

# ASX Release

ASX: TOE



24 September 2024

## SIGNIFICANT EXPANSION OF STATED RESOURCES AT LAKE MAITLAND AND THE WILUNA URANIUM PROJECT

*Lake Maitland Deposit re-estimated; lowering of the cut-off grade to 100ppm U<sub>3</sub>O<sub>8</sub>, expanding Lake Maitland resources by 12% and that of the entire Wiluna Project by 17%*

- Rapidly improving uranium market is driving significant positive effects on the potential economics of the Wiluna Uranium-Vanadium (U-V) Deposits.
- As a result Toro has re-estimated the U<sub>3</sub>O<sub>8</sub> and V<sub>2</sub>O<sub>5</sub> resources of the Lake Maitland Uranium Deposit within a lower U<sub>3</sub>O<sub>8</sub> resource envelope to make it comparable to its other Wiluna deposits of *Centipede-Millipede* and *Lake Way*.
- As a result the Lake Maitland Uranium-Vanadium resource can now be stated at a 100ppm U<sub>3</sub>O<sub>8</sub> and V<sub>2</sub>O<sub>5</sub> cut-off grade in alignment with the other deposits of the Wiluna Uranium Project.
- This expands the Lake Maitland stated U<sub>3</sub>O<sub>8</sub> resource by approximately 12% or 3.2Mlbs to 29.6Mlbs contained U<sub>3</sub>O<sub>8</sub>, with a reduction in average grade to 403ppm U<sub>3</sub>O<sub>8</sub> (at a 100ppm U<sub>3</sub>O<sub>8</sub> cut-off).
- The stated Lake Maitland V<sub>2</sub>O<sub>5</sub> resource expands by approximately 74% or 13.4Mlbs to 31.4Mlbs contained V<sub>2</sub>O<sub>5</sub>, with a reduction in average grade to 285ppm V<sub>2</sub>O<sub>5</sub> (at a 100ppm V<sub>2</sub>O<sub>5</sub> cut-off).
- All of the Wiluna Uranium Project resources can now be stated at a 100ppm cut-off, resulting in an approximate 17% expansion of the U<sub>3</sub>O<sub>8</sub> resources for the Project to 73.6Mlbs from the previous 62.7Mlbs, with a reduction in average grade to 381ppm U<sub>3</sub>O<sub>8</sub>.
- The stated Wiluna Uranium Project V<sub>2</sub>O<sub>5</sub> resources expand by approximately 31% or 21Mlbs to 89.3Mlbs contained V<sub>2</sub>O<sub>5</sub>, with a reduction in average grade to 286ppm V<sub>2</sub>O<sub>5</sub>.

*The new resource table is included in Appendix 1, all of the details for the re-estimation are in the JORC Table 1 in Appendix 2 and all drill hole details used in the re-estimation are listed in Appendix 3. The Competent Persons' Statement can be found at the end of this ASX announcement.*

## Management Commentary

**Commenting on the expanded resources at Lake Maitland, Toro's Executive Chairman, Richard Homsany, said:**

*"Driven by strengthening uranium market conditions, we are very pleased to provide this significant expansion to the Lake Maitland and Wiluna resource bases, utilising a lower cut-off grade. From a benchmarking perspective, the lower cut-off grade permits better comparison with Toro's industry peers, many of whom also state uranium resources at a 100ppm U<sub>3</sub>O<sub>8</sub> cut-off.*

*Toro continues to advance the Wiluna Uranium Project and significantly strengthen further feasibility studies. We continue to assess what is the most financially feasible model of Wiluna adjacent to the regulatory conditions under which we operate. Toro is committed to develop the Wiluna Uranium Project to coincide with a strong uranium market to maximise the value of the Project and demonstrate its optionality for even further growth. The stated resource expansion and ongoing pilot plant work are an important foundation of the feasibility and potential increasing financial returns for the Project.*

*Toro will continue to provide further updates on development and value creation within its asset portfolio. Toro is strongly funded and well positioned to deliver on its stated milestones."*

**Toro Energy Limited** (ASX: TOE) ('the **Company**' or '**Toro**') is pleased to announce that it has completed a re-estimation of the Lake Maitland uranium (as U<sub>3</sub>O<sub>8</sub>) and vanadium (as V<sub>2</sub>O<sub>5</sub>) resources within a lower grade U<sub>3</sub>O<sub>8</sub> resource envelope (see details below) to allow for the resources of Lake Maitland to be stated at a 100ppm U<sub>3</sub>O<sub>8</sub> and V<sub>2</sub>O<sub>5</sub> cut-off grade. This has allowed for an expansion of the stated resources of the Lake Maitland Deposit (see below) and because the stated resources are now aligned with those of the other Wiluna deposits, Centipede-Millipede and Lake Way, it has allowed for an expansion of Toro's stated resources for its entire 100% owned Wiluna Uranium Project.

**The decision to reduce the cut-off grade at Lake Maitland and the other Wiluna deposits is in response to the recent positive uranium market conditions and their effect on the potential economics for Toro's uranium resources.**

This was especially the case at Lake Maitland, where recent re-optimisations of the potential mining pit based on the updated market conditions and potential new operating cost structure had placed pit boundaries with U<sub>3</sub>O<sub>8</sub> cut-off grades at 109ppm U<sub>3</sub>O<sub>8</sub>, far lower than the 200ppm U<sub>3</sub>O<sub>8</sub> cut-off grade of the stated resource (refer to ASX announcement of 22 October 2022). However, the reduction in the stated resource cut-off grade also allows for a better comparison of Toro's total resource base to that of its uranium peers, many of whom also report stated resources at a 100ppm U<sub>3</sub>O<sub>8</sub> cut-off.

The Lake Maitland resource had to be re-estimated within a lower grade U<sub>3</sub>O<sub>8</sub> resource envelope in order to both align with the resource envelope criteria used for the other Wiluna U-V deposits (see below for further details) and to ensure accuracy when moving the stated resource cut-off to 100ppm U<sub>3</sub>O<sub>8</sub>, which is the same as the previous envelope cut-off. The new Lake Maitland

U<sub>3</sub>O<sub>8</sub> resource envelope cut-off is 70ppm U<sub>3</sub>O<sub>8</sub>, which is now similar to the other Wiluna Uranium Project deposits of Centipede-Millipede, which has a resource envelope cut-off of 70ppm U<sub>3</sub>O<sub>8</sub>, and Lake Way, which has a resource envelope cut-off of 80ppm U<sub>3</sub>O<sub>8</sub>.

The new expanded resources are as follows:

### Lake Maitland

#### URANIUM

Contained U<sub>3</sub>O<sub>8</sub> increases by approximately 12% or 3.2Mlbs to **33.3Mt at 403ppm for 29.6Mlbs at a 100ppm U<sub>3</sub>O<sub>8</sub> cut-off**. Average grade decreased from the previous 545ppm U<sub>3</sub>O<sub>8</sub>.

#### VANADIUM

Contained V<sub>2</sub>O<sub>5</sub> increases by approximately 74% or 13.4Mlbs to **50Mt at 285ppm for 31.4Mlbs at a 100ppm V<sub>2</sub>O<sub>5</sub> cut-off**. Average grade decreased from the previous 303ppm V<sub>2</sub>O<sub>5</sub>.

### Total Wiluna Uranium Project

#### URANIUM

Contained U<sub>3</sub>O<sub>8</sub> increases by approximately 17% or 10.9Mlbs to **87.8Mt at 381ppm for 73.6Mlbs at a 100ppm U<sub>3</sub>O<sub>8</sub> cut-off**. Average grade decreased from the previous 548ppm U<sub>3</sub>O<sub>8</sub>.

#### VANADIUM

Contained V<sub>2</sub>O<sub>5</sub> increases by approximately 31% or 21Mlbs to **141.8Mt at 286ppm for 89.3Mlbs at a 100ppm V<sub>2</sub>O<sub>5</sub> cut-off**. Average grade decreased from the previous 322ppm V<sub>2</sub>O<sub>5</sub>.

The new table of resources is presented in Appendix 1 and the details about the data, estimation methods and parameters used in the re-estimation of the Lake Maitland resource to JORC 2012 compliancy are provided within the JORC Table 1 in Appendix 2, although a summary of a small proportion of this information is also given below. The drill hole details for all drill holes utilised for the new Lake Maitland resource estimate are listed in Appendix 3.

The re-estimated Lake Maitland U<sub>3</sub>O<sub>8</sub> resource has been categorised as Indicated according to JORC 2012 criteria, as it was previously (refer to ASX announcement of 1 February 2016), and the V<sub>2</sub>O<sub>5</sub> resource has been categorised as Inferred status only (JORC 2012). The difference in status results from the fact that there is a smaller amount of available data for vanadium than there is in respect of uranium. This is due to the ability to use cost effective down-hole gamma probing to obtain uranium concentrations during drilling with limited laboratory assays needed to confirm/calibrate the gamma probe results.

In order to comply with ASX Listing Rule 5.8, certain information relating to the Lake Maitland resource estimation is given in the following paragraphs. Note however, that more detailed information on the estimation of all of the Wiluna Uranium Project deposits can be found in the JORC Table 1 in Appendix 2 of this ASX announcement.

### Geology and Geological Interpretation

The Wiluna uranium (U) – vanadium (V) deposits are all shallow groundwater carbonate associated uranium deposits that form near the top of the water table. Regionally, they can be included in a province of similar style deposits formed from the same groundwater chemistry and hydrological processes, all in the NE Yilgarn of Western Australia and inclusive of much larger deposits such as Yeelirrie.

The Wiluna deposits are hosted within recent to Holocene sedimentation that sit in the upper reaches of a large southeast to south flowing drainage system that began forming in the Mesozoic within Permian glacial formed tunnel valleys. Satellite radiometric images clearly show this drainage system, now a dry largely ephemeral system of salt lakes.

At Centipede-Millipede and Lake Way, the deposits are part of a small deltaic paleochannel system that once flowed into a large but shallow inland lake, Lake Way. The deltas splay from the end of the palaeochannel, which at Centipede-Millipede also hosts the satellite deposit, Dawson Hinkler, further 'up stream'. The drainage responsible for precipitating and forming the deposits is towards the delta and Lake Way. A drying climate has led to most of the deltas being covered in fine silty sand-dunes which have subsequently been vegetated. At Lake Maitland the deposit is hosted within the lake itself, hugging the western edge, but stretching back up the tributary drainage feeding the lake.

The unconsolidated host geology lay upon a basement situated within the northeast of the Archean Yilgarn Block close to the Capricorn Orogen, the structural zone formed when the Yilgarn Block and the Pilbara Block joined some 1830-1780 million years ago. The basement rocks at Wiluna are part of the Eastern Goldfields Terrane (2.74 - 2.63 Ga), a succession of greenstone belts geographically enclosed by younger granitoid (gneiss-migmatite-granite, banded gneiss, sinuous gneiss and granitic plutons) that makes up the entire eastern Yilgarn Block and representative of an extensional tectonic regime with brief periods of compression. It has been argued that the weathered granites are a possible source for the uranium and the weathered greenstones a possible source for the vanadium.

The principal ore mineral of all of the Wiluna deposits, and all deposits of such type, is the uranium vanadate, Carnotite ( $K_2[UO_2]_2[VO_4] \cdot 2.3H_2O$ ). This is the main ore mineral for uranium as well as vanadium. Carnotite has been found as micro to crypto-crystalline coatings on bedding planes in sediments, in the interstices between sand and silt grains, in voids and fissures within calcrete, dolomitic calcrete, and calcareous silcrete, as well as small concentrations (or 'blotches') in silty clay and clay horizons. Vanadium is also found in the clays within the sediments, separate from the Carnotite mineral.

The main economic concentration of Carnotite is restricted to a zone some 1-6 metres below the surface although in places at Centipede-Millipede that can extend to up to 12 metres below the surface.

It is important to understand that the geological model is not used in the resource estimate since it has been found that mineralisation is not necessarily correlated to any particular rock type. The mineralisation has been found to be associated with the water table and so is more

correlated to depth from the surface than any given lithology, maintaining grade across different lithology. Thus the geological model for estimation is a simple mineralisation envelope based on a concentration of U that represents that concentration where the background population of uranium ends and the uranium mineralisation exists (in a classic bimodal distribution). In the Wiluna deposits this envelope cut-off is 70 ppm  $U_3O_8$  for the Lake Maitland and Centipede-Millipede Deposit and 80 ppm  $U_3O_8$  for the Lake Way Deposit.

### **Sampling and sub-sampling techniques – sample analysis method**

Apart from 47 sonic holes drilled in 2014 and 2015, all of the geochemistry in the Lake Maitland estimations is derived from historical diamond drilling by Mega Uranium. Mega Uranium's geochemical samples on the Lake Maitland deposits represent 0.25 m full core lengths of 83 mm diamond drill core (PQ3). Weights of the geochemical samples ranged from 2-5 kg approximately. Intervals were determined during core mark-up and identified with plastic core blocks. Samples were dried at 110 °C before weighing and then crushing. After crushing a sub-sample was split using a rotary splitter for milling (pulverizing) to 90% passing 75 micron, before taking an aliquot for U and V analysis by 4 acid digest ICPMS.

Due to full core sampling no duplicates were needed to measure in-field sampling error. Duplicates were instead taken at the first sample split at the lab, directly after the initial crush, these duplicates were taken with a rotary splitter after pushing the sample back through the crusher after the initial split at a rate of approximately 1 in 20 or 5% of all non- standard samples. Lab duplicates were taken at every stage of the sub-sampling process prior to analysis at the rate of approximately 1 in 20.

Geochemical samples were taken through the entire length of each drill hole. The 0.25 m intervals were determined from marking up 0.25 m intervals down the full length of the core from the surface. Depth corrections were made to geochemistry samples where appropriate; these were based on comparing the down-hole geochemistry to the down-hole gamma U values and assuming the down-hole depth as measured by the gamma probe during probing was correct. Winch cable stretch is not considered an issue at Lake Maitland drilling due to the shallow depth of drill holes (3-9 m on average). No depth corrections were deemed necessary.

Mega Uranium used a 33 mm Auslog natural gamma probe (S691) 'in-house', to measure down-hole gamma radiation. Measurements were made every 1 or 2 cm with a logging speed of approximately 2 m per minute. The gamma probes were used on all drill holes, including aircore. Prior to the drilling program all gamma probes were calibrated at the Adelaide Calibration Model pits in Adelaide, South Australia. During probing operations selected holes were logged twice as a duplicate log. Some selected holes across the deposits were used as reference holes for re-logging to detect drift in the instrument during each program. Gamma measurements were converted to equivalent  $U_3O_8$  values ( $eU_3O_8$ ) by an algorithm that takes into account the probe and crystal used, density, hole diameter, ground water where applicable and PVC pipe thickness. Down-hole gamma probe data was also de-convolved to more accurately reflect what would be expected in nature for down-hole response (gamma curves).

There is limited information on the historical aircore drilling. Geochemical samples were collected from historical aircore in 1m intervals from piles of drill chips on the ground that represented 1m intervals of drilling direct from the cyclone. Geochemical analysis was achieved



by XRF according to previous resource estimation reports on the uranium mineralisation.

In the 47 sonic core drill holes, the geochemical samples represent full core lengths of 100mm sonic drill core. Full core samples provide an 8-10kg sample to the lab. After crushing the lab splits a 2.5 kg sub-sample for milling (pulverizing) to 90% passing 75micron is taken, before then taking an aliquot for geochemical analysis by 4 acid digest ICPMS (prior to 2013) or fusion-ICPMS (2013 and beyond). As above, due to full core being sampled, no field duplicates are needed.

The selection of geochemical samples from the sonic core is made according to the presence of mineralisation, which is determined by hand-held scintillometers and if available at the time of sampling, down-hole gamma measurements. This is considered sufficient for the vanadium resource as well as the uranium resource, since the vanadium resource is determined by the economics of the uranium resources. The half metre intervals are determined from marking up half metre intervals down the full length of the core from the surface. This is completed at the rig so that any drilling issues can be observed and the geologist can have direct communication 'on the spot' with the driller. To gain geochemical and mineralogical information of waste material or for metallurgical purposes etc., often the entire hole is sampled for geochemistry and a larger suite of elements are analysed for, some having to employ different analytical techniques.

Depth corrections are made to geochemistry samples where appropriate. These are based on comparing the down-hole geochemistry to the down-hole gamma uranium values and assuming the down-hole depth as measured by the gamma probe during probing is correct. Like with the Mega drilling, winch cable stretch is not considered an issue in the Wiluna drilling due to the shallow depth of almost all drilling (maximum depth of approximately 25m but mostly no deeper than 10m).

Toro uses Auslog natural gamma probes, either in-house or from external contractors. Measurements are made every 2 cm with a logging speed of 3.5m per minute. Prior to the drilling program all gamma probes are calibrated at the Adelaide Calibration Model pits in Adelaide, South Australia. During probing operations every 10<sup>th</sup> hole is logged twice as a duplicate log. Selected holes across the deposits are used as reference holes for re-logging to detect drift in the instrument during each program. Gamma measurements are converted to equivalent U<sub>3</sub>O<sub>8</sub> values (eU<sub>3</sub>O<sub>8</sub>) by an algorithm that takes into account the probe and crystal used, density, hole diameter, ground water where applicable and PVC pipe thickness. Down-hole gamma probe data is also de-convolved to more accurately reflect what would be expected in nature for down-hole response (gamma curves).

All V<sub>2</sub>O<sub>5</sub> values in the Lake Maitland re-estimation have been calculated from the direct geochemical analysis of vanadium in drill samples. The geochemical analysis results used in the estimation are from a combination of Toro and the historical drilling. U<sub>3</sub>O<sub>8</sub> values are calculated from a combination of the direct geochemical analysis of U in drill samples and gamma radiation readings from a gamma probe, which are also comparatively reviewed with geochemistry where geochemistry is available in the same drill hole. The gamma data used in the estimation are from a combination of Toro and historical drilling.

### Drilling techniques utilised

The drilling techniques utilised to drill the holes that were sampled and subsequently used in the estimations on the Wiluna Uranium Project are described above and include sonic, diamond and aircore. The sonic drilling utilises a 100mm core barrel (inside diameter) with outside casing where needed, producing a 150mm hole diameter and 100mm core. Depending on the ground conditions and thus quality of core being produced, core is retrieved from the 3m barrel in either 1 to 3m length, 1m at a time. Upon exiting the barrel, core is transferred into tubular plastic bags that fit the core before being placed in core trays. On occasions where the sonic core was being used for density measurements a hard plastic (clear) cylinder that fits the core was used instead to ensure lasting core integrity. Diamond drilling is PQ3, which utilises an 83.18 mm core barrel (inside diameter) and produces an 83 mm diameter core with an approximate 123 mm diameter hole. Aircore drilling is conventional with a 72mm bit producing an approximate 100mm diameter hole.

### Criteria used for classification

The classification of the Wiluna resources is based on the consideration of drill spacing, the existence of geochemical data in such numbers that the radiometric data are well supported (in the case for  $U_3O_8$ ) and then finally on the quality of the estimation as measured by kriging slope of regression. No parts of any of the resources are extrapolated. In general, the result of the above has meant that the Lake Maitland resource, with an average drill spacing of 100m x 100m and with consistency of grade and good coverage of diamond and sonic drilling, has resulted in an Indicated classification for the  $U_3O_8$  resource across the deposit.

Due to a general lack of coverage of geochemistry drill holes across all deposits compared to gamma only drill holes, the  $V_2O_5$  resources across all deposits are considered Inferred only. The consistency of grade however is very good across geology and throughout the deposits.

### Estimation Methodology

**For the estimation of  $U_3O_8$**  and the  $U_3O_8$  grade shells the estimation technique is Ordinary Kriging followed by Uniform Conditioning (**UC**) using the specialised geostatistical software, Isatis Neo. At Lake Maitland Localised Uniform Conditioning (**LUC**) has been used after UC to visualise potential variation in the orebody and better evaluate proposed mining methods proposed at the time of the estimations. The various steps of the estimation are as follows:

- (1) Use of combined radiometric and geochemical data, with priority given to geochemistry.
- (2) Creation of a mineralisation envelope using Leapfrog 3D (see envelope cut-offs above) prior to factoring (see below).
- (3) Gamma data corrections are made to account for a systematic discrepancy between geochemical and gamma derived data. At Lake Maitland, a correction factor of 1.25 has been applied to gamma data and at Centipede-Millipede a factor of 1.2 has been applied. No factor has been applied to Lake Way data.
- (4) Compositing of data to 0.5m.
- (5) Domaining by zones of reasonably consistent grade, or in the case of Lake Maitland, essentially by the strike orientation: NS, NE and NW.
- (6) Top-cuts used at the various deposits include 5000 ppm, 4500 ppm, 2000 ppm, 700 ppm and 500 ppm as well as no top-cut at all depending on the various domains. It has been

found that the top-cut has very little impact on mean grade (less than 1%) and variance. No top-cuts at all has been applied to Lake Maitland and Lake Way.

