# Australian Ilmenite Resources

## Radiation Survey

Australian Ilmenite Resources Pty Ltd

SILL80 Project, Mining Lease Application 27422

DW090024

September 2011

CONSULTING SCIENTISTS AND ENGINEERS


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# Document Control Record

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| Date: | 29/09/2011 |

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| Date: | 13/01/12 |

REVISION STATUS

| Revision No. | Description of Revision | Date | Approved |
|---|---|---|---|
| 1 | First Issue | 06/10/2011 | Casey Hawkey |
| 2 | Second Draft | 07/10/2011 | Bruce Ryan |
| 3 | Final Review | 02/11/2011 | Justine Shailes |

Recipients are responsible for eliminating all superseded documents in their possession.

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# 1 Introduction

Australia has extensive deposits of mineral sands which comprise of titanium minerals (rutile and ilmenite) and zircon. Traditionally most of Australia's mineral sands occur on the east coast of Australia between Sydney and Fraser Island or on the southern section of the west coast. These mineral sands have been mined since 1934 and Australia has a major share of the world market for both titanium minerals and zircon.

Australia Ilmenite Resources Pty Ltd (AIR) is an Australian registered propriety company with significant assets of ilmenite and possesses mining rights in the Northern Territory. The AIR ilmenite resource of interest is the SILL80 deposit (MLA27422) located on the Roper Highway, approximately 100 km east of the Stuart Highway. The SILL80 deposit covers an area of 1225 hectares, located entirely within Numul Numul Station (Figure 1-1).

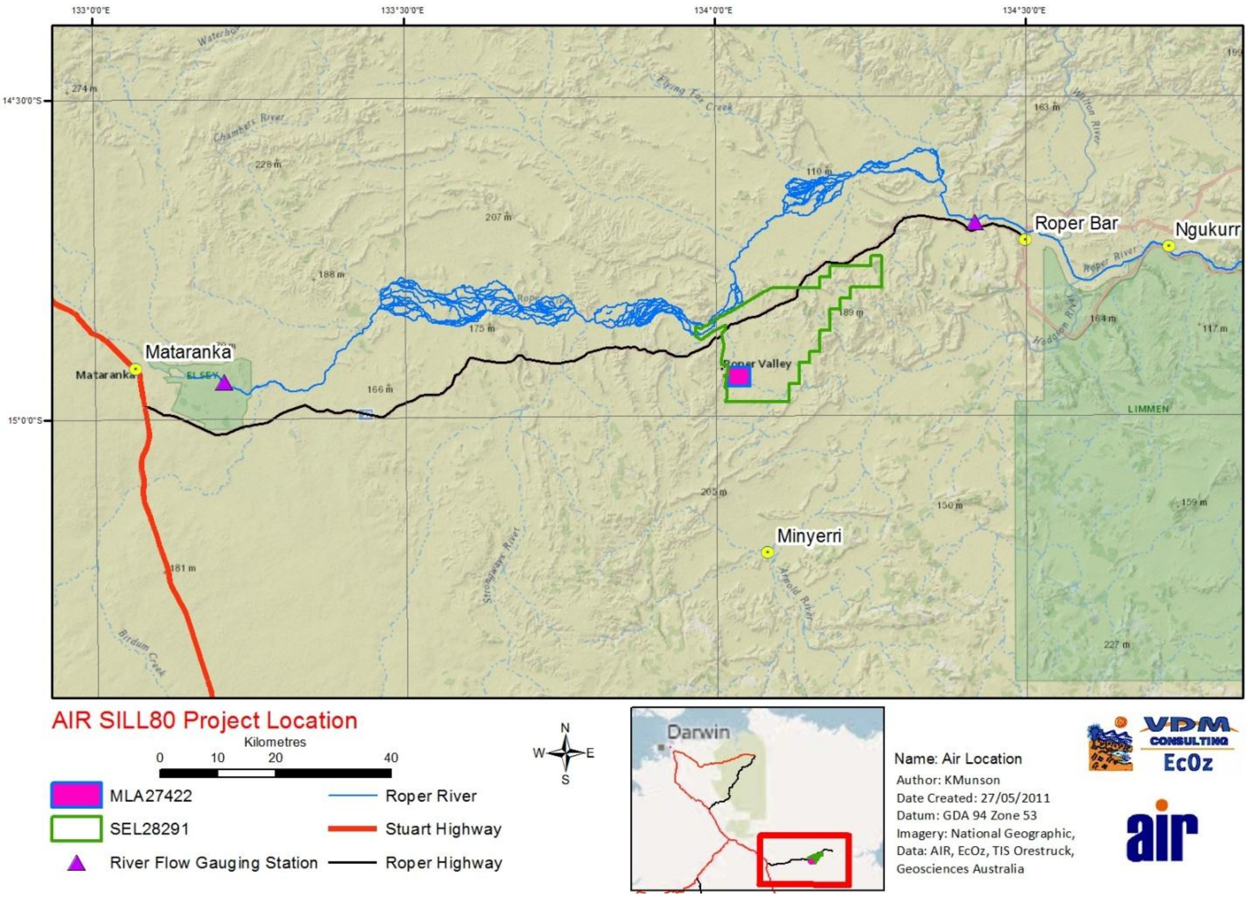


**Figure 1-1 Location of the AIR Mining Lease.**

## 1.1 Geological Setting

Ilmenite is a weakly magnetic titanium-iron oxide mineral which is iron-black or steel-grey (Plate 1-1). It is a crystalline iron titanium oxide ($FeTiO_3$). Ilmenite can occur in sedimentary detrital deposits known as "*placers”* and be concentrated into useable ores. Placers occur when a heavy, resistant mineral is mechanically and gravitationally sorted by natural processes into a recoverable deposit. Placers occur in river bends or behind river obstacles and in ocean shoreline mineral sand deposits where slower water currents allow the heavier minerals to settle.

The heavy minerals contained within the SILL80 project are still predominantly in-situ. The ore is believed to be at its original source and has not been reworked and transported as seen in many other classic heavy mineral sand systems These minerals have resulted from the breakdown of the original rock to form a soil in which it has retained the heavy mineral. The encompassing soils are either pisolitic or clay rich and as a consequence, the deposit has a heavy mineralised soil profile that requires simple extraction and processing.

Although the slime content of the Roper heavy minerals is high by industry standards (>50%), the unique characteristic of being derived from a single source lends to low variation (both chemical and physical) in the heavy mineral itself. Significantly, the soils are mineralised from the surface to in excess of 2-3m depth where the rock decomposition process is still underway.

**Plate 1-1 Ilmenite is the dark grey material as seen here at the SILL80 deposit**

Mineral sands can consist of up to 10% heavy minerals, of which 1-3% is monazite. Monazite is a rare earth phosphate containing a variety of valuable rare earth oxides (particularly cerium) and thorium oxide xenotime, containing yttrium. This subsequently means it can contain 5-7% of radioactive thorium and 0.1 - 0.3% of uranium, which has low radioactivity.

In the mineral sands ore, or general heavy mineral concentrate, the radiation levels are usually too low for radioactive classifications. However, when the material is concentrated in the process of separation and production the radiation levels are increased because of the subsequent concentration of radiation material, usually monazite. However, the SILL80 deposit has limited monazite content which means that radiation levels in the deposit are low. This is illustrated by the results in Table 4-2 and is discussed in the results section.

