

# Rio Tinto Exploration Canada Inc.

## **2010 GROUND GEOPHYSICAL ASSESSMENT REPORT on the SUNDAY LAKE PROPERTY**

NTS: 52A11 (Onion Lake)

**Thunder Bay Mining Division, Ontario**

- Prepared by: -

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- Author -

**Christophe Hyde and Steve Beach**

- Date of report -

**November 2<sup>nd</sup>, 2010**

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## INTRODUCTION

### Project Description

The Sunday Lake property was the subject of a gravity survey and associated line-cutting program in September of 2010. The gravity work was conducted by Eastern Geophysics Limited. The line-cutting work was conducted by Porcupine Forestry Prospects. All geophysical and line-cutting work was supervised by Steve Beach (Senior Project Geologist), and Christophe Hyde (Senior Project Geophysicist), both employees of Rio Tinto Exploration Canada Inc.

### Location and Access

The project area is comprised of 10 claim blocks totaling 1591.35ha located within the Onion Lake Map Area - NTS sheet 052A11 (fig.1), approximately 25km north of the city of Thunder Bay, Ontario. The property can be reached by traveling northwest on Red River Road from Thunder Bay to Dog Lake Road, turning north and traveling ~21km to the junction with Howcum Lake Road, then turning northeast to Sunday Lake Road, and north to the Sunday Lake claims.

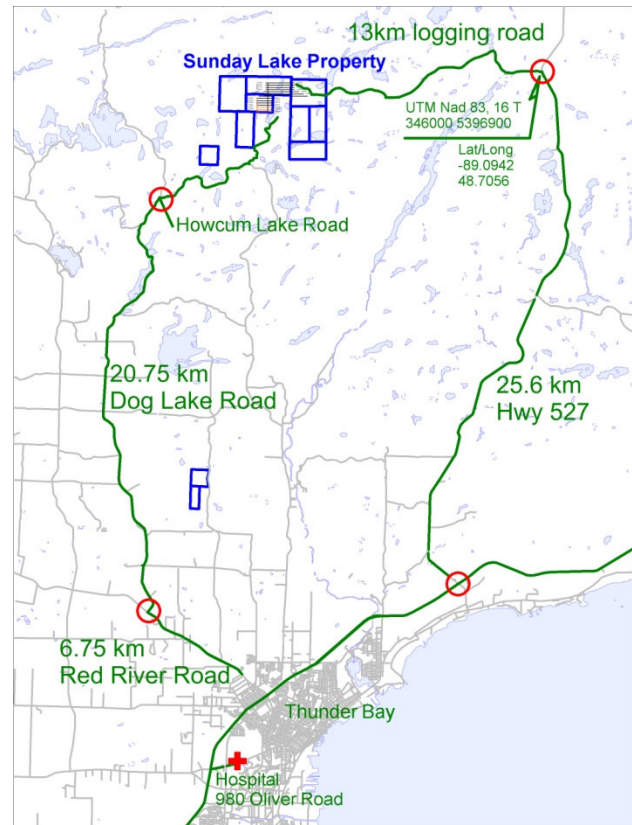


Figure 1) Location and access of the Sunday Lake Property

### Claim Information

Table 1 (below) is a list of claims for the Sunday Lake property. Figure 2 is a map of the Sunday Lake claims.

Township/Area	Claim Number	Recording Date	Claim Due Date	Status	Percent Option	Work Required	Total Applied	Total Reserve	Claim Bank
JACQUES	<a href="#">4210856</a>	2006-Aug-18	2010-Nov-16	A	100%	\$3,200	\$6,400	\$0	\$0
JACQUES	<a href="#">4210857</a>	2006-Aug-18	2010-Nov-16	A	100%	\$2,400	\$4,800	\$0	\$0
JACQUES	<a href="#">4210858</a>	2006-Aug-18	2010-Nov-16	A	100%	\$4,000	\$8,000	\$0	\$0
ONION LAKE AREA	<a href="#">4210859</a>	2006-Aug-18	2010-Nov-16	A	100%	\$4,800	\$9,600	\$0	\$0
ONION LAKE AREA	<a href="#">4210860</a>	2006-Aug-18	2010-Nov-16	A	100%	\$3,200	\$6,400	\$0	\$0
ONION LAKE AREA	<a href="#">4210861</a>	2006-Aug-18	2010-Nov-16	A	100%	\$3,200	\$6,400	\$0	\$0
JACQUES	<a href="#">4230099</a>	2008-Feb-21	2011-Feb-21	A	100%	\$4,800	\$4,800	\$0	\$0
<b>TOTAL</b>						<b>\$25,600</b>			

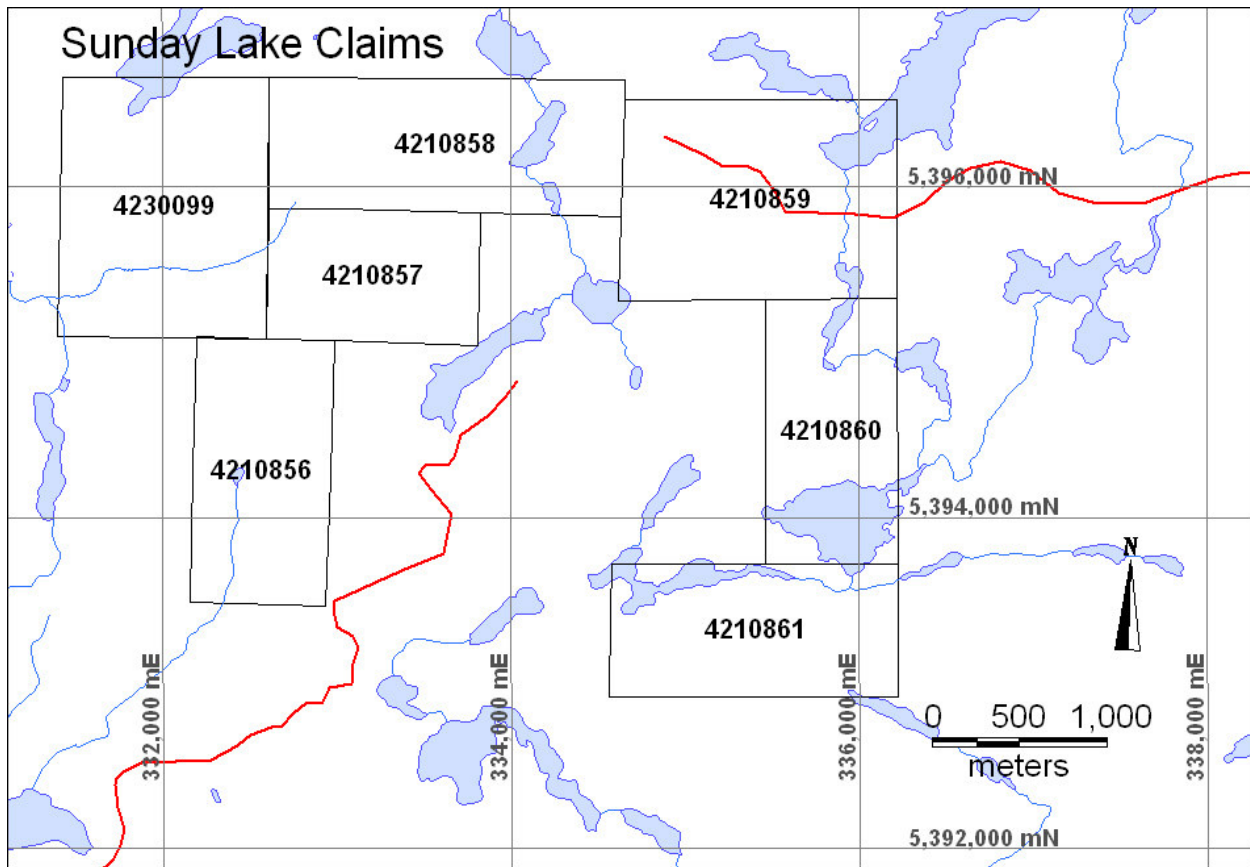


Figure 2) Map showing the location of Kennecott's Sunday Lake property claims.

### Work History

The Sunday Lake Magnetic anomaly forms a prominent circular feature within the OGS Shebandowan airborne total field magnetic survey area (OGS Map 81567). The bedrock geology of the Sunday Lake area has been summarized on a regional compilation map by Pye and Fenwick (1965). The Quaternary geology of the area was described by Burwasser (1981).

Canstar Resources Inc. reported in a press release, that they had completed two drill holes totaling 484m in 2007 to test the Sunday Lake magnetic anomaly. The holes reportedly intersected "intense zones of oxidized and epidotized meta-sediments" but no obvious source for the magnetic anomaly.

Kennecott flew a high-resolution airborne EM and total field magnetic survey over portions of the Sunday Lake magnetic anomaly in 2008. Results from this work were reported in an assessment report dated November 16, 2008.

### Geology

Kennecott has completed a geologic mapping program of the cut lines on the Sunday Lake property in September of 2010. One outcrop of gabbro was found, and the remainder of the property consists of granite and metasediments of the Archean age Quetico Subprovince. Percival and Williams (1989) suggest that the Quetico belt represents an accretionary prism of sediments between the Wawa, terrane and the Wabigoon, terrane.

### EXPLORATION PROGRAM

A Gravity Survey was completed in September 2010 along 17 lines while recording 395 stations. The cost of the survey was \$24,745 which constitutes 70.9156% of invoice shown in Appendix B which is applicable to the Sunday Lake Survey. The survey was undertaken along lines cut in 2009 and newly cut lines in 2010. The cost for the new cut lines is \$25,013.63 which constitutes 53.14% of invoice total shown in Appendix C.

## EXPLORATION RESULTS

The gravity survey (see Figure in Appendix D) was conducted over the north-western portion of a major magnetic anomaly. The purpose of the gravity survey was to provide regional gravity data on the supposed deep magnetic structure. In addition, the detailed nature of the gravity survey (100m lines with 50m stations and 25m detail stations) was to refine potential drilling targets and help better define known short-wavelength magnetic anomalies. Although associated short-wavelength gravity anomalies –associated with short-wavelength magnetic anomalies - were identified in the gravity survey, the contrast associated with these gravity anomalies is weak and is more clearly observed with the magnetic anomalies. The advantage of the gravity anomalies is they help resolve remanence issues associated with the magnetic anomalies and therefore provide a clearer path towards a drilling target.

## STATEMENT OF COSTS

Contractor	Amount	Date Completed			
Eastern Geophysics Limited	24,745.00	19-Sep-10			
Porcupine Forestry Prospects	25,014.00	19-Sep-10			
<b>SUBTOTAL</b>	<b>49,759.00</b>				
		Accommodations	Salary	Meals	Days
Rio Tinto Exploration: Steve Beach	11,250.00	1,650.00	9,000.00	600.00	15
Rio Tinto Exploration: Christophe Hyde	3,000.00	440.00	2,400.00	160.00	4
<b>TOTAL</b>	<b>64,009.00</b>				

I, **Steve Beach**, certify that these costs were accrued in September 2010 on work for the Sunday Lake claims.



Steve Beach  
Senior Project Geologist  
Kennecott Exploration Company

**Rio Tinto**  
224 North 2200 West, Salt Lake City, UT 84116

## **REFERENCES:**

1991 Airborne electromagnetic and total intensity magnetic survey, Ontario Geological Survey, Map 81567, scale 1:20,000.

Burwasser, 1981, The Quaternary geology of the Onion and Sunshine Lakes area, District of Thunder Bay, OGS Misc. Paper 94.

Percival, J.A. and H.R. Williams, 1989, Late Archean Quetico accretionary complex, Superior Province, Canada, *Geology*, v.17; No. 1; p. 23-25.

Pye, E. G. and K.G. Fenwick, 1965, Atikokan-Lakehead Sheet, Districts of Kenora, Rainy River, and Thunder Bay; Ontario Div. Mines, Geol. Comp. Ser. Map 2065, scale 1:253,440.

Hyde, 2008, Airborne geophysical assessment report on the Sunday Lake Property, NTS: 52A11 (Onion Lake), Thunder Bay Mining Division, Ontario.

