.8040
STA-132
6202318.5461
455719.5044
1867.1480
STA-133
6202352.7823
455760.1660
1886.6980
STA-134
6202303.3991
455596.4454
1841.5240
STA-135
6202264.5011
455554.6878
1826.6040
GL18/900S
6202265.0847
455555.5040
1827.0440
STA-136
6202329.9057
455492.9403
1828.3400
C1
6202428.6128
455661.1098
1896.7840
C2
6202376.0119
455674.0767
1883.3180
C3
6202356.3043
455770.4008
1891.2280

C4
6202445.9875
455594.3929
1871.0180

C5
6202424.3326
455574.2090
1854.0280

C6
6202420.1502
455553.0581
1852.7180

C7
6202407.7947
455542.3735
1857.9180

STA-138
6202516.6182
455671.0364
1911.5620

STA-139
6202474.0269
455752.2522
1922.4360

C8
6202517.4920
455687.6296
1918.3420

C9
6202530.2718
455707.6146
1920.3720

GL18/600S
6202477.9515
455769.3581
1926.3260

STA-140
6202542.4036
455714.6576
1926.2020

C10
6202446.9907
455837.6789
1943.7130

C11
6202463.2208
455848.9402
1938.1130

C12
6202569.3726
455736.1406
1938.2830

C13
6202536.4278
455762.0709
1943.0830

C14
6202531.1285
455773.6176
1941.5930

GL18/550S
6202515.7431
455808.6966
1948.4830
STA-141
6202621.7879
455774.6271
1958.4930
STA-142
6202582.0660
455746.9863
1939.9880
STA-10
6202475.2495
456590.8868
1917.3310
C15
6202490.8572
456517.4345
1950.9250
STA-143
6202495.2490
456611.3551
1933.6010
STA-144
6202521.6316
456649.8922
1959.1010
STA-145
6202532.1230
456509.3626
1985.3750
STA-146
6202557.7773
456679.4101
1977.4710
GL12/100N
6202558.8728
456685.1052
1975.3710
MC92-71
6202576.4385
456487.3726
2027.0350
MC92-72
6202662.4861
456664.7032
2038.0000
STA-147
6202319.4519
456719.4651
1837.1210
STA-148
6202287.7728
456666.3306
1811.5110
STA-149
6202246.8123
456649.1182
1792.4710

STA-150
6202209.9214
456614.8509
1778.2910
STA-151
6202420.8815
456525.8096
1890.3450
STA-152
6202389.6489
456501.8303
1872.0750
STA-153
6202351.8875
456469.7672
1850.4950
TP27
6202615.0302
455893.0596
1995.9190
TP28
6202603.3905
456004.1123
2018.9060
TP29
6202545.7522
455959.1904
1990.7250
STA-96
6202584.9931
456133.5110
2016.4140
GL16/200S
6202631.2516
456168.1156
2038.2870
STA-97
6202638.0651
456195.1815
2048.1240
STA-98
6202666.3726
456213.5471
2067.1080
STA-99
6202725.8293
456273.2835
2107.1440
STA-100
6202754.4363
456172.9750
2097.9840
STA-101
6202746.1790
456156.3747
2086.8080
GL17/250S
6202666.9943
456084.8100
2034.2740

STA-72
6202482.2803
455904.5937
1965.9920
STA-102
6202777.0201
455912.4979
2021.1980
STA-103
6202761.9130
455879.2026
2006.5640
STA-104
6202702.3275
455831.7493
1985.5820
STA-105
6202654.4913
455820.7857
1984.2480
STA-106
6202804.4956
455937.6421
2033.5040
STA-107
6202563.1768
455857.7214
1975.2190
STA-110
6202666.4230
455956.9434
2021.8690
STA-108
6202582.8894
455886.0325
1984.0940
STA-109
6202622.0766
455916.3469
2001.7490
TP39
6202236.5342
456849.1428
1894.6870
TP38
6202124.3973
456928.6586
1890.4080
TP35
6201367.5059
456560.6683
1767.0390
TP32
6201974.6762
456927.2893
1896.2180
TP33
6201777.6884
456847.7790
1882.2210

TP34
6201716.5409
456818.2482
1864.9980

TP45
6201807.8747
456754.8579
1834.7060

TP46
6202235.9075
456742.0619
1829.2010

TP47
6201518.1440
456530.6540
1749.8600

STA-73
6201797.4788
456918.4088
1885.2910

STA-74
6201756.7671
456883.2138
1877.5670

STA-75
6201720.0869
456850.9729
1868.2370

STA-76
6201680.0993
456822.8419
1846.6390

STA-77
6201641.8207
456780.3539
1823.4370

GL7/350S
6201884.0307
456735.6629
1808.9710

C16
6202511.4147
456500.4351
1980.4450

TP52
6201938.8100
456961.0469
1894.7740

STA-154
6201686.1315
456808.7784
1845.2560

STA-155
6201647.5233
456771.7761
1822.8260

STA-156
6201617.1373
456718.2014
1796.8760

STA-157
6201578.1024
456707.4115
1785.5260
STA-158
6201539.8254
456675.8946
1777.7160
STA-159
6201495.0562
456638.5413
1771.1360
STA-160
6201468.1366
456606.3227
1766.6960
STA-161
6201426.3848
456564.4933
1765.9060
STA-162
6201394.0822
456532.7776
1762.9460
STA-163
6201376.8754
456478.0351
1748.1760
STA-164
6201428.0417
456435.3275
1729.6900
GL6/850S
6201470.4446
456469.6354
1727.4860
STA-165
6201473.8353
456454.2989
1721.9260
STA-166
6201515.6056
456511.1283
1740.3100
STA-167
6201538.5930
456535.2676
1748.6760
STA-168
6201584.7112
456579.8611
1760.7760
STA-169
6201607.1994
456601.7917
1766.9960
STA-170
6201654.8334
456641.3645
1785.1460

STA-171
6201686.8700
456675.0069
1807.7360
STA-172
6201724.7329
456716.3045
1832.3100
STA-173
6201605.3368
456500.9922
1729.6960
STA-174
6201797.1490
456784.8082
1854.7500
STA-175
6201878.0352
456734.7035
1809.3300
STA-176
6201900.7832
456752.0446
1817.0270
STA-177
6201928.6819
456764.9864
1820.8970
STA-178
6201967.4482
456804.4028
1837.8240
STA-179
6202058.8741
456864.8765
1867.2400
STA-180
6201825.7238
456819.9823
1864.0540
STA-181
6201869.8556
456857.7859
1873.4940
STA-182
6201898.7843
456885.3276
1883.9880
STA-183
6201943.4944
456930.5323
1895.1740
STA-184
6201985.4384
456966.1879
1891.5840
STA-185
6201919.0318
457022.8703
1869.7400

STA-186
6201862.8047
457000.2715
1876.7000
STA-187
6201834.4951
456956.3632
1886.4140
STA-188
6202006.7132
456986.6790
1884.2340
STA-189
6202281.9524
456828.3379
1886.6820
STA-190
6202248.7647
456792.0807
1861.3620
STA-191
6202213.3443
456758.0535
1831.1820
STA-200
6201436.8128
456337.7875
1674.4020
STA-192
6202161.8545
456736.2370
1803.1820
STA-201
6201491.2280
456384.5083
1684.4420
STA-193
6202125.4729
456688.9900
1772.8920
STA-202
6201527.7758
456418.9435
1691.8820
STA-194
6202107.3800
456665.3532
1759.1220
STA-195
6202073.9559
456622.5628
1735.4620
STA-196
6202040.4054
456593.2778
1721.7320
STA-197
6202014.8965
456564.1748
1710.4220

TP-198
6201983.9439
456512.3046
1695.8620
STA-203
6201575.7461
456453.0378
1702.6920
STA-199
6201911.8139
456472.2302
1691.8720
STA-220
6201888.2874
456444.6340
1685.1520
STA-204
6201649.2665
456538.7244
1734.3020
STA-221
6201864.5000
456416.8233
1674.2620
GL7/650S
6201688.8218
456562.2393
1731.4420
STA-222
6201816.7244
456378.8804
1648.2120
STA-223
6201778.6246
456344.8300
1634.7420
STA-205
6201718.5766
456590.0095
1749.7920
STA-206
6201734.4579
456600.9436
1754.8720
STA-224
6201747.4876
456322.9267
1622.5720
STA-207
6201766.3119
456632.5888
1764.0420
STA-225
6201719.2232
456295.7015
1613.4420
STA-226
6201680.1337
456243.9664
1604.5320

STA-208
6201801.3993
456669.9158
1778.2820
STA-227
6201622.1495
456221.1795
1590.8820
STA-209
6201837.3951
456714.1033
1797.0120
STA-228
6201545.4638
456246.3650
1594.0920
STA-229
6201611.6585
456287.7685
1606.9720
STA-210
6202024.3051
456733.0161
1789.0320
STA-212
6201959.7183
456666.1257
1757.6620
STA-230
6201642.2814
456329.2379
1617.5520
STA-211
6202006.0203
456709.9405
1774.0720
STA-231
6201645.5410
456369.7773
1632.9720
STA-213
6201918.7894
456618.3919
1753.8120
STA-232
6201710.9961
456421.5065
1654.8520
STA-214
6201889.1206
456592.5102
1749.1320
STA-233
6201741.9225
456459.7480
1670.2220
STA-215
6201853.0367
456557.7915
1737.9620

STA-234
6201755.0322
456493.2069
1687.1620
STA-216
6201823.1393
456522.3641
1713.5120
STA-217
6201994.8052
456404.3230
1686.4620
STA-235
6202061.9272
456328.4015
1701.3520
STA-236
6202102.4539
456359.6001
1717.9420
STA-218
6202108.3091
456500.6984
1726.0020
STA-237
6202116.0974
456398.9702
1727.8120
STA-219
6202140.8814
456523.3021
1740.4220
GL11/350S
6202160.8840
456425.7378
1749.3320
STA-238
6202176.7223
456493.5965
1755.0520
GL11/300S
6202198.9462
456462.2383
1761.6320
GL11/250S
6202235.8187
456499.5413
1775.8120
STA-239
6202226.1376
456528.5671
1771.5520
GL11/200S
6202272.2110
456536.6002
1794.0000
GL11/150S
6202309.3755
456572.1340
1811.5420