- (7) Panel sizes used for the estimation were 30m x 30m x 0.5m for Centipede, Millipede and Lake Way, and 50m x 50m x 0.5m for Lake Maitland. The panel sizes are chosen from the average drilling density.
- (8) Ordinary Kriging estimation of panels, after neighbourhood analysis to optimise quality of kriging.
- (9) Validation of Kriging results through statistics and swath plots.
- (10) Uniform conditioning (UC) for 10m x 10m x 0.5m Selective Mining Units (SMU), which at the time of estimation was considered a realistic assumption for a future operation where grade control using radiometric information will be possible.
- (11) Localised Uniform Conditioning: creation of 10m x 10m x 0.5m panels based on the results of UC at Lake Way, Dawson Hinkler and Lake Maitland.

It is important to note that in the recent Scoping Study for a proposed stand-alone Lake Maitland mining operation only the OK result prior to UC was used in the engineering and resulting financial model for a conservative approach, to avoid complexity and to begin accommodating a simpler proposed mining method.

The estimation of  $V_2O_5$  has been made using the same  $U_3O_8$  mineralisation envelopes as described above and then estimating  $V_2O_5$  independent of  $U_3O_8$  cut-offs, using a similar process to the above but with no UC or LUC calculations due to the lower amount of  $V_2O_5$  data in comparison to  $U_3O_8$  data. No factors are applied to the  $V_2O_5$  data as it is a direct geochemical measurement. As described above, although  $V_2O_5$  data is of good quality and shows good consistency across the deposits, the drill spacing for the geochemistry drill holes necessitates an Inferred classification to err on the side of conservatism.

### **Cut-off grade explanation**

As described above, Toro has previously chosen a 200ppm  $U_3O_8$  cut-off to report on its resource estimations down to the resource envelope (see above for envelope cut-offs) for all deposits. Toro is now choosing to lower this reporting cut-off to 100ppm  $U_3O_8$ , and subsequently 100ppm  $V_2O_5$ , which is the subject and main purpose of this ASX announcement. The reason for this change is a realisation that the changing economics of the Wiluna deposits (see above and ASX announcement of 24 October 2022) may mean that any newly proposed mining and processing operation that utilises these deposits may end up with calculated ore that has not been included in the stated resource due to its lower economic grade. This has been experienced for the proposed stand-alone Lake Maitland operation where the pit cut-off grade is approximately 109ppm  $U_3O_8$  (see ASX announcement of 24 October 2022) and the stated resource was at a 200ppm  $U_3O_8$  cut-off.

### **Mining and Metallurgy Methods**

It is important to understand at this point in time that the proposed mining methods and processing techniques for the Wiluna Project are undergoing change. Already, a stand-alone Lake Maitland mining and processing operation has proposed very different techniques (see ASX announcement 24 October 2022) to those proposed previously (see below). The new processing design and beneficiation studies have been outlined in the ASX announcements of 18 May, 29 August, 28 September and 5 December 2016, 30 January, 20 April, 20 June, 27



June, 12 September and 19 September 2018, 7 March, 18 March, 19 July, 5 September and 10 October 2019 and 24 October 2022. Along with these changes in processing, the resulting improved economics will also allow changes to a simpler mining method. However, for the purpose of disclosure the official stated method of processing and mining for the Lake Way and Centipede-Millipede deposits will remain the same for now and are as follows:

- Shallow strip mining to 15m maximum depth (approximately 8m at Lake Maitland) using a combination of a Vermeer surface miner, loader and articulated trucks.
- 25-50cm benches.
- De-watering of pits for process water.
- In-pit tailings disposal below natural ground surface in lined pits, progressive compartmental mining, tailings and rehabilitation.
- Traditional Alkaline Leach Processing Circuit with no beneficiation facility but with crushing, screening, alkaline leach, Counter Current Decantation (CCD) circuit, evaporation pond to increase grade of pregnant leach solution and direct precipitation.



*Figure 1: Wiluna Uranium Project*

– Ends –

**This announcement was authorised for release to the ASX by the Board of Toro Energy Limited.**

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#### **About Toro**

Toro Energy Limited (ASX:TOE) is an ASX listed uranium development and exploration company with projects in Western Australia. Toro's tenure in Western Australia is also prospective for gold and base metals. Toro is committed to building an energy metals business with the flagship Wiluna Uranium Project as the centrepiece. The Wiluna Uranium Project consists of the Centipede-Millipede, Lake Maitland, Lake Way uranium deposits 30km to the south of the town of Wiluna in Western Australia's northern goldfields.

Please visit [www.toroenergy.com.au](http://www.toroenergy.com.au) for further information.

### Competent Persons' Statement

#### **Wiluna Project Mineral Resources – 2012 JORC Code Compliant Resource Estimates – $U_3O_8$ and $V_2O_5$ for Centipede-Millipede, Lake Way, Lake Maitland and the Dawson Hinkler Satellite Deposit.**

The information presented here that relates to  $U_3O_8$  and  $V_2O_5$  Mineral Resources of the Centipede-Millipede, Lake Way and Lake Maitland deposits is based on information compiled by Dr Greg Shirliff of Toro Energy Limited and Mr Daniel Guibal of Condor Geostats Services Pty Ltd. Mr Guibal takes overall responsibility for the Resource Estimate, and Dr Shirliff takes responsibility for the integrity of the data supplied for the estimation. Dr Shirliff is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and Mr Guibal is a Fellow of the AusIMM and they have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012)'. The Competent Persons consent to the inclusion in this release of the matters based on the information in the form and context in which it appears.

**Appendix 1 : Tables of Resources for the Wiluna Uranium-Vanadium Project at 100ppm grade cut-offs. The V<sub>2</sub>O<sub>5</sub> resource has been estimated within the 70ppm U<sub>3</sub>O<sub>8</sub> mineralisation**

A - Wiluna Uranium Project Resources Table (JORC 2012)									
At 100ppm cut-offs inside U <sub>3</sub> O <sub>8</sub> resource envelopes for each deposit - Proposed Mine Only									
		Measured		Indicated		Inferred		Total	
		U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>
<b>Centipede-Millipede</b>	Ore Mt	7.5	-	21.3	-	10.0	73.1	38.7	73.1
	Grade ppm	428.0	-	392.0	-	206.0	281.0	351.0	281.0
	Oxide MIb	7.1	-	18.4	-	4.5	45.2	30.0	45.2
<b>Lake Maitland</b>	Ore Mt	-	-	33.3	-	-	50.0	33.3	50.0
	Grade ppm	-	-	403.0	-	-	285.0	403.0	285.0
	Oxide MIb	-	-	29.6	-	-	31.4	29.6	31.4
<b>Lake Way</b>	Ore Mt	-	-	15.8	-	-	18.7	15.8	18.7
	Grade ppm	-	-	406.0	-	-	307.0	406.0	307.0
	Oxide MIb	-	-	14.1	-	-	12.7	14.1	12.7
<b>Total Wiluna Project</b>	Ore Mt	7.5	-	70.3	-	10.0	141.8	87.8	141.8
	Grade ppm	428.0	-	400.3	-	206.0	285.8	380.6	285.8
	MIb	7.1	-	62.0	-	4.5	89.3	73.6	89.3
<b>Dawson Hinkler Satellite</b>	Ore Mt	-	-	17.3	-	32.1	ID	49.4	ID
	Grade ppm	-	-	236.0	-	159.0	ID	186.0	ID
	Oxide MIb	-	-	9.0	-	11.3	ID	20.3	ID

envelope but reported at a 100ppm V<sub>2</sub>O<sub>5</sub> cut-off.

**Note: ID = Insufficient data for an estimation currently.**

**Data in the table has been rounded to 1 decimal place, which is the nearest 100,000t or lbs in the case of ore and contained oxide respectively.**

## Appendix 2

# JORC Code, 2012 Edition – Table 1 report – Wiluna Uranium Project – Toro Energy Limited

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>V<sub>2</sub>O<sub>5</sub> values are calculated from the direct geochemical analysis of vanadium (V) in drill samples. The geochemical analysis results used in the estimation are from a combination of Toro and historical drilling.</li> <li>U<sub>3</sub>O<sub>8</sub> values are calculated from a combination of the direct geochemical analysis of uranium (U) in drill samples and gamma radiation readings from a gamma probe (see below for details of method), which are also comparatively reviewed with geochemistry where geochemistry is available in the same drill hole. The gamma data used in the estimation are from a combination of Toro Energy and historical drilling, whilst the geochemistry is from Toro only drilling, except for Lake Maitland (see below).</li> </ul> <p><b>Geochemistry (Lake Maitland excluded)</b></p> <ul style="list-style-type: none"> <li>Toro's geochemical samples on all of the Wiluna deposits except Lake Maitland (most of the geochemistry at Lake Maitland is from sampling by Mega Uranium, only 2014 and 2015 geochemical samples are Toro), represent 0.5m half core lengths (prior to 2013) or full core lengths (2013 and planned into the future) of 100mm sonic drill core. Full core samples provide an 8-10kg sample to the lab, half core samples are half this weight approximately. After crushing the lab splits a 2.5 kg sub-sample for milling (pulverizing) to 90% passing 75micron, before taking an aliquot for V analysis by 4 acid digest ICPMS (prior to 2013) or fusion-ICPMS (2013 and into the future).</li> </ul>



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- In the case of half core samples field duplicates of the core are taken to ensure sample representativity, these field duplicates are the other half of the core that has been sampled. In the case of full core samples, duplicates are taken at the first sample split at the lab, directly after the initial crush, these duplicates are taken with a rotary splitter after pushing the sample back through the crusher after the initial split. It should be noted that due to the size of the sample supplied to the lab, the initial crushing is a two-step process, a primary crush to 10mm and a secondary crush to 3mm. Both these duplicates are taken at a rate of 1 in 20 or 5% of all non-standard samples. Differences in V concentrations between the duplicates and their corresponding samples are used to produce a mean standard sampling error.
- Lab duplicates are taken at every stage of the sub-sampling process prior to analysis at the rate of 1 in 20.
- Geochemical samples are taken through the uranium (U) resource ore zones as determined by hand-held scintillometers and if available at the time of sampling, down-hole gamma measurements. This is considered sufficient since the V resource is a by-product of the uranium resource. The half metre intervals are determined from marking up half metre intervals down the full length of the core from the surface. This is completed at the rig so that any drilling issues can be observed and the geologist can have direct communication 'on the spot' with the driller. To gain geochemical and mineralogical information of waste material or for metallurgical purposes etc., often the entire hole is sampled for geochemistry and a larger suite of elements are analysed for, some having to employ different analytical techniques.
- Depth corrections are made to geochemistry samples where appropriate, these are based on comparing the down-hole geochemistry to the down-hole gamma U values and assuming the down-hole depth as measured by the gamma probe during probing is correct. Winch cable stretch is not considered an issue in the Wiluna drilling due to the shallow depth of almost all drilling (maximum depth of approximately 25m but mostly no deeper than 10m).
- Toro uses Auslog natural gamma probes, either in-house or from external contractors.

Measurements are made every 2 cm with a logging speed of 3.5m per minute. Prior to the drilling program all gamma probes are calibrated at the Adelaide Calibration Model pits in Adelaide, South Australia. During probing operations every 10<sup>th</sup> hole is logged twice as a duplicate log. Selected holes across the deposits are used as reference holes for re-logging to detect drift in the instrument during each program. Gamma measurements are converted to equivalent U<sub>3</sub>O<sub>8</sub> values (eU<sub>3</sub>O<sub>8</sub>) by an algorithm that takes into account the probe and crystal used, density, hole diameter, ground water where applicable and PVC pipe thickness. Down-hole gamma probe data is also de-convolved to more accurately reflect what would be expected in nature for down-hole response (gamma curves).

#### **Geochemistry (Lake Maitland only)**

- Apart from 47 sonic holes drilled in 2014 and 2015, all of the geochemistry in the Lake Maitland estimations is derived from Mega drilling. For the Toro Energy geochemistry related approach and systems see above under "Lake Maitland excluded".
- Mega Uranium's geochemical samples on the Lake Maitland deposits represent 0.25 m full core lengths of 83 mm diamond drill core (PQ3). Weights of the geochemical samples ranged from 2-5 kg approximately. Intervals were determined during core mark-up and identified with plastic core blocks. Samples were dried at 110 °C before weighing and then crushing. After crushing a sub-sample was split using a rotary splitter for milling (pulverizing) to 90% passing 75 micron, before taking an aliquot for V analysis by 4 acid digest ICPMS.
- Due to full core sampling no duplicates were needed to measure in-field sampling error. Duplicates were instead taken at the first sample split at the lab, directly after the initial crush, these duplicates were taken with a rotary splitter after pushing the sample back through the crusher after the initial split at a rate of approximately 1 in 20 or 5% of all non- standard samples.
- Lab duplicates were taken at every stage of the sub-sampling process prior to analysis at the rate of approximately 1 in 20.

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- Geochemical samples were taken through the entire length of each drill hole. The 0.25 m intervals were determined from marking up 0.25 m intervals down the full length of the core from the surface.
- Other elements analysed include Ba, Th, Al, Ca, Fe, K, Mg, Mn, S, Sr, Ti and U.
- Depth corrections were made to geochemistry samples where appropriate, these were based on comparing the down-hole geochemistry to the down-hole gamma U values and assuming the down-hole depth as measured by the gamma probe during probing was correct. Winch cable stretch is not considered an issue at Lake Maitland drilling due to the shallow depth of drill holes (3-9 m on average). No depth corrections were deemed necessary.
- Mega used a 33 mm Auslog natural gamma probe (S691) 'in-house', to measure down-hole gamma radiation. Measurements were made every 1 or 2 cm with a logging speed of approximately 2 m per minute. The gamma probes were used on all drill holes, diamond, sonic and aircore. Prior to the drilling program all gamma probes are calibrated at the Adelaide Calibration Model pits in Adelaide, South Australia. During probing operations selected holes are logged twice as a duplicate log. Some selected holes across the deposits are used as reference holes for re-logging to detect drift in the instrument during each program. Gamma measurements are converted to equivalent  $U_3O_8$  values (e $U_3O_8$ ) by an algorithm that takes into account the probe and crystal used, density, hole diameter, ground water where applicable and PVC pipe thickness. Down-hole gamma probe data is also de-convolved to more accurately reflect what would be expected in nature for down-hole response (gamma curves).

#### **Historical Aircore – Centipede-Millipede and Lake Way only**

There is limited information on the historical aircore drilling. Geochemical samples were collected from historical aircore in 1m intervals from piles of drill chips on the ground that represented 1m intervals of drilling direct from the cyclone. Geochemical analysis was achieved by XRF according to previous

		resource estimation reports on the uranium mineralisation.
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<p><b>All Wiluna deposits excluding Lake Maitland</b></p> <ul style="list-style-type: none"> <li>Both sonic and aircore drilling techniques have been utilized on the Wiluna Project.</li> <li>The sonic drilling utilizes a 100mm core barrel (inside diameter) with outside casing where needed, producing a 150mm hole diameter and 100mm core. Depending on the ground conditions and thus quality of core being produced, core is retrieved from the 3m barrel in either 1 to 3m length, 1m at a time. Upon exiting the barrel, core is transferred into tubular plastic bags that fit the core before being placed in core trays.</li> <li>Aircore drilling is conventional with a 72mm bit producing an approximate 100mm diameter hole.</li> </ul> <p><b>Lake Maitland only</b></p> <ul style="list-style-type: none"> <li>Diamond, sonic, auger core and air core drilling techniques have all been utilised on the Lake Maitland deposit, however, only diamond and sonic drilling techniques have been utilised to derive the geochemistry used in the V<sub>2</sub>O<sub>5</sub> resource estimation.</li> <li>The sonic drilling utilises a 100mm core barrel (inside diameter) with outside casing where needed, producing a 150mm hole diameter and 100mm core. Depending on the ground conditions and thus quality of core being produced, core is retrieved from the 3m barrel in either 1 to 3m length, 1m at a time. Upon exiting the barrel, core is transferred into tubular plastic bags that fit the core before being placed in core trays. On occasions where the sonic core was being used for density measurements a hard plastic (clear) cylinder that fits the core was used instead to ensure lasting core integrity.</li> <li>Diamond drilling is PQ3, which utilizes an 83.18 mm core barrel (inside diameter) and produces an 83 mm diameter core with an approximate 123 mm diameter hole.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<p><b>All Wiluna deposits excluding Lake Maitland</b></p> <ul style="list-style-type: none"> <li>Chip sample recoveries have not been recorded.</li> </ul>

- *Measures taken to maximise sample recovery and ensure representative nature of the samples.*
- *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*

- Sonic core recoveries are estimated based on a combination of measurement, observation of drilling, the driller's direction, observations made on quality of sample during geological logging and sample weight comparisons to average weights and rock type. It should be noted that precise core recovery estimation on sonic drill core in the Wiluna deposits is inherently difficult due to expansion and contraction of soft sediments during drilling and during recovery of core from the barrel.
- Core loss is minimized by 'casing as we drill' through all ore zones or any zone where the geological information is critical such as for geotechnical purposes.
- There is no correlation between estimated core loss and grade

#### **Lake Maitland only**

- Sonic core recoveries are estimated based on a combination of measurement, observation of drilling, the driller's direction, observations made on quality of sample during geological logging and sample weight comparisons to average weights and rock type. It should be noted that precise core recovery estimation on sonic drill core at Lake Maitland is inherently difficult due to expansion and contraction of soft sediments during drilling and during recovery of core from the barrel.
- Diamond core recoveries have been determined by conventional techniques of identification of lost core by driller and geologist at the rig and during core mark up and measure. Core trays are also weighed without and then with core to estimate core recovery based on assumed SG for particular lithology.
- During sonic core drilling core loss is minimized by 'casing as we drill' through all ore zones or any zone where the geological information is critical such as for geotechnical purposes.
- There is no correlation between estimated core loss and grade in the Lake Maitland data.

#### **Historical Aircore – Centipede-Millipede and Lake Way only**

- Historically, chip sample recoveries have not been recorded in the database.



**Logging**

- *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*
- *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*
- *The total length and percentage of the relevant intersections logged.*
- It is important to understand that as V is considered a by-product of the U processing, the relationship between geology and V concentrations are not considered essential in the estimation process, it is the relationship between uranium and geology that is important.
- Geology is not used in the resource estimation process for U, the reasons for this are explained in more detail below, however, basically the deposit has been found to be correlated more to groundwater and depth from the surface than to any geological unit. Thus the geological logging is adequate for resource estimation.
- Current geological logging (all Toro) is considered to be adequate for the stage of mine planning that Toro is currently at, on the Wiluna Project. Further work is considered necessary to amalgamate or align historical geology logs and geology to current across all deposits.
- Current logging is both qualitative (subjective geological opinion of rock type and colour and in the case of Lake Maitland, also by limited mineral identification by spectral analysis) and quantitative (recording specific depth intervals and percentages of grain sizes, or in the case of Lake Maitland inclusive of limited quantification of mineralogy by spectral analysis via Hy-logger). Core photographs are taken for each individual metre (prior to 2013) and half metre (2013) after core has been split down the middle for logging and so as to see sedimentological features for logging (avoiding clay smear on outer surface of core made by drill rods). In the case of Lake Maitland, core photographs have been taken for the entire 2011 drilling program, which consists of a total of 201 holes and is spread across the entirety of the deposit.
- All drilling intersections have been logged geologically

**Sub-sampling techniques and sample preparation**

- *If core, whether cut or sawn and whether quarter, half or all core taken.*
- *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*
- As described above, geochemical samples represent 0.5m half core lengths (prior to 2013) or full core lengths (2013 and planned into the future) of 100mm sonic drill core. At Lake Maitland geochemical samples represent 0.25m full core lengths of 100mm sonic drill core or 83mm diamond core. In historical aircore the samples are representations of

<ul style="list-style-type: none"> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>each metre drilled as drill chip flow from the cyclone on the drill rig.</p> <ul style="list-style-type: none"> <li>• Sample preparation has been described above under 'sampling techniques, it is considered that all sub-sampling and lab preparations are consistent with other laboratories in Australia and overseas and are satisfactory for the intended purpose.</li> <li>• In the case of half core samples field duplicates of the core are taken to ensure sample representation, these field duplicates are the other half of the core that has been sampled. In the case of full core samples, duplicates are taken at the first sample split at the lab, directly after the initial crush, these duplicates are taken with a rotary splitter after pushing the sample back through the crusher after the initial split. It should be noted that due to the size of the sample supplied to the lab, the initial crushing is a two-step process, a primary crush to 10mm and a secondary crush to 3mm.</li> <li>• Total sampling errors calculated from half core field duplicates typically range from <math>\pm 10\text{-}20\%</math>. Total sampling errors for the first split at the lab in case of full core sampling typically range from <math>\pm 1\text{-}10\%</math>.</li> <li>• The laboratory used for Toro's geochemical analysis bases all crushing grain sizes and subsequent sub-sampling weights on being inside accepted Gy safety lines for sample representation. These grains sizes and sub-sample weights have been described above under 'sampling techniques'.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> </ul> <p><b>All Wiluna deposits (pre-2014)</b></p> <ul style="list-style-type: none"> <li>• Prior to 2013 a four acid digest followed by ICPMS (4-ICPMS) was employed for analysis for geochemistry– this was assumed to be an almost total rock digest technique although with recognition that highly resistant minerals are sometimes not entirely digested. In 2012 a test was done to compare 4-ICPMS with sodium peroxide fusion followed by ICPMS (F-ICPMS) with fused glass XRF (XRF) for the analysis of U. Analysis of a number of standards suggested that the F-ICPMS was the most accurate. So</li> </ul>

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- *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*
- *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*

since 2013, F-ICPMS has been used as the basis for all geochemistry. However, on a number of samples 4-ICPMS and fused glass XRF are still used for comparative purposes (U only). In 2014 and 2015 approximately 1 in 50 samples was analysed by fused glass XRF as an intra-lab technique check. Both F-ICPMS and fused glass XRF are considered total rock analytical techniques.