**APPENDIX A**

**GEOPHYSICAL REPORT BY CONTRACTOR  
INCLUDES  
SURVEY AREAS AND SPECIFICATIONS  
AND  
TECHNICAL SPECIFICATIONS**

## **LOGISTICS REPORT**

### **RIO TINTO CANADA EXPLORATION INC.**

#### **Gravity Survey**

**Sunday Lake Property, Thunder Bay, ON**

**NTS: 52 A/11**

**Project geophysicist: Christophe Hyde**

Project #1009-1

Ref: 1009-1grv

### **Introduction**

This field report covers the survey procedures and parameters for the detailed gravity survey carried out for Rio Tinto Canada Exploration Inc. on the Sunday Lake Property, north Thunder Bay, Ontario NTS: 52 A/11. This logistics report deals with the field work portion of this contract.

### **Survey Equipment**

- 1 - LaCoste & Romberg model G gravity meter, Ser. # 789
- 1 - Leica Geosystems model 1230 RTK dual frequency differential GPS with GLONASS option base station.
- 2 - Leica Geosystems model 1230 RTK dual frequency differential GPS with GLONASS option rovers.
- 1 - Alegro datalogger model CX, ser.# 44548
- 2 - Laptop computers
- Registered users of Geosoft<sup>tm</sup> geophysical software
- Registered users of Leica Geo-Office<sup>tm</sup> GPS software

### **Survey Specifications**

- Detailed Gravity Survey at reading intervals of 25 and 50 meters.
- Grid line spacing of 100 m.
- Gravity survey is tied-in to the Canadian Gravity Standardization Network (CGSN) base in Thunder Bay, ID# 9382-1998
- Gravity readings reduced to Bouguer mgal. values
- All coordinates are in NAD83 Datum using UTM zone 16 format.
- Elevations are in height above mean sea level (MSL), NAVD 1988
- Maximum elevation tolerance of +/- 5 cm./station
- Maximum gravity tolerance of 0.05 mgal./station



## **Survey Procedure**

A gravity and XY and Z observation were obtained every 25 or 50m on cut lines. All the gravity data has been calculated or reduced to Bouguer mgal. values. These calculations correct for the following parameters (1) elevation, free-air correction, instrument height; (2) latitude correction; (3) tide correction on a daily basis; (4) instrument drift; and, if required (5) terrain corrections. In order to verify the accuracy of these corrections, 5% of the readings were observed again as random repeat readings. This contract specifies repeat readings to be no greater than 0.05 mgal.

CGSN Gravity base: Provincial Court House, Thunder Bay. ID# 9382-1998). Gravity Value: 980805.04 mgal. Location: Lat. N48°22'52", Long. 89°15'43", elev. 189.000m.

Local gravity base station: Days Inn and Suites, 645 Sibley Drive, Thunder Bay, on the north concrete step at exit on north-east corner of top platform at 5363866 N, 332735 E. Our reference: Base # 88  
Gravity Value: 980806.92 mgal.

GPS Control: Horizontal and vertical control was established on a surveyors X marked on outcrop. Location: 5402408.489 N, 357881.958 E, orthometric (MSL) elevation = 508.160 meters. This point was established by setting a base on this X for 4 hours and sending the file to Ottawa to be post processed to obtain this value.

Local Control Point: Sunday Lake 1: 5396799.101N, 346092.291E, Elevation = 464.606m. A nail on an outcrop on Popular Road.

Sunday Lake 2: 5396126.731N, 337020.778E, elevation = 503.160m.

An X marked on an outcrop off Barnum Road.

Sunday Lake 3: 5393910.691N, 333634.504E, elevation = 499.234m. A nail in high stump on side of Sunday Lake Road.

Sunday Lake 4: 5396115.528N, 335271.568E, elevation = 496.563m. A nail in outcrop off Barnum Road.

Sunday Lake 5: 5393602.705N, 333323.153E, elevation = 513.544m Nail in high stump on an access road off Sunday Lake Road

All heights are Orthometric

## **Personnel**

Michael Tatlock, Eldon Norman, and Noland Nippard.

**Operator Journal:**

Project # 1009-1 September 2 to September 19, 2010

**Thursday, September 2, 2010.**

**Day-1-: Travel:** Eldon Norman and Noland Nippard traveled from their homes to Deer Lake, NL and flew to Thunder Bay, Ont. Michael Tatlock traveled from New Glasgow to Halifax, NS and also flew to Thunder Bay. Everyone arrived in Thunder Bay at 11:12 pm.

**Friday, September 3, 2010.**

**Day-2-: Standby:** We had an induction from head geologist Steve Beach at the diamonds lab. It covered safety procedures to perform while working for Rio Tinto. We went over a projector of sheets and he gave us some reading material consisting of 3 booklets and a vehicle check list to fill out each day. He photocopied all our safety courses and drivers licenses. Steve then escorted us to the grid on the west side to show us the access roads.

**Saturday, September 04, 2010**

**Day-3-: Operating:** We tied-in to a GPS control point approximately 25 km east, located on the Magma Metals property. We established several local control points on the Sunday Lake property. We now have a GPS control point just before the east end of the grid and before the end of the south access road to the grid on the Sunday Lake road via the Howcum Lake road.

**Sunday, September 05, 2010.**

**Day-4-: Operating:** Read 46 stations + 3 repeats. We took 31 readings at 100m spacing on the Sunday Lake Road and 15 readings at 200m spacing on the Howcum Lake Road which accesses Sunday Lake Road from Highway 527. This is all of the road coverage outlined by the client for now. The gravity meter ran well and had already settled down from Via Air Canada freight from Halifax.  
(running total = 46 stations + 3 repeats)

**Monday, September 06, 2010.**

**Day-5-: Operating:** Read 48 stations + 3 repeats. We read all of L-5070N from 3800E to 3350E at 25m stations and 3350E to 3100E at 50m stations. We also read all of L-5170N from 3100E to 3350E at 50m stations and 3350E to 3800E at 25m station intervals. There is a cedar swamp on L-5070N from about 3700E to 3300E which was slow to walk in and the gravity meter was slow to read. We were fortunate that there was no wind.  
(running total = 94 stations + 6 repeats)

**Tuesday, September 07, 2010.**

**Day-6-: Bad Weather:** Heavy rain and strong winds starting at 8am and the rain became intermittent near noon but the winds continued all day. We managed to tie in our gravity base at the Days Inn Hotel to the CGSN station, ID# 9382-1998, at the provincial court house in Thunder Bay.

**Wednesday, September 08, 2010.**

**Day-7-: Operating:** Read 38 stations + 3 repeats. We read all of L-5270N from 3800E to 3400E at 25m spacing and from 3400E to 3100E at 50m spacing. We also read all L-5370N from 3100E to 3800E at 50m spacing. There was some intermittent seismic activity today which started at the base station and continued on about 20% of the readings. This slowed some readings. The GPS is having a hard time on the east part of the grid due to the tall spruce trees and hardwood. They are very close together which gives us little sky to work with and coupled with them swaying at times made it slow to get a location fix especially after 3 pm when the satellites were dropping or clustering. We took 4 terrain corrections today.  
(Running total = 132 stations + 9 repeats)

**Thursday, September 09, 2010.**

**Day-8-: Operating:** Read 40 stations + 3 repeats. We completed L-5470N from 3800E to 3100E and L-5570N from 3100E to 3800E. We read part of L-5670N from 3800E to 3350E. These old lines we are still on zig and zag all the time and only the small trees are cut as most of it is done with an axe. Therefore there is no straight avenue for the GPS to get some part of sky always open. The trees are very tall and sometimes thick which makes it like reading in uncut lines. It requires a lot of maneuvering the GPS while it is extended up on a tripod in order to get a coordinate fix in these thick areas.  
(Running total = 172 stations + 12 repeats)

**Friday, September 10, 2010.**

**Day-9-: Operating:** Read 48 stations + 3 repeats. We completed L-5670N from 3300E to 3100E and read L-5750N from 3200E to 3800E, L-5850N from 3800E to 4200E (25m spacing), and L-5950N from 4150E to 3850E (25m spacing). There were only 3 satellites above 40 degree elev. at 9:45 am which makes it tricky in these tall trees to get a GPS fix. It was not until 10:45 am that they came up high enough to get a GPS reading. We got into some boggy ground this afternoon. This helped the GPS but slowed the gravity due to shaky ground. Hard to have everything going the right way together.  
(Running total = 220 readings + 15 repeats)

**Saturday, September 11, 2010.**

**Day-10-: Bad Weather:** It was raining when we awoke and it got heavier until about 10:30am. It started again about 11:30am and was off and on but the mist was more continuous until 6pm.

**Sunday, September 12, 2010.**

**Day-11-: Operating:** Read 55 stations + 3 repeats. We read L-5970N from 3825E to 3750E (25m stations) then 3700E to 3550E (50m stations). Next we went north and read L-6370N from 3500E to 4150E (50m stn), L-6270N from 4050E to 3500E (50m stn.), L-6170N from 3500E to 3750E (50m stn.) then 3775E to 3975E (25m stn.), and ended the day reading L-6070N from 4075E to 3950E (25m stn.). It was very windy on the west end 100m of these lines on a hill in the tall hardwood which made GPS readings very slow.  
(Running total = 275 readings + 18 repeats)

**Monday, September 13, 2010.**

**Day-12-: Operating:** Read 40 stations + 3 repeats. We read L-6070N from 3925E to 3750E (25m stn.) then 3700E to 3500E (50m stn.); L5970N from 3400E to 3500E (50m stn.); L5870N from 3300E to 3750E (50m stn.) then read 3775E. We walked up to the north part of the grid and read TL3600E from 6320N to 5120N at 100 meter spacing since there was already a reading taken on the tie line where the lines intersect. This finishes the western side of the grid to the lake and beaver pond.  
(Running total = 315 readings + 21 repeats)

**Tuesday, September 14, 2010.**

**Day-13-: Operating:** Read 38 stations + 2 repeats. We read L-6370N from 4800E to 4250E (50m stn.), L-6270N from 4250E to 4800E (50m stn.), and L-6170N from 4800E to 4250E (50m stn.) then 4225E to 4200E. The Barnum dirt road from highway 527 is a very slow driving with bumps and ridges at the first then it is good but then gets narrow with alders tight to the SUV. Had 7 terrain corrections today.  
(Running total = 353 readings + 23 repeats)

**Wednesday, September 15, 2010.**

**Day-14-: Operating:** Read 47 stations + 2 repeats; (41 were read at 50m interval and 6 at 25m). We read L-6070N from 4800E to 4250E (50m stn.) then 4225E to 4100E at 25m stations. Next we read L-5970N from 4250E to 5000E (50m stn.) and L-5870N from 5200E to 4600E (50m stn.). L-6070N and L-5970N are now completed. It started raining lightly at 2:30pm and got slowly heavier as the afternoon went on but it let up by 3:45pm.  
(Running total = 400 readings + 25 repeats)

**Thursday, September 16, 2010.**

**Day-15-: Operating:** Read 22 stations + 3 repeats (all 50m stn.). We read L-5870N from 4550E to 4300E and L-5770N from 4650E to 5400E. This now completes L-5870N and L-5770N which finishes the east side of the grid. There are some really tall and thick popular on the west end of L-5870N which slowed down the GPS to about 20 min to 40 min per reading for 3 readings. We found a grassy road which runs just east of the lines then goes west between L-5870N and L-5770N. This now completes all of the grid lines for the Sunday Lake grid. (Running total = 422 readings + 28 repeats)

**Friday, September 17, 2010.**

**Day-16-: Operating:** Read 51 stations + 3 repeats. We read 100 meter intervals on Howcum Lake Road. We also had to a new GPS Base Station on Sunday Lake Road at a higher elevation. There was 10 post processed points today. Note: Mike flew to Wabush in the early morning. (Running total = 473 readings + 31 repeats)

**Saturday, September 18, 2010.**

**Day-17-: Operating:** Read 50 Stations + 3 repeats. We read 100 meter intervals on Howcum Lake Road. There were 9 post processed points today. Note: This concludes the field work on this project. (Final total = 523 readings + 34 repeats)

**Sunday, September 19, 2010.**

**Day-18-: Standby:** Packed up all the gravity equipment and brought it to Christophe Hyde's room so that he could ship it for us to Walbush tomorrow.