GL11/100S
6202347.1587
456608.8982
1827.0720
STA-251
6202071.6838
456771.3682
1822.0280
GL11/50S
6202386.0192
456644.3137
1848.1620
STA-240
6202318.0749
456429.2914
1832.2320
STA-241
6202290.9964
456381.3539
1823.3520
STA-242
6202239.8517
456354.2102
1799.9420
STA-243
6202192.7406
456312.5867
1779.4520
STA-244
6202167.7087
456277.7497
1765.2120
STA-245
6202136.7715
456239.2877
1751.6120
GL12/500S
6202096.9173
456208.2711
1730.0120
STA-246
6202082.7669
456155.9647
1731.4020
GL12/650S
6202021.8538
456133.8055
1708.9020
GL12/700S
6201989.1231
456098.0606
1690.2820
GL12/800S
6201919.1962
456027.0097
1661.0520
GL12/850S
6201882.3726
455991.6962
1642.8220

STA-247
6201829.7188
455962.0463
1614.1020
STA-249
6201955.9351
455900.1425
1695.5420
STA-252
6201993.0947
455933.9003
1716.8120
STA-253
6202025.5447
455973.3236
1728.4620
STA-254
6202057.6116
456013.8249
1747.4020
STA-255
6202092.6747
456052.4816
1766.9020
TP20
6202739.3990
456730.1250
2035.0600
TP303
6202715.6750
456817.1610
2011.5570
STA-300
6202624.8838
456629.7540
2049.8480
STA-301
6202704.5832
456693.8764
2039.8430
STA-256
6202122.0504
456075.8298
1780.5320
STA-257
6202163.3212
456115.2954
1796.2920
STA-270
6201729.1481
456108.9512
1582.0420
STA-258
6202202.4635
456154.7007
1809.4920
STA-271
6201797.2370
456186.9858
1606.1520

STA-259
6202232.4734
456190.6354
1828.0220
STA-272
6201799.3195
456254.6011
1613.5620
STA-260
6202265.1739
456231.1746
1843.4120
STA-261
6202300.8262
456271.8628
1864.3620
STA-273
6201871.4382
456140.4300
1636.1420
STA-274
6201845.4162
456121.7579
1625.2520
STA-275
6201804.3056
456087.0887
1608.7520
STA-14
6202380.4953
456364.0132
1892.1520
GL11/900S
6201759.0487
456043.2721
1592.0220
STA-262
6202229.6883
456071.5737
1857.3020
STA-263
6202190.6822
456035.0310
1846.7320
STA-264
6202158.9885
455999.7878
1826.6320
STA-265
6202128.2370
455962.6189
1807.0420
STA-266
6202095.4090
455919.1613
1802.0120
STA-267
6202064.3345
455877.6735
1788.6920

STA-268
6202034.2155
455841.3286
1771.0720
STA-269
6202007.3303
455797.9954
1750.7620
STA-311
6202319.0966
456865.7276
1894.6180
STA-312
6202395.5260
456790.1892
1878.5530
STA-313
6202434.5265
456822.0308
1894.5770
STA-314
6202449.8560
456865.6556
1897.2770
GL10/200N
6202506.1876
456894.8518
1904.2770
STA-315
6202361.7026
456897.5701
1900.4870
STA-250
6202101.3492
456810.2445
1862.2470
STA-316
6202132.4524
456838.3489
1873.2470
STA-276
6202178.7821
456878.4439
1889.8570
STA-277
6202212.8528
456910.3513
1892.8470
STA-278
6202085.0406
456907.7625
1888.9530
STA-279
6202109.9280
456955.3489
1881.0730
STA-280
6202190.8921
457000.7158
1839.0830

STA-281
6202252.4613
457091.3525
1794.0730
STA-283
6202329.3262
457147.4832
1767.6030
STA-284
6202377.2547
457188.8955
1746.9830
STA-285
6202405.9824
457217.3114
1741.8230
STA-286
6202439.7725
457234.4308
1740.2030
STA-287
6202530.6028
457340.9209
1725.0730
STA-288
6202556.5713
457364.8590
1727.9730
STA-289
6202664.1967
457460.8770
1699.0230
STA-290
6202616.8826
457383.0728
1731.1030
STA-291
6202634.9334
457298.1926
1759.7530
STA-282
6202311.9409
457103.1593
1787.1230
STA-302
6202761.4680
456774.1715
2027.9270
STA-304
6202742.6437
456851.6229
1996.4370
STA-305
6202691.5117
456805.8255
1998.7870
STA-306
6202640.7386
456747.9470
1999.2570

STA-307
6202106.0949
455825.5359
1812.4190
STA-308
6202156.9624
455847.9719
1839.4990
MC92-73
6202637.4990
456430.0685
2062.2940
MC92-74
6202637.7410
456430.4601
2062.4040
MC-X4
6202566.0387
456494.4528
2017.5680
MC92-75
6202697.7245
456385.4577
2122.0320
MC92-76
6202412.8194
456597.1201
1871.8320
GL12/750S
6201955.1752
456062.2891
1680.6820
STA-309
6202717.0338
456422.3222
2135.1600
STA-310
6202689.4245
456528.5903
2115.4400
MC90-51
6202689.0703
456528.9746
2115.5000
MC90-46
6202689.0852
456529.1980
2115.4500
MC90-45
6202689.0970
456529.4427
2115.2500
TP-LCP-OR
6200680.0310
456520.6102
1587.7940
TP59
6200193.1285
455425.3304
1387.8860

TP61
6199991.5803
455012.2662
1069.4730
TP-BLK-RK
6199988.9786
455014.3712
1070.0230
TP-TENTFLR
6199826.9753
455552.1205
1208.5870
TP63
6200853.2258
455856.0120
1650.7190
TP65
6200901.0412
455433.4590
1550.1130
TP66
6200931.9238
455615.2400
1598.5140
TP67
6200965.0798
455684.6570
1604.8600
TP68
6200920.4143
455754.0925
1631.6800
TP69
6200935.3248
455746.0147
1627.6600
TP70
6200938.0156
455998.0613
1671.1740
TP71
6200963.1473
455885.4373
1650.9780
STA-137
6202442.7963
455736.6249
1912.1840
GL5/1100S
6201286.7896
456419.0836
1731.5650
GL5/1200S
6201215.4106
456352.2837
1690.4450
GL5/1400
6201064.9896
456206.4053
1665.8950

TP54
6200874.7019
456188.7432
1673.5530

TP64
6200736.8340
455406.6270
1582.4880

TP55
6200882.6044
455858.9667
1654.7380

TP56
6200422.7240
455940.9040
1559.4110

TP57
6200338.7640
455754.5700
1526.4990

STA-248
6201927.5450
455857.9723
1680.6420

TX1
6200681.2514
456519.8277
1587.9720

TX2
6200210.2378
456297.8235
1485.5830

TP101
6200427.1799
456494.8546
1566.2300

TP102
6200073.9976
456955.3992
1594.1810

TX3
6200261.0706
457201.0748
1598.1390

TX4
6198599.7211
457002.6971
1566.5110

TP72
6201522.2777
456893.6130
1790.4280

TP73
6201654.8313
456973.4915
1823.2200

TP74
6201518.9905
456915.2990
1787.9340

TP75
6201677.7068
457115.0231
1762.1540
TP76
6201487.3892
457113.7425
1694.1905
TP77
6201355.2808
457010.7122
1688.1380
TP78
6201318.3895
456838.6290
1713.8540
TP79
6201279.3383
456686.7911
1715.8880
TP80
6201240.6933
456418.6861
1723.9150
TP81
6201085.9873
456282.5996
1671.4860
TP82
6201001.0450
456160.8857
1684.2950
TP83
6201055.7545
456587.7422
1663.5710
TP84
6201092.9642
456705.4129
1667.5020
TP85
6201175.9687
456914.6704
1665.1760
TP86
6201319.0758
456121.7389
1605.2700
TP88
6201303.3639
455706.0739
1469.7640
TP87
6201144.2100
455999.5254
1577.1520
TP89
6201014.5503
455799.0355
1558.5450

TP90
6202900.5262
455869.9257
2007.6350
T-RB-STA1
6202911.9158
455909.2912
2020.3350
T-91G-1
6202901.3112
455873.1310
2008.5990
TP92
6202980.0256
455985.6435
2047.3330
T-R92-B
6203023.0647
455923.9275
1995.6770
T-R92-C
6203062.8584
455942.5572
1990.2110
TP93
6203085.5198
455902.8691
1962.1050
TP94
6202962.1567
455706.1842
1849.0020
T-H1A
6202954.1394
455770.9427
1889.3960
T-H2A
6202951.9571
455649.2918
1793.5020
TP95
6203181.9993
455583.1501
1657.8950
TP96
6203282.1462
455498.2412
1597.7110
TP97
6203359.2765
455465.7015
1586.2560
TP98
6202502.8669
455138.0336
1669.1460
TP99
6202161.6695
455360.7400
1763.7730

G-TP99
6202161.6374
455360.7550
1763.7730
GL18/1100S
6202121.9957
455412.1665
1753.4730
GL18/1350S
6201908.8262
455220.3158
1612.9130
GL18/1500S
6201828.9450
455148.6944
1578.2130
GL18/1600S
6201752.2649
455078.4227
1545.0930
GL16/1550S
6201700.1300
455233.2387
1575.1130
TP201
6201296.0789
455235.8413
1475.2330
TP202
6201181.5067
455396.4321
1447.9160
TP204
6201083.6288
455601.6188
1489.7330
TP205
6201177.2870
455834.2498
1500.0110
TP206
6201421.0857
455581.3382
1470.4330
TP207
6201261.5018
455530.3186
1446.2980
TP208
6201404.0050
455224.5334
1509.9360
TP209
6201202.1088
455189.4124
1419.9130
GL12/900S
6201846.5794
455955.7329
1623.4470

GL12/1050S
6201603.7250
455722.5012
1518.3770
GL12/1200S
6201416.4861
455541.2486
1466.8570
GL12/1300S
6201302.7998
455432.4445
1444.7070
GL14/1600S
6201491.7367
455235.6689
1519.3820
GL14/1550S
6201565.3087
455307.1946
1530.3270
GL14/1450S
6201602.5545
455343.6810
1535.6770
GL14/1300S
6201749.9713
455495.5718
1583.2370
GL14/1250S
6201785.0899
455534.1435
1596.0570
TP203
6201043.6422
455456.1752
1485.8050
TP224
6201261.2736
454956.2356
1373.5010
TP58
6200192.0666
455558.8830
1430.7280
TP60
6199825.2501
455524.1743
1205.1720
TP62
6200140.7201
454926.4235
1145.9930
TP103
6199574.5263
454583.3691
915.4980
TP223
6200923.7967
454886.8895
1257.8260