- Historical geochemistry, mostly at the Lake Way deposit, is almost entirely XRF.
- Certified matrix matched standards for U only are used to check analyses at the lab at a rate of approximately 5% or 1 in 20 samples. Toro energy has 3 matrix matched U standards from the Centipede ore zone representing a spread through the represented ore grades at Wiluna. Standards are checked against 2 standard deviations (2SD) and 3 standard deviations (3SD) from the mean (the registered value for each particular standard). No standard is allowed to be returned outside 3SD from the mean, an allowance of 5% (95% confidence interval) is made for standards returned between 2SD and 3SD outside the mean. Results analyses of standards are checked against the historical record for inter-program drift. To date, there has been no issue with analyses of standards at the lab. This includes the analysis of V.
- Since this is primarily a U project, blanks have all been prepared on the basis of U checks. Coarse quartz sand is used as blanks and these are used at a rate of approximately 5% or 1 in 20 samples as well as being strategically placed in front of and behind samples expected to have high concentrations of U so that thresholds for potential cross-contamination within preparations can be obtained. To date there has been no contamination or cross-contamination of significance for ore grades or even the 70-100ppm U<sub>3</sub>O<sub>8</sub> mineralised envelopes.
- Duplicates are used as already explained in detail above.
- Limited laboratory checks have been made – approximately 3% of all geochemistry samples

were represented in 2013 and the lab has remained the same.

#### **Lake Maitland only – pre-2014**

- In the extensive 2011 diamond drilling program a four acid digest followed by ICPMS was employed for geochemical analysis (ALS laboratories, Perth) – this was assumed to be an almost total rock digest technique although with recognition that highly resistant minerals are sometimes not entirely digested. Due to these potential issue and the fact that ICPMS has in earlier times had issues dealing with high U concentrations due to dilution factors (etc.), the Mega geologists decided to re-analyse all samples with ICPMS results for U of greater than 500 ppm utilizing the XRF technique at the same laboratory (ALS, Perth), regarded by Mega geologists as a better whole rock technique.
- Historical geochemistry data is almost entirely XRF.
- Since this is primarily a U project, standards were prepared on the basis of U checks. This is deemed sufficient for an Inferred V resource assessment (JORC 2012) “Off the shelf” OREAS U standards were used to check analyses at the lab at a rate of 2% or 1 in 50 samples.
- Coarse quartz sand was used as blanks and these were used at a rate of 2% or 1 in 50 samples.
- Since this is primarily a U project, all lab duplicates were prepared for checks on U. This is deemed sufficient for an Inferred V resource assessment (JORC 2012) Lab duplicates were used as already explained in detail above, from the primary crush stage and every other sub-sampling stage. Limited laboratory checks have been made – from the most recent drilling (2011) a total of 138 samples were re-analysed for U by 4 acid digest ICPMS by a different commercial laboratory (Genalysis, Perth). The

	<p>samples were chosen as representative of the following <math>U_3O_8</math> concentrations – 10% between 100 and 200 ppm <math>U_3O_8</math>, 40% from between 200 and 500 ppm <math>U_3O_8</math>, and 50% from above 500 ppm <math>U_3O_8</math>. Differences between the labs were satisfactory, the largest being approximately 5% on average higher values from the XRF derived <math>U_3O_8</math> by ALS over the ICPMS <math>U_3O_8</math> by Genalysis, this was taken into consideration during estimations.</p>
<p><b>Verification of sampling and assaying</b></p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• Limited interlab geochemistry analytical checks are completed for each drilling campaign for U, the last interlab check represented 3% of all the geochemical samples.</li> <li>• Toro has a calibrated (at the Adelaide Calibration Model pits in Adelaide, South Australia) Auslog gamma probe to check the probing results achieved by external contractors. During probing operations every 10<sup>th</sup> hole is logged twice as a duplicate log. Selected holes across the deposits are used as reference holes for re-logging to detect drift in the instrument during each program. In 2013 over 50% of all holes drilled at Dawson Hinkler were re-logged with a different probe (from the same contractor) over 3 months after they were drilled to confirm results (results were confirmed). In 2015, a different contractor with a larger probe (larger crystal) was employed along with the normal contractor, again to check the accuracy of the gamma data collected against different probes and at the same moment in time. No significant differences in calculated <math>U_3O_8</math> values were observed between the two different contractors, once again confirming the validity of the gamma data used in the resource estimations.</li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• At Lake Maitland, a limited number of holes have been twinned - these include twinned holes drilled by both sonic and diamond core methods. A large proportion (approximately 10%) of the holes at Lake Way have been twinned to compare historical data on the U resource.</li> <li>• All primary data (gamma log las files, geochemical sample lists, final collar files, geological logs, core photographs, electronic geochemical results, drillers plods, probing plods, de-convolved gamma files, gamma</li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>



gamma density logs, disequilibrium analysis results etc) are stored on the company server in the appropriate drive and folders. Any hardcopy data, such as official geochemistry results or any paper copy geological logs, are kept in hardcopy in folders and archives as well as being scanned and kept on the company server in the appropriate drives and folders.

- Data entry procedures are described in some detail below in section 3 under 'data integrity'.
- To date, there has been no significant adjustments made to geochemical assay  $U_3O_8$  data (or to any other elements). Slight adjustments are made to some geochemical assay data to account for depth corrections if an interval error is discovered, this is rare and always restricted to the near surface above mineralised zones.

#### **Adjustments to gamma derived $eU_3O_8$**

- During the estimation process, a factor is applied to all gamma data inside the mineralised envelope at Lake Maitland of 1.25 and at Centipede, Millipede and Dawson Hinkler of 1.2. **It is important to note that these factors have not been applied to the  $eU_3O_8$  data within the database, it has only been applied to data during the estimation process.**
- Details as to why for each factor follow:
- **Centipede and Millipede** - Significant differences between gamma derived  $eU_3O_8$  and geochemical  $U_3O_8$  have been noted since 2012 across Centipede and Millipede. After the 2015 drilling and significant research into the consistently observed difference using all available comparative data back to 2011, it was concluded that the difference was real and resulted from the gamma probe underestimating true grade by at least 20% at Centipede and Millipede, probably more. Performing linear regression on  $U_3O_8$  v  $eU_3O_8$  for all sonic holes since 2012 (where both  $U_3O_8$  and  $eU_3O_8$  is available together to compare)

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shows a slope of 1.5, so a 50% difference between geochemistry and gamma derived  $U_3O_8$  towards geochemistry. Spatial analysis of the difference both laterally and vertically by both Toro geologists and SRK consultants using various averaging techniques and some kriging with investigative test block models in Surpac and Isatis showed that whilst there was some variation, it was surprisingly consistent and definitively positive towards geochemistry always being higher than gamma derived  $U_3O_8$ . Successive analysis of geochemical samples for secular disequilibrium by the Australian Nuclear Science and Technology Organisation (ANSTO), first from 2011 drilling and second from 2013 drilling (see ASX release of 1 September 2014) showed that whilst positive disequilibrium was contributing to the underestimation in parts of the deposits, it was by no means accounting for all of it. After the 2015 research and investigations by both Toro geologists and SRK consulting, it was agreed to apply a factor of 1.2 to all gamma data inside the mineralisation envelope for estimations (see further below) to better represent the 'true' uranium grade as defined by geochemistry. Given that the research shows that the real difference could be as much as 1.5 x, Toro and SRK believe the factor of 1.2 applied is conservative.

- **Lake Maitland** – A factor of 1.25 has been applied to the Lake Maitland resource in the same way the 1.2 factor was applied to the Centipede and Millipede resources (see above for details). Similarly high 'real differences' were observed of over 1.5 and in fact Toro believe that the probe is underestimating by as much as 50%. However, to be conservative it was agreed between the Toro geologists and SRK to limit the factor to 1.25. It should be noted that some of this factor is due to a deposit wide consistent positive disequilibrium; Mega have previously found that the average positive disequilibrium, via closed can analysis for secular disequilibrium on samples across the entire deposit by On Site Technologies Pty Ltd in 2011, was 1.18.

<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul> <ul style="list-style-type: none"> <li>• All drill hole collars are pegged to the planned collar location using a differential GPS (DGPS) with base station (currently an Austech ProMark500 and ProFlex500). At the end of the drilling campaigns all collars are picked up using the same DGPS equipment for the final collar locations that are entered into the database. Accuracy of the DGPS is approximately to 100mm in the vertical and 50mm on the horizontal.</li> <li>• Due to all drill holes being shallow (maximum depth of 25m) and vertical no down-hole surveying is required.</li> <li>• The grid system used on the Wiluna Project is Geocentric Datum of Australia (GDA) 94, zone 51.</li> <li>• Topographic control is largely achieved by the DGPS with base station. As stated above, all Toro drill holes are accurate to approximately 100mm on the vertical. The vertical control at Millipede and Centipede is checked with a light detection and ranging (LIDAR) survey after drilling. Dawson Hinkler and Lake Maitland all drill holes have been 'pinned' to a topographic surface created from current drill hole collars surveyed with a DGPS and base station.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> </ul> <ul style="list-style-type: none"> <li>• No exploration results, resource drilling only</li> <li>• The data spacing and distribution has been considered appropriate for the Mineral Resource estimation procedures and classifications applied (in this case Inferred only for all resources) by the external consultant doing the resource and is based mainly on variography and continuity shown in the statistical analysis of the data. See below in resource section for further information.</li> <li>• In determining the <math>U_3O_8</math> grade shells (note also that the <math>V_2O_5</math> resource is estimated within the <math>U_3O_8</math> mineralisation envelopes for each deposit, at the Wiluna deposits (excluding Lake Maitland) sample compositing to 0.5m composites has been applied to the 2cm interval <math>eU_3O_8</math> data to match the 0.5m geochemical core samples. At Lake Maitland, compositing to 0.25 m composites has been</li> </ul>

		<p>applied to the 1 and 2 cm interval <math>eU_3O_8</math> data to match the 0.25 m geochemical core samples.</p>
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling is non-subjective (non-biased) down-hole sampling from the surface. Historical geochemistry represents a similar non-bias down-hole process. The sampling orientation employed provides no bias to the groundwater related distribution of mineralisation.</li> <li>No bias suspected, ore lenses are horizontal and drilling is vertical, cutting mineralisation at an approximate right angle (90 degrees).</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p><b>All Wiluna deposits excluding Lake Maitland (pre-2014)</b></p> <ul style="list-style-type: none"> <li>Sampling of drill core for geochemistry is achieved in the field directly after drilling at the drill site. All samples are bagged firstly in plastic and then again in calico (double bagged). A unique non-descript identifier number is used to number each sample that bears no relation to the deposit or the drill hole. All sample details are entered into a fixed format file ready for later import into the database. Samples are immediately transported by utility to the field camp where they are weighed before being packed into steel 44 gallon drums with lock-down lids and tested for radiation for transport classification. The drums are then fitted on timber pallets and transported to the local transport dock at Wiluna for delivery to Perth. Approximate time between sampling and transport to the laboratory is 4 weeks.</li> <li>Sampling of gamma derived measurements is achieved by a single contractor using a gamma probe (see sampling techniques above). Raw gamma probe data is converted into a las file and sent to a Perth based office on a daily basis by email. This data is then packaged and sent to the Toro Energy Database Manager, who</li> </ul>

sends it to the analyst (consultant) for calculation of U concentrations and deconvolution.

#### **Lake Maitland Deposit only**

- Prior to 2014 core length was measured by drillers and blocks were put in at the end of runs. The core was then picked up by the geologist at the end of hole and taken to the core shed where it was divided into 25cm whole samples and allocated a sample ID tag, this was done by the geologist and field assistant. The core was then logged and core loss recorded. Core, in the core trays, is then stacked on to pallets (approximately 3 holes per pallet). For sample security, steel lids were used on the top row of trays before the entire pallet was plastic wrapped and steel strapped. Core was then picked up at site and delivered to ALS Perth, where it underwent spectral logging, weighing and assay.
- Additionally, upon transfer of the database from Mega to Toro for estimation, all data was converted to raw text files and delivered directly to SRK for the data review prior to estimation so as to avoid any loss of information by converting files into different database formats (Toro and Mega use different databases and database structures).

#### **Audits or reviews**

- *The results of any audits or reviews of sampling techniques and data.*
- An internal review of geochemical sampling techniques in 2012 lead to a change in practice from non-selective half-core sampling to full core sampling so as to reduce total sampling error. This recommendation was followed in 2013 and has satisfactorily reduced sampling error.
- A review by Toro geologists of the Mega drill core sampling techniques (both for geochemistry and gamma measurements [gamma gamma for density and gamma for eU<sub>3</sub>O<sub>8</sub> calculations) for the 2011 drilling program found no errors that would affect the resource estimate in any significant way. The spectral analysis based geological model, which has been used to assign density in the block model was found to be highly predictive across the deposit with a limited amount of drill



holes, however given the nature of the deposit as shown in a review of multi-element geochemistry (by Toro geologists) and Toro's experience with all of the similar style Wiluna deposits, the model is considered by Toro to be a reasonable interpretation of Lake Maitland geology and in fact in most circumstances a more accurate representation of the geology and geological relationships.

- SRK reviewed the database that was to be used for the resource estimation and excluded any errors from the estimation. The number of exclusions was considered too small to have affected the estimation.

## Section 2 Reporting of Exploration Results

NOT APPLICABLE TO THIS RESOURCE UPDATE

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li>• <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Yandal Gold Project is located approximately 770km NE of Perth and less than 35km NE of the Bronzewing Gold Mine operations. The project includes the tenements M53/1089, E53/1211, E53/1060, E53/1210 and E37/1146 which are 100% owned by Redport Exploration Pty Ltd (subject to the agreements referred to below), as well as E53/1858, E53/1929 and E53/1909, which are 100% owned by Toro Exploration Pty Ltd. Redport Exploration Pty Ltd and Toro Exploration Pty Ltd are both wholly owned subsidiaries of Toro Energy Ltd.</li> <li>• All tenements are granted.</li> <li>• A heritage agreement has been entered into with the traditional owners of the land the subject of the Yandal Gold Project.</li> <li>• M53/1089 is subject to agreements with JAURD International Lake Maitland Project Pty Ltd (<b>JAURD</b>) and ITOCHU Minerals and Energy of Australia Pty Ltd (<b>IMEA</b>) under which JAURD and IMEA can acquire a 35% interest in M53/1089 and certain associated assets.</li> <li>• The agreements with JAURD and ITOCHU may also be extended, at JAURD and IMEA's election, to uranium rights only on E53/1211, E53/1060, E53/1210 and E37/1146.</li> </ul>

	<ul style="list-style-type: none"> <li>Toro Exploration Pty Ltd has rights to all minerals on E53/1858, E53/1909 and E53/1929.</li> </ul> <p>Toro has agreed to pay JAURD and IMEA net smelter return royalty on non-uranium minerals produced from E53/1211, E53/1060, E53/1210 and E37/1146. The exact percentage of that royalty will depend on Toro's interest in the non-uranium rights at the time and will range from 2% to 6.67%.</p> <ul style="list-style-type: none"> <li>E53/1060 is subject to a 1% gross royalty on all minerals produced and sold from that tenement. M53/1089 is subject to a 1% net smelter return royalty on gold and on all other metals derived from that tenement, in addition to a 1% gross royalty on all minerals produced and sold from a discrete area within that tenement.</li> </ul>
<p><b>Exploration done by other parties</b></p>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul> <p>The Centipede and Millipede deposits were discovered by Esso Exploration and Production Australia and its various joint venture partners in 1977, through a regional RAB drilling over a radiometric anomaly. Exploration occurred between this time and 1982 with evaluation of the Centipede deposit with approximately 500 drill holes. This drilling was mainly by RC drilling but some auger and diamond drilling was also completed. The mineralised areas were drilled out on 100m centres and the surrounding areas on 200m centres.</p> <p>The grade and thickness of the uranium mineralisation was determined from radiometric logging of all holes. Some chemical assays were also completed and disequilibrium studies carried out.</p> <p>Since that initial exploration and definition of a uranium resource various companies have had ownership of the Centipede resource but little further work was completed until 1999 when Acclaim Uranium NL undertook further work by gamma logging over 300 of the previous holes as well as drilling a further 120 aircore drill holes.</p> <p>Nova Energy gained ownership of the Centipede project and undertook various work programmes in 2006 and 2007 including:</p> <ul style="list-style-type: none"> <li>Compilation of historical data into a database</li> </ul>

- Drilling of over 400 aircore drill holes with associated downhole gamma logging and sample assaying
- Gamma logging of approximately 100 historical holes where data had been lost
- Two large exploration costeans completed with a Wirtgen 2200 continuous miner
- Various baseline studies including groundwater, environmental and radiological studies
- Acquisition of satellite imagery
- Metallurgical studies
- Project scoping study

Significant work completed by Toro Energy alone on the deposits has included:

- Detailed airborne magnetic, radiometric and digital terrain model surveys over the project area in 2010
- A resource estimation update of all of the Wiluna uranium deposits by SRK consulting in 2011
- Resource estimation update of the Centipede and Millipede resources by SRK Consulting in 2012 taking into account new density information
- First phase 3-D geological modelling of all of the Wiluna Project's deposits in 2012
- First phase 3-D ore shell modelling of all of the Wiluna Project's deposits in 2012
- Aircore and sonic core resource drilling in 2013

- A resource estimation update on all Wiluna deposits in 2013, inclusive of Lake Maitland.
- Testing of grade and resource continuity over the short scale on all deposits – reconciling mine blocks to resource estimations in 2014.
- Sonic core drilling in 2015
- A resource estimation update Centipede-Millipede and Lake Maitland in 2015-2016
- A resource update based on a change in density on the Nowthanna deposit in 2016.
- A resource estimation for  $V_2O_5$  for Lake Maitland, Lake Way and Centipede-Millipede inside the  $U_3O_8$  mineralisation envelope for all deposits but using  $V_2O_5$  cut-offs.

**Geology**

- *Deposit type, geological setting and style of mineralisation.*

- The deposits are shallow groundwater carbonate associated uranium deposits.

The Wiluna Uranium Project is situated in the northeast of the Archean Yilgarn Block close to the Capricorn Orogen, the structural zone formed when the Yilgarn Block and the Pilbara Block joined some 1830-1780 million years ago. The basement rocks at Wiluna are part of the Eastern Goldfields Terrane (2.74 - 2.63 Ga), a succession of greenstone belts geographically enclosed by younger granitoid (gneiss-migmatite-granite, banded gneiss, sinuous gneiss and granitic plutons) that makes up the entire eastern Yilgarn Block and representative of an extensional tectonic regime with brief periods of compression.

The Wiluna deposits themselves are hosted within recent to Holocene sedimentation that sit in the upper reaches of a large southeast to south flowing drainage system that began forming in the Mesozoic within Permian glacial formed tunnel valleys. Satellite radiometric images clearly show

this drainage system, now a dry largely ephemeral system of salt lakes.

### **Mineralisation**

The principal ore mineral is the uranium vanadate, Carnotite ( $K_2[UO_2]_2[VO_4]2.3H_2O$ ). This is the main ore mineral for U as well as V. Carnotite has been found as micro to crypto-crystalline coatings on bedding planes in sediments, in the interstices between sand and silt grains, in voids and fissures within calcrete, dolomitic calcrete, and calcareous silcrete, as well as small concentrations (or 'blotches' ) in silty clay and clay horizons.

Vanadium is also found in the clays within the sediments, separate from the Carnotite mineral.

The sediments hosting the Carnotite and clays are part of a small deltaic paleochannel system that once, and to an extent still, flowed into a relatively large but very shallow inland lake. The delta splays from the end of the palaeochannel, which itself is host to Carnotite mineralisation further 'up-stream' with the two deposits known as the Dawson Well and Hinkler Well Uranium Deposits. Drainage in the channel system is towards the delta and Lake Way from the south and southwest. The current stream system flanks the delta on both sides and still flows into the lake (Lake Way) but it is now definitively ephemeral with a normally weak and limited flow restricted to the wetter summer months or a stronger flow after storm events. The lake is also thus ephemeral with evaporite precipitates dominating the surface, a product of low influx, long residence times and high evaporation rates.

A drying climate has led to most of the delta being covered in fine silty sand-dunes which have subsequently been vegetated. Apart from a large clay pan, most of the Millipede tenements, including the ground referred to in this report (Figure 2), are covered by vegetated dune sands.

The main economic concentration of Carnotite, that targeted for mining, is restricted to a zone some 1-6 metres below the surface that seems to be related to the current water table. The zone is thus not lithologically specific, rather forming a wide flat and continuous lens stretching approximately from the central delta to the current lake shoreline and inhabiting calcrete, silcrete, sandy silts and clays.