**PROJECT SUMMARY**

- 1.0 - Travel days
- 12.0 - Operating days gravity
  - 1.0 - Operating day for tie-in
  - 2.0 - Bad Weather days
  - 2.0 - Standby days
- 0.0 - Days Off
- 18.0 - Total days    September 02 to September 19, 2010

523 gravity stations read + 34 repeat readings.

523 DGPS stations + 34 repeat readings, 0 stations with optical equipment.

Note: Every gravity station read has a DGPS position, therefore it is complete.

For further information concerning this logistics report or for archived data, please contact Brian d'Entremont in Nova Scotia or Bennett d'Eon at Eastern Geophysics' Newfoundland office.


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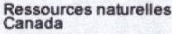
# Sunday Lake gravity survey tied to CGSN station 9382-1998

Canadian Gravity Standardization Network (CGSN)

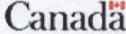
Page 1 of 1



Natural Resources  
Canada



Ressources naturelles  
Canada



Canada

### Canadian Gravity Standardization Network (CGSN)

**STATION IDENTIFICATION (IGNS71)**  
NUMBER: 9382-1998  
NAME: THUNDER BAY  
DESCRIPTION: PROVINCIAL COURT HOUSE, BACK EXIT  
PROVINCE: ONT

**STATION COORDINATES (SCALED)**  
LATITUDE: N 48° 22' 52" ± 50.0 m  
LONGITUDE: W 89° 15' 43" ± 50.0 m  
ELEVATION: 189.0000 ± 2.00 m  
GRAVITY VALUE: 980805.0404 ± .0040 mgal  
INSPECTED: 10/1998

**FOR FURTHER INFORMATION, CONTACT:**

Natural Resources Canada  
Geodetic Survey Division  
Information Management and Client Services  
615 Booth Street  
Ottawa, Ontario  
K1A 0E9  
Telephone: 613-995-4410  
Fax: 613-995-3215  
E-Mail: [information@geod.nrcan.gc.ca](mailto:information@geod.nrcan.gc.ca)

**STATION INFORMATION AND LOCATION**

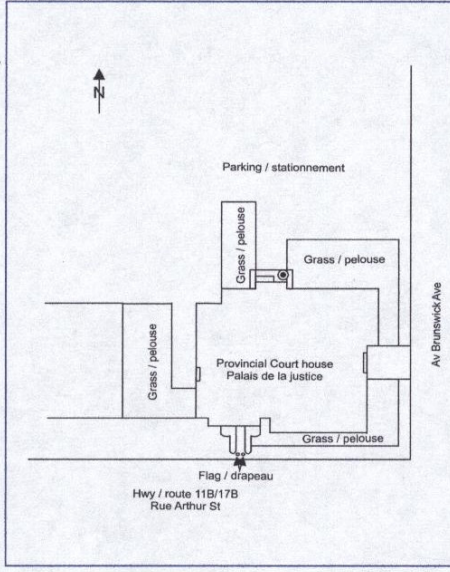
The station is located at rear (N) entrance of the Provincial court house. It is monumented by an aluminum disc next to the wall on the concrete floor.

**OTHER STATIONS WITH THE SAME NAME**

9381-1998


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**SKETCH:**




The sketch shows the Provincial Court house (Palais de la justice) with a north arrow. The station is located at the rear (N) entrance. Surrounding areas include parking (stationnement), grass (pelouse), and streets: Hwy / route 11B/17B, Rue Arthur St, and Av Brunswick Ave.

**DISTANT VIEW:**



A photograph showing the Provincial Court house building from a distance, with a road and trees in the foreground.

**CLOSE-UP VIEW:**



A photograph showing the rear entrance of the Provincial Court house, with a concrete walkway and a bench in the foreground.

[http://csrsjava.geod.nrcan.gc.ca/csrsicp/html/cgsn\\_description.html](http://csrsjava.geod.nrcan.gc.ca/csrsicp/html/cgsn_description.html)

31/08/2010

Logistics Report

**Gravity Data Processing Terms:**

The data was reduced to Bouguer Gravity Anomaly values in milligals, mGal. The Sunday Lake grid is tied to a common gravity base at the provincial courthouse in Thunder Bay. The density used and reported in the digital files are 2.67 g/cc. Other terms, as used in the processing, are defined below:

**Observed Gravity:**

Field observations corrected for Scale Factor, tides due to the Sun and Moon, instrument drift during the time between base readings, and instrument height.

**Theoretical Gravity (Latitude Correction):**

A correction applied to account for the effect of latitude, due to the Earth's rotation and change in radius from the center of mass. This survey used the IGF1967 formula

$$G_t = 9.78031846 * (1 + 0.0053024 \sin^2 \varphi - 0.0000058 \sin^2 2\varphi)$$

**Free Air Correction:**

A correction applied to account for station readings taken at various elevations above a common datum, in this case, Mean Sea Level. All GPS heights above the ellipsoid have been converted to Mean Sea Level by applying the Geoidal Separation.

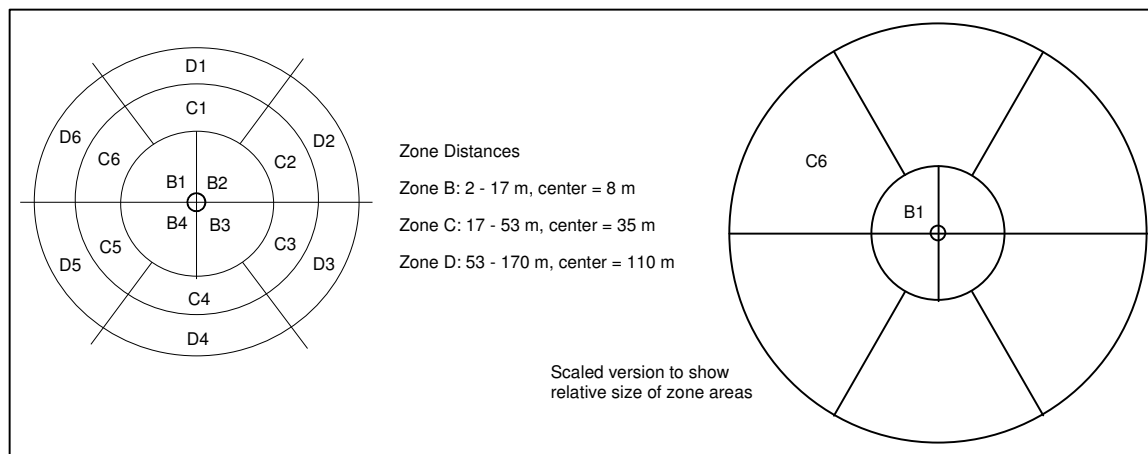
$$G_{fa} = -0.3086 \text{ mGal} / \text{m} * \text{elevation (MSL)}$$

**Bouguer Slab Correction:**

A correction applied to the rock layer between the station and datum, Mean Sea Level. The equation can handle water and ice layers as well but not required on this project.

**Inner Terrain Correction, ITC:**

A correction applied to the variable ground elevation in the near vicinity of the station. The outer radius of the C-zone is 53.3 meters. Terrain effects beyond this distance are insignificant for this region and this survey. The method used follows the Modified Hammer Zones B and C formulae.





**Description of Data Channels in Bouguer Data Spreadsheet:**

Column A: Line – Road or grid line oriented N.

Column B: Station – Road station or grid station oriented E.

Column C: Grid Northing in meters, NAD83 UTM Zone 16

Column D: Grid Easting in meters, NAD83 UTM Zone 16

Column E: Elevation in meters Above Mean Sea Level (Orthometric), NAVD 1988

Column F: Free Air Correction, mGal

Column G: Observed Gravity in milligals

Column H: Inner Terrain Correction ITC – B and C zones, mGal

Column I: Bouguer Slab Correction for rock, mGal

Column J: Final Bouguer Gravity including ITC if available using rock density of 2.67 g/cc, mGal

**GRAVITY LOOP CLOSURES**  
**Sunday Lake project**  
**Meter # 789**

<b>Loop</b>	<b>Base Start</b>	<b>Base End</b>	<b>Loop Time</b>	<b>Drift / Hour</b>	<b>Closure</b>
9-05M	8:33	16:47	8:14	-.0004	-.0037
9-06M	7:43	18:05	10:22	.0019	.0198
9-08M	8:28	18:56	10:28	-.0012	-.0127
9-09M	7:52	18:16	10:24	.0012	.0127
9-10M	7:48	18:09	10:21	.0006	.0058
9-12E	7:46	17:54	10:08	.0038	.0380
9-13E	7:52	17:02	9:11	-.0007	-.0067
9-14E	8:03	18:46	10:43	.0028	.0298
9-15M	7:55	17:53	9:58	.0009	.0087
9-16M	8:07	17:12	9:05	.0001	.0012
9-17E	8:00	17:21	9:21	.0023	.0216
9-18E	7:48	16:16	8:28	.0005	.0044

**GRAVITY REPEAT READINGS**  
**Sunday Lake project**  
**Meter # 789**

1

Station	Loop	BS	Reading	Loop	BS	Reading	Diff.
ROAD/37	9-05M	88	-76.11	9-05M	88	-76.12	.01
ROAD/27	9-05M	88	-74.67	9-05M	88	-74.68	.01
ROAD/1	9-05M	88	-73.49	9-05M	88	-73.48	-.01
ROAD/1	9-06M	88	-73.47	9-05M	88	-73.48	.01
L5170N/3750E	9-06M	88	-75.87	9-06M	88	-75.85	-.02
L5070N/3800E	9-06M	88	-75.44	9-06M	88	-75.45	.01
ROAD/10	9-08M	88	-74.10	9-05M	88	-74.06	-.04
L5270N/3250E	9-08M	88	-77.94	9-08M	88	-77.97	.03
L5070N/3800E	9-08M	88	-75.41	9-06M	88	-75.45	.04
ROAD/10	9-09M	88	-74.09	9-05M	88	-74.06	-.03
L5570N/3300N	9-09M	88	-78.47	9-09M	88	-78.44	-.03
L5570N/3700N	9-09M	88	-77.86	9-09M	88	-77.88	.02
ROAD/10	9-10M	88	-74.10	9-05M	88	-74.06	-.04
L5570N/3350E	9-10M	88	-78.41	9-09M	88	-78.40	-.01
L5770N/3650E	9-10M	88	-78.38	9-10M	88	-78.40	.02
ROAD/10	9-12E	88	-74.07	9-05M	88	-74.06	-.01
L6270N/4050E	9-12E	88	-78.70	9-12E	88	-78.67	-.03
L6170N/3600E	9-12E	88	-78.85	9-12E	88	-78.85	.00
ROAD/10	9-13E	88	-74.09	9-05M	88	-74.06	-.03
L5970N/3600E	9-13E	88	-78.60	9-12E	88	-78.64	.04

**GRAVITY REPEAT READINGS**  
**Sunday Lake project**  
**Meter # 789**

2

<b>Station</b>	<b>Loop</b>	<b>BS</b>	<b>Reading</b>	<b>Loop</b>	<b>BS</b>	<b>Reading</b>	<b>Diff.</b>
L5270N/3600E	9-13E	88	-76.63	9-08M	88	-76.66	.03
L6270N/4250E	9-14E	88	-78.51	9-14E	88	-78.49	-.02
L6170N/4800E	9-14E	88	-77.43	9-14E	88	-77.42	-.01
L6170N/4800E	9-15M	88	-77.44	9-14E	88	-77.42	-.02
L5870N/5050E	9-15M	88	-76.50	9-15M	88	-76.48	-.02
L5870N/5200E	9-16M	88	-76.28	9-15M	88	-76.29	.01
L5770N/4650E	9-16M	88	-76.46	9-16M	88	-76.46	.00
L5870N/5200E	9-16M	88	-76.27	9-15M	88	-76.29	.02
ROAD/58	9-17E	88	-74.03	9-17E	88	-74.02	-.01
ROAD/47	9-17E	88	-74.34	9-17E	88	-74.34	.00
ROAD/76	9-17E	88	-76.23	9-17E	88	-76.23	.00
ROAD/96	9-18E	88	-76.70	9-17E	88	-76.75	.05
ROAD/128	9-18E	88	-76.65	9-18E	88	-76.65	.00
ROAD/96	9-18E	88	-76.72	9-17E	88	-76.75	.03

