



MANTLE MINING CORPORATION LIMITED

Barkly Project

EL 26018, EL 26019, EL 26020, EL 26021

Field Preparatory Work

30th ^{Sept/Oct} May 2008
By
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Chrysoar Exploration
On behalf of
Mantle Mining Corporation Limited.

Disclaimer

Chrysoar Exploration has prepared this report based on the interpretation of open file regional data obtained from the Northern Territory Geological Survey and Geoscience Australia.

While every effort has been made within the time constraints of this assignment, to ensure the accuracy of this interpretation Chrysoar Exploration accepts no liability for any error or omissions. This is strictly a desktop study whereby Chrysoar Exploration can take no responsibility if fieldwork in the field areas provides alternate results.

Chrysoar Exploration is independent of Mantle Mining and have no financial interest in Mantle Mining.

Summary

Mantle Mining Corporation Limited acquired four exploration licenses in the Northern Territory on the boundary of the South Nicholson and Georgina Basins. The region is occurrences and prospects have been reported for a number of mineral targets such as iron ore and phosphatic rocks. Peter Anderton of Mantle Mining requested V. Stamoulis of Chrysoar Exploration to undertake a desktop study of ELs 26018 – 21. The aim was to identify field locations which may be related to phosphate and uranium.

Datasets of a regional scale were acquired from the Northern Territory Geological Survey and Geoscience Australia. They included raw uncompressed files of airborne radiometrics and magnetics, gravity geology and elevation. Topographic information was also downloaded into a GIS.

There were 2 components to this study,

- examination of known prospects in the area, to identify geophysical signatures
- remote sensing and regolith principals to select suitable sampling locations

The outcome was the identification of 35 regions of interest (ROIs) which were in some ways anomalous or variably different to their surroundings.

From the available data it was concluded existing phosphate deposits in the immediate area had no broadscale geophysical signatures. However

- Largescale U channel airborne radiometric surface anomalies, greater than 20k strikelength were detected in EL 26020 and EL 26021

Regolith studies also showed,

- unusual radiometric responses where the radiometric signature of transported material did not resemble that of the source.
- Quaternary and possibly Tertiary river channels were diverted in circular fashion, with a series of claypans in these encircled regions.
- Numerous mapped short faults radiating from loci.

As a result it is recommended future field work concentrate on a geochemical sampling program to define anomalous phosphate distribution.

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Introduction

The aim of this project is to identify regions of interest (ROIs) for the exploration of phosphate deposits in Mantle Mining tenements ELs 26018, E26019, EL 26020 and EL 26021 which are located in the Northern Territory near the Queensland border. Data was acquired from the Northern Territory Geological Survey and Geoscience Australia then imported into a GIS for analysis.

Phosphatic units are the focus of this study. Field observation sites and sample locations generated were based on surface observations from remotely sensed data as well as other deeper sourced geophysical data. Surface and auger samples will assist in defining the exploration potential of these areas.

- The region has potential for other commodities. ROIs of varied geophysical response are highlighted in the project area particularly in EL 26018 where they were based on variations between the mapped units and the airborne radiometrics

Tenure

At the end of 2007 and the beginning of 2008 Mantle Mining Corporation was granted the exploration licences which comprise the Barkly Project. (Table 1)

Exploration License	Area	Date Granted	Lease duration
EL 26018	1225 km ²	5/12/2007	6 years
EL 26019	1102 km ²	5/12/2007	6 years
EL 26020	1051 km ²	18/1/2008	6 years
EL 26021	1321 km ²	5/12/2007	6 years

Table 1 Showing details of Barkly Project tenements.

Location and Access

The Barkly project is located on the Barkly Tablelands on the border of the Northern Territory and Queensland. (Figure 1) It lies almost 150k east of Tennant Creek, along the Tennant Creek – Mt Isa road. A network of tracks heading north from Wonarah provides easy access to this region. The Barkly Travelling Stock Route also passes through these tenements. Mittebah HS is located on EL 26019, and according to digital topographic maps the other populated area is the Ranken Store which is on EL 26020. The Project area straddles the south-west corner of the MT DRUMMOND and the north-west of the RANKEN 1:250 000 mapsheets.

Figure 1 Location map showing Mantle Mining's Barkly Project comprising ELs 26018, 26019, 26020 and 26021 in the Northern Territory near the Queensland border.