TP104
6201068.3516
454281.4102
1036.8080

TX5
6200163.0337
454918.9718
1145.7180

TP105
6198855.3327
455137.4800
1071.3150

TP106
6198241.0094
454812.3968
1101.1990

TP107
6197000.5691
454450.6349
1302.2410

TX6
6200019.8050
453757.0880
919.8320

TP114
6203798.0760
456754.7720
2144.9870

TP115
6204077.2760
456247.7955
2146.8950

0.0000
0.0000
0.0000

TX18
6204234.9844
457232.0455
2059.5400

TX17
6205163.2156
455925.4167
2014.0910

TP116
6206114.4920
455766.2277
2073.8060

TP117
6206633.9810
455639.2096
2156.5860

TX20
6206647.7828
455606.6761
2146.0720

TP118
6206286.1583
456291.2703
2275.1430

TX20A
6206270.0352
456299.2281
2271.5760
TP119
6206200.6561
457045.2065
2358.8920
TX19
6207005.8252
457872.3572
2434.1820
TP120
6205566.5384
457852.9586
2226.9530
TP221
6203952.7214
455572.4203
0.0000
TP222
6204899.2165
455128.9814
0.0000
TX16
6205649.8125
454119.5081
0.0000
TX21
6207226.2584
454105.5141
0.0000
TP232
6207724.7176
453574.5816
0.0000
TP233
6208002.5141
453680.2053
0.0000
TP234
6209407.4973
453364.7080
0.0000
TP235
6210219.6390
453100.3332
0.0000
TP236
6211123.3348
452314.2743
0.0000
TP237
6211334.4532
453589.9623
0.0000
TP238
6210676.2338
454208.0771
0.0000

TX29
6211554.1207
454859.1315
0.0000

TP239
6210020.8438
454859.4185
0.0000

TP240
6210826.3422
454916.6777
0.0000

TX27
6209294.4187
455634.4098
0.0000

SURVEY2.DAT

TPOT-OTTER
6203101.7580
450536.4000
1993.2390
TP-CAM
6202763.3040
456381.4570
2158.7600
TP-RED1
6202681.2790
456498.9180
2120.0100
TP42
6202453.2340
455967.8120
1974.0570
TP30
6202788.7450
455998.6440
2066.1060
TP44
6202471.7320
456179.9060
1988.5380
TP40
6202103.3480
456821.0320
1868.3880
TP14
6202349.9140
456738.6500
1855.5000
TP43
6202274.0830
455930.7260
1909.2300
TP24
6202154.0100
455651.0140
1809.3090
TP22
6202244.4550
455537.5840
1820.2540
TP23
6202298.0770
455632.8080
1852.0880
TP25
6202404.4660
455652.0230
1889.6950
TP26
6202506.2200
455804.2740
1948.6430
TP41
6201725.6060
456757.3340
1854.9140

GL16/400S
6202481.2975
456026.7077
1981.4220

TP51
6202474.6907
455740.3407
1921.6360

GL15/050N
6202713.5634
456424.5137
2134.0610

MC-X1
6202455.7233
456160.6648
1975.0510

GL14/500S
6202269.8065
456106.2201
1863.6010

GL19/100S
6202920.3070
456061.6017
2076.6000

GL18/050S
6202876.0694
456161.1019
2107.9230

GL17/00N
6202859.6447
456260.1237
2132.0600

TP48
6202783.8320
456524.3318
2142.0630

GL15/200N
6202821.3995
456533.1606
2137.9590

MCX2
6202790.1956
456572.9239
2128.3020

MC90-49
6202738.6510
456552.2390
2126.3290

MCX3
6202772.7549
456527.3080
2139.0970

TP49
6201884.4780
456415.3810
1682.1620

GL9/900S
6201633.5856
456211.1975
1589.0940

GL11/550S
6202018.3035
456287.9208
1682.5440
GL11/800S
6201829.7294
456113.3461
1617.7040
GL19/850S
6202366.8813
455528.9396
1842.5440
GL18/900S
6202265.0847
455555.5040
1827.0440
GL18/600S
6202477.9515
455769.3581
1926.3260
GL18/550S
6202515.7431
455808.6966
1948.4830
GL12/100N
6202558.8728
456685.1052
1975.3710
MC92-71
6202576.4385
456487.3726
2027.0350
MC92-72
6202662.4861
456664.7032
2038.0000
TP27
6202615.0302
455893.0596
1995.9190
TP28
6202603.3905
456004.1123
2018.9060
TP29
6202545.7522
455959.1904
1990.7250
GL16/200S
6202631.2516
456168.1156
2038.2870
GL17/250S
6202666.9943
456084.8100
2034.2740
TP39
6202236.5342
456849.1428
1894.6870

TP38
6202124.3973
456928.6586
1890.4080

TP35
6201367.5059
456560.6683
1767.0390

TP32
6201974.6762
456927.2893
1896.2180

TP33
6201777.6884
456847.7790
1882.2210

TP34
6201716.5409
456818.2482
1864.9980

TP45
6201807.8747
456754.8579
1834.7060

TP46
6202235.9075
456742.0619
1829.2010

TP47
6201518.1440
456530.6540
1749.8600

GL7/350S
6201884.0307
456735.6629
1808.9710

TP52
6201938.8100
456961.0469
1894.7740

GL6/850S
6201470.4446
456469.6354
1727.4860

TP-198
6201983.9439
456512.3046
1695.8620

GL7/650S
6201688.8218
456562.2393
1731.4420

GL11/350S
6202160.8840
456425.7378
1749.3320

GL11/300S
6202198.9462
456462.2383
1761.6320

GL11/250S
6202235.8187
456499.5413
1775.8120
GL11/200S
6202272.2110
456536.6002
0.0000
GL11/150S
6202309.3755
456572.1340
1811.5420
GL11/100S
6202347.1587
456608.8982
1827.0720
GL11/50S
6202386.0192
456644.3137
1848.1620
GL12/500S
6202096.9173
456208.2711
1730.0120
GL12/650S
6202021.8538
456133.8055
1708.9020
GL12/700S
6201989.1231
456098.0606
1690.2820
GL12/800S
6201919.1962
456027.0097
1661.0520
GL12/850S
6201882.3726
455991.6962
1642.8220
TP20
6202739.3990
456730.1250
2035.0600
TP303
6202715.6750
456817.1610
2011.5570
GL11/900S
6201759.0487
456043.2721
1592.0220
GL10/200N
6202506.1876
456894.8518
1904.2770
MC92-73
6202637.4990
456430.0685
2062.2940

MC92-74
6202637.7410
456430.4601
2062.4040

MC-X4
6202566.0387
456494.4528
2017.5680

MC92-75
6202697.7245
456385.4577
2122.0320

MC92-76
6202412.8194
456597.1201
1871.8320

GL12/750S
6201955.1752
456062.2891
1680.6820

MC90-51
6202689.0703
456528.9746
2115.5000

MC90-46
6202689.0852
456529.1980
2115.4500

MC90-45
6202689.0970
456529.4427
2115.2500

TP-LCP-OR
6200680.0310
456520.6102
1587.7940

TP59
6200193.1285
455425.3304
1387.8860

TP61
6199991.5803
455012.2662
1069.4730

TP-BLK-RK
6199988.9786
455014.3712
1070.0230

TP-TENTFLR
6199826.9753
455552.1205
1208.5870

TP63
6200853.2258
455856.0120
1650.7190

TP65
6200901.0412
455433.4590
1550.1130

TP66
6200931.9238
455615.2400
1598.5140

TP67
6200965.0798
455684.6570
1604.8600

TP68
6200920.4143
455754.0925
1631.6800

TP69
6200935.3248
455746.0147
1627.6600

TP70
6200938.0156
455998.0613
1671.1740

TP71
6200963.1473
455885.4373
1650.9780

GL5/1100S
6201286.7896
456419.0836
1731.5650

GL5/1200S
6201215.4106
456352.2837
1690.4450

GL5/1400
6201064.9896
456206.4053
1665.8950

TP54
6200874.7019
456188.7432
1673.5530

TP64
6200736.8340
455406.6270
1582.4880

TP55
6200882.6044
455858.9667
1654.7380

TP56
6200422.7240
455940.9040
1559.4110

TP57
6200338.7640
455754.5700
1526.4990

TX1
6200681.2514
456519.8277
1587.9720

TX2
6200210.2378
456297.8235
1485.5830
TP101
6200427.1799
456494.8546
1566.2300
TP102
6200073.9976
456955.3992
1594.1810
TX3
6200261.0706
457201.0748
1598.1390
TX4
6198599.7211
457002.6971
1566.5110
TP72
6201522.2777
456893.6130
1790.4280
TP73
6201654.8313
456973.4915
1823.2200
TP74
6201518.9905
456915.2990
1787.9340
TP75
6201677.7068
457115.0231
1762.1540
TP76
6201487.3892
457113.7425
1694.1905
TP77
6201355.2808
457010.7122
1688.1380
TP78
6201318.3895
456838.6290
1713.8540
TP79
6201279.3383
456686.7911
1715.8880
TP80
6201240.6933
456418.6861
1723.9150
TP81
6201085.9873
456282.5996
1671.4860

TP82
6201001.0450
456160.8857
1684.2950

TP83
6201055.7545
456587.7422
1663.5710

TP84
6201092.9642
456705.4129
1667.5020

TP85
6201175.9687
456914.6704
1665.1760

TP86
6201319.0758
456121.7389
1605.2700

TP88
6201303.3639
455706.0739
1469.7640

TP87
6201144.2100
455999.5254
1577.1520

TP89
6201014.5503
455799.0355
1558.5450

TP90
6202900.5262
455869.9257
2007.6350

T-RB-STA1
6202911.9158
455909.2912
2020.3350

T-91G-1
6202901.3112
455873.1310
2008.5990

TP92
6202980.0256
455985.6435
2047.3330

T-R92-B
6203023.0647
455923.9275
1995.6770

T-R92-C
6203062.8584
455942.5572
1990.2110

TP93
6203085.5198
455902.8691
1962.1050

TP94
6202962.1567
455706.1842
1849.0020
T-H1A
6202954.1394
455770.9427
1889.3960
T-H2A
6202951.9571
455649.2918
1793.5020
TP95
6203181.9993
455583.1501
1657.8950
TP96
6203282.1462
455498.2412
1597.7110
TP97
6203359.2765
455465.7015
1586.2560
TP98
6202502.8669
455138.0336
1669.1460
TP99
6202161.6695
455360.7400
1763.7730
G-TP99
6202161.6374
455360.7550
1763.7730
GL18/1100S
6202121.9957
455412.1665
1753.4730
GL18/1350S
6201908.8262
455220.3158
1612.9130
GL18/1500S
6201828.9450
455148.6944
1578.2130
GL18/1600S
6201752.2649
455078.4227
1545.0930
GL16/1550S
6201700.1300
455233.2387
1575.1130
TP201
6201296.0789
455235.8413
1475.2330