# 2 Project Description

EcOz Environmental Services was contracted by AIR Pty Ltd to conduct a baseline gamma dose survey of their SILL80 ilmenite resource located at MLA27422 prior to the commencement of mining in this area. As the mine area is reasonably large, 1225 hectares, a gridded ground gamma survey over a portion of the area was conducted (Figure 2-1). A Thermo Scientific RadEye GX survey meter with calibrated MC 70 Geiger Mueller tube and Garmin CP60cx GPS mounted on tripod were used. This area has been identified by AIR as the first area of the mining lease to be developed and mined.

Multi-purpose radiological survey meters were used with external MC70 Geiger Mueller Tubes (Table 3-1). Measurements were taken 1 metre above the ground surface (Plate 2-1). Over 400 measurements were taken (Appendix F1, Table 7-3) to establish the baseline gamma radiation levels over this portion of the mineral lease.

**Plate 2-1 Survey meter and Garmin GPS mounted on tripod**

Once the mining operation and processing begins it will be necessary to conduct a radiological survey over the stockpile and processing area. This survey will establish the activity and the activity concentrations of the possible radionuclides of interest in the ore concentrates allowing the establishment of their radiation levels and if they fall below exemption levels.

**Figure 2-1 Survey points at the SILL80 ilmenite deposit.**

As stated in the Northern Territory Radiation Protection Act

*“The new legislation replaces the Radiation (Safety Control) Act. All current licenses and registrations issued under this Act continued at the start of the new legislation. The new legislation covers safe control of the use of all radiation sources (radiation apparatus or radioactive material). Natural sources of radiation may be included when exposure results directly from a practice. Generally, unmodified concentrations of radioactive material in most raw materials are* ***not*** *included, unless there is a possibility of significant radiation exposure.*

*Activity and activity concentrations below exemption levels are obtained from the National Directory for Radiation Protection, published by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)”.*

The relevant clause and exemption levels from National Directory for Radiation Protection (ARPANSA) are

*3.2.2 The criteria to exempt radioactive material 10 or practices from notification, registration and licensing are:*

*(a) The radioactive material has an activity concentration11 less than that prescribed in Schedule 412 or consists of or contains less than the activity prescribed in Schedule 4 as shown in* Table 2-1*.*

**Table 2-1 Exemption levels from National Directory for Radiation Protection.**

| Isotope | Activity Concentration (Bq/g) | Activity (Bq) |
|---|---|---|
| Th natural (includes $^{232}$Th) | 1 | 1000 |
| $^{238}$U | 1 | 10000 |
| $^{232}$U | 10 | 1000 |
| U natural | 1 | 1000 |

# 3 Radiological Survey Method

The survey was conducted over four days from Monday 4$^{th}$ to Thursday 7$^{th}$ July 2011. Baseline gamma radiation levels were measured at the selected gridded survey area. (Figure 4-1). There were no boundaries marked for the zone and all survey points were taken using a GPS and were referenced to co-ordinates, supplied by AIR.

**Plate 3-1 Weed infestations on the AIR SILL80 ilmenite deposit.**

The grid survey was carried out at regular spacing on a North - South, East - West grid over the mineralized zone; this zone covers an area of approximately 1225 hectares. The survey area was approximately 500 metres by 600 metres in size and encompassed the highest mineral content area as per the AIR assay data. This area was chosen by AIR as the area that would be developed initially and subsequent areas will be surveyed (radiological) before being developed.

**Table 3-1 Specifications of the radiological measuring equipment used in the survey**

| Instrument Description | Manufacturer | Model | S/N | measurement | Range | Sensitivity |
|---|---|---|---|---|---|---|
| Multipurpose survey meter | Thermo Scientific | RadEye Gx | 0314 | Cps,cpm,Bq dps dpm Bq/cm$^2$ R/h Sv/h/ rem/h | 9999kcps 9999kcpm 9999kBq 9999kdps 9999kdpm 9999 kBq/cm$^2$ | |
| Geiger Mueller Tube | Mini Instruments | MC70 | 00828 | 55 keV to 2 MeV | <25% deviation | 18 counts /second per 1μGy/hr[1] |

A small proportion of the deposit was under thick, impassable vegetation, with dense weed infestations and vine growth (Plate 3-1). The area is also a working cattle station and an active grazing paddock. The initial grid survey was slightly modified to accommodate these factors and the survey point locations can be seen in Figure 2-1.

The spacing of the survey point measurements was approximately 20 to 30 m depending on accessibility. Measurements were taken with two gamma survey instruments and absorbed gamma dose rates measured at a height of 1 m above the ground level over a 60 second interval giving total counts. The geospatial coordinates (UTM WGS 84) of each measurement point were determined by a Garmin GPS 60cx. The precision of each GPS reading is typically ± 5 m (Figure 4-1).

Two soil samples were collected from the mineral lease area. These samples were taken from AIR Hole 407 and AIR Hole 447 and the associated AIR assay data for Ti and $TiO_2$. A radiological analysis on these samples was performed at the Commonwealth Government Department of Sustainability, Environment, Water, Population and Community Environmental Research Institute of the Supervising Scientist radiological laboratory using high-purity high resolution germanium gamma detectors and the results illustrated in Table 4-2.

**Table 3-2 Statistical summary of absorbed gamma dose rates (μGy $h^{-1}$) from MLA27422.**

| Statistic | Value |
|---|---|
| Mean | 0.11 |
| Standard Error | 0.00 |
| Median | 0.11 |
| Mode | 0.10 |
| Standard Deviation | 0.02 |
| Minimum | 0.07 |
| Maximum | 0.17 |
| Count | 415 |

Details of the gamma spectrometry methods are described in Murray et al. (1987), Marten (1992) and Pfitzner (1994). Errors provided in the radionuclide summary Table 4-2 are one estimated standard deviation based upon counting statistics only. Detection limits for each sample vary depending on sample size, detector efficiency and background, and background concentrations of the given nuclide.

# 4 Results and Discussion

The co-ordinates for the background readings can be found in Table 7-1 in Appendix F1 as well as a summary table below (Table 4-1). Figure 4-2 also illustrates the locations for AIR auger Hole 407 and auger Hole 447 with Table 4-2 giving a summary of the radiological results for these holes and associated soil samples. Appendix F1, Table 7-3 and Table 7-2, show the raw data and the calculated absorbed gamma dose rates based on the measured counts and the instruments response as determined from previous calibration against a $^{137}$Cs source (Bollhöfer et al 2009; Bollhöfer & Fawcett 2009). The reported uncertainty in the calculated dose rates is one standard deviation based on counting statistics alone.

**Figure 4-1 Survey points, soil samples, hole 407 and 447 and location of background readings.**

Figure 2-1 gives a representation of the geospatial location of the individual measurement points. Figure 4-1 displays survey points for the SILL80 ilmenite deposit (red points) and soil samples, hole 407 and 447 from AIR assay information (green points) giving the relative position of these points in regard to the background measurement location (blue point). Figure 4-2 shows the magnitude of the calculated absorbed gamma dose rates (terrestrial component only) using contours over the designated survey area selected by AIR. It can be seen from these contour plots and the associated calculated absorbed gamma dose rates that radiation levels over the mineralized zone is low.