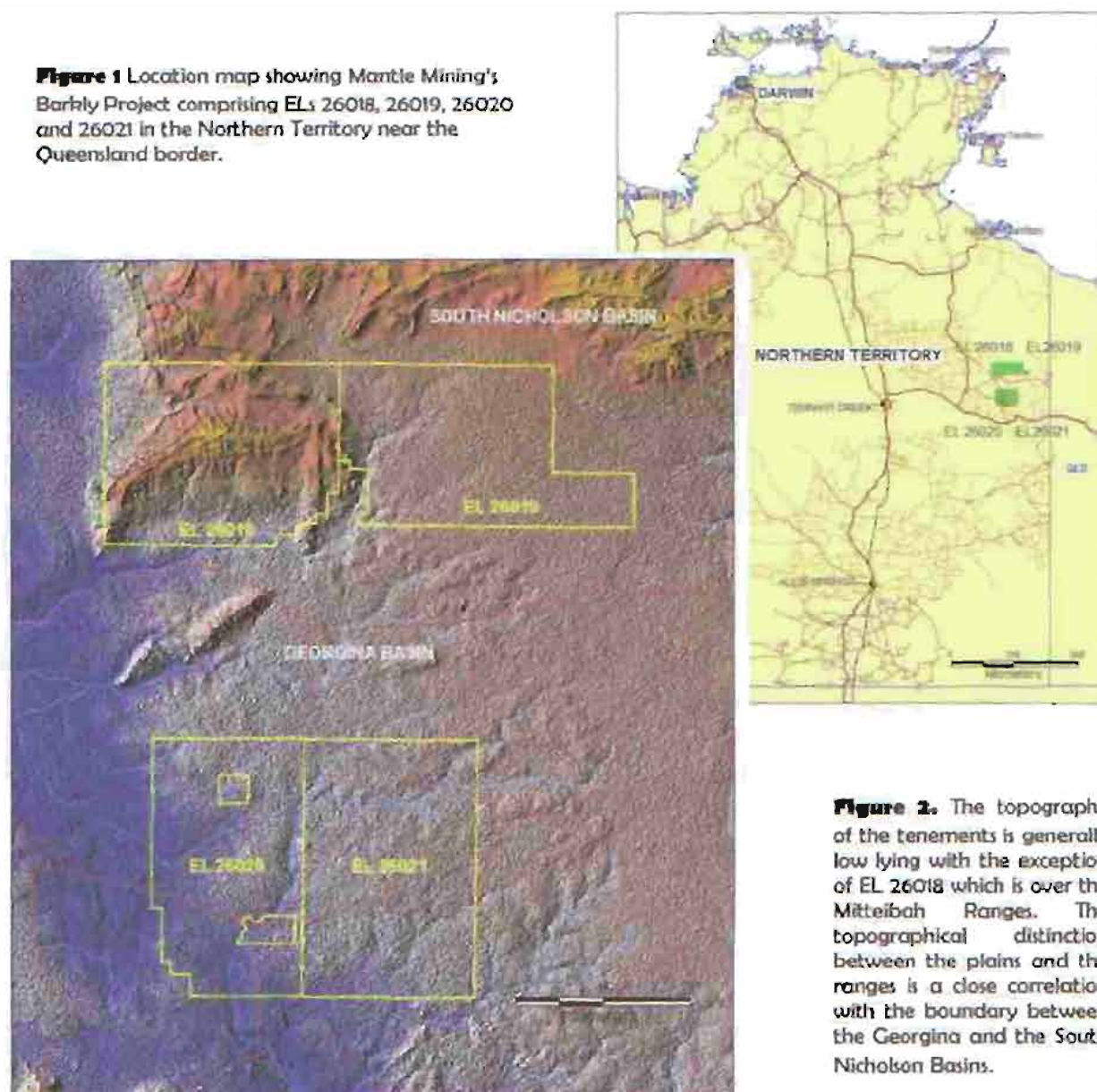


Figure 2. The topography of the tenements is generally low lying with the exception of EL 26018 which is over the Mittelebah Ranges. The topographical distinction between the plains and the ranges is a close correlation with the boundary between the Georgina and the South Nicholson Basins.

Geology

There are two main geological basins underlying the Barkly Project tenements:

- South Nicholson Basin and
- Georgina Basin.

The South Nicholson basin is a Proterozoic Basin forming part of the North Australian Platform Cover. It comprises mildly deformed predominantly sedimentary successions unconformably overlying Proterozoic Orogens. The Mittlebach Range is the main topographic high in the project area and consists of sediments of the South Nicholson Group with small outcrops of younger volcanics.