TP202
6201181.5067
455396.4321
1447.9160
TP204
6201083.6288
455601.6188
1489.7330
TP205
6201177.2870
455834.2498
1500.0110
TP206
6201421.0857
455581.3382
1470.4330
TP207
6201261.5018
455530.3186
1446.2980
TP208
6201404.0050
455224.5334
1509.9360
TP209
6201202.1088
455189.4124
1419.9130
GL12/900S
6201846.5794
455955.7329
1623.4470
GL12/1050S
6201603.7250
455722.5012
1518.3770
GL12/1200S
6201416.4861
455541.2486
1466.8570
GL12/1300S
6201302.7998
455432.4445
1444.7070
GL14/1600S
6201491.7367
455235.6689
1519.3820
GL14/1550S
6201565.3087
455307.1946
1530.3270
GL14/1450S
6201602.5545
455343.6810
1535.6770
GL14/1300S
6201749.9713
455495.5718
1583.2370

GL14/1250S
6201785.0899
455534.1435
1596.0570
TP203
6201043.6422
455456.1752
1485.8050
TP224
6201261.2736
454956.2356
1373.5010
TP58
6200192.0666
455558.8830
1430.7280
TP60
6199825.2501
455524.1743
1205.1720
TP62
6200140.7201
454926.4235
1145.9930
TP103
6199574.5263
454583.3691
915.4980
TP223
6200923.7967
454886.8895
1257.8260
TP104
6201068.3516
454281.4102
1036.8080
TX5
6200163.0337
454918.9718
1145.7180
TP105
6198855.3327
455137.4800
1071.3150
TP106
6198241.0094
454812.3968
1101.1990
TP107
6197000.5691
454450.6349
1302.2410
TX6
6200019.8050
453757.0880
919.8320
TP114
6203798.0760
456754.7720
2144.9870

TP115
6204077.2760
456247.7955
2146.8950
TX18
6204234.9844
457232.0455
2059.5400
TX17
6205163.2156
455925.4167
2014.0910
TP116
6206114.4920
455766.2277
2073.8060
TP117
6206633.9810
455639.2096
2156.5860
TX20
6206647.7828
455606.6761
2146.0720
TP118
6206286.1583
456291.2703
2275.1430
TX20A
6206270.0352
456299.2281
2271.5760
TP119
6206200.6561
457045.2065
2358.8920
TX19
6207005.8252
457872.3572
2434.1820
TP120
6205566.5384
457852.9586
2226.9530
TP221
6203952.7214
455572.4203
1849.2790
TP222
6204899.2165
455128.9814
1641.5250
TX16
6205649.8125
454119.5081
1477.4540
TX21
6207226.2584
454105.5141
1500.4390

TP232
6207724.7176
453574.5816
1459.3270

TP233
6208002.5141
453680.2053
1511.4720

TP234
6209407.4973
453364.7080
1564.3210

TP235
6210219.6390
453100.3332
1667.7050

TP236
6211123.3348
452314.2743
1578.8500

TP237
6211334.4532
453589.9623
1931.9900

TP238
6210676.2338
454208.0771
2083.4880

TX29
6211554.1207
454859.1315
2442.7500

TP239
6210020.8438
454859.4185
1991.2790

TP240
6210826.3422
454916.6777
2186.5750

TX27
6209294.4187
455634.4098
2391.8060

TP241
6210931.0230
455867.7833
2019.6470

TX28
6211350.7041
457222.2533
1934.2000

TP225
6201434.4954
454062.1293
1030.2020

TX11
6202847.9397
453927.0309
795.9520

TP226
6203419.6230
453429.5854
754.1060

TX15
6204580.8370
452465.5005
524.9400

TP227
6205980.1531
451985.2018
352.7720

TP228
6206844.7110
451711.7248
339.1170

TX22
6207602.9597
451463.1725
331.8800

TP229
6208815.5751
450887.9815
441.0140

TP230
6208880.7898
449472.4340
273.0220

TP231
6208891.4540
448984.8876
259.2600

TP231A
6209030.3226
448705.9530
253.2100

TX26
6208979.4251
448665.5569
252.9400

TP242
6211118.8464
451839.1355
1390.5060

TX30
6211396.5434
450595.2413
701.7500

TP243
6212615.9562
451445.5056
1089.1280

TP244
6212437.3591
450068.6697
1372.7160

TP245
6212080.5652
449982.0197
1338.8110

T-BOND
6202520.6775
456733.5395
1941.2600
TP1
6201630.6470
455081.8490
1560.0610
TPOT108
6203950.5335
449419.4766
1727.9140
TPOT109
6202109.8941
450951.6713
2018.3870
TPOT108A
6203096.0523
448770.7902
1629.8180
TXOT13
6202344.5379
448277.0317
1607.4760
TPOT110
6201191.5382
451540.6305
1874.3770
TPOT111
6200010.0515
451141.3877
1922.6990
TPOT112
6198231.5781
451679.1609
1929.7970
TPOT113
6197761.9798
451788.6792
1958.8920
TXOT7
6197658.7085
451815.6220
1961.1470
MC92-81
6202610.4683
457284.9841
1754.8560
MC92-80
6202610.0923
457286.3401
1754.5680
MC92-82
6202609.8578
457286.1493
1754.5970
MC92-83
6202609.0993
457286.9516
1754.1110

MC92-77
6202697.4418
456385.2306
2121.9160
MC92-78
6202697.5622
456385.1101
2121.9750
MC92-79
6202819.2814
456362.6571
2151.6000
TPOT262
6204712.0163
449738.0974
1973.0460
TPOT263
6205086.3429
448393.6755
1820.8190
TPOT264
6206260.0963
447207.8136
1623.8930
TXOT23
6206516.8507
447001.2117
1522.9410
TPOT265
6206251.3268
445656.4403
1271.5760
TXOT24
6207268.8581
444610.7652
944.3670
TX9
6202421.8062
457308.8548
1724.5620
TP248
6208955.2244
448305.5537
252.8410
TP249
6208727.9201
448275.1550
296.3530
TP250
6208688.3140
447689.3925
229.1470
TP251
6207739.0075
446392.8117
440.7980
TP252
6208112.1431
446435.4689
272.6130

TP253
6208423.7878
445185.2322
172.9620

TP254
6208582.4500
445031.3114
168.8190

TX25
6208531.6053
445058.4541
166.7530

TP255
6208747.9320
444659.7465
162.7310

TP256
6208741.8752
444393.0803
160.7320

TP283
6209012.0379
444206.6465
153.3640

TP284
6209437.4199
443978.0696
146.7440

TP285
6209654.9183
443920.0734
144.9930

TP286
6209862.7241
443879.5506
141.5870

TP287
6210221.7890
443705.9528
139.7190

TP288
6210397.8517
443255.1093
127.9990

TP289
6210635.0271
442548.1599
118.0850

TP290
6210669.5205
442512.4759
116.9510

TX32
6210975.8228
442491.3051
117.3160

TP257
6212508.2398
450044.7351
1380.2960

TP258
6212424.4493
449424.9938
1592.1860
TP259
6212973.3132
448511.4367
1689.9530
TP260
6212283.6875
447988.4928
1630.3930
TP261
6212282.2669
446451.4084
1249.5560
TX31
6210968.1939
446916.9758
1606.4770
TP91
6202841.6260
455680.9228
1907.0360
TP291
6210333.4645
443128.9938
128.5640
TP292
6210112.1505
442952.8937
124.3290
TP293
6209766.1631
442547.7849
108.6370
TP294
6209243.6433
442174.2339
99.6720
TP295
6208574.7689
442009.8999
93.1660
TX33
6208758.1503
441980.9850
94.1570
TP296
6207820.5680
441726.1331
88.7300
TP297
6206956.7305
441527.5421
81.3490
TP298
6206196.1295
441353.0534
75.5390