This zone does however coincide with a much thicker calcareous horizon that is more prominent away from the lake shoreline and often consists of competent to hard calcrete and calcareous silcrete (possibly silicified calcrete). The calcrete zone is also definitively related to the water table, although its specific relationship with the deposition of the Carnotite remains complex and somewhat unexplained. However, it could be argued that the calcrete may help form a pH related chemical trap that pushes the oxidised uranium and vanadium complex over its solution to solid phase boundary.

Locally, the Abercromby Creek straddles a boundary between highly weathered granites and greenstones, flowing from a largely granitic terrain into largely ultramafic greenstone terrain of the Norseman-Wiluna greenstone belt, although geological maps also place it at a precise boundary closer to the lake shoreline whereby ultramafics dominate its northern flank and granites dominate its southern flanks. It has been argued that the weathered granites are a possible source for the uranium and the weathered greenstones a possible source for the vanadium in the Carnotite mineralisation. Regionally, the deposits associated with Lake Way can be included in a province of similar style calcrete associated uranium deposits all in the NE Yilgarn of Western Australia and inclusive of much larger deposits such as Yeelirrie.

**Drill hole Information**

- A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:
  - easting and northing of the drill hole collar
  - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
  - dip and azimuth of the hole
  - down hole length and interception depth
  - hole length.
- If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the
- All drill hole data used in  $U_3O_8$  estimations has been previously supplied in various resource updates, notably that of 27 February 2012, 9 September, 8 October and 20 November 2013, 7 July and 2 September 2014, 2 September and 14 October 2015 and 1 February 2016.
- All drill holes within the  $U_3O_8$  envelope that have specific  $V_2O_5$  geochemical information have been listed in the Appendix 1 of the ASX announcement of 14 December 2021.
- All drill holes were vertical and drilled between 3-25m depth. The 70ppm  $U_3O_8$  grade shell from which the  $V_2O_5$  resource has been estimated, occurs between 0.5 (upper intersect) and 12.5m (lower intersect) depth from the surface, although more typically the lower intercept is now greater than 6m depth from the surface.



Competent Person should clearly explain why this is the case.		
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No exploration results reported here. Cut-off grades are as according to estimation techniques detailed below.</li> <li>No aggregation of intervals was made.</li> <li>Metal equivalents have only been used to model U<sub>3</sub>O<sub>8</sub> grade shells and not for estimating V<sub>2</sub>O<sub>5</sub>.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation lenses of all of the Wiluna Uranium deposits are horizontal in nature. Thus, given that all drill holes are vertical from the surface, and hence perpendicular to mineralisation, all stated mineralisation intercept thicknesses represent the TRUE thickness of the mineralisation lens at the specified U<sub>3</sub>O<sub>8</sub> cut-off grade (in this case 500 ppm eU<sub>3</sub>O<sub>8</sub>).</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to, a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>All relevant maps have been included with this ASX release.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>No exploration results reported in this document - resource drilling only</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test</li> </ul>	<ul style="list-style-type: none"> <li>No exploration results reported in this document - resource drilling only</li> </ul>

	<i>results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>No further work on the V<sub>2</sub>O<sub>5</sub> resource is planned at this stage.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li><i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> <li><i>Data validation procedures used.</i></li> </ul>	<p><b>All Wiluna deposits excluding Lake Maitland</b></p> <ul style="list-style-type: none"> <li>Logging and sampling data is entered into a template with fixed formatting and fixed lithological choices (selected from fixed drop-down lists) by the geologist responsible for logging each hole. The template is formatted so that it can be imported directly into a DataShed database. All importing and exporting into and from the database is achieved by a single point of entry/exit responsible for the database (database manager), access for such tasks is restricted to the database manager. All files are transferred from the field to the database manager using a secure commercial based DropBox folder system with automatic back-up and error correction functions. Data files for resource estimation are transferred in a single zip file to the resource consultant, direct from the database manager.</li> <li>All geological interval and gamma data is validated via a systematic check of down-</li> </ul>

hole gamma to down-hole scintillometer readings (made for each lithological unit) for every hole (both sonic and aircore). A secondary check on actual lithology logging is made by examining core and chip photographs cross-referenced to the geological logs. All historical data is validated in ISATIS against the same data used in previous estimations.

#### **Lake Maitland Only**

- All post-2013 data validation has been achieved as already described above, prior to 2013 it was as follows:
- All geological logging and sampling is entered into a Toughbook style laptop with an offline aQuire data entry program, which contains fixed lithological codes, carry over sample ID's, fixed core lengths and recorded core loss intervals. The program does not allow errors such as overlaps, or sample miss match. At the end of each day (whether for gamma data from probing or geological logging) all data is extracted and sent to the Perth office where it is automatically entered to the sequel server database. This can only be accessed by the database manager.
- All data has undergone a thorough validation and integrity check by Mr Daniel Guibal (see CP statement in this ASX release) in consultation with Toro Energy prior to data preparation for resource estimation of uranium, including all  $U_3O_8$  and  $eU_3O_8$  values, density values, lithology and lithology models (Vector files etc.) and geospatial information (drill hole collars etc.). All  $V_2O_5$  data have been extracted from the geochemical database and were checked for inconsistencies.

#### **Site visits**

- *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*
- *If no site visits have been undertaken indicate why this is the case.*
- The competent person responsible for the resource estimate, Daniel Guibal, has not had a visit to site. It is considered that a site visit is not necessary given Mr Guibal's experience with Toro's Wiluna uranium deposits, some 10 years, including numerous estimations, as well as experience elsewhere.

**Geological interpretation**

- *The use of geology in guiding and controlling Mineral Resource estimation.*
- *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*
- *Nature of the data used and of any assumptions made.*
- The geological model is not used in the resource estimate since it has been found that mineralisation is not necessarily correlated to any particular rock type, despite being often associated with carbonate or carbonated sediments. The mineralisation has been found to be associated with the water table and so is more correlated to depth from the surface than any given lithology, maintaining grade across different lithology. Thus the geological model for estimation is a simple mineralisation envelope based on a concentration of U that represents that concentration where the background population of U ends and the U mineralisation exists (in a classic bimodal distribution). In the Wiluna deposits this is 70 ppm  $U_3O_8$  for the Centipede-Millipede deposit, 80 ppm  $U_3O_8$  for the Lake Way deposit and 70 ppm  $U_3O_8$  for the Lake Maitland deposit.
- Examination of 3D LeapFrog models of different grade shells of the resource give a high level of confidence to the above interpretation of a ground water controlled deposit.
- For the  $U_3O_8$  estimation and mineralisation envelopes, all data used is based on U values from geochemistry and de-convolved gamma derived equivalents. U geochemistry is mostly F-ICPMS, 4-ICPMS and fused disc XRF. A large number of cored drill holes (diamond and sonic) have been used to test the validity of the gamma measurements (via geochemistry) – for example all of the 2011 drilling at Lake Maitland, some 201 diamond holes. Where there is geochemistry data available it is given priority over gamma derived equivalents. All de-convolved gamma derived data has been multiplied by 1.25 at Lake Maitland and 1.2 at Centipede-Millipede.
- For the  $V_2O_5$  estimation all data is geochemistry data collected from diamond core, sonic core and aircore drill chips as described previously above. The

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- *The effect, if any, of alternative interpretations on Mineral Resource estimation.*
- *The factors affecting continuity both of grade and geology.*

geochemistry is as described above for U. The number of  $V_2O_5$  data available is in general lower than the number of U data, in fact for the Lake Maitland deposit, there is approximately one third the data available for the  $V_2O_5$  estimation compare to the  $U_3O_8$  estimation due to the availability of gamma data in the more common aircore drill holes.

- The advantage of using a mineralisation envelope based on  $U_3O_8$  concentrations only (both chemistry and de-convolved gamma derived equivalents) is that there are few assumptions made. Domains are based on data variability and so in effect, real changes in the behaviour of the data and data distribution. There is no forcing statistical predictions into domains based on lithology that is not necessarily correlated spatially at all times.
- A minimum of 5% of all drill holes are required to test the validity of gamma and to introduce into the estimation except in the case of the mine block evaluation areas where 2.5% has been accepted (due to the mine block evaluation study not contributing to any update of the total resource).
- Density values used in the resource estimates at Lake Way and Centipede-Millipede are single values representing average densities for the entire mineralisation envelope. At Lake Maitland density values used in the resource estimate are derived from gamma gamma probe measurements calibrated to real wet and dry density measurements of reference sonic hole cores. The densities are averaged to the different main lithology in the geological model and applied to the block model according to the boundaries of each lithological unit (acting as density domains). Further information below under 'bulk density'.
- A different geological interpretation, if used in the resource estimate, may affect the results of the resource estimate slightly,

	<p>however, since geology is not used in estimations a change in geological interpretations would make no difference.</p> <ul style="list-style-type: none"> <li>• Grade Continuity can be affected by numerous factors, including drilling density which varies from 5m x 5m to 100m x 200m, nugget effect, itself linked to the type of measurement (geochemical data are more variable than radiometric de-convolved radiometric data), uncertainties on the data themselves due to calibration problems or/and disequilibrium for the radiometric values, sampling/assaying issues for the geochemical measurements (controlled by QA/QC), and geological continuity, which is reasonably established for the Wiluna Uranium Project. Geology has been controlled by recent to Quaternary sediment deposition with overprinting calcretisation being controlled by the ground water flow.</li> </ul>
<p><b>Dimensions</b></p>	<ul style="list-style-type: none"> <li>• <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> <li>• The Wiluna deposits are surficial with a vertical thickness of a few meters at most. Occasionally deeper (15 to 25m below surface) mineralisation exists, but its continuity is not proved, because of the lack of deep drilling</li> </ul>
<p><b>Estimation and modeling techniques</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li>• For the estimation of <math>U_3O_8</math> and the <math>U_3O_8</math> grade shells, except in the case of the mining block evaluations in 2014, the estimation technique is Ordinary Kriging followed by Uniform Conditioning (<b>UC</b>) using the specialised geostatistical software, Isatis Neo. In some circumstances Localised Uniform Conditioning (<b>LUC</b>) will be used after UC to visualise potential variation in the orebody to better evaluate proposed mining methods (such as is the case at Lake Maitland). The various steps of the estimation are the following: <ul style="list-style-type: none"> <li>(1) Use of combined radiometric and geochemical data, with priority given to geochemistry.</li> <li>(2) Creation of a mineralisation envelope using Leapfrog 3D at the cut-offs detailed above were created prior to factoring of the 2013 data.</li> </ul> </li> </ul>



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- (3) Gamma data corrections are made -  
As discussed above the 2013 gamma data in the westernmost zone of Dawson Hinkler was corrected by a 1.2 factor to account for a systematic discrepancy between geochemical and gamma derived data and at Lake Maitland, a correction factor of 1.25 has been applied to gamma data within the mineralised envelope to take into account the average secular disequilibrium as found from research (see above), and due to consistent differences observed between geochemistry and gamma and specifically investigated in the 2015 drilling, all gamma data at Centipede and Millipede inside the mineralised envelope has been multiplied by a factor of 1.2.
- (4) Compositing to 0.5m.
- (5) Domaining by zones of reasonably consistent grade, or in the case of Lake Maitland, essentially by the strike orientation: NS, NE and NW
- (6) Top-cuts used at the various deposits include 5000 ppm, 4500 ppm, 2000 ppm, 700 ppm and 500 ppm as well as no top-cut at all depending on the various domains. It has been found that the top-cut has very little impact on mean grade (less than 1%) and variance. No top-cuts at all applied to Lake Maitland and Lake Way.
- (7) Panel sizes used for the estimation were 30m x 30m x 0.5m for Centipede, Millipede and Lake Way, 50m x 100m x 0.5m for Nowthanna, 200m x 100m x 0.5m for Dawson-Hinkler and 50m x 50m x 0.5m for Lake Maitland. The panel sizes are chosen from the average drilling density.
- (8) Ordinary Kriging estimation of panels, after neighbourhood analysis to optimise quality of kriging.
- (9) Validation of Kriging results through statistics and swath plots
- (10) Uniform conditioning (UC) for 10m x 10m x 0.5m Selective Mining Units (SMU), which is a realistic assumption

- *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
- *The assumptions made regarding recovery of by-products.*
- *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*
- *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
- *Any assumptions behind modelling of selective mining units.*
- *Any assumptions about correlation between variables.*
- *Description of how the geological interpretation was used to control the resource estimates.*
- *Discussion of basis for using or not using grade cutting or capping.*
- *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*

for a future operation where grade control using radiometric information will be possible.

- (11) Localised Uniform Conditioning: creation of 10m x 10m x 0.5m panels based on the results of UC at Lake Way, Dawson Hinkler and Lake Maitland. UC model maintained as official model for Centipede-Millipede due to grade differences between the UC and LUC models at higher grade cut-offs and the assumption that the UC model is the most reliable if grade differences occur.
- (12) The tonnage is estimated using a constant dry density as detailed elsewhere in this table.

**The estimation of V<sub>2</sub>O<sub>5</sub> for Lake Maitland**

has been made using the same U<sub>3</sub>O<sub>8</sub> mineralisation envelope as described above for Lake Maitland and then estimating directly into the same 50m x 50m x 0.5m blocks as those used for the U<sub>3</sub>O<sub>8</sub> estimation for Lake Maitland and using Ordinary Kriging. No UC or LUC was undertaken for the V<sub>2</sub>O<sub>5</sub> estimation like it was for the U<sub>3</sub>O<sub>8</sub> estimation due to the lower amount of data in comparison.

- Previous resource estimates (prepared for a number of years by SRK and Mr Daniel Guibal) are available and are considered in all current estimations.
- This resource estimation is for a potential by-product, V<sub>2</sub>O<sub>5</sub> of the previously announced U<sub>3</sub>O<sub>8</sub> resources. The potential viability of V<sub>2</sub>O<sub>5</sub> as a by-product in the processing of the Wiluna Uranium Project's uranium ore has been outlined with the results of testing in ASX announcements of 18 March, 19 July, 5 September and 10 October 2019 and 24 October 2022.
- There are no assumptions made to date within this resource estimation for exact recovery percentages, just that vanadium is leached with the U and recoverable into

		<p>a clean and separate processing stream from the IX circuit in amounts that make it a potentially viable by-product. Recoveries will be utilised in mining models.</p> <ul style="list-style-type: none"> <li>Currently there are no geostatistical estimations made on deleterious elements, however, such elements have been included in the analysis of drill core samples in 2013 and so such estimations will be able to be accomplished in the future as more coverage across the deposits is achieved. Current analysis of drill core geochemistry and Metallurgical samples strongly suggests there are no significant economic issues related to deleterious elements.</li> <li>See detailed description of estimation process above</li> <li>See detailed description of estimation process above</li> <li>No assumptions</li> <li>See above – no geological control in any of the 2012 JORC compliant resources.</li> <li>See detailed description of estimation process above</li> <li>See detailed description of estimation process above</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are dry tonnages</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>Grade-tonnage curve are provided for a range of cut-offs. Optimal cut-off will be determined from the mining studies.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always</li> </ul>	<ul style="list-style-type: none"> <li>The proposed mining methods, will be the same as those publicly outlined by Toro for the Wiluna Project, however as a result of recent beneficiation and processing design studies the processing techniques and</li> </ul>

*necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*

circuit design may be changing in the future. It is this change that has allowed for the potential dual processing of vanadium as a by-product at what should be no significant cost increase to processing. The new processing design and beneficiation studies have been outlined in the ASX announcements of 18 May, 29 August, 28 September and 5 December 2016, 30 January, 20 April, 20 June, 27 June, 12 September and 19 September 2018, 7 March, 18 March, 19 July, 5 September and 10 October 2019 and 24 October 2022. It is also important to note that all of the engineering and mining parameters listed below will be different for a stand-alone Lake Maitland mining operation; such parameters are yet to be determined specifically, but for the scoping level studies that have been announced to the market, a simple truck and shovel mining method has been proposed. This will be developed further with future engineering studies.

Therefore, still current for the Wiluna project is as follows:

- Mining technique has been tested successfully on site, the main points follow.
- Shallow strip mining to 15m maximum depth (approximately 8 m at Maitland) using a combination of a Vermeer surface miner, loader and articulated trucks.
- 25-50cm benches
- De-watering of pits for process water
- In-pit tailings disposal below natural ground surface in lined pits, progressive compartmental mining, tailings and rehabilitation
- Up to a 14 year life of mine, regional resources increase to 20+ years dependent on future approvals
- 7 years at Centipede and Millipede followed by Lake Maitland and then Lake Way.

**Metallurgical factors or assumptions**

- The basis for assumptions or predictions regarding metallurgical amenability. It is

- A laboratory scale pilot plant has been successfully trialled that includes all of the currently proposed process from

	<p><i>always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	<p>crushing/grinding to product – actual product produced. Every part of the processing circuit has been tested and/or had research associated with it. Main factors follow.</p> <ul style="list-style-type: none"> <li>• Alkaline tank leach with direct precipitation.</li> <li>• Target production is 780 tpa U<sub>3</sub>O<sub>8</sub></li> <li>• Processing 1.3 Mtpa at a head grade of 716ppm U<sub>3</sub>O<sub>8</sub></li> <li>• Processing plant is planned to be located on the Centipede deposit related tenements.</li> </ul> <p>The new processing that includes IX that is currently being assessed has been described in the ASX announcements as outlined above.</p>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>• <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All of the deposits of the Wiluna Uranium Project have been approved for mining by the West Australian EPA and the federal government. Thus the project has gone through the Environmental Review and Management Programme process (The ERMP and all of the associated documents can be found on the Toro website at : <a href="http://www.toroenergy.com.au/sustainability/health-safety/environmental-review-and-management-programme-ermp/">http://www.toroenergy.com.au/sustainability/health-safety/environmental-review-and-management-programme-ermp/</a>)</li> </ul> <p>Main factors follow.</p> <ul style="list-style-type: none"> <li>• Shallow open pit mining</li> <li>• In-pit tailings disposal below natural ground surface in lined pits, progressive compartmental mining, tailings and rehabilitation – no tailings disposal planned for Dawson Hinkler deposit site.</li> <li>• Tailings integrity modelled for 10,000 years</li> <li>• Mining footprint returned as close as possible to natural land surface level</li> <li>• No standing landforms remain post closure</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>• <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> </ul>	<p><b>All Wiluna deposits excluding Lake Maitland</b></p> <ul style="list-style-type: none"> <li>• Density has been averaged so that a single density is applied across the entire block model.</li> <li>• The average density applied to Centipede and Millipede is 1.8 t/m<sup>3</sup>, which has been determined from averaging the density</li> </ul>

- *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*
- *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*

through the ore zone as measured by a calibrated dual density probe. The data used was from the 2011 drilling campaign. A dual density probe was used in the 2015 drilling program to check the earlier results in different parts of the orebody and results were proven similar, a little higher in some areas and a little lower in others, however 1.8 t/m<sup>3</sup> is still considered appropriate.

- The average density applied to Lake Way is 1.72 t/m<sup>3</sup>, based on bulk samples collected from multiple resource evaluation and mining test pits in 1978, analysed by AMDEL.

#### **Lake Maitland only**

- Density was determined by calibrated gamma gamma probe measurements down drill holes from across the entirety of the deposit (predominantly the 2011 drilling campaigns). Gamma gamma probe calibrated directly with reference sonic core holes whereby both dry and wet density measurements were obtained. Gamma gamma measurements were found to be matching wet density and so all measurements were re-calibrated to a dry density using both the wet and dry density determinations on the sonic core. Density was then averaged over geological units (determined as explained above) so that each geological domain within the block model had a single average dry density.

#### **Classification**

- *The basis for the classification of the Mineral Resources into varying confidence categories.*
- *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*
- *Whether the result appropriately reflects the Competent Person's view of the deposit.*
- The classification of the Uranium Resources at Wiluna was established in previous estimations, in particular see ASX announcement of 1 February 2016.
- The classification of the Vanadium resource for the Lake Maitland deposit is Inferred only because the number of data is generally lower (one third approximately) than for U, there has been less QA/QC performed than for U and no specific geological modelling was undertaken, the estimation being limited to the domains defined for U.