The Georgina Basin is a 330 000 km² erosional remnant of a series of originally interconnected central Australian intracratonic basins which range from Neoproterozoic to Palaeozoic. The Georgina Basin covers most of the central-eastern Northern Territory and extends into Queensland. The central Georgina Basin, north of latitude 21°S, contains a relatively thin stratigraphic succession, up to 450 m thick, deposited on a tectonically quiescent platform. This central platform has been subdivided into an eastern Undilla Sub-basin and a western Barkly Sub-basin, separated by the Alexandria-Wonarah Basement High. Economic phosphate deposits in Middle Cambrian Georgina Basin rocks have been identified in sedimentary intervals on the Alexandria-Wonarah Basement High.

Portion of the Barkly Project tenements lie over the Alexandria-Wonarah high.

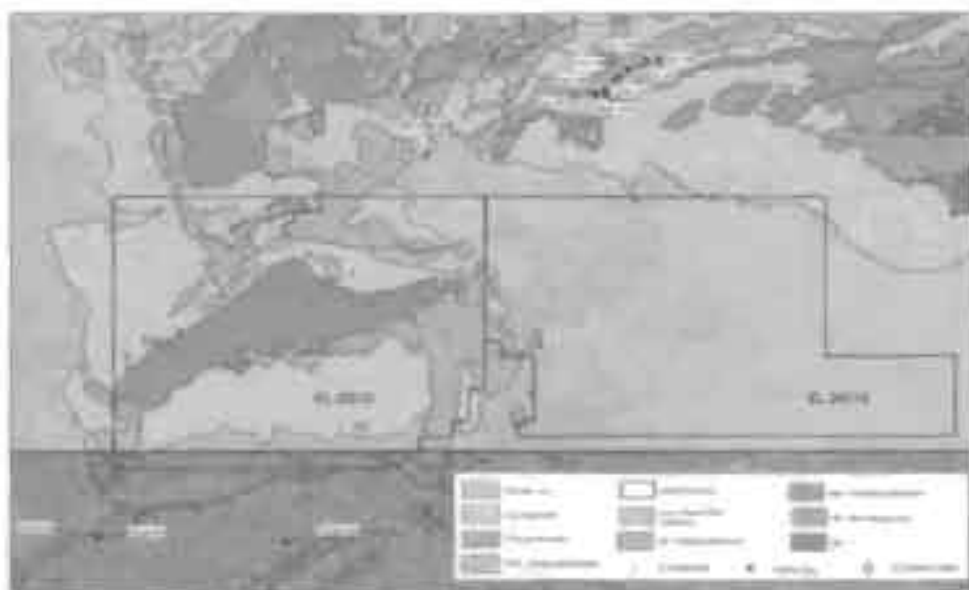


Figure 3 EL 26019 and EL26018 are on the edge of the Mt Drummond 1:250 000 mapsheet. The main feature is the Upper Proterozoic units of the Mittlebach Range surrounded by younger sediments and the Peolier Piler volcanics. The background of the image shows the total count of the airborne radiometrics. Integration of these data demonstrates how variable the chemistry is within the mapped units.

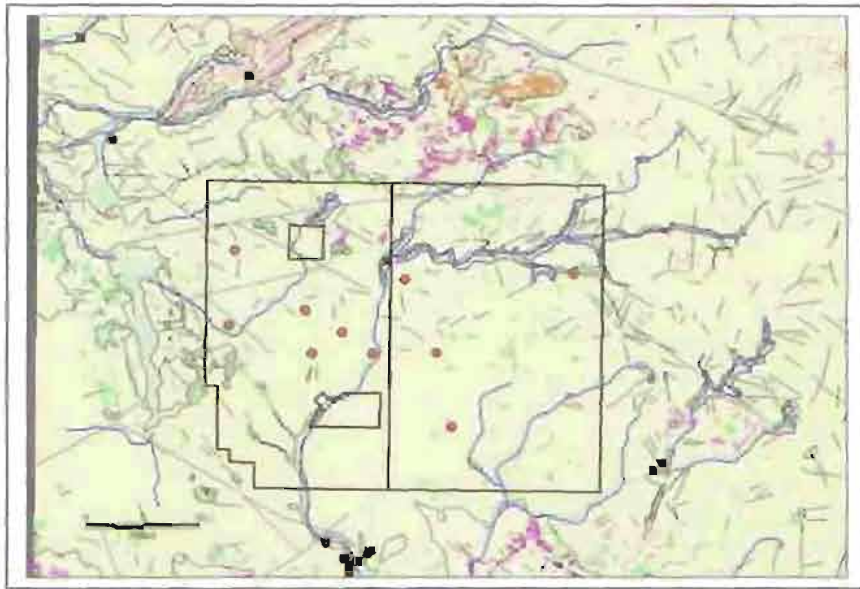


Figure 4 ELs 26020 and 26021 are located on the RANKEN 1:250 000 mapsheet. The entire Barkly project area lies on the boundary of the RANKEN and MT DRUMMOND sheets and shows discontinuity of units between the boundaries.