TP299

6206206.2930

441102.4404

80.9450

TX34

6206422.8017

441111.7334

75.5330

SURVEY3.DAT

TP-CAM
6202763.3040
456381.4570
0.0000

TP-OTTER
6203101.7580
450536.4000
0.0000

TP114
6203794.2499
456765.2126
0.0000

TX-18
6204226.3116
457246.8779
0.0000

TP115
6204078.5604
456261.0861
0.0000

TX17
6205167.7036
455949.7023
0.0000

TP116
6206120.5407
455800.1384
0.0000

TP117
6206641.2873
455678.3787
0.0000

TP118
6206286.8903
456326.8897
0.0000

TX20
6206655.4173
455645.9864
0.0000

TP119
6206193.7704
457079.9230
0.0000

TX20A
6206270.6876
456334.6841
0.0000

TP120
6205551.5190
457881.2231
0.0000

TX19
6206990.5361
457915.1714
0.0000

TP30
6202792.6548
455998.9254
0.0000

TP90
6202905.7469
455871.3573
0.0000

TP221
6203960.9303
455584.6307
0.0000

TP222
6204911.9120
455150.8970
0.0000

TX16
6205672.7949
454149.1546
0.0000

TX21
6207249.3015
454151.2874
0.0000

TP232
6207753.1657
453625.4816
0.0000

TP233
6208029.8672
453733.9415
0.0000

TP234
6209438.0043
453432.8327
0.0000

TP235
6210252.8078
453176.7795
0.0000

TP236
6211164.4972
452400.0059
0.0000

TP237
6211362.5551
453677.7868
0.0000

TP238
6210698.0472
454289.1361
0.0000

TX29
6211569.2283
454949.1366
0.0000

P239
6210036.0288
454933.7392
0.0000

TP239
6210036.0288
454933.7392
0.0000

TP240
6210840.8993
454999.2351
0.0000

TX27
6209301.7091
455701.2641
0.0000

TP241
6210935.8454
455951.3618
0.0000

TX28
6211341.6491
457310.0540
0.0000

TP242
6211164.8694
451924.8461
0.0000

TX30
6211455.2761
450683.8576
0.0000

TP243
6212665.9274
451546.5512
0.0000

TP244
6212501.4238
450167.9604
0.0000

TP245
6212145.5349
450077.6652
0.0000

TP246
6211656.1190
449455.1523
0.0000

TP257
6212572.5456
450144.7521
0.0000

TP258
6212495.0991
449524.1861
0.0000

TP259
6213053.2793
448616.2914
0.0000

TP260
6212369.0391
448086.3204
0.0000

TP261
6212383.3419
446549.3009
0.0000

TX31
6211064.5753
447001.4028
0.0000

TP108
6203950.5897
449419.4026
0.0000

TP108A
6203096.1086
448770.7162
0.0000

TX13
6202344.5942
448276.9576
0.0000

TP109
6202109.8941
450951.6713
0.0000

TP110
6201191.5526
451540.6528
0.0000

TP111
6200010.0561
451141.4386
0.0000

TP112
6198231.5958
451679.2551
0.0000

TP113
6197762.0001
451788.7847
0.0000

TX7
6197658.7295
451815.7300
0.0000

TP262
6204712.0163
449738.0973
0.0000

TP263
6205086.3428
448393.6754
0.0000

TP264
6206260.0962
447207.8135
0.0000

TX23
6206516.8507
447001.2117
0.0000

TP265
6206251.3267
445656.4403
0.0000

TX24
6207268.8587
444610.7644
0.0000

TP41
6201721.8441
456746.8299
0.0000

TP14
6202346.3009
456734.4272
0.0000

TP44
6202473.7464
456176.9442
0.0000

TP44A
6202473.7562
456176.9377
0.0000

TP14A
6202346.3216
456734.4231
0.0000

TP42
6202457.3993
455964.6798
0.0000

TP30
6202792.5801
455998.9188
0.0000

TP-CAMA
6202763.3070
456381.4573
0.0000

TP30A
6202792.6078
455998.9218
0.0000

TP49
6201884.1389
456406.4902
0.0000

TP88
6201310.1907
455691.3724
0.0000

TP201
6201307.6372
455221.0903
0.0000

TP202
6201191.4547
455380.5193
0.0000

TP203
6201052.9914
455438.8682
0.0000

TP203A
6201052.8639
455438.8841
0.0000

TP88A
6201310.0751
455691.3761
0.0000

TP224
6201275.4907
454941.1489
0.0000

TP223
6200938.7252
454868.4268
0.0000

TP104
6201089.3361
454264.4255
0.0000

TP103
6199593.1705
454551.2419
0.0000

TP225
6201457.6575
454048.8221
0.0000

TX11
6202872.3837
453927.8848
0.0000

TP226
6203449.0197
453436.1890
0.0000

TX15
6204619.8299
452483.7808
0.0000

TP227
6206023.8856
452017.5190
0.0000

TP228
6206891.1387
451752.7135
0.0000

TX22
6207651.8384
451511.7667
0.0000

TP229
6208870.1530
450948.7478
0.0000

TP230
6208949.5398
449533.9243
0.0000

TP231
6208965.0858
449046.5092
0.0000

TP231A
6209106.7407
448768.9793
0.0000

TX26
6209056.2503
448728.0754
0.0000

TP248
6209035.6559
448367.8479
0.0000

TP249
6208808.6684
448335.1746
0.0000

TP250
6208774.9302
447749.0448
0.0000

TP251
6207838.6396
446443.0340
0.0000

TP252
6208211.3299
446489.4212
0.0000

TP253
6208535.4638
445242.3641
0.0000

TP254
6208695.6576
445090.0379
0.0000

TX25
6208644.5439
445116.6707
0.0000

TP255
6208864.8476
444720.1467
0.0000

TP256
6208861.4584
444453.4343
0.0000

TP283
6209133.4723
444269.7120
0.0000

TP284
6209561.1166
444045.3961
0.0000

TP285
6209779.1835
443989.5756
0.0000

TP286
6209987.3838
443951.1308
0.0000

TP287
6210348.1650
443781.1288
0.0000

TP288
6210528.7229
443332.0667
0.0000

TP289
6210772.9486
442627.5228
0.0000

TP290
6210807.7967
442592.1852
0.0000

TX32
6211114.2952
442574.0755
0.0000

TP291
6210465.5988
443205.3142
0.0000

TP292
6210246.0551
443027.0120
0.0000

TP293
6209904.1320
442618.4670
0.0000

TP294
6209385.3700
442239.7147
0.0000

TP295
6208718.1707
442068.7068
0.0000

TX33
6208901.8318
442041.6253
0.0000

TP296
6207966.8422
441777.4197
0.0000

TP297
6207105.0313
441570.2110
0.0000

TP298
6206346.2110
441388.1344
0.0000

TP299
6206358.8770
441137.6364
0.0000

TX34
6206575.2820
441149.0914
0.0000

TP-OTTER
6203101.7580
450536.4000
1993.2390
TP-CAM
6202763.3040
456381.4570
2158.7600
TP114
6203794.2499
456765.2126
2144.9870
TX18
6204226.3116
457246.8779
2059.5400
TP115
6204078.5604
456261.0861
2146.8950
TX17
6205167.7036
455949.7023
2014.0910
TP116
6206120.5407
455800.1384
2073.8060
TP117
6206641.2873
455678.3787
2156.5860
TP118
6206286.8903
456326.8897
2275.1430
TX20
6206655.4173
455645.9864
2146.0720
TP119
6206193.7704
457079.9230
2358.8920
TX20A
6206270.6876
456334.6841
2271.5760
TP120
6205551.5190
457881.2231
2226.9530
TX19
6206990.5361
457915.1714
2434.1820
TP30
6202792.6548
455998.9254
2066.1060

Survey.dat

TP90
6202905.7469
455871.3573
2007.6350

TP221
6203960.9303
455584.6307
1849.2790

TP222
6204911.9120
455150.8970
1641.5250

TX16
6205672.7949
454149.1546
1477.4540

TX21
6207249.3015
454151.2874
1500.4390

TP232
6207753.1657
453625.4816
1459.3270

TP233
6208029.8672
453733.9415
1511.4720

TP234
6209438.0043
453432.8327
1564.3210

TP235
6210252.8078
453176.7795
1667.7050

TP236
6211164.4972
452400.0059
1578.8500

TP237
6211362.5551
453677.7868
1931.9900

TP238
6210698.0472
454289.1361
2083.4880

TX29
6211569.2283
454949.1366
2442.7500

TP239
6210036.0288
454933.7392
1991.2790

TP240
6210840.8993
454999.2351
2186.5750

TX27
6209301.7091
455701.2641
2391.8060
TP241
6210935.8454
455951.3618
2019.6470
TX28
6211341.6491
457310.0540
1934.2000
TP242
6211164.8694
451924.8461
1390.5060
TX30
6211455.2761
450683.8576
701.7500
TP243
6212665.9274
451546.5512
1089.1280
TP244
6212501.4238
450167.9604
1372.7160
TP245
6212145.5349
450077.6652
1338.8110
TP246
6211656.1190
449455.1523
0.0000
TP257
6212572.5456
450144.7521
1380.2960
TP258
6212495.0991
449524.1861
1592.1860
TP259
6213053.2793
448616.2914
1689.9530
TP260
6212369.0391
448086.3204
1630.3930
TP261
6212383.3419
446549.3009
1249.5560
TX31
6211064.5753
447001.4028
1606.4770

TP108
6203950.5897
449419.4026
1727.9140
TP108A
6203096.1086
448770.7162
1629.8180
TX13
6202344.5942
448276.9576
1607.4760
TP109
6202109.8941
450951.6713
2018.3870
TP110
6201191.5526
451540.6528
1874.3770
TP111
6200010.0561
451141.4386
1922.6990
TP112
6198231.5958
451679.2551
1929.7970
TP113
6197762.0001
451788.7847
1958.8920
TX7
6197658.7295
451815.7300
1961.1470
TP262
6204712.0163
449738.0973
1973.0460
TP263
6205086.3428
448393.6754
1820.8190
TP264
6206260.0962
447207.8135
1623.8930
TX23
6206516.8507
447001.2117
1522.9410
TP265
6206251.3267
445656.4403
1271.5760
TX24
6207268.8587
444610.7644
944.3670

TP41
6201721.8441
456746.8299
1854.9140
TP14
6202346.3009
456734.4272
1855.5000
TP44
6202473.7464
456176.9442
1988.5380
TP42
6202457.3993
455964.6798
1974.0570
TP49
6201884.1389
456406.4902
1682.1620
TP88
6201310.1907
455691.3724
1469.7640
TP201
6201307.6372
455221.0903
1475.2330
TP202
6201191.4547
455380.5193
1447.9160
TP203
6201052.9914
455438.8682
1485.8050
TP224
6201275.4907
454941.1489
1373.5010
TP223
6200938.7252
454868.4268
1257.8260
TP104
6201089.3361
454264.4255
1036.8080
TP103
6199593.1705
454551.2419
915.4980
TP225
6201457.6575
454048.8221
1030.2020
TX11
6202872.3837
453927.8848
795.9520

TP226
6203449.0197
453436.1890
754.1060

TX15
6204619.8299
452483.7808
524.9400

TP227
6206023.8856
452017.5190
352.7720

TP228
6206891.1387
451752.7135
339.1170

TX22
6207651.8384
451511.7667
331.8800

TP229
6208870.1530
450948.7478
441.0140

TP230
6208949.5398
449533.9243
273.0220

TP231
6208965.0858
449046.5092
259.2600

TP231A
6209106.7407
448768.9793
253.2100

TX26
6209056.2503
448728.0754
252.9400

TP248
6209035.6559
448367.8479
252.8410

TP249
6208808.6684
448335.1746
296.3530

TP250
6208774.9302
447749.0448
229.1470

TP251
6207838.6396
446443.0340
440.7980

TP252
6208211.3299
446489.4212
272.6130

TP253
6208535.4638
445242.3641
172.9620
TP254
6208695.6576
445090.0379
168.8190
TX25
6208644.5439
445116.6707
166.7530
TP255
6208864.8476
444720.1467
162.7310
TP256
6208861.4584
444453.4343
160.7320
TP283
6209133.4723
444269.7120
153.3640
TP284
6209561.1166
444045.3961
146.7440
TP285
6209779.1835
443989.5756
144.9930
TP286
6209987.3838
443951.1308
141.5870
TP287
6210348.1650
443781.1288
139.7190
TP288
6210528.7229
443332.0667
127.9990
TP289
6210772.9486
442627.5228
118.0850
TP290
6210807.7967
442592.1852
116.9510
TX32
6211114.2952
442574.0755
117.3160
TP291
6210465.5988
443205.3142
128.5640