<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>There has been no audit of the resources reporting material change within this ASX release, other than by the estimator, Mr Daniel Guibal (FAusIMM) and Toro assessment and geological interpretation.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>Because Vanadium is considered a by-product of the Uranium mineralisation, no detailed evaluation of the uncertainty on the estimation was made at this stage.</li> <li>Factors that could affect the relative accuracy of the estimations include: <ol style="list-style-type: none"> <li>The correlation between <math>U_3O_8</math> and <math>V_2O_5</math> geochemical grades;</li> <li>The assaying methods used,</li> <li>The current <math>V_2O_5</math> estimates are smooth, due to the low number of data relative to the U data, and therefore probably underestimate the true grade variability.</li> </ol> </li> <li>No production statistics available – not an operating mine</li> </ul>

#### Section 4 Estimation and Reporting of Ore Reserves

NOT APPLICABLE – NO RESERVES REPORTED

#### Section 5 Estimation and Reporting of Diamonds and Other Gemstones

NOT APPLICABLE – URANIUM ONLY

### Appendix 3: List of drill holes utilised in the Lake Maitland Resource Estimation relevant to this ASX announcement

HOLE ID	EAST	NORTH	RL	HOLE ID	EAST	NORTH	RL
GA-SB45	311298	6992277	470.88	LMAC1225	310500.3	6990579	473.11
GA-SB49	309496.9	6990181	472.6	LMAC1226	310596.5	6990583	474.62
LMAC0001	309495.8	6991980	472.11	LMAC1227	310695.4	6990579	474.97
LMAC0002	309549.3	6991981	471.86	LMAC1228	310796.2	6990579	473.81
LMAC0007	309746.9	6991981	471.48	LMAC1229	310900.5	6990579	471.8
LMAC0008	309797.5	6991981	471.47	LMAC1230	310999.6	6990782	473.94
LMAC0009	309846.4	6991981	471.53	LMAC1231	310896	6990775	477.75
LMAC0010	309897.7	6991980	471.52	LMAC1232	310801.7	6990794	472.17
LMAC0011	309946.4	6991980	471.39	LMAC1233	310711.1	6990792	471.35
LMAC0012	309997.4	6991981	471.4	LMAC1234	310607.1	6990790	470.71
LMAC0013	310046.7	6991980	471.34	LMAC1235	310503.2	6990788	470.6
LMAC0014	310095.2	6991981	471.25	LMAC1236	310403.9	6990787	470.15
LMAC0015	310145.4	6991980	471.18	LMAC1237	310593.7	6990981	470.66
LMAC0016	310196.5	6991980	471.13	LMAC1238	310699.4	6990979	470.07
LMAC0017	310246	6991980	471.12	LMAC1239	310798.1	6990979	470.6
LMAC0018	310294.8	6991980	471.07	LMAC1240	310897.9	6990981	470.86
LMAC0019	310345.8	6991980	471.07	LMAC1241	310998.3	6990979	471.59
LMAC0020	310396.8	6991980	471.06	LMAC1242	310698.2	6989985	471.88
LMAC0021	310447.9	6991981	471.02	LMAC1243	310600.8	6989978	472.2
LMAC0022	310497.2	6991981	471.07	LMAC1244	310501.8	6989980	472.26
LMAC0023	310546.3	6991981	471	LMAC1245	310400.8	6989979	471.47
LMAC0024	310597.6	6991981	471	LMAC1246	310298	6989979	470.44
LMAC0025	310647.1	6991982	470.95	LMAC1247	310200.7	6989980	470.4
LMAC0026	310698.5	6991982	470.97	LMAC1248	310099.8	6989978	470.7
LMAC0027	310744.6	6991979	470.96	LMAC1249	310001.8	6989979	472.05
LMAC0028	310795.5	6991981	470.98	LMAC1250	309901.6	6989980	470.33
LMAC0029	310846.8	6991981	470.99	LMAC1251	309801.5	6989979	470.69
LMAC0030	310896.6	6991981	470.96	LMAC1252	309698.8	6989979	471.72
LMAC0031	310946.2	6991982	471.01	LMAC1253	309600.3	6989982	471.56
LMAC0032	310998.2	6991982	470.96	LMAC1254	309500.8	6989978	470.34
LMAC0033	311046.1	6991982	470.96	LMAC1255	309398.9	6989979	471.16
LMAC0034	311097.2	6991982	471	LMAC1256	309302.3	6989980	470.96
LMAC0035	311146.7	6991982	470.96	LMAC1257	309199.1	6989980	470.6
LMAC0036	311198	6991982	470.96	LMAC1259	309001	6989980	469.82
LMAC0037	311248.6	6991981	470.89	LMAC1261	308901.1	6989778	470.67
LMAC0038	311298.4	6991982	470.89	LMAC1262	308998.1	6989780	469.61

LMAC0039	311349.1	6991982	470.86	LMAC1263	309101.1	6989781	469.59
LMAC0040	311397.7	6991984	470.82	LMAC1267	309499	6989781	469.72
LMAC0041	311449.4	6991983	470.77	LMAC1269	309698.3	6989780	469.56
LMAC0042	311498.7	6991983	470.81	LMAC1270	309798.1	6989781	469.6
LMAC0043	311550.9	6991983	470.75	LMAC1271	309899.3	6989780	469.71
LMAC0044	311698.4	6991782	471.08	LMAC1273	309999.6	6989779	470.05
LMAC0046	311549.6	6991381	470.79	LMAC1275	310296.8	6989782	471.44
LMAC0047	311448.8	6991383	470.35	LMAC1276	310446.2	6989784	472.59
LMAC0051	311398.1	6991581	470.51	LMAC1277	310547.3	6989783	473.39
LMAC0052	311300.3	6991580	470.59	LMAC1281	310352.7	6989584	472.07
LMAC0053	311199.5	6991580	470.6	LMAC1282	310249.1	6989578	471.27
LMAC0054	311099.1	6991580	470.47	LMAC1283	310152.7	6989580	471.85
LMAC0055	310998.8	6991580	470.36	LMAC1284	310050.2	6989580	470.58
LMAC0056	310899.6	6991581	470.27	LMAC1285	309949.9	6989580	470.16
LMAC0057	310798.3	6991581	470.4	LMAC1286	309849.8	6989582	470.02
LMAC0058	310697.9	6991580	470.14	LMAC1322	310699	6990180	470.16
LMAC0059	310600.1	6991581	470.55	LMAC1329	311399	6990180	471.64
LMAC0060	310498.8	6991580	470.64	LMAC1330	311404.6	6990381	472.81
LMAC0061	310397.7	6991581	470.81	LMAC1331	311300.3	6990379	472.5
LMAC0062	310298.7	6991580	470.98	LMAC1338	311301.1	6990579	470.36
LMAC0063	310199.5	6991580	471.12	LMAC1339	311398.9	6990577	471.49
LMAC0064	310097.7	6991580	471.3	LMAC1341	311399.7	6990779	470.45
LMAC0065	309998.8	6991580	471.37	LMAC1342	311297.7	6990778	470.24
LMAC0066	309898.5	6991582	471.35	LMAC1343	311199.5	6990779	469.84
LMAC0067	309798.4	6991581	471.5	LMAC1344	311098.9	6990779	470.83
LMAC0068	309698.8	6991581	471.42	LMAC1345	311500.3	6990979	470.68
LMAC0071	309398.5	6991580	472.41	LMAC1346	311399.8	6990979	470.57
LMAC0072	309298.3	6991582	472.28	LMAC1347	311547.3	6991177	470.69
LMAC0074	309098.8	6991581	471.61	LMAC1348	311446.4	6991180	470.15
LMAC0078	308397.1	6991578	471.55	LMAC1349	311348.5	6991181	470.4
LMAC0079	308197.6	6991579	471.43	LMAC1350	311247.8	6991181	470.61
LMAC0088	308097.5	6991781	471.46	LMAC1351	311146.7	6991181	470.58
LMAC0089	308199.8	6991780	471.48	LMAC1352	311048.3	6991181	470.56
LMAC0090	308299	6991780	471.46	LMAC1353	310948.6	6991183	470.02
LMAC0091	308398.5	6991780	471.68	LMAC1370	309150.5	6992780	471.88
LMAC0092	307995.6	6991984	471.59	LMAC1377	307019.9	6996779	472.99
LMAC0101	308199.7	6991378	471.01	LMAC1387	309446.8	6994179	473.11
LMAC0104	308847.3	6991382	470.91	LMAC1390	311340.8	6992781	470.84
LMAC0105	308947.6	6991382	471.09	LMAC1395	312249.4	6994186	473.31
LMAC0109	309447.4	6991381	471.39	LMAC1396	311849.8	6994177	470.7
LMAC0110	309539.7	6991379	471.72	LMAC1397	311159.7	6994183	470.82
LMAC0111	309650.4	6991380	472.09	LMAC1399	311313.9	6991581	470.56
LMAC0112	309999.3	6991280	471.19	LMAC1400	309860	6991580	471.6
LMAC0113	309998.3	6991330	471.18	LMAC1401	308664.3	6991585	472.08
LMAC0114	309998.1	6991380	471.18	LMAC1403	308899.9	6990576	470.25
LMAC0115	309997.8	6991430	471.31	LMAC1404	308897.6	6990382	470.1

LMAC0116	309999.1	6991480	471.36	LMAC1405	309100.6	6990382	470.13
LMAC0117	309998.9	6991531	471.37	LMAC1406	309597.5	6990379	470.12
LMAC0118	309998.3	6991630	471.43	LMAC1407	309699.7	6990378	470.02
LMAC0119	309998.1	6991680	471.49	LMAC1408	309796.7	6990378	470.01
LMAC0120	309998.4	6991730	471.39	LMAC1410	309999.4	6990377	470.15
LMAC0121	309998.2	6991779	471.42	LMAC1411	310198.2	6990577	470.12
LMAC0122	309799.9	6991782	471.61	LMAC1412	310302.9	6990784	470.07
LMAC0123	309699.5	6991783	471.6	LMAC1413	310396.8	6990981	470.23
LMAC0127	309301.5	6991781	472.51	LMAC1414	310495.8	6990977	470
LMAC0128	309998.7	6991830	471.49	LMAC1415	311097.4	6990987	470.58
LMAC0129	309998.4	6991879	471.47	LMAC1458	311587.6	6993784	470.46
LMAC0130	309998.5	6991929	471.49	LMAC1459	311591.1	6993784	470.41
LMAC0131	309998.7	6992030	471.38	LMAC1460	311591.1	6993784	470.41
LMAC0132	309999.3	6992081	471.43	LMAC1461	309978	6992425	470
LMAC0133	309998.6	6992131	471.44	LMAC1462	309983	6992430	471
LMAC0134	309998.6	6992180	471.36	LMAC1463	311584.1	6993719	470.42
LMAC0135	309998.2	6992230	471.27	LMAC1464	311603.6	6993718	470.45
LMAC0136	309998.6	6992281	471.17	LMAC1465	311593.9	6993718	470.41
LMAC0137	309998.3	6992332	471.04	LMAC1466	311598.7	6993718	470.4
LMAC0138	309998.4	6992379	471.07	LMAC1467	311587.2	6993762	470.43
LMAC0139	309998.2	6992431	470.96	LMAC1468	311594.5	6993762	470.44
LMAC0140	309999.7	6992481	471.07	LMAC1469	311615.8	6993762	470.48
LMAC0141	309999.3	6992531	471.06	LMAC1470	311623	6993769	470.4
LMAC0142	309998.8	6992580	471.09	LMAC1471	311609	6993769	470.39
LMAC0143	309999.1	6992631	471.12	LMAC1472	311594.7	6993769	470.4
LMAC0144	309998.8	6992681	471.16	LMAC1473	311587.5	6993776	470.43
LMAC0145	309999.4	6992730	471.22	LMAC1474	311601.5	6993776	470.43
LMAC0146	309998.7	6992781	471.25	LMAC1475	311616	6993776	470.42
LMAC0153	309295.2	6992781	471.27	LMAC1476	311623	6993783	470.39
LMAC0154	309195.9	6992781	471.53	LMAC1477	311608.8	6993784	470.41
LMAC0155	309096.3	6992779	472.25	LMAC1478	311594.6	6993783	470.45
LMAC0156	308998.3	6992782	472.71	LMAC1479	311601.7	6993762	470.44
LMAC0158	308703.7	6993183	472.58	LMAC1480	311601.8	6993769	470.44
LMAC0159	308800.1	6993180	472.79	LMAC1481	311601.9	6993783	470.45
LMAC0160	308900.2	6993180	472.97	LMAC1482	311608.9	6993762	470.44
LMAC0161	309003.1	6993181	474.51	LMAC1483	311608.8	6993776	470.42
LMAC0162	309096.9	6993182	473.17	LMAC1484	311615.9	6993769	470.39
LMAC0163	308996.5	6992576	473.35	LMAC1485	311616.1	6993783	470.4
LMAC0165	309497.1	6992180	471.49	LMAC1486	311623	6993776	470.41
LMAC0167	309345.6	6992379	472.55	LMAC1487	311623.2	6993762	470.43
LMAC0168	309446.1	6992380	471.46	LMAC1488	311587.7	6993769	470.44
LMAC0169	309546.7	6992379	471.35	LMAC1489	311594.6	6993776	470.45
LMAC0170	309647.7	6992379	471.21	LMAC1490	309978	6992496	470.91
LMAC0171	309746.8	6992378	471.15	LMAC1491	309971.6	6992494	470.94
LMAC0172	309845.9	6992379	471.08	LMAC1492	309965.5	6992490	470.89
LMAC0173	309947.2	6992379	471.02	LMAC1493	309958.8	6992487	470.95

LMAC0174	310047.7	6992379	471.01	LMAC1494	309952.4	6992484	470.92
LMAC0175	310145.4	6992380	471.06	LMAC1495	309946.4	6992481	470.89
LMAC0176	310247.8	6992379	471.19	LMAC1496	309948.8	6992475	470.94
LMAC0177	310348.4	6992379	471.22	LMAC1497	309955.3	6992478	470.97
LMAC0178	310450.2	6992380	471.17	LMAC1498	309961.7	6992481	470.92
LMAC0182	310847	6992379	471.06	LMAC1499	309968.1	6992484	470.92
LMAC0183	310949.2	6992381	470.92	LMAC1500	309974.9	6992487	471
LMAC0184	311050.1	6992381	470.86	LMAC1501	309980.6	6992490	470.9
LMAC0185	311148.3	6992381	470.83	LMAC1502	309984	6992483	470.9
LMAC0186	311250	6992383	470.85	LMAC1503	309977.6	6992481	470.94
LMAC0187	311350	6992381	470.76	LMAC1504	309971.1	6992478	471
LMAC0192	311495.4	6992778	470.72	LMAC1505	309964.5	6992475	471
LMAC0193	311394.7	6992778	470.78	LMAC1506	309958.2	6992472	470.93
LMAC0194	311296.2	6992778	470.77	LMAC1507	309952.2	6992469	470.95
LMAC0195	311194.1	6992778	470.8	LMAC1508	309987.2	6992477	470.97
LMAC0196	311093.9	6992779	470.85	LMAC1509	309980.5	6992474	470.96
LMAC0197	310996.3	6992779	470.76	LMAC1510	309974.2	6992471	470.93
LMAC0198	310890.8	6992779	470.91	LMAC1511	309967.8	6992468	470.9
LMAC0207	311095.1	6993180	470.65	LMAC1512	309961.2	6992465	470.94
LMAC0208	311201	6993180	470.73	LMAC1513	309954.9	6992462	470.92
LMAC0209	311300.8	6993180	470.69	LMAG0001	311597.1	6995581	470.63
LMAC0210	311400.6	6993179	470.12	LMDD0001	309941.6	6992483	470.97
LMAC0211	311498.8	6993180	470.13	LMDD0002	309944.6	6992477	470.96
LMAC0212	311600.2	6993185	470.66	LMDD0003	309947.8	6992470	470.94
LMAC0213	311699.7	6993182	470.69	LMDD0004	309950.6	6992464	470.98
LMAC0214	311800.5	6993181	470.72	LMDD0005	309953.5	6992457	470.94
LMAC0215	311899.9	6993180	471.42	LMDD0006	309948.1	6992486	470.93
LMAC0216	312049.8	6993180	472.27	LMDD0007	309951.3	6992479	471
LMAC0217	312147.3	6993182	472.74	LMDD0008	309954	6992473	470.98
LMAC0218	311897.2	6992978	471.84	LMDD0009	309956.9	6992466	470.96
LMAC0219	311898.8	6993384	471.21	LMDD0010	309959.8	6992460	470.99
LMAC0221	311899.2	6993781	470.81	LMDD0011	309954.9	6992489	470.92
LMAC0224	312099.9	6993582	472.86	LMDD0012	309957.2	6992483	470.97
LMAC0225	312100.5	6993380	472.52	LMDD0013	309960.3	6992476	470.92
LMAC0226	311998.2	6993382	471.54	LMDD0014	309963.1	6992470	470.93
LMAC0228	311800	6993582	470.72	LMDD0015	309966.1	6992463	470.96
LMAC0229	311699.6	6993582	470.58	LMDD0016	309960.9	6992491	470.9
LMAC0230	311601.3	6993582	470.42	LMDD0017	309963.4	6992486	470.89
LMAC0231	311502.7	6993582	470.48	LMDD0018	309966.7	6992479	470.96
LMAC0232	311402.6	6993583	470.49	LMDD0019	309969.5	6992473	470.9
LMAC0233	311301.5	6993584	470.59	LMDD0020	309972.8	6992466	470.97
LMAC0234	311200.2	6993585	470.66	LMDD0021	309967.4	6992494	470.93
LMAC0235	311102.9	6993584	470.64	LMDD0022	309970.1	6992488	470.94
LMAC0236	310997.7	6993584	470.66	LMDD0023	309973.1	6992482	470.97
LMAC0237	310902	6993584	470.62	LMDD0024	309975.8	6992476	470.98
LMAC0238	310799.8	6993583	470.6	LMDD0025	309978.8	6992469	470.94



LMAC0239	310701.3	6993582	470.74	LMDD0026	309973.3	6992498	470.94
LMAC0240	310498.8	6993981	470.8	LMDD0027	309976.3	6992492	470.98
LMAC0241	310596.8	6993982	470.79	LMDD0028	309979.4	6992485	470.99
LMAC0243	310797.8	6993981	470.73	LMDD0029	309982.4	6992479	470.93
LMAC0244	310896.8	6993981	470.82	LMDD0030	309985.3	6992472	470.94
LMAC0245	310996.7	6993982	470.74	LMDD0031	309979.7	6992501	470.91
LMAC0246	311097.9	6993982	470.7	LMDD0032	309982.8	6992494	471.01
LMAC0247	311198.8	6993982	470.71	LMDD0033	309985.9	6992488	471.01
LMAC0248	311299.7	6993981	470.67	LMDD0034	309989.1	6992481	470.94
LMAC0249	311399.8	6993982	470.52	LMDD0035	309991.7	6992475	470.94
LMAC0250	311499.3	6993981	470.44	LMDD0036	311627	6993787	470.38
LMAC0251	311599.5	6993982	470.42	LMDD0037	311619.3	6993787	470.38
LMAC0252	311699.5	6993981	470.15	LMDD0038	311611.9	6993787	470.38
LMAC0253	311798.9	6993981	470.35	LMDD0039	311605	6993787	470.44
LMAC0254	311898.1	6993981	470.9	LMDD0040	311598	6993787	470.37
LMAC0257	312198.2	6993982	472.53	LMDD0041	311591.2	6993787	470.46
LMAC0258	312298.9	6994179	473.12	LMDD0042	311583.9	6993787	470.41
LMAC0260	312000.9	6994181	471.02	LMDD0043	311626.3	6993780	470.42
LMAC0263	312098.3	6994381	472.17	LMDD0044	311619.5	6993780	470.37
LMAC0264	311997.9	6994379	471.17	LMDD0045	311612.6	6993780	470.53
LMAC0266	311799.3	6994381	470.64	LMDD0046	311605.3	6993780	470.4
LMAC0267	311701.1	6994377	470.15	LMDD0047	311598.2	6993780	470.41
LMAC0268	311601.7	6994380	470.37	LMDD0048	311591.1	6993780	470.47
LMAC0269	311498.8	6994379	470.52	LMDD0049	311584	6993780	470.46
LMAC0270	311399.1	6994379	470.85	LMDD0050	311583.9	6993772	470.4
LMAC0271	311300.3	6994380	470.78	LMDD0051	311591.3	6993773	470.41
LMAC0272	311199.3	6994380	470.8	LMDD0052	311598.7	6993773	470.38
LMAC0283	310199.2	6994582	471	LMDD0053	311605.4	6993773	470.48
LMAC0284	310098.4	6994582	471.15	LMDD0054	311612.9	6993773	470.44
LMAC0285	309701.9	6994380	472.98	LMDD0055	311619.8	6993773	470.44
LMAC0286	309599.2	6994380	473.23	LMDD0056	311626.9	6993773	470.45
LMAC0289	309299	6994380	473.19	LMDD0057	311584.2	6993766	470.44
LMAC0290	309199.5	6994379	473.23	LMDD0058	311591.6	6993766	470.44
LMAC0291	309296.6	6994582	473.24	LMDD0059	311598.3	6993766	470.37
LMAC0293	309100.9	6994781	473.26	LMDD0060	311605.6	6993766	470.39
LMAC0294	309199.3	6994782	473.11	LMDD0061	311612.2	6993766	470.32
LMAC0306	310400.2	6994782	470.82	LMDD0062	311619.7	6993766	470.32
LMAC0307	310499.8	6994782	470.78	LMDD0063	311626.5	6993765	470.35
LMAC0308	310600	6994782	470.73	LMDD0064	311583.9	6993759	470.41
LMAC0309	310698.9	6994782	470.69	LMDD0065	311590.8	6993759	470.39
LMAC0310	310799.1	6994782	470.65	LMDD0066	311598.4	6993759	470.37
LMAC0311	310898.3	6994783	470.72	LMDD0067	311605.6	6993759	470.37
LMAC0312	310998.7	6994783	470.71	LMDD0068	311612.6	6993759	470.38
LMAC0313	311098.9	6994783	470.71	LMDD0069	311619.5	6993758	470.4
LMAC0314	311199.7	6994782	470.56	LMDD0070	311626.4	6993758	470.36
LMAC0315	311298.5	6994782	470.5	LMDD0071	311595.8	6995581	470.75