The low gamma dose rates over the mineralized zone are illustrated in a summarized form in Table 3-2 as standard statistics. It can be seen from these that the statistical mean over the mineralized zone was 0.11 $\mu Gy \cdot hr^{-1}$ and the maximum reading was 0.17 $\mu Gy \cdot hr^{-1}$. These measurements are still low and when compared to the background levels in Table 4-1 highlight the low radiological levels of the area. The background absorbed gamma dose rates were taken 3.5km from the SILL80 Ilmenite deposit.

**Table 4-1 Background absorbed gamma dose rates ($\mu Gy\ h^{-1}$).**

| X | y | Calculated | Uncertainty | Mean | Standard Deviation |
|---|---|---|---|---|---|
| 393533 | 8349659 | 0.15 | 0.011 | | |
| 393533 | 8349659 | 0.13 | 0.011 | | |
| 393533 | 8349659 | 0.15 | 0.011 | | |
| | | | | **0.14** | **0.01** |

The low gamma dose rates are assumed to be caused by two main factors. Firstly, the area does not have high concentrations of naturally occurring radionuclides in the surface materials. Secondly, the ilmenite is low in monazite sands, the source of radiation in most mineral sands. As previously stated this is not a placer deposit, it is an in-situ deposit that has not been transported away from its parent rock and therefore has not had the concentration mechanisms of nature that most mineral sand deposits have experienced and consequently the introduction and concentration of monazites. This has led to very low levels of radionuclides which are reflected in the results of the radionuclide analysis illustrated in Table 4-2 which calculated gamma dose rates from the survey and activity concentrations (Bq/kg dry weight) of radio-isotopes for the sampled holes with a comparison to AIR assay data for titanium (%) and titanium oxide (%) at the AIR SILL80 ilmenite deposit.

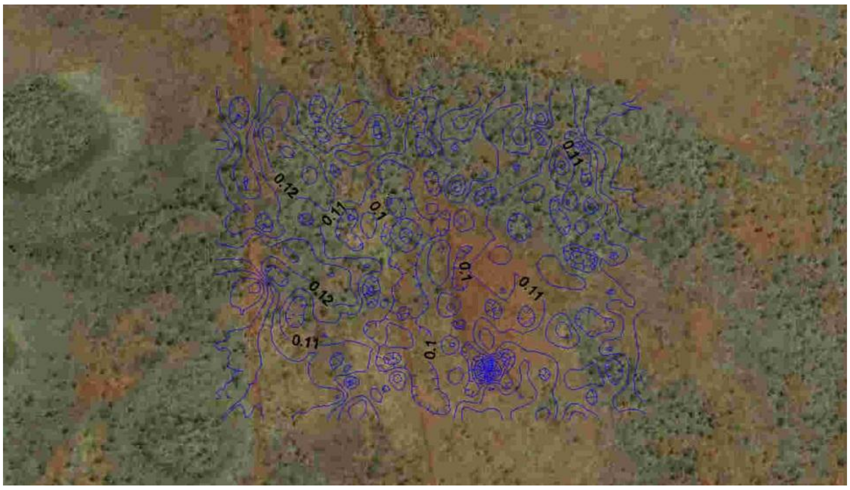


**Figure 4-2 Contour map for the surveyed area**

It should also be noted before any post mining work is conducted that similar surveys should be completed during similar climatic conditions. This is because if there is a significant amount of moisture present in the surface and subsurface material, emanation of radon from the ground can be significantly prohibited, thus reducing the response to the radon decay product Bi-214.

**Table 4-2 Gamma dose rates and activity concentrations of radio-isotopes for the sampled holes.**

| Hole Id | Calculated $\mu Gy\ h^{-1}$ | $^{238}U$ | $^{228}Th$ | $^{226}Ra$ | $^{210}Pb$ | $^{228}Ra$ | $^{40}K$ | $TiO_2$ | Ti |
|---|---|---|---|---|---|---|---|---|---|
| 407 | 0.11 | 24 ± 7 | 38 ± 2 | 21 ± 1 | 73 ± 7 | 36 ± 2 | 219 ±14 | 6.7 | 4.0 |
| 447 | 0.12 | < 17 | 27 ± 1 | 11 ± 1 | < 13 | 31 ± 2 | 235 ± 12 | 13.8 | 8.3 |

# 5 Conclusions

The radionuclide activity concentrations in the soils associated with the ilmenite deposit surveyed are low. The gamma dose rate over the deposit is also low and is equal to or less then background levels in the area. With the above analysis in Table 4-2 there does not seem to be a significant correlation between Ti content and radionuclide levels in the survey area.

# 6 Glossary and Acronyms

| | |
|---|---|
| **Bq** | The becquerel (symbol Bq) (pronounced: 'be-kə-rel) is the SI-derived unit of radioactivity. One Bq is defined as the activity of a quantity of radioactive material in which one nucleus decays per second. The Bq unit is therefore equivalent to an inverse second, $s^{-1}$. 1 Becquerel (Bq) = 1 count per second = 1 event per second |
| **cpm** | Counts per minute |
| **cps** | Counts per second |
| **dpm** | Disintegrations per minute |
| **dps** | Disintegrations per second |
| **$FeTiO_3$** | Iron titanium oxide / Ilmenite |
| **gamma** | Electromagnetic radiation of high frequency (very short wavelength) |
| **in-situ** | Has not been moved from its original place of deposition |
| **kBq** | Kilobecquerel |
| **kcpm** | kilo counts per minute |
| **kcps** | kilo counts per second |
| **kdpm** | kilodisintegrations per minute |
| **kdps** | kilodisintegrations per second |
| **KeV** | Kilo electron volts / thousand electron volts, a measure of radiation beam energy |
| **MeV** | Million electron volts, a measure of radiation beam energy |
| **placer deposit** | In geology, a placer deposit or placer is an accumulation of valuable minerals formed by gravity separation during sedimentary processes |
| **R/h** | Roentgens per hour / The exposure rate expresses the rate of charge production per unit mass of air and is commonly expressed in roentgens per hour (R/h) |
| **radio-isotopes** | A version of a chemical element that has an unstable nucleus and emits radiation during its decay to a stable form. |
| **radionuclides** | A radionuclide is an atom with an unstable nucleus, which is a nucleus characterized by excess energy available to be imparted either to a newly created radiation particle within the nucleus or to an atomic electron. The radionuclide, in this process, undergoes radioactive decay, and emits gamma ray(s) and/or subatomic particles. These particles constitute ionizing radiation. Radionuclides occur naturally, and can also be artificially produced. |

| | |
|---|---|
| **Sv/h/rem/h** | The sievert (symbol: Sv) is the International System of Units (SI) SI derived unit of dose equivalent radiation. It attempts to quantitatively evaluate the biological effects of ionizing radiation as opposed to just the absorbed dose of radiation energy, which is measured in gray<br><br>Frequently used SI multiples are the millisievert (1 mSv = 0.001 Sv) and microsievert (1 μSv = 0.000001 Sv).<br><br>An older unit for the equivalent dose, is the rem,[3] still often used in the United States. One sievert is equal to 100 rem:<br><br>1 rem = 0.01 Sv = 10 mSv<br>1 mrem = 0.01 mSv = 10 μSv<br>1 Sv = 100 rem<br>1 mSv = 100 mrem = 0.1 rem<br>1 μSv = 0.1 mrem |
| **uGy.hr$^{-1}$** | Micrograys per hour |

# 7 References

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Murray, AS, Marten, R, Johnston, A & Martin, P 1987, *Analysis for naturally occurring radionuclides at environmental concentrations by gamma spectrometry,* Journal of Radioanalytical and Nuclear Chemistry, Articles vol. 115, pp. 263–288.