TP292
6210246.0551
443027.0120
124.3290
TP293
6209904.1320
442618.4670
108.6370
TP294
6209385.3700
442239.7147
99.6720
TP295
6208718.1707
442068.7068
93.1660
TX33
6208901.8318
442041.6253
94.1570
TP296
6207966.8422
441777.4197
88.7300
TP297
6207105.0313
441570.2110
81.3490
TP298
6206346.2110
441388.1344
75.5390
TP299
6206358.8770
441137.6364
80.9450
TX34
6206575.2820
441149.0914
75.5330
T-BOND-00
6202517.1072
456731.0347
1941.2600
T-GRD45-00
6198186.0794
453990.9940
0.0000
TP43
6202278.6193
455925.7845
0.0000
TP55
6200887.9134
455840.0360
0.0000
TP22
6202252.9600
455532.3830
1820.2540

TP1
6201643.6020
455070.5120
1560.0610
TP25
6202411.8208
455648.4259
0.0000
TP24
6202161.3826
455644.8999
0.0000
TP23
6202305.6273
455628.1455
0.0000
TP51
6202481.1630
455737.4368
0.0000
TP26
6202512.0378
455801.6944
0.0000
TP27
6202619.9448
455891.5709
0.0000
TP28
6202607.1928
456002.5032
0.0000
TP29
6202550.0001
455956.9960
0.0000
TP39
6202231.8110
456843.7750
0.0000
TP40
6202098.9134
456814.3262
0.0000
TP38
6202118.8870
456922.1580
0.0000
TP32
6201969.1791
456919.2798
0.0000
TP33
6201773.0022
456837.7893
0.0000
TP35
6201365.7404
456546.5719
0.0000

TP45
6201804.1336
456745.1815
0.0000

TP46
6202232.2734
456736.6920
0.0000

TP34
6201712.1463
456807.6396
0.0000

TP47
6201516.6681
456518.0771
0.0000

TP52
6201932.9762
456952.6731
0.0000

TP303
6202711.2470
456816.6110
0.0000

TP20
6202735.8445
456729.8172
0.0000

TP-RED1
6202722.2479
456439.0012
0.0000

TP54
6200876.6972
456169.7164
0.0000

TP-LCP-OR
6200678.7073
456499.6026
0.0000

TP56
6200427.2209
455917.3709
0.0000

TP57
6200345.1496
455730.1652
0.0000

TP59
6200202.8743
455399.4734
0.0000

TP58
6200200.4293
455533.0116
0.0000

TP64
6200746.6900
455386.2550
0.0000

TP60
6199833.9807
455494.6125
0.0000

TP61
6200005.4861
454984.4038
0.0000

TP-BLK-RK
6200002.8633
454986.4826
0.0000

TP62
6200155.4512
454900.0673
0.0000

T-TENTFLR
6199835.4548
455522.5737
0.0000

TP63
6200858.5929
455836.7870
0.0000

TP65
6200910.6970
455414.7268
0.0000

TP66
6200939.7422
455596.8105
0.0000

TP67
6200972.1954
455666.5588
0.0000

TP68
6200926.8192
455735.5480
0.0000

TP69
6200941.7993
455727.6297
0.0000

TP70
6200941.9423
455979.6847
0.0000

TP71
6200968.2056
455867.3192
0.0000

MC92-71
6202575.3295
456485.4186
2027.0180

MC92-72
6202659.6011
456663.6285
2038.0000

MC92-73
6202636.9822
456428.7657
2062.2940
MC92-74
6202637.2202
456429.1596
2062.4040
MC92-75
6202697.6546
456384.7645
2122.0320
MC92-76
6202410.6268
456593.5372
1871.8420
MC92-77
6202697.3741
456384.5345
2121.9160
MC92-78
6202697.4957
456384.4152
2121.9750
MC92-79
6202819.4705
456363.2300
2151.6000
MC92-80
6202600.9529
457284.7160
-135.8400
MC92-81
6202601.3424
457283.3637
-135.5520
MC92-82
6202600.7219
457284.5240
-135.8110
MC92-83
6202599.9537
457285.3174
-136.3260
TP48
6202782.3907
456524.5315
2142.0580
TX1
6200679.9292
456498.8401
0.0000
TX2
6200211.1702
456272.1118
0.0000
TP101
6200426.1217
456471.3147
0.0000

TP102
6200068.3287
456928.2869
0.0000

TP84
6201089.7557
456688.5533
0.0000

TP85
6201170.6535
456898.6346
0.0000

TX3
6200252.8966
457175.8506
0.0000

TX4
6198593.6564
456960.7680
0.0000

TP72
6201517.1539
456881.0539
0.0000

TP73
6201648.8985
456962.2645
0.0000

TP74
6201513.6508
456902.7103
0.0000

TP75
6201670.3500
457104.0209
0.0000

TP76
6201480.0548
457100.8259
0.0000

TP77
6201348.9896
456996.4719
0.0000

TP78
6201313.8316
456824.0265
0.0000

TP79
6201276.3093
456671.8032
0.0000

TP80
6201240.3625
456403.3213
0.0000

TP81
6201087.0336
456265.6857
0.0000

TP82
6201003.3199
456143.1236
0.0000

TP83
6201053.7324
456570.5084
0.0000

TP86
6201321.7197
456107.1743
0.0000

TP87
6201148.0924
455983.2079
0.0000

TP89
6201020.4563
455781.4235
0.0000

TP99
6202171.9466
455354.7202
0.0000

TP91
6202848.7832
455681.7618
0.0000

T-RB-STA1
6202916.7332
455910.8372
0.0000

T-91G1
6202906.4991
455874.5704
0.0000

T-R92B
6203027.7266
455926.6098
0.0000

TP92
6202984.0584
455987.8823
0.0000

T-R92C
6203067.3276
455945.6456
0.0000

T-H1A
6202960.3698
455772.9279
0.0000

TP93
6203090.3939
455906.1914
0.0000

TP94
6202969.0492
455708.2548
0.0000

T-H2A
6202959.4316
455651.2630
0.0000
T-R92L1
6202447.9100
455502.7429
1854.2740
TP95
6203190.1388
455587.4760
0.0000
TP96
6203291.1491
455503.5961
0.0000
TP97
6203368.6083
455471.8471
0.0000
TP98
6202515.5954
455135.4355
0.0000
TX9
6202412.4494
457305.3320
0.0000
TX5
6200177.8386
454892.8436
0.0000
TX6
6200046.2093
453729.5918
0.0000
TP105
6198868.0046
455098.1753
0.0000
TP106
6198256.9844
454766.9253
0.0000
TP107
6197020.2573
454392.6664
0.0000
TP206
6201429.1622
455567.8268
0.0000
TP205
6201182.8305
455818.2733
0.0000
TP204
6201091.5176
455584.7118
0.0000

TP207
6201270.0991
455515.2048
0.0000

TP208
6201415.6715
455210.8688
0.0000

TP209
6201214.1390
455173.7183
0.0000

SURVEY.TXT

"TP-OTTER", 6203101.758, 450536.400, 1993.239
"TP-CAM", 6202763.304, 456381.457, 2158.760
"TP114", 6203794.250, 456765.213, 2144.987
"TX18", 6204226.312, 457246.878, 2059.540
"TP115", 6204078.560, 456261.086, 2146.895
"TX17", 6205167.704, 455949.702, 2014.091
"TP116", 6206120.541, 455800.138, 2073.806
"TP117", 6206641.287, 455678.379, 2156.586
"TP118", 6206286.890, 456326.890, 2275.143
"TX20", 6206655.417, 455645.986, 2146.072
"TP119", 6206193.770, 457079.923, 2358.892
"TX20A", 6206270.688, 456334.684, 2271.576
"TP120", 6205551.519, 457881.223, 2226.953
"TX19", 6206990.536, 457915.171, 2434.182
"TP30", 6202792.655, 455998.925, 2066.106
"TP90", 6202905.747, 455871.357, 2007.635
"TP221", 6203960.930, 455584.631, 1849.279
"TP222", 6204911.912, 455150.897, 1641.525
"TX16", 6205672.795, 454149.155, 1477.454
"TX21", 6207249.302, 454151.287, 1500.439
"TP232", 6207753.166, 453625.482, 1459.327
"TP233", 6208029.867, 453733.942, 1511.472
"TP234", 6209438.004, 453432.833, 1564.321
"TP235", 6210252.808, 453176.780, 1667.705
"TP236", 6211164.497, 452400.006, 1578.850
"TP237", 6211362.555, 453677.787, 1931.990
"TP238", 6210698.047, 454289.136, 2083.488
"TX29", 6211569.228, 454949.137, 2442.750
"TP239", 6210036.029, 454933.739, 1991.279
"TP240", 6210840.899, 454999.235, 2186.575
"TX27", 6209301.709, 455701.264, 2391.806
"TP241", 6210935.845, 455951.362, 2019.647
"TX28", 6211341.649, 457310.054, 1934.200
"TP242", 6211164.869, 451924.846, 1390.506
"TX30", 6211455.276, 450683.858, 701.750
"TP243", 6212665.927, 451546.551, 1089.128
"TP244", 6212501.424, 450167.960, 1372.716
"TP245", 6212145.535, 450077.665, 1338.811
"TP246", 6211656.119, 449455.152, 0.000
"TP257", 6212572.546, 450144.752, 1380.296
"TP258", 6212495.099, 449524.186, 1592.186
"TP259", 6213053.279, 448616.291, 1689.953
"TP260", 6212369.039, 448086.320, 1630.393
"TP261", 6212383.342, 446549.301, 1249.556
"TX31", 6211064.575, 447001.403, 1606.477
"TP108", 6203950.590, 449419.403, 1727.914
"TP108A", 6203096.109, 448770.716, 1629.818
"TX13", 6202344.594, 448276.958, 1607.476
"TP109", 6202109.894, 450951.671, 2018.387
"TP110", 6201191.553, 451540.653, 1874.377
"TP111", 6200010.056, 451141.439, 1922.699
"TP112", 6198231.596, 451679.255, 1929.797
"TP113", 6197762.000, 451788.785, 1958.892
"TX7", 6197658.729, 451815.730, 1961.147
"TP262", 6204712.016, 449738.097, 1973.046
"TP263", 6205086.343, 448393.675, 1820.819
"TP264", 6206260.096, 447207.813, 1623.893
"TX23", 6206516.851, 447001.212, 1522.941
"TP265", 6206251.327, 445656.440, 1271.576
"TX24", 6207268.859, 444610.764, 944.367