LMAC0316	311397.8	6994783	470.31	LMDD0072	311493.6	6995582	470.96
LMAC0317	311497.6	6994782	470.19	LMDD0073	311495.5	6995582	470.9
LMAC0318	311599.2	6994783	470.18	LMDD0074	311394.6	6995581	470.92
LMAC0323	312099.8	6994784	472.84	LMDD0075	311293.5	6995581	470.93
LMAC0324	312200.7	6994784	473.24	LMDD0076	311194	6995580	471
LMAC0326	312099.4	6994981	473.56	LMDD0077	309596	6995580	470.95
LMAC0327	312000.9	6994982	471.19	LMDD0078	309495.9	6995579	471.03
LMAC0330	312101.9	6995182	473.48	LMDD0079	309396.3	6995579	471.08
LMAC0334	311701.7	6995181	470.77	LMDD0080	309295.7	6995579	471.12
LMAC0335	311601.2	6995181	470.53	LMDD0081	309195.7	6995579	471.19
LMAC0336	311501.3	6995182	470.23	LMDD0082	309094	6995579	471.22
LMAC0337	311400.9	6995180	470.53	LMDD0083	309539.2	6995289	471.11
LMAC0338	311300.5	6995180	470.68	LMDD0084	309993.5	6995183	470.84
LMAC0339	311201.7	6995181	470.8	LMDD0085	310091.6	6995181	470.76
LMAC0340	311101.4	6995182	470.8	LMDD0086	310194.5	6995181	470.64
LMAC0347	310400.1	6995181	470.67	LMDD0087	310293.4	6995183	470.63
LMAC0348	310301.3	6995180	470.65	LMDD0088	310395.8	6995184	470.63
LMAC0349	310200	6995179	470.7	LMDD0089	311093.5	6995184	470.83
LMAC0350	310100.2	6995179	470.74	LMDD0090	311196.1	6995178	470.8
LMAC0351	309998.9	6995180	470.81	LMDD0091	311294.3	6995181	470.68
LMAC0352	309900.2	6995182	470.87	LMDD0092	311396.8	6995183	470.54
LMAC0358	309299.9	6995382	471.26	LMDD0093	311497.6	6995175	470.22
LMAC0363	309099.7	6995580	471.23	LMDD0094	311590.9	6995184	470.67
LMAC0364	309199.2	6995580	471.19	LMDD0095	311592.3	6994793	470.24
LMAC0365	309300.7	6995580	471.13	LMDD0096	311491.2	6994783	470.35
LMAC0366	309399.6	6995579	471.1	LMDD0097	311388.1	6994785	470.33
LMAC0367	309501.5	6995581	471.01	LMDD0098	311293.5	6994779	470.55
LMAC0368	309600.7	6995580	470.92	LMDD0099	311191.3	6994795	470.6
LMAC0369	309699.4	6995580	470.78	LMDD0100	311092.8	6994780	470.72
LMAC0379	311199.3	6995582	470.96	LMDD0101	310997.2	6994780	470.73
LMAC0380	311299.1	6995581	470.85	LMDD0102	310891.9	6994780	470.73
LMAC0381	311398.8	6995582	470.88	LMDD0103	310791.6	6994778	470.75
LMAC0382	311500.4	6995580	470.82	LMDD0104	310699	6994780	470.75
LMAC0383	311599.6	6995582	470.63	LMDD0105	310606.7	6994774	470.66
LMAC0419	308900.7	6995980	470.98	LMDD0106	310504.6	6994770	470.8
LMAC0420	308801.7	6995980	471.08	LMDD0107	310399.8	6994779	470.87
LMAC0421	308700.5	6995980	471.13	LMDD0108	310646.7	6994182	470.89
LMAC0422	308601	6995980	471.22	LMDD0109	311295.4	6994382	470.79
LMAC0423	308500.4	6995977	471.38	LMDD0110	311394.8	6994382	470.82
LMAC0424	308399.4	6995978	471.53	LMDD0111	311493.6	6994385	470.55
LMAC0425	308303.7	6995978	471.98	LMDD0112	311595	6994386	470.42
LMAC0427	308698.1	6996179	470.84	LMDD0113	311693.7	6994380	470.23
LMAC0428	308603	6996179	471	LMDD0114	311893.6	6993980	470.84
LMAC0429	308499.4	6996181	471.21	LMDD0115	311794.8	6993979	470.32
LMAC0430	308398.8	6996181	471.64	LMDD0116	311696.8	6993980	470.2
LMAC0431	308300.5	6996182	471.93	LMDD0117	311598	6993979	470.5

LMAC0433	307698.4	6996180	473.19	LMDD0118	311493	6993978	470.49
LMAC0435	307501.3	6996379	473.1	LMDD0119	311399.3	6993981	470.62
LMAC0438	307799.7	6996380	471.81	LMDD0120	311295.3	6993980	470.74
LMAC0442	307599.3	6996578	471.46	LMDD0121	311191.6	6993979	470.8
LMAC0443	307497.4	6996578	471.72	LMDD0122	311091.6	6993979	470.79
LMAC0444	307500.4	6996779	471.18	LMDD0123	310991	6993980	470.8
LMAC0451	307298.6	6996981	471.41	LMDD0124	311241.9	6993589	470.7
LMAC0452	307397.3	6996980	471.31	LMDD0125	311342.9	6993586	470.54
LMAC0453	307401.6	6996779	471.45	LMDD0126	311445.7	6993586	470.48
LMAC0454	311392.8	6993372	470.17	LMDD0127	311542.2	6993585	470.46
LMAC0455	310891.4	6993380	470.75	LMDD0128	311643.2	6993584	470.41
LMAC0456	311387	6992976	470.78	LMDD0129	311738.4	6993585	470.72
LMAC0462	310883.5	6992580	470.14	LMDD0130	311794.5	6993179	470.76
LMAC0463	311283.3	6992575	470.69	LMDD0131	311696.3	6993187	470.78
LMAC0464	311078.7	6992176	471.01	LMDD0132	311603.8	6993189	470.56
LMAC0465	310477.3	6992184	471	LMDD0133	311494.3	6993180	470.21
LMAC0466	310474.8	6991784	470.85	LMDD0134	311394.5	6993178	470.22
LMAC0467	311076.7	6991775	470.75	LMDD0135	311293.4	6993177	470.72
LMAC0468	310872.4	6991379	470.32	LMDD0136	311195.4	6993177	470.84
LMAC0469	310473.9	6991384	470.23	LMDD0137	311092.4	6993179	470.71
LMAC0470	309876.7	6991790	471.52	LMDD0139	310952.8	6992786	470.75
LMAC0471	308499.3	6991580	472.1	LMDD0140	311049	6992783	470.81
LMAC0474	308399.4	6991481	471.49	LMDD0141	311141.3	6992784	470.84
LMAC0475	308299.9	6991480	471.45	LMDD0143	311329.1	6992782	470.79
LMAC0476	308299	6991580	471.5	LMDD0144	311439.9	6992781	470.8
LMAC0477	308100.5	6991581	471.43	LMDD0145	311530.9	6992781	470.77
LMAC0478	308099.8	6991681	471.46	LMDD0146	311337	6992379	470.79
LMAC0479	308198.5	6991681	471.49	LMDD0147	311245.3	6992380	470.82
LMAC0480	308297.5	6991681	471.5	LMDD0148	311141.7	6992378	470.89
LMAC0481	308396	6991682	471.6	LMDD0149	311038.3	6992378	470.9
LMAC0483	308148.6	6991880	471.49	LMDD0150	310947.3	6992376	470.94
LMAC0484	308050.1	6991880	471.48	LMDD0151	310194.8	6992376	471.18
LMAC0486	307899.4	6991980	471.27	LMDD0152	310091.5	6992375	471.06
LMAC0488	308099.6	6991979	472.01	LMDD0153	310002.5	6992376	471.09
LMAC0489	308206.8	6991983	472.05	LMDD0154	309933	6992372	471.04
LMAC0490	308098.4	6992082	472.07	LMDD0155	309898.6	6992385	471.06
LMAC0491	308001.4	6992080	471.98	LMDD0156	309794.7	6992374	471.21
LMAC0492	307898.2	6992082	472.02	LMDD0157	309693.4	6992373	471.26
LMAC0493	307798.5	6992079	472.19	LMDD0158	309593.1	6992375	471.35
LMAC0494	307801.8	6992281	472.74	LMDD0159	309495	6992377	471.35
LMAC0497	309389.9	6992594	471.33	LMDD0160	309394.1	6992377	471.72
LMAC0499	308997.3	6993001	472.17	LMDD0161	310001.6	6992334	471.09
LMAC0500	309195	6992999	471.52	LMDD0162	309987.2	6992276	471.19
LMAC0502	309298.3	6993178	471.51	LMDD0163	309788.5	6992282	471.31
LMAC0504	309198.5	6993179	472	LMDD0164	309904	6992287	471.21
LMAC0505	309007.4	6993181	474.27	LMDD0165	310296.7	6992275	471.16

LMAC0506	309301	6993381	472.64	LMDD0166	310193.6	6992275	471.09
LMAC0507	309198.6	6993380	471.97	LMDD0167	310096.3	6992275	471.1
LMAC0511	308800.9	6993380	472.75	LMDD0168	309989.2	6992236	471.27
LMAC0512	308699.8	6993379	472.4	LMDD0169	309988.8	6992175	471.33
LMAC0513	308599.8	6993380	472.26	LMDD0170	309788.8	6992291	471.29
LMAC0515	308495.9	6993378	472.66	LMDD0171	309793.4	6992173	471.53
LMAC0518	308500.4	6993579	473.36	LMDD0172	309795.4	6992169	471.51
LMAC0521	308796.7	6993581	473.07	LMDD0173	309890.8	6992181	471.34
LMAC0526	310498.5	6993581	470.91	LMDD0174	309984.8	6992186	471.36
LMAC0527	310599.2	6993580	470.9	LMDD0175	310098.2	6992184	471.19
LMAC0531	311296.1	6993773	470.66	LMDD0176	310182.3	6992182	471.07
LMAC0532	311402	6994172	470.56	LMDD0177	310285.8	6992183	471.09
LMAC0533	311505.6	6994572	470.48	LMDD0178	310285.7	6992177	471.08
LMAC0534	311105.7	6994575	470.71	LMDD0179	309990.4	6992130	471.37
LMAC0535	311214.7	6995375	470.77	LMDD0180	309990.6	6992085	471.44
LMAC0536	310212.7	6994984	470.76	LMDD0181	310002.1	6992082	471.42
LMAC0537	309419.2	6995393	471.1	LMDD0182	309893.5	6992082	471.56
LMAC0538	309425.5	6995791	470.95	LMDD0183	310093.9	6992083	471.2
LMAC0546	307301.7	6996778	471.58	LMDD0184	310193.3	6992083	471.16
LMAC0547	307298.3	6996577	472.4	LMDD0185	310289.8	6992073	471.07
LMAC0548	307407.6	6996580	471.78	LMDD0186	310000.9	6992029	471.42
LMAC0549	307399.9	6996378	473.19	LMDD0187	309991.3	6991980	471.35
LMAC0551	309500	6992081	472.08	LMDD0188	309945.8	6991986	471.47
LMAC0552	309599.9	6992080	471.48	LMDD0189	309890.1	6991977	471.58
LMAC0556	309898.4	6992080	471.53	LMDD0190	309840.8	6991978	471.59
LMAC0557	310101.1	6992079	471.2	LMDD0191	310003.7	6991921	471.45
LMAC0558	310199.9	6992079	471.16	LMDD0192	310001.2	6991921	471.45
LMAC0559	310298.2	6992078	471.08	LMDD0193	310040.8	6991986	471.38
LMAC0560	310399.6	6992079	471.03	LMDD0194	310090.4	6991977	471.31
LMAC0561	310500.3	6992079	471.05	LMDD0195	310088.3	6991976	471.31
LMAC0562	310597.4	6992079	471.07	LMDD0196	310137.3	6991985	471.18
LMAC0563	310700.3	6992079	471.04	LMDD0197	310185.2	6991986	471.17
LMAC0564	310800.7	6992079	471.13	LMDD0198	310235.3	6991978	471.15
LMAC0565	310900.1	6992079	471.08	LMDD0199	310287.3	6991976	471.1
LMAC0566	310999.3	6992079	471.03	LMDD0200	310389.3	6991986	471.12
LMAC0567	311101.3	6992079	470.99	LMDD0201	310491.7	6991985	471.08
LMAC0568	311201.3	6992079	470.97	LMDD0202	310494.8	6991985	471.07
LMAC0569	311301.8	6992079	470.88	LMDD0203	310595.5	6991981	471.03
LMAC0570	311401.3	6992079	470.81	LMDD0204	310593.3	6991981	471.03
LMAC0571	311450.6	6991879	470.8	LMDD0205	310690.9	6991987	471.03
LMAC0572	311349.4	6991878	470.82	LMDD0206	310693.1	6991987	471.04
LMAC0573	311249.6	6991878	470.83	LMDD0207	310790.7	6991979	470.99
LMAC0574	311151.3	6991877	470.87	LMDD0208	310888.3	6991980	471.07
LMAC0575	311049.3	6991877	470.8	LMDD0209	310992.9	6991988	471.04
LMAC0576	310951.2	6991877	470.78	LMDD0210	311091.1	6991981	470.99
LMAC0577	310851	6991877	470.78	LMDD0211	311192	6991981	470.94

LMAC0578	310750.5	6991877	470.81	LMDD0212	311293.9	6991986	470.91
LMAC0579	310647.6	6991877	470.81	LMDD0213	311392.3	6991583	470.57
LMAC0580	310550	6991877	470.89	LMDD0214	311301.3	6991583	470.56
LMAC0581	310448.6	6991877	471	LMDD0215	311192.9	6991575	470.62
LMAC0582	310349.2	6991877	471.08	LMDD0216	311091.1	6991576	470.52
LMAC0583	310251.3	6991878	471.19	LMDD0217	310995.2	6991584	470.39
LMAC0584	310150	6991878	471.26	LMDD0218	310893.1	6991579	470.41
LMAC0585	310052.2	6991878	471.4	LMDD0219	310793.5	6991578	470.43
LMAC0586	309949.6	6991878	471.58	LMDD0220	310493.8	6991576	470.69
LMAC0588	309749.2	6991879	471.54	LMDD0221	310390.2	6991576	470.91
LMAC0591	307298.3	6996678	472.01	LMDD0222	310286.7	6991581	471.04
LMAC0592	307400.7	6996479	472.88	LMDD0223	310192	6991576	471.19
LMAC0595	307696.5	6996478	471.79	LMDD0224	310092.8	6991576	471.38
LMAC0596	307500.2	6996279	473.31	LMDD0225	309991	6991570	471.41
LMAC0597	307602.4	6996281	473.07	LMDD0226	309893.3	6991576	471.54
LMAC0599	307802.9	6996281	472.26	LMDD0227	309789.6	6991577	471.43
LMAC0600	307899.2	6996283	472.27	LMDD0228	309989.4	6991272	471.24
LMAC0602	308499	6995878	471.99	LMDD0229	309892.2	6991277	471.17
LMAC0606	307197.6	6996986	471.54	LMDD0230	309889.7	6991277	471.19
LMAC0607	307100.3	6996981	471.53	LMDD0231	309787.6	6991287	471.12
LMAC0608	307050.1	6996879	472.55	LMDD0232	309691.7	6991276	471.29
LMAC0609	307153.3	6996881	471.78	LMDD0234	309485.8	6991284	471.3
LMAC0610	307251.4	6996881	471.6	LMDD0235	309941.9	6990976	471.19
LMAC0611	307350.4	6996881	471.46	LMDD0236	309841.3	6990980	471.13
LMAC0612	307399.9	6996681	471.63	LMDD0237	309839.2	6990980	471.14
LMAC0613	307298.9	6996681	471.94	LMDD0238	309741.3	6990981	471.17
LMAC0615	307096.6	6996682	472.91	LMDD0239	309645.2	6990981	471.18
LMAC0616	306998.5	6996682	473.4	LMDD0240	309545.7	6990981	471.24
LMAC0617	306999.6	6996780	473.1	LMDD0241	309444.6	6990982	471.27
LMAC0623	307199	6996379	474	LMDD0242	309350.2	6990982	471.33
LMAC0625	307200.8	6996583	473.09	LMDD0243	309241.5	6990979	471.55
LMAC0626	307250.7	6996482	473.25	LMDD0244	309140.2	6990981	471.39
LMAC0628	307451.7	6996881	471.33	LMDD0245	309045.2	6990981	471.09
LMAC0629	307500.1	6996681	471.42	LMDD0246	308932.2	6990981	471.64
LMAC0630	307450.2	6996479	472.35	LMDD0247	308850.3	6990980	471.16
LMAC0631	307553.2	6996478	472.24	LMDD0248	309288.6	6992777	471.3
LMAC0635	307746.9	6996280	472.37	LMDD0249	309190.9	6992776	471.61
LMAC0636	308450.7	6996079	471.56	LMDD0250	309095.1	6992770	472.14
LMAC0637	308549.6	6996080	471.3	LMDD0251	308993.3	6992783	472.73
LMAC0638	308748.3	6996081	471.16	LMDD0253	308043.1	6991881	471.51
LMAC0639	308849	6996081	470.96	LMDD0254	307500.1	6992673	473.62
LMAC0640	308848.2	6995881	471.28	LMDD0255	308693.5	6993381	472.41
LMAC0643	309008.8	6995773	471.47	LMDD0256	308700.4	6993181	472.64
LMAC0644	309051.4	6995682	471.28	LMDD0257	311393.3	6994784	470.45
LMAC0645	309152.3	6995684	471.25	LMDD0258	310998.8	6994780	470.78
LMAC0647	309348.8	6995879	470.9	LMDD0259	308778	6993181	472.75

LMAC0651	309448.8	6995689	470.96	LMDD0260	308891.4	6993182	472.76
LMAC0652	309348.6	6995475	471.13	LMDD0261	309009.6	6993183	474.2
LMAC0653	309448.7	6995477	471.1	LMDD0262	309084.6	6993184	473.57
LMAC0654	309548.3	6995478	471.05	LMDD0263	309199.4	6993175	471.99
LMAC0655	309950.7	6995279	470.88	LMDD0264	308594	6993778	473.22
LMAC0656	309853.2	6995279	470.94	LMSC0003	307502.2	6996780	471.26
LMAC0657	309748.2	6995289	471.01	LMSC0004	307495.3	6996779	471.28
LMAC0658	309647.8	6995287	471.05	LMSC0005	308495.5	6995977	471.44
LMAC0659	309546.2	6995285	471.09	LMSC0006	308502.6	6995978	471.45
LMAC0660	310146.4	6995079	470.76	LMSC0007	308502.4	6995972	471.6
LMAC0662	309949	6995077	470.94	LMSC0008	309420.9	6995392	471.12
LMAC0663	310050.6	6995077	470.97	LMSC0009	309415.1	6995392	471.18
LMAC0664	310249.6	6995079	470.73	LMSC0010	309992.8	6991580	471.4
LMAC0665	310347.6	6995080	470.69	LMSC0011	310001	6991580	471.39
LMAC0666	310447.2	6995078	470.7	LMSC0012	309992.2	6992230	471.28
LMAC0667	310248.2	6995280	470.65	LMSC0013	310000.1	6992231	471.27
LMAC0668	310146.9	6995278	470.72	LMSC0014	309641.9	6992379	471.23
LMAC0669	310049.9	6995278	470.79	LMSC0015	309650	6992379	471.29
LMAC0670	309646.4	6995478	470.97	LMSC0016	310445.7	6992379	471.18
LMAC0671	309749.9	6995477	470.76	LMSC0017	310451.8	6992380	471.14
LMAC0672	309848.7	6995479	470.73	LMSC0018	310886.7	6992779	470.88
LMAC0674	309853	6994879	471.11	LMSC0019	310893	6992779	470.92
LMAC0677	310251.1	6994877	470.92	LMSC0020	310469	6991784	470.84
LMAC0678	310350.6	6994876	470.87	LMSC0021	310477.4	6991784	470.89
LMAC0679	310452	6994876	470.78	LMSC0022	310474.7	6991789	470.96
LMAC0680	310551.7	6994877	470.73	LMSC0023	308391	6991580	471.55
LMAC0681	310649.6	6994877	470.75	LMSC0024	308399.1	6991579	471.6
LMAC0682	310750.3	6994877	470.82	LMSC0025	308397.2	6991572	471.56
LMAC0683	310797.9	6994878	470.86	LMSC0026	310790.3	6991981	471.04
LMAC0684	310947.5	6994879	470.73	LMSC0027	310797.9	6991981	471
LMAC0685	311051	6994881	470.72	LMSC0028	310594.8	6994782	470.67
LMAC0686	311050.5	6994688	470.79	LMSC0029	310601.9	6994781	470.65
LMAC0687	310950.7	6994687	470.81	LMSC0030	310601.2	6994776	470.71
LMAC0688	310847.1	6994685	470.83	LMSC0031	311593.7	6994782	470.17
LMAC0689	310750.2	6994684	470.84	LMSC0032	311601.6	6994782	470.16
LMAC0690	310647.8	6994683	470.81	LMSC0033	311388.2	6993373	470.3
LMAC0691	310552.8	6994681	470.85	LMSC0034	311396.2	6993372	470.17
LMAC0692	310449.9	6994680	470.85	LMSC0035	311393	6993367	470
LMAC0696	310950.4	6994483	470.85	LMSC0036	311404.9	6994173	470.67
LMAC0697	311051	6994483	470.84	LMSC0037	311396.8	6994173	470.71
LMAC0700	310747.6	6994287	470.98	LMSC0038	308997.5	6993181	475.06
LMAC0702	310651.7	6994181	470.85	LMSC0039	309006.3	6993181	474.39
LMAC0703	310749.2	6994180	470.86	LMSC0040	309005.1	6993187	474.26
LMAC0704	310651.5	6994086	470.81	LMSC0041	307797.1	6992281	472.8
LMAC0705	310747.9	6994086	470.88	LMSC0042	307803.8	6992282	472.79
LMAC0708	311048.9	6994084	470.74	WAC1546	310176.1	6992127	471.16