Pfitzner, J 1994, *Sample collection and preparation manual for gamma-ray spectrometry analysis*, Internal report 169, Supervising Scientist for the Alligator Rivers Region, Canberra, Unpublished paper.

# Appendix F1

### Table 7-1 Results of the background measurements.

| X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|
| 393533 | 8349659 | 60 | 173 | 0.15 | 0.011 |
| 393533 | 8349659 | 60 | 156 | 0.13 | 0.011 |
| 393533 | 8349659 | 60 | 175 | 0.15 | 0.011 |

### Table 7-2 Results of the radiological measurements.

| Hole | X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|---|
| 407 | 397100 | 8348900 | 60 | 134 | 0.11 | 0.01 |
| 447 | 397300 | 8348900 | 60 | 138 | 0.12 | 0.01 |

### Table 7-3 Results of the gamma survey conducted at MLA 27422 (μGy $h^{-1}$)

| X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|
| 397240 | 8348848 | 60 | 90 | 0.07 | 0.007589 |
| 397403 | 8348642 | 60 | 90 | 0.07 | 0.007589 |
| 396963 | 8349036 | 60 | 94 | 0.08 | 0.007811 |
| 397220 | 8348641 | 60 | 95 | 0.08 | 0.007866 |
| 397149 | 8348602 | 60 | 97 | 0.08 | 0.007974 |
| 397227 | 8348892 | 60 | 99 | 0.08 | 0.008081 |
| 397242 | 8348828 | 60 | 99 | 0.08 | 0.008081 |
| 397181 | 8348752 | 60 | 100 | 0.08 | 0.008133 |
| 397152 | 8348874 | 60 | 101 | 0.08 | 0.008186 |
| 397234 | 8348711 | 60 | 102 | 0.08 | 0.008238 |
| 397170 | 8348569 | 60 | 102 | 0.08 | 0.008238 |
| 397004 | 8348857 | 60 | 103 | 0.08 | 0.00829 |
| 396962 | 8349058 | 60 | 104 | 0.09 | 0.008341 |
| 397386 | 8348719 | 60 | 104 | 0.09 | 0.008341 |
| 397528 | 8348986 | 60 | 104 | 0.09 | 0.008341 |
| 397549 | 8348804 | 60 | 104 | 0.09 | 0.008341 |
| 397203 | 8348683 | 60 | 106 | 0.09 | 0.008444 |
| 397065 | 8348734 | 60 | 106 | 0.09 | 0.008444 |
| 397296 | 8348852 | 60 | 106 | 0.09 | 0.008444 |
| 396979 | 8348916 | 60 | 107 | 0.09 | 0.008494 |
| 396974 | 8348937 | 60 | 107 | 0.09 | 0.008494 |
| 397340 | 8348655 | 60 | 107 | 0.09 | 0.008494 |
| 397278 | 8348993 | 60 | 107 | 0.09 | 0.008494 |
| 397441 | 8348701 | 60 | 107 | 0.09 | 0.008494 |
| 397054 | 8348710 | 60 | 107 | 0.09 | 0.008494 |
| 397326 | 8348766 | 60 | 108 | 0.09 | 0.008545 |
| 397521 | 8348811 | 60 | 108 | 0.09 | 0.008545 |
| 397192 | 8348908 | 60 | 109 | 0.09 | 0.008595 |
| 397160 | 8348831 | 60 | 109 | 0.09 | 0.008595 |
| 397306 | 8348876 | 60 | 109 | 0.09 | 0.008595 |
| 397291 | 8348918 | 60 | 109 | 0.09 | 0.008595 |
| 397409 | 8348597 | 60 | 109 | 0.09 | 0.008595 |
| 397143 | 8348561 | 60 | 109 | 0.09 | 0.008595 |
| 397106 | 8349007 | 60 | 110 | 0.09 | 0.008645 |
| 397209 | 8348962 | 60 | 110 | 0.09 | 0.008645 |
| 397349 | 8348586 | 60 | 110 | 0.09 | 0.008645 |
| 397259 | 8349035 | 60 | 110 | 0.09 | 0.008645 |
| 397208 | 8348841 | 60 | 111 | 0.09 | 0.008694 |
| 397199 | 8348638 | 60 | 111 | 0.09 | 0.008694 |
| 397208 | 8348591 | 60 | 111 | 0.09 | 0.008694 |
| 397234 | 8348869 | 60 | 111 | 0.09 | 0.008694 |
| 397266 | 8348682 | 60 | 111 | 0.09 | 0.008694 |
| 397327 | 8348788 | 60 | 111 | 0.09 | 0.008694 |
| 397380 | 8348916 | 60 | 111 | 0.09 | 0.008694 |
| 397249 | 8348641 | 60 | 112 | 0.09 | 0.008744 |
| 397100 | 8349053 | 60 | 112 | 0.09 | 0.008744 |
| 397186 | 8348773 | 60 | 112 | 0.09 | 0.008744 |
| 396969 | 8349014 | 60 | 112 | 0.09 | 0.008744 |
| 397269 | 8348727 | 60 | 112 | 0.09 | 0.008744 |
| 397471 | 8348613 | 60 | 112 | 0.09 | 0.008744 |