"TP41", 6201721.844, 456746.830, 1854.914
"TP14", 6202346.301, 456734.427, 1855.500
"TP44", 6202473.746, 456176.944, 1988.538
"TP42", 6202457.399, 455964.680, 1974.057
"TP49", 6201884.139, 456406.490, 1682.162
"TP88", 6201310.191, 455691.372, 1469.764
"TP201", 6201307.637, 455221.090, 1475.233
"TP202", 6201191.455, 455380.519, 1447.916
"TP203", 6201052.991, 455438.868, 1485.805
"TP224", 6201275.491, 454941.149, 1373.501
"TP223", 6200938.725, 454868.427, 1257.826
"TP104", 6201089.336, 454264.426, 1036.808
"TP103", 6199593.171, 454551.242, 915.498
"TP225", 6201457.658, 454048.822, 1030.202
"TX11", 6202872.384, 453927.885, 795.952
"TP226", 6203449.020, 453436.189, 754.106
"TX15", 6204619.830, 452483.781, 524.940
"TP227", 6206023.886, 452017.519, 352.772
"TP228", 6206891.139, 451752.714, 339.117
"TX22", 6207651.838, 451511.767, 331.880
"TP229", 6208870.153, 450948.748, 441.014
"TP230", 6208949.540, 449533.924, 273.022
"TP231", 6208965.086, 449046.509, 259.260
"TP231A", 6209106.741, 448768.979, 253.210
"TX26", 6209056.250, 448728.075, 252.940
"TP248", 6209035.656, 448367.848, 252.841
"TP249", 6208808.668, 448335.175, 296.353
"TP250", 6208774.930, 447749.045, 229.147
"TP251", 6207838.640, 446443.034, 440.798
"TP252", 6208211.330, 446489.421, 272.613
"TP253", 6208535.464, 445242.364, 172.962
"TP254", 6208695.658, 445090.038, 168.819
"TX25", 6208644.544, 445116.671, 166.753
"TP255", 6208864.848, 444720.147, 162.731
"TP256", 6208861.458, 444453.434, 160.732
"TP283", 6209133.472, 444269.712, 153.364
"TP284", 6209561.117, 444045.396, 146.744
"TP285", 6209779.184, 443989.576, 144.993
"TP286", 6209987.384, 443951.131, 141.587
"TP287", 6210348.165, 443781.129, 139.719
"TP288", 6210528.723, 443332.067, 127.999
"TP289", 6210772.949, 442627.523, 118.085
"TP290", 6210807.797, 442592.185, 116.951
"TX32", 6211114.295, 442574.076, 117.316
"TP291", 6210465.599, 443205.314, 128.564
"TP292", 6210246.055, 443027.012, 124.329
"TP293", 6209904.132, 442618.467, 108.637
"TP294", 6209385.370, 442239.715, 99.672
"TP295", 6208718.171, 442068.707, 93.166
"TX33", 6208901.832, 442041.625, 94.157
"TP296", 6207966.842, 441777.420, 88.730
"TP297", 6207105.031, 441570.211, 81.349
"TP298", 6206346.211, 441388.134, 75.539
"TP299", 6206358.877, 441137.636, 80.945
"TX34", 6206575.282, 441149.091, 75.533
"T-BOND-00", 6202517.107, 456731.035, 1941.260
"T-GRD45-00", 6198186.079, 453990.994, 0.000
"TP43", 6202278.619, 455925.785, 1909.230
"TP55", 6200887.913, 455840.036, 1654.738
"TP22", 6202252.960, 455532.383, 1820.254

"TP1",6201643.602,455070.512,1560.061
"TP25",6202411.821,455648.426,1889.695
"TP24",6202161.383,455644.900,1809.309
"TP23",6202305.627,455628.145,1852.088
"TP51",6202481.163,455737.437,1921.636
"TP26",6202512.038,455801.694,1948.643
"TP27",6202619.945,455891.571,1995.919
"TP28",6202607.193,456002.503,2018.906
"TP29",6202550.000,455956.996,1990.725
"TP39",6202231.811,456843.775,1894.687
"TP40",6202098.913,456814.326,1868.388
"TP38",6202118.887,456922.158,1890.408
"TP32",6201969.179,456919.280,1896.218
"TP33",6201773.002,456837.789,1882.221
"TP35",6201365.740,456546.572,1767.039
"TP45",6201804.134,456745.181,1834.706
"TP46",6202232.273,456736.692,1829.201
"TP34",6201712.146,456807.640,1864.998
"TP47",6201516.668,456518.077,1749.860
"TP52",6201932.976,456952.673,1894.774
"TP303",6202711.247,456816.611,2011.557
"TP20",6202735.844,456729.817,2035.060
"TP-RED1",6202722.248,456439.001,2120.010
"TP54",6200876.697,456169.716,1673.553
"TP-LCP-OR",6200678.707,456499.603,1587.794
"TP56",6200427.221,455917.371,1559.411 0.000
"TP57",6200345.150,455730.165, 0.000
"TP59",6200202.874,455399.473, 0.000
"TP58",6200200.429,455533.012, 0.000
"TP64",6200746.690,455386.255, 0.000
"TP60",6199833.981,455494.613, 0.000
"TP61",6200005.486,454984.404, 0.000
"TP-BLK-RK",6200002.863,454986.483, 0.000
"TP62",6200155.451,454900.067, 0.000
"T-TENTFLR",6199835.455,455522.574, 0.000
"TP63",6200858.593,455836.787, 0.000
"TP65",6200910.697,455414.727, 0.000
"TP66",6200939.742,455596.810, 0.000
"TP67",6200972.195,455666.559, 0.000
"TP68",6200926.819,455735.548, 0.000
"TP69",6200941.799,455727.630, 0.000
"TP70",6200941.942,455979.685, 0.000
"TP71",6200968.206,455867.319, 0.000
"MC92-71",6202575.329,456485.419,2027.018
"MC92-72",6202659.601,456663.629,2038.000
"MC92-73",6202636.982,456428.766,2062.294
"MC92-74",6202637.220,456429.160,2062.404
"MC92-75",6202697.655,456384.765,2122.032
"MC92-76",6202410.627,456593.537,1871.842
"MC92-77",6202697.374,456384.535,2121.916
"MC92-78",6202697.496,456384.415,2121.975
"MC92-79",6202819.470,456363.230,2151.600
"MC92-80",6202600.953,457284.716,-135.840
"MC92-81",6202601.342,457283.364,-135.552
"MC92-82",6202600.722,457284.524,-135.811
"MC92-83",6202599.954,457285.317,-136.326
"TP48",6202782.391,456524.531,2142.058
"TX1",6200679.929,456498.840, 0.000
"TX2",6200211.170,456272.112, 0.000
"TP101",6200426.122,456471.315, 0.000

"TP102",6200068.329,456928.287, 0.000
"TP84",6201089.756,456688.553, 0.000
"TP85",6201170.654,456898.635, 0.000
"TX3",6200252.897,457175.851, 0.000
"TX4",6198593.656,456960.768, 0.000
"TP72",6201517.154,456881.054, 0.000
"TP73",6201648.898,456962.265, 0.000
"TP74",6201513.651,456902.710, 0.000
"TP75",6201670.350,457104.021, 0.000
"TP76",6201480.055,457100.826, 0.000
"TP77",6201348.990,456996.472, 0.000
"TP78",6201313.832,456824.027, 0.000
"TP79",6201276.309,456671.803, 0.000
"TP80",6201240.363,456403.321, 0.000
"TP81",6201087.034,456265.686, 0.000
"TP82",6201003.320,456143.124, 0.000
"TP83",6201053.732,456570.508, 0.000
"TP86",6201321.720,456107.174, 0.000
"TP87",6201148.092,455983.208, 0.000
"TP89",6201020.456,455781.423, 0.000
"TP99",6202171.947,455354.720, 0.000
"TP91",6202848.783,455681.762, 0.000
"T-RB-STA1",6202916.733,455910.837, 0.000
"T-91G1",6202906.499,455874.570, 0.000
"T-R92B",6203027.727,455926.610, 0.000
"TP92",6202984.058,455987.882, 0.000
"T-R92C",6203067.328,455945.646, 0.000
"T-H1A",6202960.370,455772.928, 0.000
"TP93",6203090.394,455906.191, 0.000
"TP94",6202969.049,455708.255, 0.000
"T-H2A",6202959.432,455651.263, 0.000
"T-R92L1",6202447.910,455502.743,1854.274
"TP95",6203190.139,455587.476, 0.000
"TP96",6203291.149,455503.596, 0.000
"TP97",6203368.608,455471.847, 0.000
"TP98",6202515.595,455135.436, 0.000
"TX9",6202412.449,457305.332, 0.000
"TX5",6200177.839,454892.844, 0.000
"TX6",6200046.209,453729.592, 0.000
"TP105",6198868.005,455098.175, 0.000
"TP106",6198256.984,454766.925, 0.000
"TP107",6197020.257,454392.666, 0.000
"TP206",6201429.162,455567.827, 0.000
"TP205",6201182.830,455818.273, 0.000
"TP204",6201091.518,455584.712, 0.000
"TP207",6201270.099,455515.205, 0.000
"TP208",6201415.672,455210.869, 0.000
"TP209",6201214.139,455173.718, 0.000

GRIDEL

GRIDLINE STATION	ELEVATION
GL500/150S	1869.7
200S	1876.7
250S	1886.4
300S	1885.3
350S	1877.6
400S	1868.2
450S	1845.3
500S	1822.8
550S	1796.9
600S	1785.5
650S	1777.7
700S	1777.1
750S	1766.7
800S	1765.9
850S	1762.9
900S	1748.2
GL600/100S	1884.2
150S	1891.6
200S	1895.6
250S	1884.0
300S	1873.5
350S	1864.0
400S	1854.7
450S	1840.0
500S	1832.3
550S	1807.7
600S	1785.1
650S	1767.0
700S	1760.8
750S	1748.7
800S	1740.3
850S	1727.3
900S	1729.7
GL700/700N	1699.0
650N	1715.0
600N	1731.1
550N	1728.0
500N	1725.1
450N	1732.1
400N	1740.2
350N	1741.8
300N	1747.0
250N	1767.6
200N	1787.1
150N	1794.1
100N	1816.0
50N	1839.1
00N	1860.0
50S	1881.1
100S	1889.0
150S	1867.2
200S	1852.0
250S	1837.8