LMAC0709	311151.4	6994083	470.81	WAC1547	310176	6992117	471.11
LMAC0710	311249.5	6994082	470.76	WAC1548	310176	6992107	471.11
LMAC0711	311349.3	6994081	470.72	WAC1549	310175.9	6992097	471.17
LMAC0712	311450.3	6994080	470.6	WAC1550	310175.7	6992078	471.13
LMAC0713	311549.2	6994079	470.52	WAC1551	310175.8	6992067	471.12
LMAC0714	311645.7	6994078	470.4	WAC1552	310175.6	6992057	471.16
LMAC0715	311747.6	6994077	470.67	WAC1553	310175.6	6992047	471.13
LMAC0716	311760.5	6994077	470.4	WAC1554	310175.5	6992037	471.1
LMAC0717	311647.3	6994182	470.19	WAC1555	310185.8	6992037	471.12
LMAC0718	311552.2	6994181	470.17	WAC1556	310185.9	6992047	471.12
LMAC0719	311451.5	6994180	470.63	WAC1557	310186	6992057	471.16
LMAC0720	311351.7	6994177	470.79	WAC1558	310186	6992067	471.14
LMAC0721	311253.9	6994179	470.77	WAC1559	310186	6992077	471.07
LMAC0722	311149.6	6994181	470.86	WAC1560	310185.9	6992087	471.11
LMAC0724	311252.7	6994286	470.74	WAC1561	310186.1	6992097	471.12
LMAC0725	311352.6	6994286	470.82	WAC1562	310186.2	6992107	471.12
LMAC0726	311450.5	6994285	470.7	WAC1563	310186	6992117	471.14
LMAC0727	311550.6	6994285	470.53	WAC1564	310186	6992127	471.11
LMAC0728	311650.3	6994283	470.15	WAC1565	310196	6992127	471.13
LMAC0729	311350.7	6994382	470.83	WAC1566	310195.8	6992117	471.09
LMAC0730	311549.7	6994382	470.49	WAC1567	310195.9	6992097	471.12
LMAC0731	311649.8	6994485	470.26	WAC1568	310195.8	6992087	471.1
LMAC0732	311548	6994484	470.5	WAC1569	310195.7	6992077	471.1
LMAC0733	311449.7	6994484	470.64	WAC1570	310195.6	6992067	471.13
LMAC0734	311349.8	6994483	470.76	WAC1571	310195.7	6992052	471.11
LMAC0735	311250.1	6994483	470.77	WAC1572	310196	6992042	471.12
LMAC0736	311148.9	6994483	470.84	WAC1573	310205.7	6992037	471.13
LMAC0737	311151.5	6994690	470.74	WAC1574	310206	6992047	471.14
LMAC0738	311252.3	6994691	470.65	WAC1575	310205.9	6992057	471.16
LMAC0739	311352.9	6994693	470.46	WAC1576	310206	6992067	471.13
LMAC0740	311452.7	6994694	470.47	WAC1577	310206.1	6992077	471.09
LMAC0741	311551.1	6994696	470.2	WAC1578	310206	6992087	471.1
LMAC0742	311651.5	6994697	470.56	WAC1579	310206.2	6992097	471.1
LMAC0743	311647.8	6994881	470.54	WAC1580	310206.3	6992107	471.14
LMAC0744	311550.6	6994880	470.29	WAC1581	310206.2	6992117	471.1
LMAC0745	311449.2	6994881	470.24	WAC1582	310206.2	6992127	471.09
LMAC0746	311346.1	6994881	470.4	WAC1583	310216.2	6992127	471.08
LMAC0747	311249.6	6994881	470.58	WAC1584	310216	6992117	471.04
LMAC0748	311149.2	6994881	470.66	WAC1585	310215.9	6992107	471.05
LMAC0750	311146.4	6995078	470.73	WAC1586	310215.7	6992097	471.05
LMAC0751	311248.7	6995080	470.69	WAC1587	310215.8	6992082	471.09
LMAC0752	311248.3	6995179	470.68	WAC1588	310215.7	6992072	471.08
LMAC0753	311347.8	6995177	470.63	WAC1589	310215.6	6992062	471.06
LMAC0754	311349.1	6995082	470.54	WAC1590	310215.8	6992052	471.09
LMAC0755	311448	6995081	470.41	WAC1591	310215.9	6992042	471.06
LMAC0756	311546.8	6995081	470.14	WAC1592	310226	6992037	471.14

LMAC0758	311149.7	6995280	470.84	WAC1593	310226.2	6992047	471.14
LMAC0759	311250.4	6995275	470.81	WAC1594	310226	6992057	471.15
LMAC0760	311347.7	6995276	470.67	WAC1595	310225.9	6992067	471.06
LMAC0761	311447.3	6995277	470.55	WAC1596	310226	6992077	471.1
LMAC0762	311547.5	6995279	470.37	WAC1597	310226.1	6992087	471.07
LMAC0763	311649.8	6995279	470.56	WAC1598	310225.9	6992097	471.07
LMAC0764	311749.6	6995280	470.78	WAC1599	310226	6992107	471.07
LMAC0765	311647.5	6995082	470.47	WAC1600	310225.9	6992117	471.1
LMAC0766	311249.8	6995380	470.76	WAC1601	310226.3	6992127	471.03
LMAC0767	311345.7	6995380	470.67	WAC1602	310236.1	6992127	471.03
LMAC0768	311446.5	6995382	470.33	WAC1603	310236.2	6992117	471.07
LMAC0769	311146.8	6995476	470.88	WAC1604	310236.1	6992107	471.04
LMAC0770	311248.1	6995476	470.77	WAC1605	310236.1	6992097	471.04
LMAC0771	311346.6	6995477	470.79	WAC1606	310236	6992087	471.09
LMAC0772	311447.8	6995477	470.67	WAC1607	310235.9	6992077	471.08
LMAC0773	311546.5	6995477	470.41	WAC1608	310235.9	6992067	471.08
LMAC0774	311647.3	6995478	470.71	WAC1609	310235.9	6992057	471.06
LMAC0775	311248.6	6995579	470.92	WAC1610	310235.9	6992047	471.08
LMAC0776	311351	6995577	470.9	WAC1611	310236.2	6992037	471.12
LMAC0777	311448.3	6995577	470.82	WAC1612	310246.2	6992037	471.09
LMAC0778	311549.2	6995576	470.52	WAC1613	310246	6992047	471.06
LMAC0779	311546.4	6995677	470.67	WAC1614	310246	6992057	471.03
LMAC0780	311449.6	6995677	470.97	WAC1615	310246	6992067	471.05
LMAC0781	311354.2	6995678	471.06	WAC1616	310246	6992077	471.01
LMAC0782	311253.9	6995677	471.07	WAC1617	310246.1	6992087	471.03
LMAC0783	311150.7	6995677	471.22	WAC1618	310246	6992107	471.04
LMAC0785	311450.2	6995778	471.02	WAC1619	310245.9	6992117	471.02
LMAC0786	311550.7	6995779	470.92	WAC1620	310245.9	6992127	471
LMAC0788	311448.4	6995882	471.08	WAC1621	310256.1	6992127	471.06
LMAC0789	311349.6	6995880	471.31	WAC1622	310256	6992117	471.02
LMAC0790	311852.4	6993889	470.75	WAC1623	310256	6992107	471.07
LMAC0791	311750.8	6993887	470.89	WAC1624	310255.9	6992097	471.08
LMAC0792	311648.7	6993886	470.23	WAC1625	310255.8	6992087	471.02
LMAC0793	311551.6	6993884	470.5	WAC1626	310255.8	6992077	471.03
LMAC0794	311449.9	6993883	470.57	WAC1627	310255.9	6992067	471.01
LMAC0795	311449.7	6993983	470.58	WAC1628	310255.8	6992057	471.04
LMAC0796	311350.2	6993981	470.6	WAC1629	310255.8	6992047	470.97
LMAC0797	311349.3	6993881	470.69	WAC1630	310256	6992037	471.08
LMAC0798	311248.7	6993879	470.78	WAC1631	310265.8	6992037	471.05
LMAC0800	311450.5	6993783	470.45	WAC1632	310265.9	6992047	471.04
LMAC0801	311557.5	6993786	470.45	WAC1633	310265.9	6992067	471.04
LMAC0802	311649.6	6993789	470.5	WAC1634	310265.9	6992077	471.06
LMAC0803	311750.1	6993791	470.4	WAC1635	310265.9	6992087	470.98
LMAC0804	311853.6	6993688	470.82	WAC1636	310265.9	6992097	471.05
LMAC0805	311752.9	6993686	470.68	WAC1637	310265.9	6992107	471.02
LMAC0806	311655.1	6993685	470.54	WAC1638	310265.9	6992117	470.97



LMAC0807	311552.3	6993683	470.45	WAC1639	310266	6992127	471.01
LMAC0808	311452.5	6993681	470.51	WAC1640	310180.5	6992132	471.07
LMAC0809	311351.3	6993679	470.51	WAC1641	310180.7	6992122	471.07
LMAC0811	311249.1	6993577	470.62	WAC1642	310180.8	6992112	471.09
LMAC0812	311347.6	6993578	470.54	WAC1643	310180.8	6992102	471.11
LMAC0813	311449.4	6993579	470.49	WAC1644	310180.8	6992092	471.08
LMAC0814	311548.4	6993580	470.39	WAC1645	310180.9	6992082	471.07
LMAC0815	311648.4	6993581	470.38	WAC1646	310180.8	6992072	471.18
LMAC0817	311750.2	6993486	470.75	WAC1647	310180.8	6992062	471.16
LMAC0818	311647	6993485	470.55	WAC1648	310180.7	6992052	471.16
LMAC0819	311548.6	6993484	470.46	WAC1649	310180.7	6992042	471.15
LMAC0820	311447.4	6993483	470.58	WAC1650	310191.1	6992042	471.14
LMAC0821	311347.5	6993482	470.53	WAC1651	310191.1	6992052	471.09
LMAC0822	311249.6	6993480	470.57	WAC1652	310191.1	6992062	471.1
LMAC0823	311148	6993480	470.67	WAC1653	310191	6992072	471.09
LMAC0824	311050.4	6993479	470.76	WAC1654	310191	6992082	471.13
LMAC0825	310945.7	6993478	470.7	WAC1655	310191	6992092	471.13
LMAC0826	310847.2	6993476	470.72	WAC1656	310191	6992102	471.13
LMAC0827	310748.6	6993474	470.79	WAC1657	310191.1	6992112	471.13
LMAC0828	310651.2	6993474	470.76	WAC1658	310191.1	6992122	471.14
LMAC0829	310951.8	6993381	470.64	WAC1659	310191.2	6992132	471.13
LMAC0830	311050.8	6993382	470.58	WAC1660	310200.9	6992132	471.12
LMAC0831	311151.2	6993384	470.44	WAC1661	310200.9	6992122	471.11
LMAC0832	311249.2	6993385	470.55	WAC1662	310200.8	6992112	471.1
LMAC0833	311349.4	6993386	470.48	WAC1663	310200.9	6992102	471.1
LMAC0834	311447.6	6993388	470.2	WAC1664	310200.8	6992092	471.07
LMAC0835	311849.8	6993286	470.88	WAC1665	310200.9	6992082	471.08
LMAC0836	311748.1	6993285	470.67	WAC1666	310200.8	6992072	471.1
LMAC0837	311648.8	6993285	470.9	WAC1667	310200.8	6992062	471.12
LMAC0838	311551.4	6993283	470.5	WAC1668	310200.8	6992052	471.13
LMAC0839	311451.4	6993283	470.11	WAC1669	310200.9	6992042	471.13
LMAC0840	311350.9	6993282	470.21	WAC1670	310210.9	6992042	471.09
LMAC0841	311248.9	6993281	470.22	WAC1671	310211.1	6992052	471.12
LMAC0842	311151.6	6993280	470.23	WAC1672	310211	6992062	471.09
LMAC0843	311047.7	6993280	470.51	WAC1673	310211	6992072	471.12
LMAC0846	310750.3	6993278	470.83	WAC1674	310211.1	6992082	471.07
LMAC0848	311049.4	6993181	470.69	WAC1675	310211.1	6992092	471.08
LMAC0849	311149.1	6993181	470.79	WAC1676	310211.1	6992102	471.07
LMAC0850	311249.5	6993183	470.81	WAC1677	310211	6992112	471.09
LMAC0851	311348.4	6993183	470.6	WAC1678	310211.1	6992122	471.08
LMAC0852	311450.1	6993184	470.21	WAC1679	310211	6992132	471.05
LMAC0853	311754.7	6993097	470.74	WAC1680	310221.1	6992132	471.05
LMAC0854	311650	6993095	470.73	WAC1690	310221.1	6992122	471.06
LMAC0855	311550.9	6993092	470.83	WAC1691	310220.8	6992112	471.09
LMAC0856	311448.4	6993089	470.76	WAC1692	310220.7	6992102	471.09
LMAC0857	311350.5	6993087	470.85	WAC1693	310220.8	6992092	471.03

LMAC0858	311247.4	6993085	471.52	WAC1694	310220.7	6992082	471.05
LMAC0859	311147.7	6993082	470.99	WAC1695	310220.5	6992072	471.05
LMAC0861	311347.9	6992981	470.79	WAC1696	310220.6	6992062	471.07
LMAC0862	311450	6992979	470.77	WAC1697	310220.8	6992052	471.06
LMAC0863	311549.5	6992985	470.74	WAC1698	310220.7	6992042	471.11
LMAC0864	311647.3	6992893	470.66	WAC1699	310231.2	6992042	471.1
LMAC0865	311548.8	6992892	470.79	WAC1700	310231.1	6992052	471.06
LMAC0866	311449.6	6992890	470.85	WAC1701	310231.3	6992062	471.07
LMAC0867	311349.4	6992889	470.89	WAC1702	310231.1	6992072	471.05
LMAC0868	311244.6	6992887	470.88	WAC1703	310231.1	6992082	471.02
LMAC0871	310949.4	6992882	470.86	WAC1704	310231	6992092	471.04
LMAC0872	310850.1	6992880	470.98	WAC1705	310231.2	6992102	471.07
LMAC0873	310953	6992778	470.9	WAC1706	310231.2	6992112	471.04
LMAC0874	311055.3	6992781	470.88	WAC1707	310231.1	6992122	471.04
LMAC0875	311147.1	6992782	470.89	WAC1708	310230.8	6992132	471.01
LMAC0876	311444.6	6992780	470.84	WAC1709	310240.9	6992132	470.96
LMAC0877	311537.8	6992779	470.76	WAC1710	310240.9	6992122	471.05
LMAC0878	311449.3	6992682	470.7	WAC1711	310240.8	6992113	471.06
LMAC0879	311350	6992681	470.78	WAC1712	310240.6	6992102	471.06
LMAC0880	311249.4	6992681	470.84	WAC1713	310240.5	6992092	471.06
LMAC0881	311148.9	6992680	470.86	WAC1714	310240.6	6992082	471.1
LMAC0882	311047.2	6992679	470.93	WAC1715	310240.7	6992072	471.01
LMAC0883	310948.4	6992679	470.9	WAC1716	310240.6	6992062	471.04
LMAC0884	310850.1	6992678	470.91	WAC1717	310240.6	6992052	471.11
LMAC0886	310947.7	6992581	470.91	WAC1718	310240.6	6992042	471.05
LMAC0887	311050.3	6992580	470.89	WAC1719	310251.3	6992042	471.08
LMAC0888	311148.6	6992579	470.84	WAC1720	310251.1	6992052	471
LMAC0889	311249	6992579	470.81	WAC1721	310251	6992062	471.02
LMAC0890	310801.5	6992479	471.13	WAC1722	310250.9	6992072	471
LMAC0891	310901.3	6992480	471	WAC1723	310250.9	6992082	471.04
LMAC0892	311005.2	6992480	470.97	WAC1724	310251	6992092	471.04
LMAC0893	310944.1	6992380	471	WAC1725	310250.8	6992102	471.03
LMAC0894	311097.1	6992385	470.92	WAC1726	310251.1	6992112	471.04
LMAC0895	311098.5	6992479	470.93	WAC1727	310251.1	6992122	471
LMAC0896	311197.4	6992480	470.9	WAC1728	310251	6992132	471.03
LMAC0898	311401.7	6992480	470.76	WAC1729	310261.1	6992132	470.99
LMAC0899	311396.2	6992277	470.84	WAC1730	310261	6992122	470.91
LMAC0901	311193.6	6992277	470.95	WAC1731	310260.9	6992112	470.93
LMAC0902	311100.5	6992277	471.02	WAC1732	310260.8	6992102	471
LMAC0903	310986.1	6992278	471.11	WAC1733	310260.9	6992092	471.08
LMAC0904	310898.5	6992278	471.16	WAC1734	310261	6992082	471.1
LMAC0905	310795.9	6992278	471.17	WAC1735	310261	6992072	471.04
LMAC0906	310696.8	6992278	471.14	WAC1736	310260.9	6992062	471.03
LMAC0907	310604.9	6992278	471.15	WAC1737	310260.9	6992052	471.07
LMAC0908	310500.5	6992279	471.14	WAC1738	310260.8	6992042	470.95
LMAC0909	310403.5	6992280	471.11	WAC1739	310270.9	6992042	471

LMAC0910	310302.2	6992280	471.19	WAC1740	310271	6992052	471.04
LMAC0911	310199.4	6992280	471.07	WAC1741	310271	6992062	470.98
LMAC0912	310101.3	6992282	471.15	WAC1742	310270.9	6992072	471
LMAC0913	309849.5	6992179	471.5	WAC1743	310271	6992082	471.03
LMAC0914	309948.9	6992179	471.41	WAC1744	310271.2	6992092	470.97
LMAC0915	310048.7	6992179	471.28	WAC1745	310271	6992102	470.92
LMAC0916	310143	6992179	471.11	WAC1746	310270.9	6992112	470.97
LMAC0917	310242.1	6992179	471.12	WAC1747	310271	6992122	471.02
LMAC0918	310345.9	6992179	471.14	WAC1748	310271	6992132	470.85
LMAC0919	310544.5	6992179	471.17	WAC1749	310176.2	6992122	471.06
LMAC0920	310638.8	6992179	471.12	WAC1750	310200.8	6992127	471.09
LMAC0921	310744	6992180	471.13	WAC1751	310200.8	6992117	471.09
LMAC0922	310844.5	6992179	471.23	WAC1752	310200.8	6992107	471.12
LMAC0923	310947	6992180	471.08	WAC1753	310200.9	6992097	471.12
LMAC0924	309699.8	6991679	471.62	WAC1754	310200.6	6992087	471.15
LMAC0925	309797.7	6991679	471.42	WAC1755	310200.7	6992078	471.12
LMAC0926	309897.1	6991679	471.4	WAC1756	310200.8	6992068	471.18
LMAC0927	309954.5	6991776	471.46	WAC1757	310200.8	6992057	471.13
LMAC0928	310049.1	6991777	471.57	WAC1758	310200.8	6992047	471.14
LMAC0929	310152.3	6991778	471.3	WAC1759	310201.4	6992037	471.07
LMAC0930	310088.3	6991679	471.5	WAC1760	310190.6	6992037	471.06
LMAC0931	310195.2	6991681	471.15	WAC1761	310190.9	6992047	471.14
LMAC0932	310291.5	6991680	471.04	WAC1762	310190.9	6992057	471.1
LMAC0933	310396.2	6991680	471.01	WAC1763	310190.7	6992067	471.08
LMAC0934	310498.1	6991680	470.81	WAC1764	310190.6	6992077	471.16
LMAC0935	310597.2	6991679	470.71	WAC1765	310190.8	6992087	471.07
LMAC0936	310699.3	6991680	470.39	WAC1766	310190.8	6992097	471.13
LMAC0937	310793.7	6991679	470.45	WAC1767	310190.8	6992107	471.14
LMAC0938	310898.4	6991679	470.54	WAC1768	310191.3	6992117	471.12
LMAC0939	310993.9	6991678	470.48	WAC1769	310191.3	6992127	471.09
LMAC0940	311095.6	6991678	470.61	WAC1770	310211.2	6992127	471
LMAC0941	311198.3	6991678	470.66	WAC1771	310211.1	6992117	471.04
LMAC0942	311295	6991677	470.64	WAC1772	310211.1	6992107	471.04
LMAC0943	311398.9	6991676	470.66	WAC1773	310211	6992097	471.1
LMAC0944	311444.6	6991485	470.47	WAC1774	310211	6992087	471.08
LMAC0945	311399.9	6991381	470.45	WAC1775	310211	6992078	471.12
LMAC0946	311345.1	6991484	470.6	WAC1776	310210.7	6992067	471.12
LMAC0947	311246.8	6991482	470.61	WAC1777	310210.7	6992057	471.11
LMAC0948	311147.6	6991481	470.63	WAC1778	310210.6	6992047	471.08
LMAC0949	311046.4	6991479	470.54	WAC1779	310211	6992037	471.09
LMAC0950	311096.5	6991379	470.63	WAC1780	310220.9	6992037	471.12
LMAC0951	310948.3	6991478	470.43	WAC1781	310221	6992047	471.07
LMAC0952	310799.7	6991477	470.05	WAC1782	310220.8	6992057	471.07
LMAC0953	310697.5	6991478	469.93	WAC1783	310220.8	6992067	471.05
LMAC0954	310598.8	6991478	470.08	WAC1784	310220.9	6992077	471.03
LMAC0955	310498.8	6991479	470.49	WAC1785	310221	6992087	471.05