| X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|
| 397229 | 8348732 | 60 | 113 | 0.09 | 0.008793 |
| 397189 | 8348732 | 60 | 113 | 0.09 | 0.008793 |
| 397472 | 8348552 | 60 | 113 | 0.09 | 0.008793 |
| 397457 | 8349015 | 60 | 113 | 0.09 | 0.008793 |
| 397258 | 8348591 | 60 | 114 | 0.09 | 0.008841 |
| 397253 | 8348616 | 60 | 114 | 0.09 | 0.008841 |
| 397226 | 8348755 | 60 | 114 | 0.09 | 0.008841 |
| 397274 | 8348658 | 60 | 114 | 0.09 | 0.008841 |
| 397216 | 8348798 | 60 | 115 | 0.10 | 0.00889 |
| 396975 | 8348961 | 60 | 115 | 0.10 | 0.00889 |
| 396974 | 8348992 | 60 | 115 | 0.10 | 0.00889 |
| 397250 | 8348765 | 60 | 115 | 0.10 | 0.00889 |
| 397191 | 8349030 | 60 | 116 | 0.10 | 0.008938 |
| 397221 | 8348916 | 60 | 116 | 0.10 | 0.008938 |
| 397242 | 8348806 | 60 | 116 | 0.10 | 0.008938 |
| 397247 | 8348790 | 60 | 116 | 0.10 | 0.008938 |
| 397251 | 8348747 | 60 | 116 | 0.10 | 0.008938 |
| 397305 | 8348573 | 60 | 116 | 0.10 | 0.008938 |
| 397472 | 8348998 | 60 | 116 | 0.10 | 0.008938 |
| 397210 | 8348711 | 60 | 116 | 0.10 | 0.008938 |
| 397201 | 8348663 | 60 | 117 | 0.10 | 0.008986 |
| 397107 | 8348679 | 60 | 117 | 0.10 | 0.008986 |
| 397197 | 8349005 | 60 | 117 | 0.10 | 0.008986 |
| 397311 | 8348554 | 60 | 117 | 0.10 | 0.008986 |
| 397286 | 8348942 | 60 | 117 | 0.10 | 0.008986 |
| 397175 | 8348686 | 60 | 117 | 0.10 | 0.008986 |
| 397319 | 8348700 | 60 | 117 | 0.10 | 0.008986 |
| 397014 | 8348782 | 60 | 118 | 0.10 | 0.009034 |
| 397337 | 8348700 | 60 | 118 | 0.10 | 0.009034 |
| 397291 | 8348988 | 60 | 118 | 0.10 | 0.009034 |
| 397353 | 8348905 | 60 | 118 | 0.10 | 0.009034 |
| 397422 | 8348964 | 60 | 118 | 0.10 | 0.009034 |
| 397547 | 8348891 | 60 | 118 | 0.10 | 0.009034 |
| 397581 | 8348634 | 60 | 118 | 0.10 | 0.009034 |
| 397262 | 8348567 | 60 | 119 | 0.10 | 0.009081 |
| 397199 | 8348885 | 60 | 119 | 0.10 | 0.009081 |
| 397323 | 8348810 | 60 | 119 | 0.10 | 0.009081 |
| 397238 | 8349082 | 60 | 119 | 0.10 | 0.009081 |
| 397362 | 8348879 | 60 | 119 | 0.10 | 0.009081 |
| 397125 | 8348848 | 60 | 119 | 0.10 | 0.009081 |
| 397246 | 8348948 | 60 | 119 | 0.10 | 0.009081 |
| 397349 | 8348820 | 60 | 119 | 0.10 | 0.009081 |
| 397206 | 8348619 | 60 | 120 | 0.10 | 0.009129 |
| 397278 | 8348636 | 60 | 120 | 0.10 | 0.009129 |
| 397296 | 8348588 | 60 | 120 | 0.10 | 0.009129 |
| 397340 | 8348678 | 60 | 120 | 0.10 | 0.009129 |
| 397379 | 8348741 | 60 | 120 | 0.10 | 0.009129 |
| 397433 | 8348726 | 60 | 120 | 0.10 | 0.009129 |
| 397587 | 8348607 | 60 | 120 | 0.10 | 0.009129 |
| 397273 | 8349062 | 60 | 120 | 0.10 | 0.009129 |
| 397273 | 8349016 | 60 | 121 | 0.10 | 0.009176 |

| X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|
| 397427 | 8348941 | 60 | 121 | 0.10 | 0.009176 |
| 397519 | 8349006 | 60 | 121 | 0.10 | 0.009176 |
| 397031 | 8348850 | 60 | 121 | 0.10 | 0.009176 |
| 397240 | 8348687 | 60 | 122 | 0.10 | 0.009223 |
| 397032 | 8348767 | 60 | 122 | 0.10 | 0.009223 |
| 397320 | 8348834 | 60 | 122 | 0.10 | 0.009223 |
| 397406 | 8348619 | 60 | 122 | 0.10 | 0.009223 |
| 397406 | 8348619 | 60 | 122 | 0.10 | 0.009223 |
| 397321 | 8348637 | 60 | 122 | 0.10 | 0.009223 |
| 397433 | 8348549 | 60 | 122 | 0.10 | 0.009223 |
| 397584 | 8348809 | 60 | 122 | 0.10 | 0.009223 |
| 397204 | 8348863 | 60 | 123 | 0.10 | 0.009269 |
| 397184 | 8348951 | 60 | 123 | 0.10 | 0.009269 |
| 397130 | 8348637 | 60 | 123 | 0.10 | 0.009269 |
| 397321 | 8348992 | 60 | 123 | 0.10 | 0.009269 |
| 397372 | 8349031 | 60 | 123 | 0.10 | 0.009269 |
| 397428 | 8348853 | 60 | 123 | 0.10 | 0.009269 |
| 397506 | 8348858 | 60 | 123 | 0.10 | 0.009269 |
| 397543 | 8348936 | 60 | 123 | 0.10 | 0.009269 |
| 397189 | 8348816 | 60 | 123 | 0.10 | 0.009269 |
| 397140 | 8348825 | 60 | 123 | 0.10 | 0.009269 |
| 396962 | 8348859 | 60 | 123 | 0.10 | 0.009269 |
| 396926 | 8349060 | 60 | 123 | 0.10 | 0.009269 |
| 397172 | 8348997 | 60 | 124 | 0.10 | 0.009316 |
| 397104 | 8349030 | 60 | 124 | 0.10 | 0.009316 |
| 397155 | 8348852 | 60 | 124 | 0.10 | 0.009316 |
| 396986 | 8348866 | 60 | 124 | 0.10 | 0.009316 |
| 397315 | 8348856 | 60 | 124 | 0.10 | 0.009316 |
| 397420 | 8348748 | 60 | 124 | 0.10 | 0.009316 |
| 397460 | 8348634 | 60 | 124 | 0.10 | 0.009316 |
| 396947 | 8348960 | 60 | 124 | 0.10 | 0.009316 |
| 397314 | 8348954 | 60 | 124 | 0.10 | 0.009316 |
| 397003 | 8349047 | 60 | 124 | 0.10 | 0.009316 |
| 397264 | 8348551 | 60 | 125 | 0.10 | 0.009362 |
| 397125 | 8348946 | 60 | 125 | 0.10 | 0.009362 |
| 397171 | 8348813 | 60 | 125 | 0.10 | 0.009362 |
| 397200 | 8348709 | 60 | 125 | 0.10 | 0.009362 |
| 397344 | 8348612 | 60 | 125 | 0.10 | 0.009362 |
| 397333 | 8348723 | 60 | 125 | 0.10 | 0.009362 |
| 397278 | 8348967 | 60 | 125 | 0.10 | 0.009362 |
| 397350 | 8348927 | 60 | 125 | 0.10 | 0.009362 |
| 397367 | 8348830 | 60 | 125 | 0.10 | 0.009362 |
| 397523 | 8348701 | 60 | 125 | 0.10 | 0.009362 |
| 397491 | 8348901 | 60 | 125 | 0.10 | 0.009362 |
| 397491 | 8348901 | 60 | 125 | 0.10 | 0.009362 |
| 397556 | 8348842 | 60 | 125 | 0.10 | 0.009362 |
| 397582 | 8348750 | 60 | 125 | 0.10 | 0.009362 |
| 397072 | 8349034 | 60 | 125 | 0.10 | 0.009362 |
| 397355 | 8348762 | 60 | 125 | 0.10 | 0.009362 |
| 397324 | 8348893 | 60 | 125 | 0.10 | 0.009362 |