300S	1820.9
350S	1809.3
400S	1797.0
450S	1778.3
500S	1764.0
550S	1752.0
600S	1731.4
650S	1734.3
700S	1729.7
750S	1702.7
800S	1691.9
850S	1684.4
900S	1674.4

GL800/ 00N	1892.8
50S	1889.9
100S	1873.3
150S	1862.2
200S	1822.0
250S	1789.0
300S	1774.1
350S	1757.7
400S	1753.8
450S	1749.1
500S	1738.0
550S	1713.5
600S	1687.2
650S	1670.2
700S	1654.9
750S	1633.0
800S	1617.5
850S	1607.0
900S	1594.1

GL900/100N	1900.5
50N	1894.6
00N	1886.7
50S	1861.4
100S	1831.2
150S	1803.2
200S	1772.9
250S	1759.1
300S	1735.5
350S	1721.7
400S	1710.4
450S	1700.0
500S	1691.9
550S	1685.2
600S	1674.3
650S	1648.2
700S	1634.7
750S	1622.6
800S	1613.4
850S	1604.5
900S	1590.9

GL1000/200N	1904.3
-------------	--------

150N	1897.3
100N	1894.6
50N	1878.6
00N	1857.9
50S	1837.1
100S	1811.5
150S	1792.5
200S	1778.3
250S	1759.3
300S	1740.4
350S	1726.0
400S	1713.1
450S	1699.8
500S	1686.5
550S	1672.0
600S	1657.4
650S	1642.8
700S	1628.2
750S	1613.6
800S	1606.2
850S	1594.1
900S	1582.0

GL1100/350N	1950.0
300N	1956.2
250N	1950.0
200N	1953.5
150N	1942.0
100N	1918.2
50N	1903.7
00N	1873.1
50S	1848.2
100S	1827.1
150S	1811.5
200S	1794.0
250S	1775.8
300S	1761.6
350S	1749.3
400S	1727.8
450S	1717.9
500S	1701.4
550S	1682.5
600S	1671.0
650S	1659.5
700S	1648.0
750S	1636.1
800S	1617.7
850S	1608.8
900S	1592.0

GL1200/400N	1996.4
350N	1998.8
300N	2011.5
250N	1998.0
200N	1999.3
150N	1988.0
100N	1975.4
50N	1959.1

00N	1933.6
50S	1907.0
100S	1890.3
150S	1872.1
200S	1850.5
250S	1832.2
300S	1823.4
350S	1799.9
400S	1779.5
450S	1765.2
500S	1751.6
550S	1730.0
600S	1720.0
650S	1708.9
700S	1690.3
750S	1680.6
800S	1661.1
850S	1642.8
900S	1614.1

GL1300/300N	2028.0
250N	2035.1
200N	2039.8
150N	2038.0
100N	2049.8
50N	2022.5
00N	1995.0
50S	1979.0
100S	1945.3
150S	1930.6
200S	1912.8
250S	1892.2
300S	1878.3
350S	1864.4
400S	1843.4
450S	1828.0
500S	1809.5
550S	1796.3
600S	1780.5
650S	1766.9
700S	1747.4
750S	1728.5
800S	1716.8
850S	1695.5
900S	1680.4

GL1400/150N	2123.1
100N	2107.1
50N	2091.1
00N	2050.8
50S	2024.7
100S	1998.5
150S	1986.5
200S	1961.2
250S	1952.5
300S	1934.1
350S	1916.3

400S	1898.6
450S	1882.1
500S	1863.6
550S	1857.3
600S	1846.7
650S	1826.6
700S	1807.0
750S	1802.0
800S	1788.7
850S	1771.1
900S	1750.8

GL1500/200N	2138.0
150N	2142.1
100N	2147.5
50N	2134.1
00N	2113.5
50S	2078.2
100S	2054.5
150S	2030.8
200S	2008.6
250S	1995.0
300S	1988.5
350S	1961.8
400S	1941.8
450S	1933.2
500S	1931.5
550S	1915.2
600S	1892.9
650S	1875.3
700S	1858.4
750S	1839.5
800S	1812.4
850S	1784.6

GL1600/50N	2122.4
00N	2141.6
50S	2102.1
100S	2084.6
150S	2067.1
200S	2038.3
250S	2016.4
300S	2004.8
350S	1993.1
400S	1981.4
450S	1973.1
500S	1962.6
550S	1939.6
600S	1915.5
650S	1896.3
700S	1876.8
750S	1856.8
800S	1830.0
850S	1807.7
900S	1793.3

GL1700/00N	2132.1
50S	2122.4
100S	2103.0
150S	2086.8
200S	2055.0
250S	2034.3
300S	2022.1
350S	2013.7
400S	1994.6
450S	1984.6
500S	1966.0
550S	1947.1
600S	1928.5
650S	1902.0
700S	1886.7
750S	1867.1
800S	1849.8
850S	1841.5
900S	1811.6

GL1800/50S	2107.9
100S	2100.0
150S	2080.0
200S	2066.1
250S	2050.0
300S	2030.0
350S	2015.0
400S	2001.8
450S	1984.6
500S	1969.0
550S	1948.8
600S	1926.3
650S	1912.1
700S	1895.0
750S	1878.1
800S	1853.0
850S	1841.5
900S	1827.0

GL1900/100S	2076.6
150S	2075.0
200S	2061.8
250S	2033.5
300S	2021.2
350S	2006.5
400S	1985.6
450S	1984.2
500S	1958.5
550S	1940.0
600S	1926.2
650S	1911.6
700S	1890.0
750S	1869.3
800S	1852.7
850S	1842.5
900S	1828.3

APPENDIX B
SURVEY INSTRUMENT SPECIFICATIONS

NEW

SET 4 ELECTRONIC TOTAL STATION

To
Adrian
Bray



SOKKISHA

Efficient electronic total station

Measuring range

The range is 1000m to one prism, and 1600m to three prisms.

Angle measurement ability

Minimum display is 5 seconds, and the accuracy is also 5 seconds.

Diametrical detection system

Photoelectric detectors scan the diametrically opposite sides of both the horizontal and vertical circles.

Automatic compensator

The liquid type tilt sensor corrects the vertical circle reading from the standing axis inclination.



Display and keyboard

The SET 4 has two illuminated LCDs and a light-touch latex keyboard on each face.

Functions

The **REC** key. Making it possible to transfer data without awaiting a 'request' command from the connected external device.

The **ON** key. This key must be pressed prior to the **SET** or **REC** in order to activate their functions.



Lower clamp slide cover

The lower fine motion screw has been removed, and the lower clamp is guarded from accidental handling, by a slide cover.



Data output

RS232C data output connects directly to the powerful Sokkisha SDR2 electronic field book, or to a computer.

Battery

Lightweight and compatible with the SET2, SET3, SDM3F(R), and RED mini 2.

SPECIFICATIONS

TELESCOPE	Coaxial, 360° rotation, built-in reticle illumination
Length	170mm (6.7in)
Aperture	45mm (1.8in)
Magnification	30x
Resolving power	3"
Image	Erect
Field of view	1°30' (26m/1000m)
Minimum focus	1.3m (4.3ft)
DISTANCE MEASUREMENT	
Range	A. Average conditions: slight haze, visibility about 20km (12 miles) sunny periods, weak scintillation G. Good conditions: no haze, visibility about 40km (25 miles) overcast, no scintillation
with 1 prism	A. 1000m (3300ft) G. 1300m (4300ft)
with 3 prisms	A. 1600m (5300ft) G. 2100m (6900ft)
with 9 prisms	A. 2200m (7200ft) G. 2800m (9200ft)
Accuracy	Standard deviation ±(5mm+3ppm)
Unambiguous measuring range	1999.999m (6561.66ft)
Minimum display unit	Measure: 0.001m (0.01ft) Track: 0.01m (0.1ft)
Measuring time	Measure: 4 seconds Track: 0.4 seconds
Atmospheric correction	-99 to +199 (1ppm steps)
Prism constant correction	0 to -9 (1cm steps)
Earth curv. Refr. cor.	Selectable ON/OFF
Unit of measure	Meters/feet (U.S. Survey ft=0.30480061m)
Audio target acquisition	Selectable ON/OFF
Light intensity control	Automatic
Transmitter	Infrared LED
ANGLE MEASUREMENT	Incremental encoder scanning, both horizontal and vertical circles adopt diametrical detection.
Minimum display	5"/1 mgon
Measuring time	0.5 seconds
Accuracy	Standard deviation of mean of a measurement taken in position 1 and 2 (DIN 18723)
Horizontal direction	5"/2 mgon
Vertical angle	5"/2 mgon
Compensator	Liquid tilt sensor
Range	±3"
Minimum display	5"/1 mgon
Display range	-1999°59'55" to 1999°59'55" / -1999.999gon to 1999.999gon
LEVEL SENSITIVITY	Plate level: 30"/2mm Circular level: 10"/2mm
OPTICAL PLUMMET	Magnification: 3x Image: Erect Minimum Focus: 0.1m (0.33ft)
DISPLAY	LCDs, 2 on each face, built-in illumination
DATA OUTPUT	Asynchronous serial, RS232C compatible
OPERATING TEMPERATURE	-20°C to +50°C (-4°F to +122°F)
OPERATING VOLTAGE	6V DC, adaptors for AC and 12V DC optional
POWER CONSUMPTION	Theodolite + distance mode 4.8W/theodolite mode: 0.3W
POWER SUPPLIES	Integral battery on standard, external battery plug at base
Integral battery	6V DC NiCd about 800 measurements in theodolite + distance mode, 13 hours operation in theodolite mode
External battery	6V DC NiCd about 4000 measurements in theodolite + distance mode, 90 hours operation in theodolite mode
DIMENSIONS (w/o handle)	330(H)×166(W)×170(D)mm (13.0×6.6×6.7 in)
WEIGHT	Instrument with battery: 7.6kg (16.8lb) SC46 carrying case: 5.5kg (12.1lb) Integral battery: 200g (7.1oz)



SOKKISHA CO., LTD.

Koto Yoyogi Building 5th Floor, No 1, 1-chome,
Tomigaya, Shibuya-ku, Tokyo, 151 Japan

Telex: J28518SURSOK Cable "SOKKISHA" TOKYO
Phone: 03-485-2501 Fax: 03-465-5203