Note: Loop X-XXM = Mike Tatlock gravity operator, Loop X-XXE = Eldon Norman gravity operator

**APPENDIX B**

**INVOICE: Eastern Geophysics**



60 West Wilmot Street, Unit 22, Richmond Hill, Ontario, Canada L4B 1M6

Tel: (905) 731-0972  
Fax: (905) 731-9312

**INVOICE NO: 5293**  
**DATE: October 29, 2010**  
**JOB: 10-64**  
**Due on receipt**

**To: Rto Tinto Exploration Canada Inc.**  
Suite 354 - 200 Granville Street  
Vancouver, BC  
V6C 1S4

**For: Misc-à-la-Masse Surveys**  
Current Lake Project  
Thunder Bay Area, North-western Ontario

**Attn: Accounts Payable / Christophe Hyde**

**Survey Period: September 13 to 26, 2010**

DESCRIPTION	UNIT PRICE	AMOUNT
Set-up, Insurance		\$ 1,000.00
<u>Mobilization/Demobilization:</u>		
Sept. 13 - 15, 25, 26 (Travel, Party Chief, 4.5 days total)	\$450.00/day	\$ 2,025.00
JVX truck, 4.5 days	\$150.00/day	\$ 675.00
<u>Misc-à-la-Masse Surveys:</u>		
Sept. 16 (Standby, safety induction/set-up survey, 3 JVX Crew)	\$900.00/day	\$ 900.00
Sept. 17 (Standby, weather, 3 JVX Crew, 0.5 day)	\$900.00/day	\$ 450.00
Sept. 17 (Production, 3 JVX Crew & MALM Equip., 0.5 day)	\$1,650.00/day	\$ 825.00
Sept. 18 - 23 (Production, 3 JVX Crew & MALM Equip., 6 days)	\$1,650.00/day	\$ 9,900.00
Sept. 24 (Standby, processing data, Party Chief)	\$450.00/day	\$ 450.00
Survey monitoring during survey, 1 day	\$600.00/day	\$ 600.00
JVX truck, 9 days	\$150.00/day	\$ 1,350.00
<u>Reporting:</u>		
Logistical report		\$ 2,000.00
(1) Plan map, Pole-pole potential difference	\$400.00/map	\$ 400.00
<u>Expenses:</u>		
Motel, Cost: \$836.17	Cost + 15%	\$ 961.60
Food, Cost: \$722.24	Cost + 15%	\$ 830.58
Fuel, Cost: \$661.57	Cost + 15%	\$ 760.81
Defensive Driving Course (required by client), Cost: \$75.00	Cost + 15%	\$ 86.25
	<b>Subtotal</b>	<b>\$ 23,214.24</b>
	<b>13% HST (JVX HST#R102747995)</b>	<b>\$ 3,017.85</b>
	<b>Subtotal</b>	<b>\$ 26,232.09</b>
	<b>Less Payment (Invoice 5280)</b>	<b>\$ 12,500.00</b>
	<b>Total</b>	<b>\$ 13,732.09</b>

*Geophysical Consulting & Service to the Mining Industry*

# RTECI PAYMENT APPROVAL

	signed	Date
Goods Received	<i>Christophe Hyle</i>	october 29 <sup>th</sup> 2010
Costs Correct	<i>Christophe Hyle</i>	october 29 <sup>th</sup> 2010
Math checked	<i>Christophe Hyle</i>	october 29th 2010
Approved	<i>[Signature]</i>	11 - 1 - 10
Project Code	Expense Element	Amount
V3744	921500	C\$ 10,714.24
HST		C\$ 3,017.85

**APPENDIX C**

**INVOICE: Porcupine Forestry Prospects**



PORCUPINE FORESTRY PROSPECTS

c/o LORNE ONELL  
GENERAL DELIVERY  
DRYDEN, ONT.  
P8N 2Y6 807-697-5513

Att: Christophe Hyde

OUR NUMBER	316447
DATE	September 27, 2010
CUSTOMER'S ORDER	

SOLD TO Rio Tinto Exploration Canada Inc.  
ADDRESS Suite 354 Granville Square,  
200 Granville Street,  
Vancouver, BC V6C 1S4 Canada

emailed to hydec@riotinto.com  
SHIP TO hydec@riotinto.com  
ADDRESS Sept 27/10

TAX REG. NO. R114593288 SALESPERSON Lorne FOB  TERMS 30daysnet VIA Porcupine Forestry

INVOICE

QUANTITY	DESCRIPTION	PRICE	AMOUNT
	Aug 31/10 mob	Sept 26/10 demob	
	Sunday Lake Grid (11.6 km's)	Current Lake Grid (10.0 km's)	Interest on Overdue
	Total 21.6 km's of line cutting	North east of Thunder Bay, Ontario	Accounts will be charged @ 2.5%/month
	21.6 km's @ 1200"/km	21.6 X 1200"	25,920.00
	71 man days on job (31 man days daily)	31 X 300"	9,300.00
	74 man days @ daily expense rate 150"/day / line cutter		11,100.00
	15 days boat engine & trailer	15 X 100"	1,500.00
	* Misc office, phone etc (250.00)		331.08
331.08	* recording fees on claim # 4247181 (40.80)		
	* (4) 4x4x8 treated posts 40.28		
	sub total		48,151.08
	H.S.T.		6,259.64
	TOTAL		54,410.72

BlueLine DC31

*[Signature]*

Invoice # 316446  
Remainder owing \$ 11,300.00  
\$ 43,110.72

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**PORCUPINE FORESTRY PROSPECTS**  
 c/o LORNE SNELL  
 GENERAL DELIVERY  
 DRYDEN, ONT.  
 P8N 2Y8 007-907-5513

Att: Christophe  
 Hyde

OUR NUMBER	316446
DATE	August 26/10
CUSTOMER'S ORDER	


SOLD TO	Rio Tinto Exploration Canada Inc.
ADDRESS	354, 200 Granville Street, Vancouver, B.C., V6C 1S4

SHIP TO	faxed to 604-696-3401
ADDRESS	

TAX REG. NO.	R114593288
SALESPERSON	Lorne

FOB	TERMS 30daysnet	VIA Porcupine Forestry
-----	-----------------	------------------------

INVOICE

QUANTITY	DESCRIPTION	PRICE	AMOUNT
	Execution Agreement Payment	Interest on Overdue Accounts	
	Current lake - Sunday Lake, Ontario, PFP line cutting agreement.	Will be charged at 3% / month (as per agreement)	
	\$10,000.00		10,000.00
		H.S.T 13%	1,300.00
		TOTAL	11,300.00

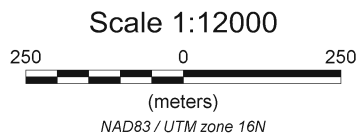
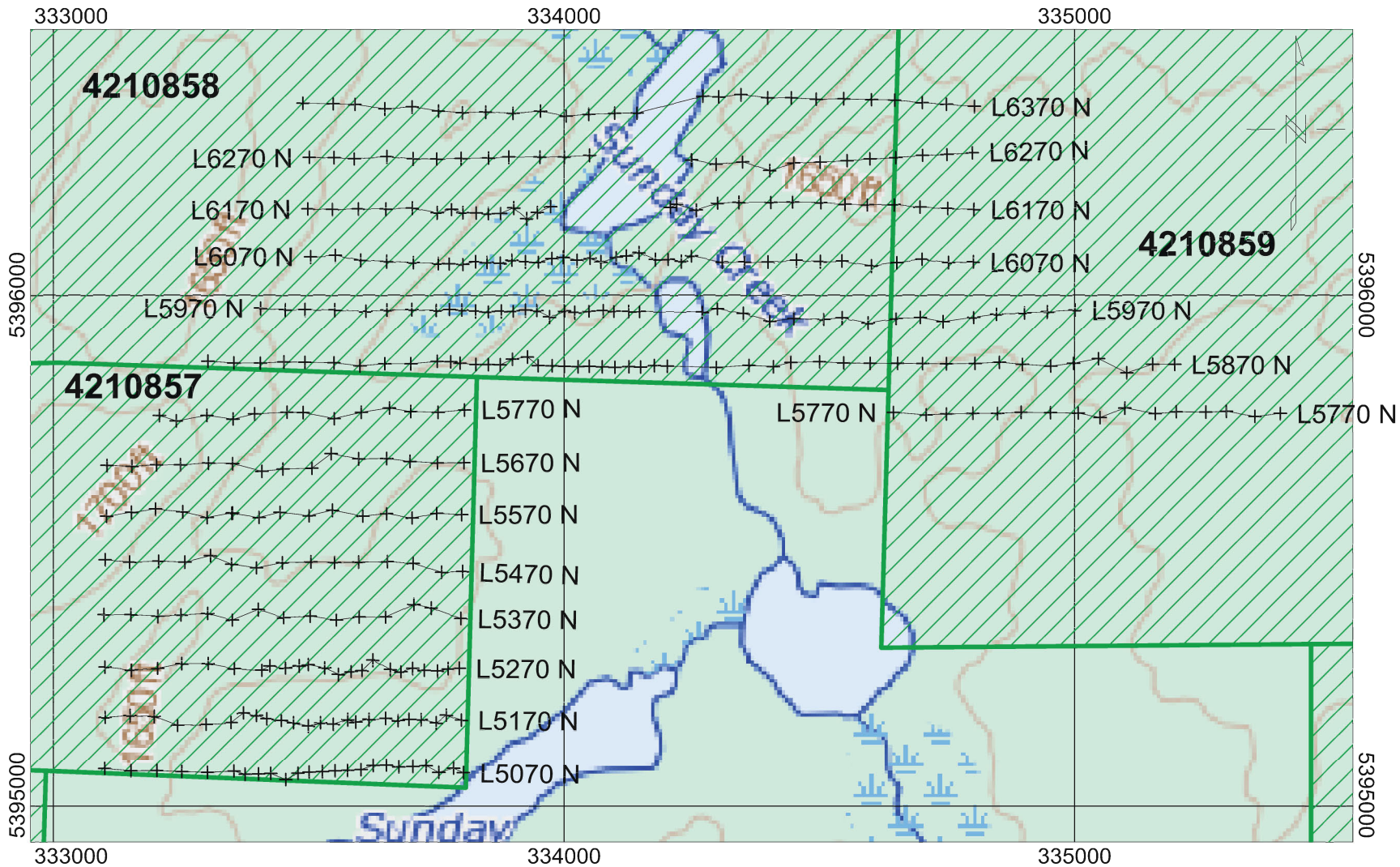
BlueLine DC31

BlueLine ©, 2008

RTECI PAYMENT APPROVAL		
	signed	Date
Goods Received	Christophe Hyde	August 26 <sup>th</sup> 2010
Costs Correct	Christophe Hyde	August 26 <sup>th</sup> 2010
Math checked	Christophe Hyde	August 26 <sup>th</sup> 2010
Approved		
Project Code	Expense Element	Amount
V3744	925000	C\$ 5,000.00
V3745	925000	C 5,000.00
HST	113655	C\$ 1300.00