| X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|
| 397115 | 8348810 | 60 | 125 | 0.10 | 0.009362 |
| 397244 | 8348665 | 60 | 126 | 0.11 | 0.009408 |
| 397297 | 8349011 | 60 | 126 | 0.11 | 0.009408 |
| 397070 | 8348680 | 60 | 126 | 0.11 | 0.009408 |
| 397299 | 8348896 | 60 | 127 | 0.11 | 0.009453 |
| 397394 | 8348688 | 60 | 127 | 0.11 | 0.009453 |
| 397547 | 8348566 | 60 | 127 | 0.11 | 0.009453 |
| 397529 | 8348791 | 60 | 127 | 0.11 | 0.009453 |
| 397433 | 8349051 | 60 | 127 | 0.11 | 0.009453 |
| 397538 | 8348960 | 60 | 127 | 0.11 | 0.009453 |
| 397582 | 8348702 | 60 | 127 | 0.11 | 0.009453 |
| 396957 | 8348927 | 60 | 127 | 0.11 | 0.009453 |
| 397324 | 8348581 | 60 | 127 | 0.11 | 0.009453 |
| 397405 | 8349034 | 60 | 127 | 0.11 | 0.009453 |
| 397458 | 8348948 | 60 | 127 | 0.11 | 0.009453 |
| 397547 | 8348686 | 60 | 127 | 0.11 | 0.009453 |
| 397550 | 8348713 | 60 | 127 | 0.11 | 0.009453 |
| 397077 | 8348871 | 60 | 127 | 0.11 | 0.009453 |
| 397021 | 8348907 | 60 | 127 | 0.11 | 0.009453 |
| 397211 | 8348820 | 60 | 128 | 0.11 | 0.009499 |
| 397143 | 8348897 | 60 | 128 | 0.11 | 0.009499 |
| 397078 | 8348719 | 60 | 128 | 0.11 | 0.009499 |
| 397326 | 8348745 | 60 | 128 | 0.11 | 0.009499 |
| 397471 | 8348595 | 60 | 128 | 0.11 | 0.009499 |
| 397468 | 8348571 | 60 | 128 | 0.11 | 0.009499 |
| 397244 | 8348547 | 60 | 128 | 0.11 | 0.009499 |
| 397214 | 8348664 | 60 | 128 | 0.11 | 0.009499 |
| 397137 | 8348715 | 60 | 128 | 0.11 | 0.009499 |
| 397113 | 8348983 | 60 | 129 | 0.11 | 0.009544 |
| 397121 | 8348962 | 60 | 129 | 0.11 | 0.009544 |
| 397220 | 8348571 | 60 | 129 | 0.11 | 0.009544 |
| 397267 | 8348704 | 60 | 129 | 0.11 | 0.009544 |
| 397368 | 8348858 | 60 | 129 | 0.11 | 0.009544 |
| 397182 | 8348617 | 60 | 129 | 0.11 | 0.009544 |
| 397360 | 8348732 | 60 | 129 | 0.11 | 0.009544 |
| 397341 | 8348850 | 60 | 129 | 0.11 | 0.009544 |
| 397289 | 8349032 | 60 | 129 | 0.11 | 0.009544 |
| 397426 | 8348658 | 60 | 129 | 0.11 | 0.009544 |
| 397140 | 8348687 | 60 | 129 | 0.11 | 0.009544 |
| 397220 | 8348778 | 60 | 130 | 0.11 | 0.009589 |
| 397161 | 8348587 | 60 | 130 | 0.11 | 0.009589 |
| 397093 | 8348699 | 60 | 130 | 0.11 | 0.009589 |
| 397377 | 8348788 | 60 | 130 | 0.11 | 0.009589 |
| 397398 | 8348663 | 60 | 130 | 0.11 | 0.009589 |
| 397404 | 8349001 | 60 | 130 | 0.11 | 0.009589 |
| 397421 | 8348780 | 60 | 130 | 0.11 | 0.009589 |
| 397519 | 8348743 | 60 | 130 | 0.11 | 0.009589 |
| 397485 | 8349042 | 60 | 130 | 0.11 | 0.009589 |
| 397076 | 8349008 | 60 | 130 | 0.11 | 0.009589 |
| 397267 | 8348917 | 60 | 130 | 0.11 | 0.009589 |

| X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|
| 397387 | 8348838 | 60 | 130 | 0.11 | 0.009589 |
| 397411 | 8348716 | 60 | 130 | 0.11 | 0.009589 |
| 397543 | 8348657 | 60 | 130 | 0.11 | 0.009589 |
| 397610 | 8348541 | 60 | 131 | 0.11 | 0.009634 |
| 397215 | 8348688 | 60 | 131 | 0.11 | 0.009634 |
| 397118 | 8348605 | 60 | 131 | 0.11 | 0.009634 |
| 396938 | 8349026 | 60 | 131 | 0.11 | 0.009634 |
| 397390 | 8349053 | 60 | 131 | 0.11 | 0.009634 |
| 397452 | 8348972 | 60 | 131 | 0.11 | 0.009634 |
| 397337 | 8348633 | 60 | 132 | 0.11 | 0.009679 |
| 397301 | 8349060 | 60 | 132 | 0.11 | 0.009679 |
| 397413 | 8348984 | 60 | 132 | 0.11 | 0.009679 |
| 396951 | 8348893 | 60 | 132 | 0.11 | 0.009679 |
| 397331 | 8349062 | 60 | 132 | 0.11 | 0.009679 |
| 397397 | 8348782 | 60 | 132 | 0.11 | 0.009679 |
| 397187 | 8348929 | 60 | 133 | 0.11 | 0.009723 |
| 397346 | 8348948 | 60 | 133 | 0.11 | 0.009723 |
| 397351 | 8349065 | 60 | 133 | 0.11 | 0.009723 |
| 397431 | 8348826 | 60 | 133 | 0.11 | 0.009723 |
| 397476 | 8348972 | 60 | 133 | 0.11 | 0.009723 |
| 397543 | 8348911 | 60 | 133 | 0.11 | 0.009723 |
| 397579 | 8348679 | 60 | 133 | 0.11 | 0.009723 |
| 397180 | 8348839 | 60 | 133 | 0.11 | 0.009723 |
| 397127 | 8349061 | 60 | 133 | 0.11 | 0.009723 |
| 397183 | 8348657 | 60 | 133 | 0.11 | 0.009723 |
| 397437 | 8348605 | 60 | 133 | 0.11 | 0.009723 |
| 397377 | 8348763 | 60 | 134 | 0.11 | 0.009767 |
| 397511 | 8348834 | 60 | 134 | 0.11 | 0.009767 |
| 397501 | 8349027 | 60 | 134 | 0.11 | 0.009767 |
| 397386 | 8348571 | 60 | 134 | 0.11 | 0.009767 |
| 397480 | 8348825 | 60 | 134 | 0.11 | 0.009767 |
| 397511 | 8348727 | 60 | 134 | 0.11 | 0.009767 |
| 397043 | 8349020 | 60 | 134 | 0.11 | 0.009767 |
| 397118 | 8348658 | 60 | 135 | 0.11 | 0.009812 |
| 396979 | 8348891 | 60 | 135 | 0.11 | 0.009812 |
| 397408 | 8348576 | 60 | 135 | 0.11 | 0.009812 |
| 397519 | 8348723 | 60 | 135 | 0.11 | 0.009812 |
| 397201 | 8349079 | 60 | 135 | 0.11 | 0.009812 |
| 397233 | 8348983 | 60 | 135 | 0.11 | 0.009812 |
| 397434 | 8348629 | 60 | 135 | 0.11 | 0.009812 |
| 397467 | 8348876 | 60 | 135 | 0.11 | 0.009812 |
| 397504 | 8348635 | 60 | 135 | 0.11 | 0.009812 |
| 397556 | 8348768 | 60 | 135 | 0.11 | 0.009812 |
| 397500 | 8349068 | 60 | 135 | 0.11 | 0.009812 |
| 397152 | 8348658 | 60 | 135 | 0.11 | 0.009812 |
| 397195 | 8348788 | 60 | 136 | 0.11 | 0.009855 |
| 397162 | 8348900 | 60 | 136 | 0.11 | 0.009855 |
| 397217 | 8349052 | 60 | 136 | 0.11 | 0.009855 |
| 397491 | 8348743 | 60 | 136 | 0.11 | 0.009855 |
| 397571 | 8348547 | 60 | 136 | 0.11 | 0.009855 |