• Evaluation

With the exception of the elevation model (which has a 90m spatial resolution and the Landsat (35m)), the data was considered too coarse to discriminate diagnostic geophysical response of known prospects. Despite the spatial difference the data was integrated to maximize the outcome of the study.

There are different ways of enhancing geophysical data. When analyzing data using different algorithms a variety of features are revealed. Two examples of the same elevation data are included in this analysis. (Fig 2 and Fig 5). The elevation in Fig 5 is enhanced to highlight the subtle undulating topography in what appears in Fig 2 to be a very flat area. Finer drainage patterns become apparent.

The elevation model also contributes to discriminating regolith environments, establishing in situ as opposed transported terrains. This is significant in identifying what sampling methods are suited. ELs 26019 – 21 occur on depositional environments where most of the material near the surface is transported, so samples should be sourced deeper with perhaps the use of a small auger. Samples collected from EL 26018 are more likely to represent the sourcerock as this EL is located on an erosional landform.

In regolith studies the use of radiometrics is an invaluable tool. Data is supplied in four channels, the potassium, thorium, uranium and a channel measuring total emissivity. In the Barkly Project these data are used in conjunction with the elevation model to establish regolith regimes but also to identify areas with elevated counts from the U channel of the radiometric data.



Figure 5 Greyscale elevation model acquired from shuttle radar and enhanced to highlight subtle surface dendritic patterns in an effort to identify possible expressions of deeper basement highs

Airborne radiometrics measures emissivity in counts per second to a depth of 45 – 50 cm. Along the slopes and in alluvial fans and regions of in situ shallow cover the emissivity counts often mimic the values of the source rock. Low values in the total count of radiometrics relate to regions of deeper transported sediment as well as mafic intrusive bodies. These applications of radiometric analysis to the Barkly Project area provide a basis for the selection of targets to investigate.

Although the spatial resolution of regional airborne radiometric data is poor, as a first pass exploration tool the data are sufficiently detailed to highlight reasonably sized anomalies and those appearing as distinct "bulls eye" or linear anomalies. Sample locations based on airborne regional radiometrics will be approximate and likely to have a minimum of a 90m discrepancy.

In airborne radiometric surveys the U channel often appears quite pixilated, with almost a low signal to noise ratio. The data used appears to be acquired at different times with different flight path orientations. Careful observation shows areas in EL 26020 and EL 26021 where the single uranium channel successfully identified elevated counts (Fig 6). These ROIs are "anomalous" in the emissivity of their surface U count. They cover a combined area over 100 Km². Ratio analysis of the Thorium and Uranium channels emphasized other areas which showed subdued emissivity levels with single channel data but an almost anomalous zonation upon application of ratioed channels.