## **APPENDIX D**

### **Gravity Survey Figures**



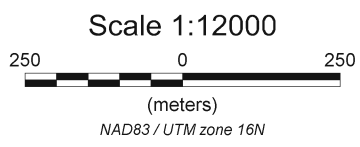
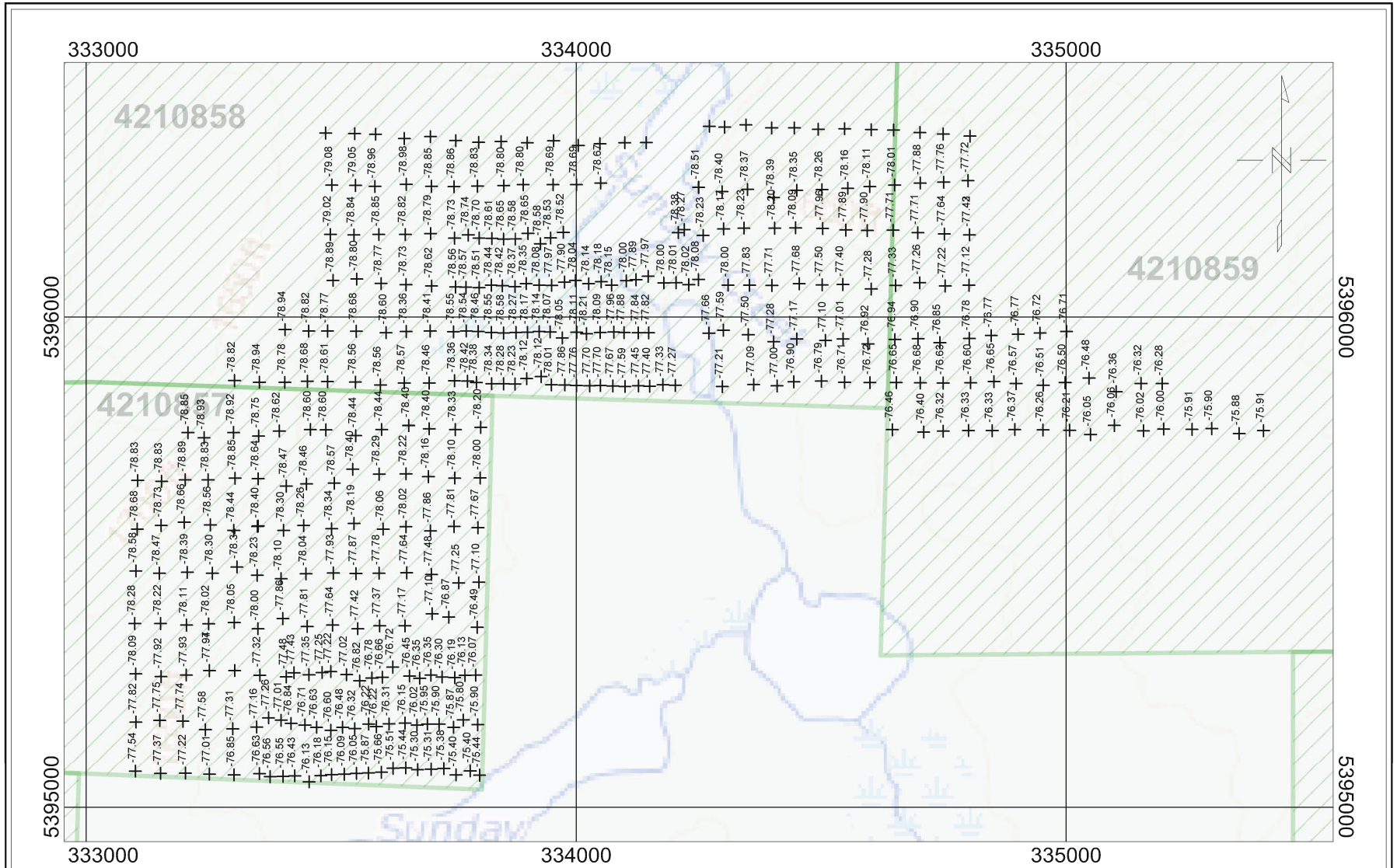
Rio Tinto Exploration Canada Inc.

**Sunday Lake Gravity Survey - Sept 2010**  
**Station and Line Location Map**

+ Gravity Station Locations  
Claim Numbers: Bold Font  
Line Numbers: Normal Font  
Coordinates in NAD83 UTM Zone 16N

**C.Hyde**



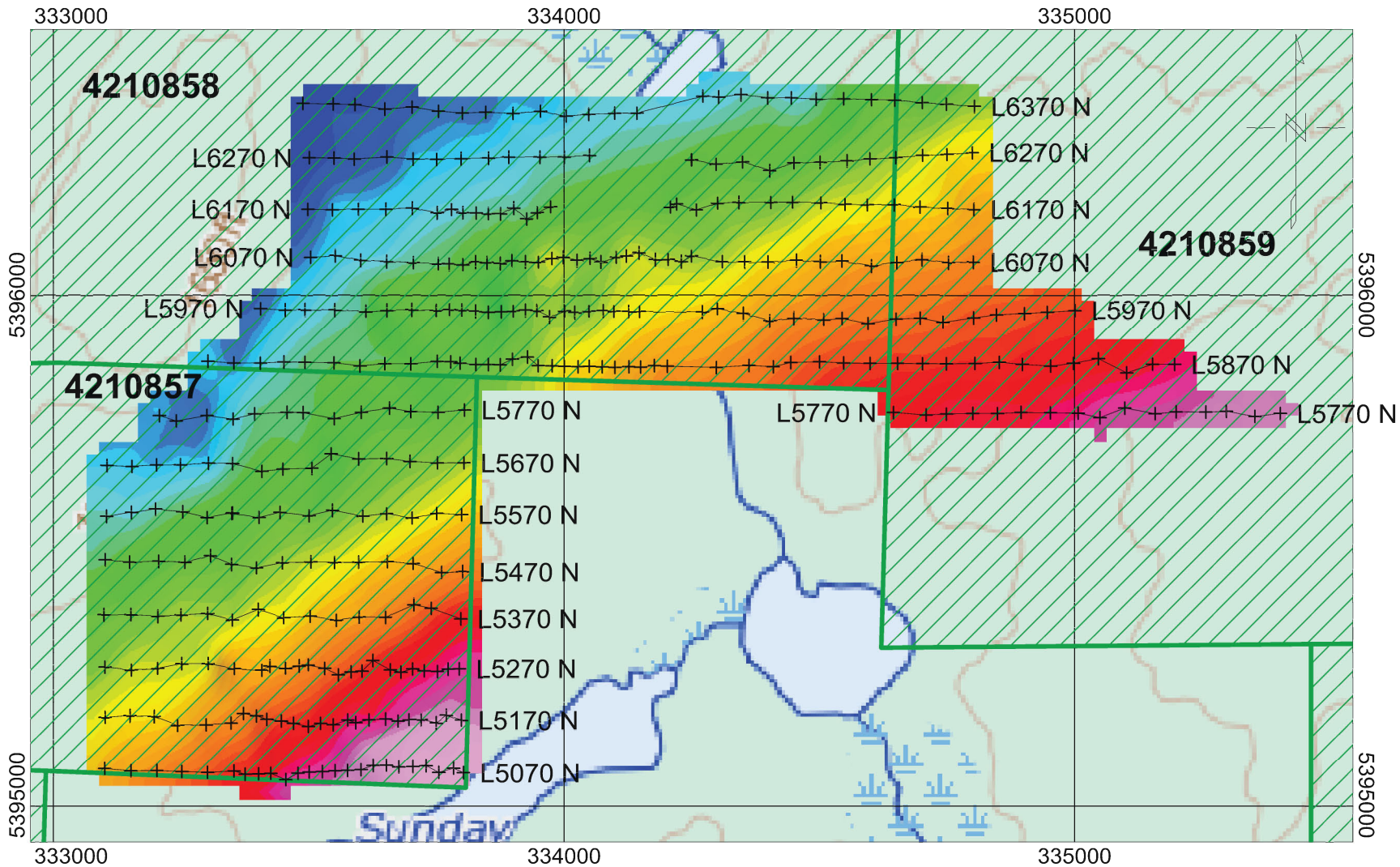


**Rio Tinto Exploration Canada Inc.**

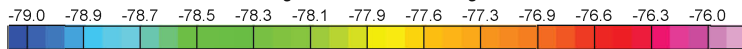
**Sunday Lake Gravity Survey - Sept 2010**  
**Corrected Bouguer Gravity Map - with Postings**

+ Gravity Station Locations  
Claim Numbers: Bold Font  
Corrected Bouguer Values in milliGals  
Coordinates in NAD83 UTM Zone 16N

**C.Hyde**



**Corrected Bouguer (mGal)**  
 Bouguer Correction 2.67 g/cc



Scale 1:12000



(meters)  
 NAD83 / UTM zone 16N

**Rio Tinto Exploration Canada Inc.**

**Sunday Lake Gravity Survey - Sept 2010**  
**Bouguer Gravity Map**

+ Gravity Station Locations  
 Claim Numbers: Bold Font  
 Line Numbers: Normal Font  
 Coordinates in NAD83 UTM Zone 16N

**C.Hyde**

## **APPENDIX E**

### **Raw and Processed Gravity Data**

Line	Stn	UTMX	UTMY	Elev	FreeAir	ObsGrav	ITC	Bouguer	Corr_Bouguer (2.67)
L5070	3100	333100.2	5395074	499.459	-21.65	980776.09	0	-77.54	-77.54
L5070	3150	333151.5	5395069	495.81	-21.89	980776.98	0	-77.37	-77.37
L5070	3200	333202.3	5395070	494.78	-21.85	980777.34	0	-77.22	-77.22
L5070	3250	333251.4	5395068	484.585	-22.79	980779.55	0	-77.01	-77.01
L5070	3300	333301.6	5395066	482.689	-22.84	980780.08	0	-76.85	-76.85
L5070	3350	333353.5	5395069	481.909	-22.71	980780.45	0	-76.63	-76.63
L5070	3375	333375.3	5395062	481.721	-22.66	980780.56	0	-76.56	-76.56
L5070	3400	333401.5	5395063	481.675	-22.65	980780.58	0	-76.55	-76.55
L5070	3425	333425.6	5395064	481.546	-22.55	980780.72	0	-76.43	-76.43
L5070	3450	333454.8	5395052	481.12	-22.29	980781.1	0	-76.13	-76.13
L5070	3475	333478.7	5395064	481.053	-22.35	980781.08	0	-76.18	-76.18
L5070	3500	333500.7	5395067	481.277	-22.3	980781.06	0	-76.15	-76.15
L5070	3525	333526.6	5395067	481.058	-22.26	980781.17	0	-76.09	-76.09
L5070	3550	333551.3	5395069	480.862	-22.24	980781.25	0	-76.05	-76.05
L5070	3575	333576.1	5395070	480.897	-22.06	980781.42	0	-75.87	-75.87
L5070	3600	333602.5	5395071	480.643	-21.87	980781.69	0	-75.66	-75.66
L5070	3625	333626.2	5395079	480.688	-21.73	980781.83	0	-75.51	-75.51
L5070	3650	333652.1	5395080	480.599	-21.66	980781.92	0	-75.44	-75.44
L5070	3675	333676.4	5395077	479.985	-21.59	980782.18	0	-75.3	-75.3
L5070	3700	333703.8	5395078	480.541	-21.54	980782.06	0	-75.31	-75.31
L5070	3725	333729.8	5395079	481.868	-21.46	980781.73	0	-75.38	-75.38
L5070	3750	333754.7	5395066	480.502	-21.64	980781.97	0	-75.4	-75.4
L5070	3775	333783.6	5395074	479.901	-21.7	980782.1	0	-75.4	-75.4
L5070	3800	333802.8	5395065	478.546	-21.91	980782.3	0	-75.45	-75.45
L5070	3800	333802.7	5395065	478.557	-21.89	980782.32	0	-75.44	-75.44
L5070	3800	333802.7	5395065	478.559	-21.86	980782.34	0	-75.41	-75.41
L5170	3100	333101.3	5395174	501.75	-21.67	980775.45	0	-77.82	-77.82
L5170	3150	333150	5395177	504.28	-21.32	980775.02	0	-77.75	-77.75
L5170	3200	333197.3	5395176	501.343	-21.64	980775.61	0	-77.74	-77.74
L5170	3250	333243.1	5395158	494.524	-22.24	980777.1	0	-77.58	-77.58
L5170	3300	333299.1	5395160	485.931	-22.94	980779.05	0	-77.31	-77.31
L5170	3350	333347.9	5395164	485.136	-22.88	980779.36	0	-77.16	-77.16
L5170	3375	333371.9	5395182	485.947	-22.89	980779.12	0	-77.26	-77.26
L5170	3400	333397.7	5395178	482.936	-22.97	980779.97	0	-77.01	-77.01
L5170	3425	333418.1	5395171	482.939	-22.8	980780.13	0	-76.84	-76.84
L5170	3450	333446.3	5395168	482.462	-22.72	980780.35	0	-76.71	-76.71
L5170	3475	333470.1	5395163	483.538	-22.52	980780.22	0	-76.63	-76.63
L5170	3500	333499.4	5395157	481.932	-22.68	980780.55	0	-76.6	-76.6
L5170	3525	333523.2	5395163	482.018	-22.54	980780.67	0	-76.48	-76.48
L5170	3550	333548.1	5395160	481.789	-22.41	980780.87	0	-76.32	-76.32
L5170	3575	333576.6	5395170	482.229	-22.26	980780.89	0	-76.22	-76.22
L5170	3600	333592.2	5395164	482.022	-22.29	980780.92	0	-76.22	-76.22
L5170	3625	333618	5395170	485.678	-21.96	980780.13	0	-76.31	-76.31
L5170	3650	333650.7	5395172	488.437	-21.49	980779.74	0	-76.15	-76.15
L5170	3675	333675.1	5395167	488.068	-21.41	980779.94	0	-76.02	-76.02
L5170	3700	333696.5	5395170	487.055	-21.45	980780.22	0	-75.95	-75.95