| X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|
| 397549 | 8348739 | 60 | 136 | 0.11 | 0.009855 |
| 397078 | 8348896 | 60 | 136 | 0.11 | 0.009855 |
| 397005 | 8348967 | 60 | 136 | 0.11 | 0.009855 |
| 397485 | 8348923 | 60 | 137 | 0.12 | 0.009899 |
| 397159 | 8348926 | 60 | 137 | 0.12 | 0.009899 |
| 397098 | 8348622 | 60 | 137 | 0.12 | 0.009899 |
| 397417 | 8348680 | 60 | 137 | 0.12 | 0.009899 |
| 397517 | 8348578 | 60 | 137 | 0.12 | 0.009899 |
| 397552 | 8348976 | 60 | 137 | 0.12 | 0.009899 |
| 397166 | 8349019 | 60 | 138 | 0.12 | 0.009943 |
| 397447 | 8348681 | 60 | 138 | 0.12 | 0.009943 |
| 397529 | 8348624 | 60 | 138 | 0.12 | 0.009943 |
| 397522 | 8348659 | 60 | 138 | 0.12 | 0.009943 |
| 397321 | 8348610 | 60 | 138 | 0.12 | 0.009943 |
| 397357 | 8348974 | 60 | 138 | 0.12 | 0.009943 |
| 397385 | 8348888 | 60 | 138 | 0.12 | 0.009943 |
| 397567 | 8348577 | 60 | 138 | 0.12 | 0.009943 |
| 397479 | 8349011 | 60 | 138 | 0.12 | 0.009943 |
| 397614 | 8348731 | 60 | 138 | 0.12 | 0.009943 |
| 397095 | 8348833 | 60 | 138 | 0.12 | 0.009943 |
| 397013 | 8348942 | 60 | 138 | 0.12 | 0.009943 |
| 397133 | 8348921 | 60 | 139 | 0.12 | 0.009986 |
| 397203 | 8348983 | 60 | 139 | 0.12 | 0.009986 |
| 397428 | 8348916 | 60 | 139 | 0.12 | 0.009986 |
| 396969 | 8348828 | 60 | 139 | 0.12 | 0.009986 |
| 397372 | 8348701 | 60 | 139 | 0.12 | 0.009986 |
| 397307 | 8348981 | 60 | 139 | 0.12 | 0.009986 |
| 397388 | 8348865 | 60 | 139 | 0.12 | 0.009986 |
| 397535 | 8348827 | 60 | 139 | 0.12 | 0.009986 |
| 397633 | 8348548 | 60 | 139 | 0.12 | 0.009986 |
| 397185 | 8349050 | 60 | 140 | 0.12 | 0.010029 |
| 397373 | 8348810 | 60 | 140 | 0.12 | 0.010029 |
| 397285 | 8349014 | 60 | 140 | 0.12 | 0.010029 |
| 397087 | 8348982 | 60 | 140 | 0.12 | 0.010029 |
| 397158 | 8348782 | 60 | 140 | 0.12 | 0.010029 |
| 397502 | 8348922 | 60 | 140 | 0.12 | 0.010029 |
| 397179 | 8349069 | 60 | 141 | 0.12 | 0.010072 |
| 397245 | 8349058 | 60 | 141 | 0.12 | 0.010072 |
| 397427 | 8348896 | 60 | 141 | 0.12 | 0.010072 |
| 397556 | 8348819 | 60 | 141 | 0.12 | 0.010072 |
| 397148 | 8348954 | 60 | 141 | 0.12 | 0.010072 |
| 397286 | 8348885 | 60 | 141 | 0.12 | 0.010072 |
| 397519 | 8349046 | 60 | 141 | 0.12 | 0.010072 |
| 397573 | 8348894 | 60 | 141 | 0.12 | 0.010072 |
| 397121 | 8348715 | 60 | 141 | 0.12 | 0.010072 |
| 397008 | 8348805 | 60 | 142 | 0.12 | 0.010115 |
| 397481 | 8348950 | 60 | 142 | 0.12 | 0.010115 |
| 397555 | 8348866 | 60 | 142 | 0.12 | 0.010115 |
| 397574 | 8348783 | 60 | 142 | 0.12 | 0.010115 |
| 397588 | 8348582 | 60 | 142 | 0.12 | 0.010115 |