LMAC0956	310397.9	6991479	470.77	WAC1786	310221.1	6992097	471.05
LMAC0957	310298.9	6991479	470.95	WAC1787	310221.2	6992107	471.08
LMAC0958	310199.4	6991479	471.13	WAC1788	310221.2	6992117	471.06
LMAC0959	310099.7	6991479	471.26	WAC1789	310220.9	6992127	471.04
LMAC0960	310051.2	6991579	471.35	WAC1790	310231	6992127	471.05
LMAC0961	310003.2	6991580	471.43	WAC1791	310231	6992118	470.99
LMAC0962	309950.5	6991578	471.36	WAC1792	310230.9	6992107	471.05
LMAC0963	309852.5	6991579	471.77	WAC1793	310230.9	6992097	471.06
LMAC0964	309908.3	6991484	471.56	WAC1794	310230.9	6992087	471.05
LMAC0965	309795.5	6991476	472.11	WAC1795	310230.9	6992077	471.06
LMAC0966	309698.5	6991481	471.42	WAC1796	310231	6992068	471.07
LMAC0969	310097.7	6991279	471.1	WAC1797	310231	6992057	471.07
LMAC0970	310197.6	6991280	470.94	WAC1798	310231	6992047	471.06
LMAC0971	310296	6991281	470.87	WAC1799	310231.3	6992037	471.13
LMAC0972	310398.6	6991281	470.48	WAC1800	310180.8	6992037	471.14
LMAC0973	310498.7	6991280	469.99	WAC1801	310180.9	6992047	471.19
LMAC0974	310598.9	6991280	469.96	WAC1802	310180.8	6992057	471.15
LMAC0975	310697.8	6991281	469.86	WAC1803	310180.9	6992067	471.18
LMAC0976	310849.1	6991280	469.96	WAC1804	310180.7	6992077	471.17
LMAC0977	310951.7	6991280	470.5	WAC1805	310180.9	6992087	471.12
LMAC0978	311050	6991280	470.55	WAC1806	310180.6	6992097	471.14
LMAC0979	311150.4	6991279	470.56	WAC1807	310180.7	6992107	471.13
LMAC0980	311252.6	6991279	470.61	WAC1808	310181	6992127	471.02
LMAC0981	311351	6991279	470.43	WAC1809	310240.8	6992127	471.03
LMAC0982	311450.8	6991279	470.22	WAC1810	310240.7	6992117	471.06
LMAC0983	311550.3	6991279	470.59	WAC1811	310240.7	6992107	471.09
LMAC0984	309898.2	6991279	471.23	WAC1812	310240.7	6992097	471.08
LMAC0985	309796.1	6991285	471.21	WAC1813	310240.7	6992087	471.05
LMAC0986	309697.2	6991283	471.4	WAC1814	310240.8	6992077	471.03
LMAC0987	309599.4	6991283	471.23	WAC1815	310240.7	6992067	470.98
LMAC0988	309491.4	6991284	471.28	WAC1816	310240.6	6992057	471.06
LMAC0989	309393.3	6991281	471.35	WAC1817	310240.6	6992047	471.07
LMAC0990	309245.9	6991276	471.4	WAC1818	310240.9	6992037	471.05
LMAC0992	309249.7	6991180	471.68	WAC1819	310251	6992037	471.07
LMAC0993	309346.4	6991181	471.54	WAC1820	310251	6992047	471.05
LMAC0994	309447.5	6991181	471.29	WAC1821	310250.9	6992057	471.06
LMAC0995	309544.8	6991180	471.29	WAC1822	310250.9	6992067	471.06
LMAC0996	309646.6	6991181	471.22	WAC1823	310251	6992077	471.05
LMAC0997	309747.4	6991182	471.29	WAC1824	310251.1	6992087	471.05
LMAC0998	309847.9	6991182	471.19	WAC1825	310251.1	6992097	471.06
LMAC0999	309946.8	6991182	471.28	WAC1826	310251	6992107	471.06
LMAC1000	310048.4	6991183	471.24	WAC1827	310250.9	6992117	470.97
LMAC1001	310147.7	6991183	471.06	WAC1828	310251	6992127	470.99
LMAC1002	310247.7	6991183	470.91	WAC1829	310260.5	6992127	470.95
LMAC1003	310249	6991082	470.78	WAC1830	310260.5	6992117	470.95
LMAC1004	310148.8	6991081	471.01	WAC1831	310261.1	6992107	471.06

LMAC1005	310049.1	6991081	471.2	WAC1832	310261	6992097	471.06
LMAC1006	309950.3	6991081	471.26	WAC1833	310260.9	6992087	471.08
LMAC1007	309847.2	6991081	471.18	WAC1834	310260.8	6992077	470.94
LMAC1008	309748	6991081	471.16	WAC1835	310260.9	6992067	471.04
LMAC1009	309646.5	6991081	471.35	WAC1836	310260.7	6992057	471.03
LMAC1010	309550.8	6991080	471.28	WAC1837	310260.9	6992047	471.05
LMAC1011	309450	6991079	471.33	WAC1838	310270.7	6992128	471
LMAC1012	309350.7	6991079	471.41	WAC1839	310270.7	6992117	470.95
LMAC1013	309249.2	6991078	471.57	WAC1840	310270.7	6992097	470.98
LMAC1014	309151.1	6991078	471.38	WAC1841	310271	6992087	471.05
LMAC1015	309047.5	6991077	471.28	WAC1842	310271	6992077	470.99
LMAC1016	309051.6	6990986	471.09	WAC1843	310271.2	6992067	471.01
LMAC1017	309149.4	6990986	471.36	WAC1844	310270.9	6992058	471
LMAC1018	309249	6990985	471.83	WAC1845	310271.3	6992048	470.98
LMAC1019	309349.5	6990984	471.36	WAC1846	310271	6992037	471.05
LMAC1020	309450.9	6990983	471.3	WAC1847	310260.8	6992037	471.05
LMAC1021	309549	6990982	471.28	WAC1848	310235.7	6992042	471.1
LMAC1022	309648.8	6990982	471.23	WAC1849	310235.9	6992052	471.08
LMAC1023	309748.7	6990982	471.18	WAC1850	310235.9	6992062	470.97
LMAC1024	309847.8	6990981	471.21	WAC1851	310235.9	6992082	471.08
LMAC1025	309948.7	6990980	471.17	WAC1852	310236	6992092	471.07
LMAC1026	310050.7	6990980	471.1	WAC1853	310236	6992102	471.01
LMAC1027	310150.3	6990980	470.93	WAC1854	310236.2	6992112	471.07
LMAC1028	310047	6990875	471.01	WAC1855	310235.9	6992122	471.08
LMAC1029	309947.2	6990875	471.18	WAC1856	310236.3	6992132	470.97
LMAC1030	309841.1	6990876	471.15	WAC1857	310225.9	6992132	471.05
LMAC1031	309851.1	6990777	471.04	WAC1858	310226.2	6992112	471.01
LMAC1032	309749.7	6990777	471.06	WAC1859	310225.9	6992102	471.02
LMAC1033	309747	6990877	471.16	WAC1860	310226	6992092	471.04
LMAC1034	309648.7	6990877	471.16	WAC1861	310225.9	6992083	471.06
LMAC1035	309548.9	6990878	471.15	WAC1862	310226	6992072	471.06
LMAC1036	309448.3	6990879	471.25	WAC1863	310226.4	6992062	471.04
LMAC1037	309447.9	6990778	471.22	WAC1864	310225.7	6992052	471.06
LMAC1038	309347.7	6990779	471.22	WAC1865	310225.8	6992043	471.06
LMAC1039	309251.1	6990779	471.17	WAC1866	310216.1	6992046	471.04
LMAC1040	309348.6	6990880	471.23	WAC1867	310216.7	6992057	471.05
LMAC1041	309248	6990880	471.26	WAC1868	310216.1	6992067	471.05
LMAC1042	309149.7	6990879	471.83	WAC1869	310215.9	6992077	471.02
LMAC1043	309046	6991482	471.7	WAC1870	310215.8	6992092	471.04
LMAC1046	308848.7	6991279	471.1	WAC1871	310215.7	6992102	471.03
LMAC1054	308297.8	6991379	471.2	WAC1872	310215.9	6992112	471.02
LMAC1055	308198.4	6991477	471.31	WAC1873	310215.9	6992122	471.03
LMAC1056	308404.6	6991578	471.5	WAC1874	310215.7	6992131	471
LMAC1060	309405.8	6992288	471.92	WAC1875	310206.1	6992132	471.04
LMAC1061	309501.9	6992287	471.49	WAC1876	310205.9	6992122	471
LMAC1062	309600.5	6992286	471.47	WAC1877	310206	6992112	471.05



LMAC1063	309700.3	6992285	471.49	WAC1878	310205.9	6992102	471.05
LMAC1064	309792.6	6992284	471.28	WAC1879	310206	6992092	471.08
LMAC1065	309899	6992284	471.18	WAC1880	310205.9	6992082	471.07
LMAC1066	310003.4	6992230	471.27	WAC1881	310206	6992073	471.07
LMAC1067	309904.9	6992382	471.11	WAC1882	310205.9	6992052	471.01
LMAC1068	309801.3	6992381	471.11	WAC1883	310205.8	6992042	471.12
LMAC1069	309695.1	6992380	471.21	WAC1884	310196.1	6992037	471.07
LMAC1070	309652.7	6992379	471.22	WAC1885	310196	6992047	471.12
LMAC1071	309597.6	6992380	471.41	WAC1886	310195.6	6992057	471.11
LMAC1072	309500.5	6992383	471.44	WAC1887	310195.7	6992072	471.11
LMAC1073	309394.3	6992383	471.7	WAC1888	310196.1	6992082	471.08
LMAC1076	308946.3	6992479	472.89	WAC1889	310196.1	6992092	471.05
LMAC1079	309248	6992478	471.53	WAC1890	310196	6992102	471.07
LMAC1080	309347.9	6992479	471.57	WAC1891	310195.7	6992112	471.09
LMAC1081	309448.1	6992480	471.34	WAC1892	310195.7	6992122	471.08
LMAC1082	309548.2	6992480	471.2	WAC1893	310196.1	6992133	471.03
LMAC1083	309650.7	6992479	471.18	WAC1894	310185.9	6992133	471.05
LMAC1084	309750	6992479	471.08	WAC1895	310185.9	6992122	471.13
LMAC1085	309848.9	6992478	470.99	WAC1896	310186.1	6992112	471.1
LMAC1086	309947.8	6992478	470.95	WAC1897	310186.2	6992102	471.09
LMAC1087	310048.6	6992479	471.07	WAC1898	310186	6992092	471.11
LMAC1088	310097.8	6992384	471.11	WAC1899	310185.9	6992082	471.07
LMAC1089	310149.7	6992479	471.14	WAC1900	310175.8	6992111	471.14
LMAC1091	310048.9	6992581	471.26	WAC1901	310175.8	6992102	471.15
LMAC1092	309948.7	6992578	471.1	WAC1902	310175.7	6992092	471.12
LMAC1093	309898	6992677	471.27	WAC1903	310175.8	6992082	471.13
LMAC1094	309451	6992576	471.34	WAC1904	310175.7	6992071	471.14
LMAC1095	309350.1	6992577	471.51	WAC1905	310175.5	6992062	471.15
LMAC1096	309252.4	6992577	471.53	WAC1906	310175.6	6992052	471.15
LMAC1097	309149.3	6992578	471.61	WAC1907	310176.1	6992042	471.09
LMAC1099	309048.5	6992679	472.72	WAC1908	310186.5	6992072	471.07
LMAC1100	309153.3	6992682	471.79	WAC1909	310186.3	6992062	471.14
LMAC1101	309249.4	6992684	471.63	WAC1910	310186.1	6992053	471.1
LMAC1102	309351.1	6992679	471.38	WAC1911	310186.2	6992042	471.1
LMAC1104	309249	6992880	471.56	WAC1912	310255.8	6992042	471.07
LMAC1105	309156.5	6992879	471.68	WAC1913	310246.2	6992042	471.02
LMAC1106	309048.5	6992848	472.28	WAC1914	310256.1	6992052	471.04
LMAC1107	308949.1	6992879	472.37	WAC1915	310246.4	6992053	471.01
LMAC1108	308949.5	6992981	472.17	WAC1916	310255.5	6992062	471.03
LMAC1109	309067.3	6992985	472.19	WAC1917	310246.1	6992061	471.04
LMAC1110	309249	6993082	471.51	WAC1918	310255.1	6992072	471.01
LMAC1111	309150.9	6993081	471.45	WAC1919	310246.7	6992072	470.98
LMAC1112	309048.8	6993081	472.63	WAC1920	310255.6	6992082	471.03
LMAC1113	308948.2	6993081	472.22	WAC1921	310246.2	6992082	471.02
LMAC1114	308850.2	6993079	472.73	WAC1922	310255.6	6992092	471.05
LMAC1115	308749.8	6993079	472.55	WAC1923	310266.3	6992092	471.03

LMAC1116	308847	6993176	472.5	WAC1924	310246.1	6992092	471.04
LMAC1117	308955.5	6993179	474.12	WAC1925	310265.3	6992103	471.01
LMAC1118	309005.3	6993184	474.43	WAC1926	310256	6992102	471.06
LMAC1119	309050	6993177	472.78	WAC1927	310246.2	6992102	471.03
LMAC1120	309146.4	6993182	472.21	WAC1928	310265.9	6992113	470.94
LMAC1121	309250.6	6993281	472.62	WAC1929	310256	6992113	471.06
LMAC1122	309152	6993278	472.01	WAC1930	310246	6992112	471.06
LMAC1126	308748.9	6993275	472.22	WAC1931	310247	6992123	470.95
LMAC1127	308650.6	6993272	472.6	WAC1932	310255.9	6992122	470.95
LMAC1129	308550.6	6993470	472.56	WAC1933	310265.6	6992123	470.98
LMAC1130	308648.9	6993471	472.28	WAC1934	310265.3	6992132	470.97
LMAC1131	308749.2	6993471	472.31	WAC1935	310256	6992133	470.93
LMAC1138	309994.9	6990780	471.03	WAC1936	310246.4	6992132	470.94
LMAC1139	309648.2	6990780	470.88	WAC1937	310266.2	6992082	470.99
LMAC1140	309551.4	6990779	470.96	WAC1938	310266.3	6992072	470.99
LMAC1141	309248.4	6990774	471.12	WAC1939	310266.3	6992061	470.98
LMAC1142	309147.3	6990783	471	WAC1940	310266.4	6992051	471.02
LMAC1143	309046.9	6990783	470.73	WAC1941	310265.9	6992042	471.06
LMAC1144	308948.9	6990782	470.73	WAC1942	310206	6992063	471.05
LMAC1145	308846.6	6990783	470.73	WAC1943	310180.9	6992117	471.03
LMAC1146	308743	6990783	470.68	WS0131	310265.9	6992057	471.04
LMAC1147	308645	6990784	470.49	WS0132	310215.9	6992037	471.09
LMAC1159	308749.2	6990986	470.95	WS0133	310195.9	6992062	471.12
LMAC1160	308850.8	6990986	471.18	WS0134	310175.7	6992087	471.11
LMAC1161	308943.4	6990987	471.73	WS0135	310175.9	6992132	471.07
LMAC1162	309097.6	6991182	471.43	WS0136	310195.9	6992107	471.09
LMAC1163	308997.2	6991182	471.34	WS0137	310235.9	6992072	471.03
LMAC1164	308898.2	6991182	471.27	WS0138	310246.1	6992097	471.04
LMAC1165	308797.1	6991182	471	WS0139	310270.8	6992107	470.95
LMAC1169	310349.1	6991185	470.68	WS0140	310226	6992122	471.06
LMAC1170	310448.8	6991185	470.38	WS0141	310215.9	6992087	471.01
LMAC1171	310545.9	6991185	469.98	WS0215	311494.7	6995781	471.03
LMAC1172	310647.8	6991185	469.92	WS0216	311579.5	6995412	470.63
LMAC1173	310294.3	6990979	470.52	WS0217	311581.7	6995417	470.6
LMAC1174	310101.4	6990782	470.84	WS0218	310551.6	6994973	470.65
LMAC1175	310199.5	6990785	470.58	WS0219	310557.6	6994972	470.59
LMAC1176	310099.3	6990578	470.55	WS0220	310343.4	6994986	470.64
LMAC1177	309999.8	6990579	470.76	WS0221	310649.7	6994580	470.8
LMAC1178	309901.8	6990578	470.8	WS0222	310935.5	6994583	470.75
LMAC1179	309800.5	6990578	470.72	WS0223	310940.9	6994583	470.77
LMAC1180	309699.7	6990580	470.71	WS0224	311201.3	6994485	470.7
LMAC1181	309597	6990580	470.58	WS0225	311298.9	6994288	470.72
LMAC1182	309497.3	6990579	471.24	WS0226	311401.5	6994085	470.45
LMAC1183	309400.2	6990580	472.68	WS0227	311399.1	6994089	470.48
LMAC1184	309499.5	6990379	470.43	WS0228	311407.2	6993784	470.46
LMAC1185	309400.5	6990380	470.56	WS0229	311403.1	6993488	470.33



LMAC1186	309298.2	6990381	470.25	WS0230	311200.5	6993391	470.34
LMAC1187	309199.2	6990383	470.38	WS0231	311205.3	6993390	470.34
LMAC1192	308798.8	6990575	471.52	WS0232	311698.3	6993485	470.56
LMAC1193	308697.3	6990580	471.84	WS0233	311703.4	6993486	470.55
LMAC1195	308897.7	6990172	471	WS0234	311722.9	6992902	470.75
LMAC1196	308997.1	6990179	470.69	WS0235	311706.1	6992902	470.71
LMAC1197	309001.2	6990377	470.4	WS0236	311295	6993085	470.82
LMAC1199	309202.2	6990179	471.36	WS0237	311197.6	6992684	470.71
LMAC1200	309297.8	6990178	471.84	WS0238	311241.1	6992483	470.69
LMAC1201	309399.1	6990182	472.03	WS0239	311236.3	6992483	470.69
LMAC1203	309599.2	6990183	472.98	WS0240	310950.3	6992478	470.79
LMAC1204	309703.3	6990179	473.29	WS0241	310898.9	6992182	471.03
LMAC1205	309798.3	6990178	472.99	WS0242	310636.9	6992080	470.94
LMAC1206	309895.4	6990179	472.87	WS0243	310638.2	6992085	470.93
LMAC1207	309997.7	6990184	472.71	WS0244	310093.2	6991780	471.36
LMAC1208	310101	6990181	472.6	WS0245	309849.5	6991679	471.37
LMAC1209	310199.2	6990180	473.49	WS0246	309947.2	6991478	471.23
LMAC1210	310301.2	6990179	476.02	WS0247	309952.5	6991479	471.29
LMAC1211	310401.4	6990177	473.68	WS0248	309991.8	6991133	471.17
LMAC1212	310498.7	6990180	473.15	WS0249	309601.9	6991181	471.04
LMAC1213	310596.6	6990181	472.16	WS0250	309600.4	6991362	471.18
LMAC1215	310798.7	6990371	472.79	WS0253	309994.3	6992658	471.07
LMAC1216	310698.2	6990378	473.57	WS0254	309616.9	6992477	471.06
LMAC1217	310603	6990374	473.22	WS0255	309616.9	6992482	471.04
LMAC1218	310500.3	6990382	472.73	WS0256	309205.1	6992474	471.4
LMAC1219	310398.7	6990381	472.51	WS0257	309108	6992676	471.78
LMAC1220	310298.6	6990379	472.66	WS0258	309311.1	6992677	471.27
LMAC1221	310199.5	6990382	474.19	WS0259	309096.1	6993079	471.47
LMAC1222	310100.9	6990378	472.99	WS0261	308711.7	6993270	472.22
LMAC1223	310299.2	6990578	470.34	WS0262	308608.1	6993454	472.16
LMAC1224	310402.8	6990575	473.56	WS0263	308614	6993453	472.16