L5170	3725	333720.3	5395169	486.82	-21.43	980780.31	0	-75.9	-75.9
L5170	3750	333749.7	5395163	486.085	-21.46	980780.5	0	-75.85	-75.85
L5170	3750	333749.7	5395163	486.085	-21.48	980780.48	0	-75.87	-75.87
L5170	3775	333769.5	5395178	488.187	-21.18	980780.15	0	-75.8	-75.8
L5170	3800	333799	5395168	491.607	-20.89	980779.37	0	-75.9	-75.9
L5270	3100	333101.2	5395272	496.071	-22.58	980776.37	0	-78.09	-78.09
L5270	3150	333152.5	5395267	507.452	-21.37	980774.07	0.23	-78.15	-77.92
L5270	3200	333204.3	5395270	503.928	-21.54	980774.99	0	-77.93	-77.93
L5270	3250	333251.5	5395279	501.117	-21.9	980775.51	0	-77.97	-77.97
L5270	3250	333251.5	5395279	501.117	-21.87	980775.54	0	-77.94	-77.94
L5270	3300	333303	5395279	497.2	-22.23	980776.38	0	-77.87	-77.87
L5270	3350	333354.3	5395269	491.27	-22.35	980778.09	0	-77.32	-77.32
L5270	3400	333408	5395266	492.248	-22.4	980777.73	0	-77.48	-77.48
L5270	3425	333423.9	5395274	491.343	-22.45	980777.97	0	-77.43	-77.43
L5270	3450	333454.7	5395270	490.928	-22.42	980778.13	0	-77.35	-77.35
L5270	3475	333481.3	5395275	488.953	-22.54	980778.62	0	-77.25	-77.25
L5270	3500	333499	5395277	490.158	-22.37	980778.42	0	-77.22	-77.22
L5270	3525	333531.3	5395271	490.132	-22.18	980778.61	0	-77.02	-77.02
L5270	3550	333557.9	5395258	488.273	-22.19	980779.17	0	-76.82	-76.82
L5270	3575	333582.9	5395264	487.943	-22.18	980779.29	0	-76.78	-76.78
L5270	3600	333604.3	5395265	487.032	-22.16	980779.59	0	-76.66	-76.66
L5270	3600	333604.4	5395265	486.973	-22.14	980779.63	0	-76.63	-76.63
L5270	3625	333625.6	5395286	487.694	-22.15	980779.41	0	-76.72	-76.72
L5270	3650	333659.8	5395268	485.582	-22.11	980780.09	0	-76.45	-76.45
L5270	3675	333680.6	5395263	485.882	-21.99	980780.12	0	-76.35	-76.35
L5270	3700	333703.6	5395270	486.612	-21.9	980779.98	0	-76.35	-76.35
L5270	3725	333726.2	5395266	488.286	-21.66	980779.7	0	-76.3	-76.3
L5270	3750	333752	5395264	488.533	-21.52	980779.76	0	-76.19	-76.19
L5270	3775	333773.2	5395269	488.599	-21.46	980779.81	0	-76.13	-76.13
L5270	3800	333795	5395270	489.12	-21.34	980779.77	0	-76.07	-76.07
L5370	3100	333099	5395375	498.557	-22.61	980775.66	0.11	-78.39	-78.28
L5370	3150	333151.5	5395375	492.557	-23.11	980777.01	0	-78.22	-78.22
L5370	3200	333204.7	5395372	496.264	-22.69	980776.28	0.12	-78.22	-78.11
L5370	3250	333249.9	5395374	508.388	-21.41	980773.82	0.28	-78.3	-78.02
L5370	3300	333302.1	5395377	504.494	-21.6	980774.85	0	-78.05	-78.05
L5370	3350	333350.4	5395364	495.328	-22.58	980776.68	0	-78	-78
L5370	3400	333401.3	5395385	490.98	-22.92	980777.7	0	-77.86	-77.86
L5370	3450	333450.9	5395369	501.999	-21.92	980775.29	0.28	-78.09	-77.81
L5370	3500	333502.7	5395372	490.257	-22.78	980778.05	0	-77.64	-77.64
L5370	3550	333554.2	5395364	491.074	-22.47	980778.11	0	-77.42	-77.42
L5370	3600	333598.9	5395370	491.301	-22.39	980778.12	0	-77.37	-77.37
L5370	3650	333650.5	5395370	491.785	-22.14	980778.22	0	-77.17	-77.17
L5370	3700	333706	5395395	490.332	-22.23	980778.6	0	-77.1	-77.1
L5370	3750	333739.9	5395388	490.427	-22	980778.8	0	-76.87	-76.87
L5370	3800	333797.9	5395367	490.758	-21.58	980779.1	0	-76.49	-76.49
L5470	3100	333101.3	5395482	510.291	-21.48	980773.25	0	-78.58	-78.58
L5470	3150	333149.2	5395477	500.805	-22.43	980775.22	0	-78.47	-78.47

L5470	3200	333206.1	5395479	492.911	-23.23	980776.87	0	-78.39	-78.39
L5470	3250	333257.4	5395477	490.865	-23.38	980777.35	0	-78.3	-78.3
L5470	3300	333307.4	5395490	496.603	-22.77	980776.2	0	-78.34	-78.34
L5470	3350	333349	5395473	493.897	-22.96	980776.83	0	-78.23	-78.23
L5470	3400	333397.6	5395466	490.464	-23.22	980777.63	0	-78.1	-78.1
L5470	3450	333448.5	5395476	487.006	-23.54	980778.38	0	-78.04	-78.04
L5470	3500	333504.3	5395478	488.28	-23.3	980778.23	0	-77.93	-77.93
L5470	3550	333550.4	5395477	490.293	-23	980777.91	0	-77.87	-77.87
L5470	3600	333597.6	5395478	491.148	-22.82	980777.83	0	-77.78	-77.78
L5470	3650	333653.9	5395478	493.216	-22.45	980777.56	0	-77.64	-77.64
L5470	3700	333704.5	5395475	493.13	-22.31	980777.73	0	-77.48	-77.48
L5470	3750	333760.2	5395458	490.239	-22.4	980778.52	0	-77.25	-77.25
L5470	3800	333801.2	5395459	491.346	-22.12	980778.45	0	-77.1	-77.1
L5570	3100	333104.1	5395567	512.499	-21.33	980772.79	0	-78.68	-78.68
L5570	3150	333152.8	5395575	511.793	-21.46	980772.89	0	-78.73	-78.73
L5570	3200	333200	5395581	506.93	-21.94	980773.91	0	-78.66	-78.66
L5570	3250	333253.3	5395576	497.327	-22.91	980775.9	0	-78.56	-78.56
L5570	3300	333301	5395565	488.088	-23.83	980777.83	0	-78.44	-78.44
L5570	3300	333301.1	5395565	488.083	-23.85	980777.8	0	-78.47	-78.47
L5570	3350	333350.9	5395574	486.847	-23.92	980778.13	0	-78.4	-78.4
L5570	3350	333349.5	5395573	486.787	-23.94	980778.13	0	-78.41	-78.41
L5570	3400	333402.8	5395565	485.608	-23.96	980778.46	0	-78.3	-78.3
L5570	3450	333443.6	5395575	484.323	-24.06	980778.77	0	-78.26	-78.26
L5570	3500	333500.9	5395568	487.86	-23.75	980777.99	0	-78.34	-78.34
L5570	3550	333546.5	5395579	484.82	-23.94	980778.74	0	-78.19	-78.19
L5570	3600	333606	5395568	487.27	-23.54	980778.38	0	-78.06	-78.06
L5570	3650	333652.5	5395572	493.163	-22.84	980777.26	0	-78.02	-78.02
L5570	3700	333702.5	5395564	496.465	-22.32	980776.76	0	-77.88	-77.88
L5570	3700	333702.5	5395564	496.474	-22.31	980776.77	0	-77.86	-77.86
L5570	3750	333750.7	5395573	496.328	-22.28	980776.86	0	-77.81	-77.81
L5570	3800	333799.4	5395570	492.027	-22.61	980777.84	0	-77.67	-77.67
L5670	3100	333105	5395667	516.338	-21.06	980771.96	0	-78.83	-78.83
L5670	3150	333153.9	5395665	516.939	-20.99	980771.84	0	-78.83	-78.83
L5670	3200	333201.8	5395668	517.324	-21	980771.71	0	-78.89	-78.89
L5670	3250	333248.8	5395668	511.797	-21.56	980772.86	0	-78.83	-78.83
L5670	3300	333303.7	5395671	504.049	-22.45	980774.36	0	-78.85	-78.85
L5670	3350	333350.9	5395670	486.279	-24.23	980778.07	0	-78.64	-78.64
L5670	3400	333408.3	5395655	483.402	-24.38	980778.8	0	-78.47	-78.47
L5670	3450	333449.6	5395660	481.306	-24.6	980779.23	0	-78.46	-78.46
L5670	3500	333506.1	5395661	477.25	-25.17	980779.92	0	-78.57	-78.57
L5670	3550	333543.8	5395690	478.804	-24.82	980779.81	0	-78.4	-78.4
L5670	3600	333597.8	5395680	477.66	-24.84	980780.13	0	-78.29	-78.29
L5670	3650	333652.6	5395680	481.7	-24.32	980779.41	0	-78.22	-78.22
L5670	3700	333698.4	5395675	487.081	-23.65	980778.41	0	-78.16	-78.16
L5670	3750	333752.1	5395672	491.284	-23.12	980777.64	0	-78.1	-78.1
L5670	3800	333803.8	5395672	490.67	-23.09	980777.87	0	-78	-78
L5770	3200	333207.6	5395764	508.203	-21.98	980773.62	0	-78.85	-78.85