| X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|
| 397476 | 8348850 | 60 | 142 | 0.12 | 0.010115 |
| 397203 | 8348732 | 60 | 142 | 0.12 | 0.010115 |
| 397381 | 8348648 | 60 | 142 | 0.12 | 0.010115 |
| 397353 | 8348788 | 60 | 142 | 0.12 | 0.010115 |
| 397499 | 8348662 | 60 | 142 | 0.12 | 0.010115 |
| 397165 | 8348639 | 60 | 142 | 0.12 | 0.010115 |
| 397098 | 8348753 | 60 | 142 | 0.12 | 0.010115 |
| 397332 | 8348969 | 60 | 143 | 0.12 | 0.010158 |
| 397476 | 8349059 | 60 | 143 | 0.12 | 0.010158 |
| 397112 | 8348885 | 60 | 143 | 0.12 | 0.010158 |
| 397192 | 8348580 | 60 | 143 | 0.12 | 0.010158 |
| 397089 | 8348652 | 60 | 143 | 0.12 | 0.010158 |
| 397598 | 8348759 | 60 | 143 | 0.12 | 0.010158 |
| 397009 | 8348991 | 60 | 143 | 0.12 | 0.010158 |
| 397160 | 8349043 | 60 | 144 | 0.12 | 0.0102 |
| 397175 | 8348868 | 60 | 144 | 0.12 | 0.0102 |
| 397304 | 8348783 | 60 | 144 | 0.12 | 0.0102 |
| 397555 | 8348628 | 60 | 144 | 0.12 | 0.0102 |
| 397596 | 8348559 | 60 | 145 | 0.12 | 0.010242 |
| 397430 | 8348579 | 60 | 145 | 0.12 | 0.010242 |
| 397120 | 8348756 | 60 | 145 | 0.12 | 0.010242 |
| 397082 | 8348778 | 60 | 145 | 0.12 | 0.010242 |
| 397176 | 8348792 | 60 | 146 | 0.12 | 0.010284 |
| 397300 | 8349034 | 60 | 146 | 0.12 | 0.010284 |
| 396946 | 8348993 | 60 | 146 | 0.12 | 0.010284 |
| 397330 | 8349004 | 60 | 146 | 0.12 | 0.010284 |
| 397371 | 8348942 | 60 | 146 | 0.12 | 0.010284 |
| 397487 | 8348772 | 60 | 146 | 0.12 | 0.010284 |
| 397052 | 8348957 | 60 | 146 | 0.12 | 0.010284 |
| 397027 | 8348738 | 60 | 147 | 0.13 | 0.010326 |
| 397403 | 8348751 | 60 | 147 | 0.13 | 0.010326 |
| 397563 | 8348600 | 60 | 147 | 0.13 | 0.010326 |
| 397064 | 8348916 | 60 | 147 | 0.13 | 0.010326 |
| 397143 | 8348622 | 60 | 148 | 0.13 | 0.010368 |
| 397546 | 8348547 | 60 | 148 | 0.13 | 0.010368 |
| 397229 | 8349029 | 60 | 148 | 0.13 | 0.010368 |
| 397319 | 8348663 | 60 | 148 | 0.13 | 0.010368 |
| 397435 | 8349000 | 60 | 148 | 0.13 | 0.010368 |
| 397580 | 8348836 | 60 | 148 | 0.13 | 0.010368 |
| 397177 | 8348975 | 60 | 149 | 0.13 | 0.01041 |
| 396996 | 8348846 | 60 | 149 | 0.13 | 0.01041 |
| 397445 | 8349037 | 60 | 149 | 0.13 | 0.01041 |
| 397299 | 8348826 | 60 | 149 | 0.13 | 0.01041 |
| 397339 | 8348556 | 60 | 149 | 0.13 | 0.01041 |
| 397381 | 8348596 | 60 | 149 | 0.13 | 0.01041 |
| 397380 | 8349078 | 60 | 149 | 0.13 | 0.01041 |
| 397423 | 8349012 | 60 | 149 | 0.13 | 0.01041 |
| 397562 | 8348799 | 60 | 150 | 0.13 | 0.010451 |
| 397317 | 8348725 | 60 | 150 | 0.13 | 0.010451 |

| X | Y | Time | Counts | Calculated | Uncertainty |
|---|---|---|---|---|---|
| 397299 | 8349009 | 60 | 151 | 0.13 | 0.010492 |
| 397269 | 8349090 | 60 | 150 | 0.13 | 0.010451 |
| 397457 | 8348918 | 60 | 150 | 0.13 | 0.010451 |
| 397527 | 8348859 | 60 | 150 | 0.13 | 0.010451 |
| 397562 | 8348948 | 60 | 150 | 0.13 | 0.010451 |
| 397129 | 8348978 | 60 | 151 | 0.13 | 0.010492 |
| 397103 | 8348915 | 60 | 151 | 0.13 | 0.010492 |
| 397157 | 8348737 | 60 | 151 | 0.13 | 0.010492 |
| 397577 | 8348862 | 60 | 151 | 0.13 | 0.010492 |
| 397524 | 8348765 | 60 | 152 | 0.13 | 0.010534 |
| 397386 | 8348545 | 60 | 152 | 0.13 | 0.010534 |
| 397377 | 8348622 | 60 | 152 | 0.13 | 0.010534 |
| 397332 | 8348869 | 60 | 152 | 0.13 | 0.010534 |
| 397485 | 8348798 | 60 | 152 | 0.13 | 0.010534 |
| 397513 | 8348609 | 60 | 152 | 0.13 | 0.010534 |
| 397493 | 8348985 | 60 | 152 | 0.13 | 0.010534 |
| 397449 | 8349057 | 60 | 152 | 0.13 | 0.010534 |
| 397517 | 8348675 | 60 | 153 | 0.13 | 0.010575 |
| 397371 | 8348676 | 60 | 153 | 0.13 | 0.010575 |
| 397592 | 8348785 | 60 | 153 | 0.13 | 0.010575 |
| 397035 | 8349046 | 60 | 153 | 0.13 | 0.010575 |
| 397583 | 8348727 | 60 | 154 | 0.13 | 0.010615 |
| 396975 | 8348800 | 60 | 154 | 0.13 | 0.010615 |
| 397534 | 8349023 | 60 | 154 | 0.13 | 0.010615 |
| 397630 | 8348648 | 60 | 154 | 0.13 | 0.010615 |
| 397056 | 8348801 | 60 | 154 | 0.13 | 0.010615 |
| 397540 | 8348609 | 60 | 155 | 0.13 | 0.010656 |
| 397226 | 8348609 | 60 | 155 | 0.13 | 0.010656 |
| 397396 | 8348811 | 60 | 155 | 0.13 | 0.010656 |
| 397118 | 8348783 | 60 | 155 | 0.13 | 0.010656 |
| 397039 | 8348822 | 60 | 155 | 0.13 | 0.010656 |
| 397088 | 8348948 | 60 | 157 | 0.13 | 0.010737 |
| 397637 | 8348679 | 60 | 157 | 0.13 | 0.010737 |
| 397633 | 8348581 | 60 | 157 | 0.13 | 0.010737 |
| 397047 | 8348983 | 60 | 157 | 0.13 | 0.010737 |
| 397332 | 8349034 | 60 | 158 | 0.14 | 0.010777 |
| 397576 | 8348657 | 60 | 159 | 0.14 | 0.010817 |
| 397127 | 8349031 | 60 | 159 | 0.14 | 0.010817 |
| 397131 | 8348579 | 60 | 159 | 0.14 | 0.010817 |
| 397507 | 8348898 | 60 | 159 | 0.14 | 0.010817 |
| 397626 | 8348704 | 60 | 159 | 0.14 | 0.010817 |
| 397007 | 8349016 | 60 | 159 | 0.14 | 0.010817 |
| 397360 | 8349047 | 60 | 160 | 0.14 | 0.010857 |
| 397543 | 8349002 | 60 | 161 | 0.14 | 0.010897 |
| 397502 | 8348693 | 60 | 163 | 0.14 | 0.010976 |
| 397523 | 8348545 | 60 | 163 | 0.14 | 0.010976 |
| 397569 | 8348920 | 60 | 163 | 0.14 | 0.010976 |
| 397630 | 8348611 | 60 | 166 | 0.14 | 0.011094 |
| 397324 | 8348924 | 60 | 171 | 0.15 | 0.011287 |
| 397498 | 8348960 | 60 | 175 | 0.15 | 0.01144 |
| 397464 | 8349034 | 60 | 180 | 0.16 | 0.011628 |
| 396999 | 8348762 | 60 | 193 | 0.17 | 0.012103 |