L5770	3250	333240.4	5395754	510.696	-21.78	980773.05	0	-78.93	-78.93
L5770	3300	333300.8	5395765	504.188	-22.5	980774.35	0	-78.92	-78.92
L5770	3350	333351.6	5395757	496.37	-23.21	980776.05	0	-78.75	-78.75
L5770	3400	333394	5395768	491.728	-23.59	980777.1	0	-78.62	-78.62
L5770	3450	333457.3	5395771	486.403	-24.18	980778.17	0	-78.6	-78.6
L5770	3500	333489.2	5395770	480.18	-24.87	980779.4	0	-78.6	-78.6
L5770	3550	333549.7	5395758	475.616	-25.22	980780.45	0	-78.44	-78.44
L5770	3600	333603	5395771	474.629	-25.33	980780.65	0	-78.44	-78.44
L5770	3650	333658	5395779	475.216	-25.23	980780.58	0	-78.4	-78.4
L5770	3650	333658	5395779	475.246	-25.2	980780.6	0	-78.38	-78.38
L5770	3700	333699.9	5395772	478.739	-24.83	980779.89	0	-78.4	-78.4
L5770	3750	333753.3	5395771	481.676	-24.43	980779.38	0	-78.33	-78.33
L5770	3800	333805.1	5395775	483.596	-24.09	980779.14	0	-78.2	-78.2
L5770	4650	334645	5395770	493.042	-21.29	980779.04	0	-76.46	-76.46
L5770	4650	334645	5395770	493.011	-21.3	980779.04	0	-76.46	-76.46
L5770	4700	334709	5395765	491.205	-21.44	980779.45	0	-76.4	-76.4
L5770	4750	334749.1	5395767	488.302	-21.68	980780.1	0	-76.32	-76.32
L5770	4800	334800.5	5395769	490.177	-21.49	980779.73	0	-76.33	-76.33
L5770	4850	334848.9	5395768	487.594	-21.77	980780.24	0	-76.33	-76.33
L5770	4900	334895.1	5395771	488.175	-21.74	980780.09	0	-76.37	-76.37
L5770	4950	334952.6	5395770	493.696	-21.01	980779.12	0	-76.26	-76.26
L5770	5000	335007.1	5395769	503.577	-19.86	980777.22	0	-76.21	-76.21
L5770	5050	335049.5	5395760	500.723	-20.03	980777.93	0	-76.05	-76.05
L5770	5100	335098.2	5395779	502.232	-19.86	980777.65	0	-76.06	-76.06
L5770	5150	335157.6	5395768	507.114	-19.28	980776.71	0	-76.02	-76.02
L5770	5200	335198.8	5395772	508.45	-19.11	980776.47	0	-76	-76
L5770	5250	335256.7	5395771	506.617	-19.22	980776.93	0	-75.91	-75.91
L5770	5300	335297.2	5395772	506.942	-19.17	980776.88	0	-75.9	-75.9
L5770	5350	335353.1	5395763	505.072	-19.37	980777.25	0	-75.88	-75.88
L5770	5400	335402.7	5395768	506.433	-19.24	980776.97	0	-75.91	-75.91
L5870	3300	333302.6	5395871	499.118	-22.97	980775.53	0	-78.82	-78.82
L5870	3350	333353.4	5395867	499.977	-22.99	980775.24	0	-78.94	-78.94
L5870	3400	333405.4	5395867	491.024	-23.88	980777.11	0.04	-78.83	-78.78
L5870	3450	333451.4	5395869	484.778	-24.43	980778.49	0	-78.68	-78.68
L5870	3500	333492.4	5395868	480.869	-24.81	980779.33	0	-78.61	-78.61
L5870	3550	333549.3	5395867	477.814	-25.09	980779.99	0	-78.56	-78.56
L5870	3600	333600.4	5395861	477.161	-25.16	980780.11	0	-78.56	-78.56
L5870	3650	333649.1	5395866	473.884	-25.54	980780.75	0	-78.57	-78.57
L5870	3700	333700	5395865	472.742	-25.57	980781.08	0	-78.46	-78.46
L5870	3750	333751.5	5395870	472.393	-25.5	980781.26	0	-78.36	-78.36
L5870	3775	333778.2	5395869	473.577	-25.43	980780.96	0	-78.42	-78.42
L5870	3800	333796.1	5395867	476.034	-25.11	980780.52	0	-78.38	-78.38
L5870	3825	333827.5	5395864	475.444	-25.14	980780.67	0	-78.34	-78.34
L5870	3850	333851.7	5395864	476.943	-24.91	980780.44	0	-78.28	-78.28
L5870	3875	333874.9	5395863	477.486	-24.81	980780.38	0	-78.23	-78.23
L5870	3900	333898.9	5395875	474.453	-25.03	980781.1	0	-78.12	-78.12
L5870	3925	333928.3	5395879	474.46	-25.03	980781.1	0	-78.12	-78.12

L5870	3950	333949.5	5395862	474.038	-24.96	980781.28	0	-78.01	-78.01
L5870	3975	333976.7	5395862	474.397	-24.78	980781.36	0	-77.86	-77.86
L5870	4000	334000.5	5395860	474.991	-24.61	980781.35	0	-77.76	-77.76
L5870	4025	334027.4	5395860	473.501	-24.72	980781.7	0	-77.7	-77.7
L5870	4050	334049.4	5395861	473.405	-24.73	980781.71	0	-77.7	-77.7
L5870	4075	334074.9	5395860	473.287	-24.71	980781.77	0	-77.67	-77.67
L5870	4100	334099.4	5395859	472.963	-24.67	980781.91	0	-77.59	-77.59
L5870	4125	334126.9	5395860	473.604	-24.46	980781.92	0	-77.45	-77.45
L5870	4150	334149.8	5395859	476.815	-24.05	980781.35	0	-77.4	-77.4
L5870	4175	334177.1	5395862	475.145	-24.16	980781.75	0	-77.33	-77.33
L5870	4200	334202.2	5395861	473.105	-24.33	980782.21	0	-77.27	-77.27
L5870	4300	334298.1	5395858	475.314	-24.03	980781.83	0	-77.21	-77.21
L5870	4350	334362.1	5395862	481.977	-23.16	980780.65	0	-77.09	-77.09
L5870	4400	334409.9	5395860	487.332	-22.47	980779.69	0	-77	-77
L5870	4450	334444.2	5395868	491.737	-21.87	980778.93	0	-76.9	-76.9
L5870	4500	334500.3	5395869	495.076	-21.39	980778.38	0	-76.79	-76.79
L5870	4550	334547.7	5395867	492.506	-21.6	980778.96	0	-76.71	-76.71
L5870	4600	334599.4	5395866	495.054	-21.33	980778.45	0	-76.72	-76.72
L5870	4650	334653.3	5395866	491.06	-21.71	980779.31	0	-76.65	-76.65
L5870	4700	334702.2	5395866	490.215	-21.83	980779.45	0	-76.68	-76.68
L5870	4750	334748.8	5395866	489.937	-21.81	980779.55	0	-76.63	-76.63
L5870	4800	334805	5395866	488.684	-21.92	980779.84	0	-76.6	-76.6
L5870	4850	334852.7	5395868	488.263	-22.01	980779.87	0	-76.65	-76.65
L5870	4900	334897.7	5395864	488.162	-21.95	980779.97	0	-76.57	-76.57
L5870	4950	334953.1	5395861	491.483	-21.51	980779.37	0	-76.51	-76.51
L5870	5000	334997.8	5395866	492.338	-21.41	980779.22	0	-76.5	-76.5
L5870	5050	335046.5	5395875	493.093	-21.31	980779.1	0	-76.48	-76.48
L5870	5050	335046.5	5395875	493.093	-21.32	980779.08	0	-76.5	-76.5
L5870	5100	335102.1	5395848	503.492	-20.02	980777.15	0	-76.36	-76.36
L5870	5150	335152.7	5395865	501.267	-20.23	980777.64	0	-76.32	-76.32
L5870	5200	335195.9	5395864	505.72	-19.71	980776.8	0	-76.29	-76.29
L5870	5200	335195.8	5395864	505.724	-19.68	980776.82	0	-76.27	-76.27
L5870	5200	335195.8	5395864	505.731	-19.69	980776.81	0	-76.28	-76.28
L5970	3400	333405.7	5395974	491.134	-23.98	980777.07	0	-78.94	-78.94
L5970	3450	333454.2	5395971	486.654	-24.37	980778.06	0	-78.82	-78.82
L5970	3500	333492.4	5395972	483.18	-24.7	980778.8	0	-78.77	-78.77
L5970	3550	333551.2	5395971	481.479	-24.81	980779.22	0	-78.68	-78.68
L5970	3600	333611.8	5395968	480.344	-24.89	980779.49	0	-78.64	-78.64
L5970	3600	333611.8	5395968	480.38	-24.85	980779.52	0	-78.6	-78.6
L5970	3650	333653	5395971	476.933	-24.99	980780.45	0	-78.36	-78.36
L5970	3700	333701.8	5395972	474.337	-25.33	980780.9	0	-78.41	-78.41
L5970	3750	333749.5	5395970	472.714	-25.65	980781.09	0	-78.55	-78.55
L5970	3775	333775.7	5395972	472.21	-25.7	980781.2	0	-78.54	-78.54
L5970	3800	333799.9	5395971	472.098	-25.63	980781.3	0	-78.46	-78.46
L5970	3825	333826.8	5395969	471.819	-25.76	980781.26	0	-78.55	-78.55
L5970	3850	333851.9	5395968	472.296	-25.73	980781.14	0	-78.58	-78.58
L5970	3875	333877	5395969	472.229	-25.43	980781.46	0	-78.27	-78.27

L5970	3900	333900.3	5395969	473.692	-25.17	980781.27	0	-78.17	-78.17
L5970	3925	333924.3	5395970	475.77	-24.91	980780.89	0	-78.14	-78.14
L5970	3950	333946.8	5395970	475.04	-24.91	980781.11	0	-78.07	-78.07
L5970	3975	333971.4	5395958	473.689	-25.04	980781.39	0	-78.05	-78.05
L5970	4000	334001	5395969	472.87	-25.2	980781.5	0	-78.11	-78.11
L5970	4025	334021	5395966	472.71	-25.31	980781.43	0	-78.21	-78.21
L5970	4050	334049.1	5395969	472.587	-25.21	980781.58	0	-78.09	-78.09
L5970	4075	334076.6	5395969	472.65	-25.07	980781.7	0	-77.96	-77.96
L5970	4100	334097.7	5395968	472.968	-24.96	980781.71	0	-77.88	-77.88
L5970	4125	334126.6	5395968	473.181	-24.89	980781.71	0	-77.84	-77.84
L5970	4150	334147.7	5395968	473.189	-24.87	980781.73	0	-77.82	-77.82
L5970	4250	334270.9	5395967	473.423	-24.69	980781.84	0	-77.66	-77.66
L5970	4300	334300.4	5395973	477.292	-24.19	980781.15	0	-77.59	-77.59
L5970	4350	334351.1	5395964	483.862	-23.35	980779.95	0	-77.5	-77.5
L5970	4400	334403	5395950	488.158	-22.66	980779.32	0	-77.28	-77.28
L5970	4450	334450.2	5395955	490.007	-22.34	980779.07	0	-77.17	-77.17
L5970	4500	334508.7	5395953	495.238	-21.68	980778.11	0	-77.1	-77.1
L5970	4550	334544.6	5395956	494.165	-21.71	980778.41	0	-77.01	-77.01
L5970	4600	334595.4	5395945	495.214	-21.51	980778.29	0	-76.92	-76.92
L5970	4650	334650.5	5395954	495.568	-21.49	980778.21	0	-76.94	-76.94
L5970	4700	334697.7	5395956	492.78	-21.76	980778.8	0	-76.9	-76.9
L5970	4750	334742.2	5395948	491.162	-21.89	980779.16	0	-76.85	-76.85
L5970	4800	334802.3	5395956	489.64	-21.99	980779.54	0	-76.78	-76.78
L5970	4850	334847.1	5395962	489.653	-21.98	980779.55	0	-76.77	-76.77
L5970	4900	334901.9	5395965	488.834	-22.07	980779.72	0	-76.77	-76.77
L5970	4950	334946.7	5395967	489.315	-21.97	980779.67	0	-76.72	-76.72
L5970	5000	335000.7	5395971	490.831	-21.79	980779.39	0	-76.71	-76.71
L6070	3500	333503.6	5396075	486.754	-24.42	980778.06	0	-78.89	-78.89
L6070	3550	333552.1	5396078	484.686	-24.57	980778.56	0	-78.8	-78.8
L6070	3600	333601.6	5396069	483.244	-24.69	980778.87	0	-78.77	-78.77
L6070	3650	333652.6	5396066	479.74	-25.05	980779.6	0	-78.73	-78.73
L6070	3700	333704.7	5396063	476.632	-25.29	980780.31	0	-78.62	-78.62
L6070	3750	333753.9	5396062	475.226	-25.39	980780.65	0	-78.56	-78.56
L6070	3775	333774.9	5396061	474.131	-25.52	980780.86	0	-78.57	-78.57
L6070	3800	333801.9	5396060	473.364	-25.54	980781.07	0	-78.51	-78.51
L6070	3825	333826.7	5396065	473.721	-25.44	980781.07	0	-78.44	-78.44
L6070	3850	333849.2	5396064	472.541	-25.55	980781.32	0	-78.42	-78.42
L6070	3875	333874.9	5396062	472.133	-25.54	980781.46	0	-78.37	-78.37
L6070	3900	333897.8	5396068	471.908	-25.54	980781.53	0	-78.35	-78.35
L6070	3925	333924.6	5396065	471.884	-25.28	980781.8	0	-78.08	-78.08
L6070	3950	333949.9	5396065	472.306	-25.12	980781.82	0	-77.97	-77.97
L6070	3975	333976.1	5396071	473.153	-24.96	980781.73	0	-77.9	-77.9
L6070	4000	333998.4	5396075	472.577	-25.16	980781.71	0	-78.04	-78.04
L6070	4025	334025.4	5396068	472.27	-25.29	980781.67	0	-78.14	-78.14
L6070	4050	334051.1	5396072	472.231	-25.34	980781.64	0	-78.18	-78.18
L6070	4075	334072.2	5396065	471.891	-25.35	980781.73	0	-78.15	-78.15
L6070	4100	334102.3	5396074	471.575	-25.23	980781.95	0	-78	-78

L6070	4125	334122.1	5396076	471.838	-25.1	980782.01	0	-77.89	-77.89
L6070	4150	334146.7	5396083	472.021	-25.16	980781.9	0	-77.97	-77.97
L6070	4175	334178.9	5396070	472.297	-25.16	980781.8	0	-78	-78
L6070	4200	334203.9	5396070	474.546	-24.91	980781.35	0	-78.01	-78.01
L6070	4225	334229.7	5396066	476.048	-24.75	980781.05	0	-78.02	-78.02
L6070	4250	334249.6	5396077	479.213	-24.46	980780.37	0	-78.08	-78.08
L6070	4300	334309.8	5396065	483.341	-23.95	980779.6	0.03	-78.03	-78
L6070	4350	334353.9	5396065	485.899	-23.46	980779.3	0	-77.83	-77.83
L6070	4400	334399.4	5396065	488.746	-23.02	980778.86	0	-77.71	-77.71
L6070	4450	334455	5396068	492.189	-22.6	980778.22	0	-77.68	-77.68
L6070	4500	334501.8	5396066	493.907	-22.23	980778.06	0	-77.5	-77.5
L6070	4550	334544.3	5396067	495.886	-21.91	980777.78	0	-77.4	-77.4
L6070	4600	334602.1	5396057	496.313	-21.75	980777.8	0	-77.28	-77.28
L6070	4650	334652.1	5396064	499.288	-21.46	980777.17	0	-77.33	-77.33
L6070	4700	334701	5396070	495.79	-21.78	980777.94	0	-77.26	-77.26
L6070	4750	334753	5396064	491.464	-22.22	980778.83	0	-77.22	-77.22
L6070	4800	334801.6	5396065	492.422	-22.01	980778.74	0	-77.12	-77.12
L6170	3500	333498.2	5396169	493.169	-23.84	980776.74	0	-79.02	-79.02
L6170	3550	333546.3	5396168	485.452	-24.52	980778.44	0	-78.84	-78.84
L6170	3600	333597	5396169	484.907	-24.59	980778.54	0	-78.85	-78.85
L6170	3600	333597	5396169	484.901	-24.59	980778.54	0	-78.85	-78.85
L6170	3650	333651.3	5396169	483.305	-24.74	980778.89	0	-78.82	-78.82
L6170	3700	333702.7	5396170	481.981	-24.86	980779.18	0	-78.79	-78.79
L6170	3750	333751.7	5396161	478.409	-25.2	980779.94	0	-78.73	-78.73
L6170	3775	333779.6	5396168	477.898	-25.26	980780.03	0	-78.74	-78.74
L6170	3800	333801.8	5396161	479.171	-25.08	980779.82	0	-78.7	-78.7
L6170	3825	333827.9	5396160	478.703	-25.05	980780	0	-78.61	-78.61
L6170	3850	333851.6	5396159	479.039	-25.05	980779.9	0	-78.65	-78.65
L6170	3875	333875.6	5396159	477.929	-25.1	980780.18	0	-78.58	-78.58
L6170	3900	333901.5	5396171	480.452	-24.89	980779.62	0	-78.65	-78.65
L6170	3925	333926.8	5396150	472.31	-25.73	980781.29	0	-78.58	-78.58
L6170	3950	333947.6	5396162	472.165	-25.7	980781.37	0	-78.53	-78.53
L6170	3975	333973.6	5396173	471.942	-25.71	980781.43	0	-78.52	-78.52
L6170	4200	334208.4	5396173	472.141	-25.55	980781.54	0	-78.38	-78.38
L6170	4225	334220.3	5396178	472.613	-25.41	980781.54	0.03	-78.3	-78.27
L6170	4250	334259	5396167	484.128	-24.07	980779.32	0.01	-78.24	-78.23
L6170	4300	334300.9	5396180	482.414	-24.19	980779.74	0	-78.17	-78.17
L6170	4350	334342.2	5396182	482.792	-24.23	980779.58	0.03	-78.26	-78.23
L6170	4400	334405	5396181	495.016	-22.81	980777.23	0	-78.2	-78.2
L6170	4450	334447.7	5396182	497.556	-22.41	980776.85	0	-78.09	-78.09
L6170	4500	334502.8	5396181	499.133	-22.11	980776.66	0	-77.96	-77.96
L6170	4550	334550.2	5396178	501.032	-21.82	980776.36	0	-77.89	-77.89
L6170	4600	334594.1	5396177	503.77	-21.53	980775.81	0	-77.9	-77.9
L6170	4650	334646.7	5396177	502.938	-21.43	980776.17	0	-77.71	-77.71
L6170	4700	334697.3	5396172	500.964	-21.65	980776.55	0	-77.71	-77.71
L6170	4750	334751.2	5396170	497.448	-21.98	980777.31	0	-77.64	-77.64
L6170	4800	334802.6	5396168	493.456	-22.2	980778.32	0	-77.42	-77.42

L6170	4800	334802.6	5396168	493.456	-22.21	980778.31	0	-77.43	-77.43
L6170	4800	334802.5	5396168	493.493	-22.22	980778.29	0	-77.44	-77.44
L6270	3500	333501	5396269	495.699	-23.61	980776.27	0	-79.08	-79.08
L6270	3550	333549.6	5396269	491.782	-24.02	980777.07	0	-79.05	-79.05
L6270	3600	333589.3	5396267	485.61	-24.62	980778.38	0	-78.96	-78.96
L6270	3650	333653.1	5396271	484.29	-24.79	980778.62	0	-78.98	-78.98
L6270	3700	333704.6	5396267	485.722	-24.5	980778.47	0	-78.85	-78.85
L6270	3750	333750.5	5396266	486.572	-24.41	980778.29	0	-78.86	-78.86
L6270	3800	333798.5	5396267	483.014	-24.78	980779.02	0	-78.83	-78.83
L6270	3850	333852	5396268	480.543	-25.03	980779.54	0	-78.8	-78.8
L6270	3900	333891.8	5396270	477.719	-25.35	980780.09	0	-78.8	-78.8
L6270	3950	333952.6	5396270	474.005	-25.65	980780.94	0	-78.69	-78.69
L6270	4000	334000.5	5396270	472.727	-25.79	980781.19	0	-78.69	-78.69
L6270	4050	334050.1	5396273	471.822	-25.88	980781.39	0	-78.67	-78.67
L6270	4050	334050.1	5396273	471.822	-25.9	980781.37	0	-78.7	-78.7
L6270	4250	334249.7	5396265	475.55	-25.3	980780.81	0.01	-78.51	-78.51
L6270	4250	334249.8	5396265	475.592	-25.28	980780.82	0.01	-78.5	-78.49
L6270	4300	334297.6	5396256	476.324	-25.11	980780.76	0	-78.4	-78.4
L6270	4350	334349.8	5396261	480	-24.66	980780.07	0	-78.37	-78.37
L6270	4400	334402.8	5396244	498.377	-22.65	980776.41	0.02	-78.41	-78.39
L6270	4450	334450.1	5396259	502.665	-22.11	980775.64	0	-78.35	-78.35
L6270	4500	334501.7	5396260	505.495	-21.7	980775.17	0	-78.26	-78.26
L6270	4550	334554.1	5396263	505.926	-21.55	980775.2	0	-78.16	-78.16
L6270	4600	334599.1	5396266	505.316	-21.57	980775.37	0	-78.11	-78.11
L6270	4650	334649.8	5396269	501.286	-21.92	980776.26	0	-78.01	-78.01
L6270	4700	334701.9	5396274	496.357	-22.34	980777.37	0	-77.88	-77.88
L6270	4750	334749.8	5396275	493.161	-22.57	980778.13	0	-77.76	-77.76
L6270	4800	334799.6	5396278	490.297	-22.86	980778.73	0	-77.72	-77.72
L6370	3500	333488.6	5396376	499.298	-23.2	980775.66	0	-79.07	-79.07
L6370	3550	333547.8	5396374	492.216	-23.97	980777.07	0	-79.05	-79.05
L6370	3600	333590.5	5396373	490.964	-24.15	980777.27	0	-79.09	-79.09
L6370	3650	333649.2	5396364	484.625	-24.78	980778.6	0	-79.01	-79.01
L6370	3700	333702.6	5396368	484.256	-24.8	980778.7	0	-78.98	-78.98
L6370	3750	333754.1	5396360	488.305	-24.28	980777.96	0	-78.92	-78.92
L6370	3800	333800.7	5396356	489.633	-24.13	980777.7	0	-78.92	-78.92
L6370	3850	333846.6	5396358	487.122	-24.43	980778.17	0	-78.94	-78.94
L6370	3900	333900.1	5396355	479.498	-25.17	980779.79	0	-78.83	-78.83
L6370	3950	333953.8	5396360	482.422	-24.91	980779.16	0	-78.89	-78.89
L6370	4000	334004.4	5396350	475.797	-25.54	980780.56	0	-78.78	-78.78
L6370	4050	334048.5	5396354	474.584	-25.64	980780.84	0	-78.74	-78.74
L6370	4100	334098.9	5396356	474.477	-25.65	980780.87	0	-78.74	-78.74
L6370	4150	334143	5396356	472.035	-25.92	980781.35	0	-78.74	-78.74
L6370	4250	334271.7	5396389	471.907	-25.98	980781.36	0	-78.78	-78.78
L6370	4300	334303	5396388	479.744	-25.07	980779.84	0.01	-78.76	-78.75
L6370	4350	334346.4	5396392	483.408	-24.62	980779.18	0	-78.71	-78.71
L6370	4400	334398.8	5396386	474.255	-25.58	980781.03	0	-78.65	-78.65
L6370	4450	334445.3	5396386	474.435	-25.64	980780.92	0	-78.73	-78.73

L6370	4500	334493.9	5396383	484.542	-24.53	980778.91	0.1	-78.74	-78.65
L6370	4550	334547.9	5396384	496.344	-22.9	980776.9	0	-78.44	-78.44
L6370	4600	334602.3	5396382	496.423	-22.77	980777.01	0	-78.31	-78.31
L6370	4650	334647.6	5396382	496.557	-22.74	980777	0	-78.3	-78.3
L6370	4700	334701.5	5396377	497.721	-22.68	980776.69	0	-78.38	-78.38
L6370	4750	334749.1	5396373	492.97	-23.04	980777.79	0	-78.2	-78.2
L6370	4800	334803.6	5396369	488.018	-23.46	980778.9	0	-78.07	-78.07
L3600	5120	333599.4	5395123	481.242	-22.1	980781.32	0	-75.95	-75.95
L3600	5220	333617.4	5395222	485.512	-22.05	980780.13	0	-76.38	-76.38
L3600	5320	333626.4	5395324	492.056	-21.86	980778.38	0	-76.92	-76.92
L3600	5420	333629.7	5395427	492.044	-22.4	980777.93	0	-77.46	-77.46
L3600	5520	333628.7	5395522	492.01	-22.79	980777.63	0	-77.85	-77.85
L3600	5620	333637.8	5395626	487.797	-23.55	980778.25	0	-78.13	-78.13
L3600	5720	333628.7	5395717	476.975	-24.92	980780.3	0	-78.29	-78.29
L3600	5820	333622.1	5395828	474.683	-25.37	980780.64	0	-78.48	-78.48
L3600	5920	333614.5	5395915	477.058	-25.17	980780.18	0	-78.56	-78.56
L3600	6020	333605.2	5396017	482.36	-24.65	980779.15	0	-78.62	-78.62
L3600	6120	333593.3	5396121	484.815	-24.57	980778.55	0	-78.82	-78.82
L3600	6220	333594.2	5396225	485.998	-24.57	980778.27	0	-78.95	-78.95
L3600	6320	333588.2	5396331	487.801	-24.44	980777.93	0.02	-79.03	-79.01