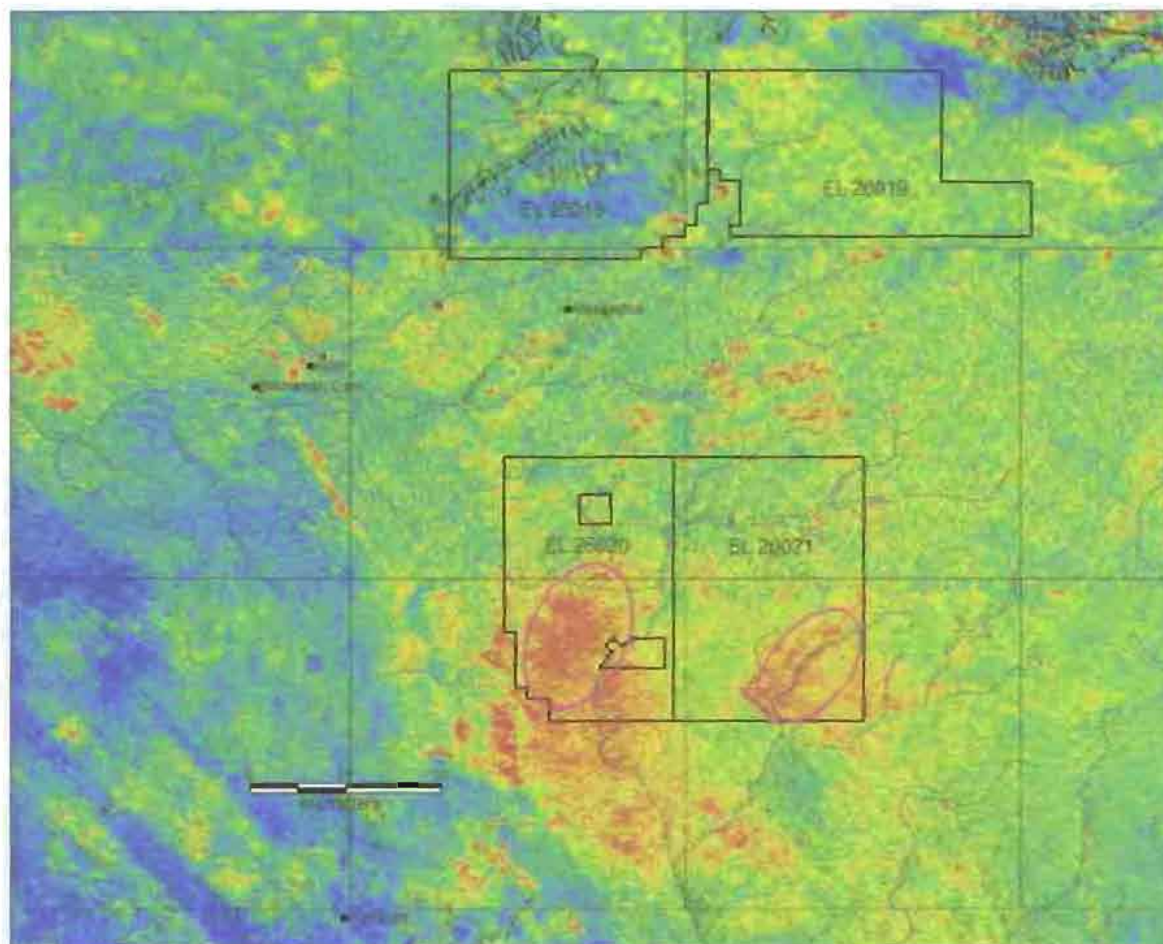


Figure 6 Large surface anomalies are detected using only the U channel from regional airborne radiometrics. These large areas have been circled in the southern group of tenements, EL 26020 and EL 26021. This flat undulating area warrants detailed field work. Known U occurrences in the region like Wonarah and Alexander have also been mapped. These prospects do not appear to be located on regions of high U count.

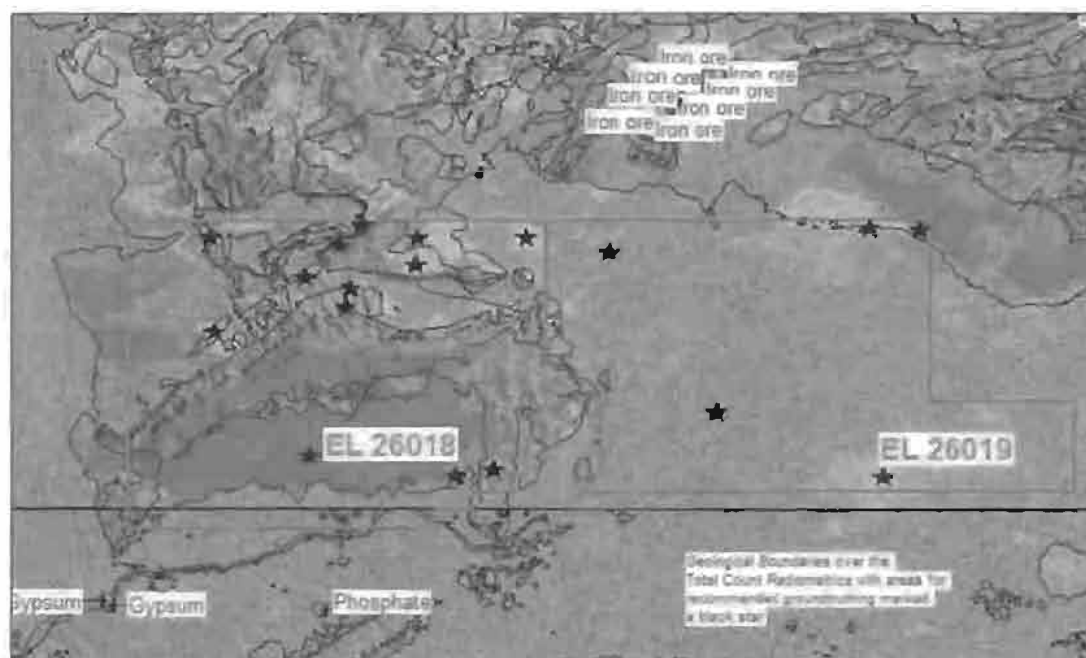


Figure 7 Areas highlighted with black stars were selected as field targets from all datasets including total count of the radiometric data seen in this image draped over the elevation data.

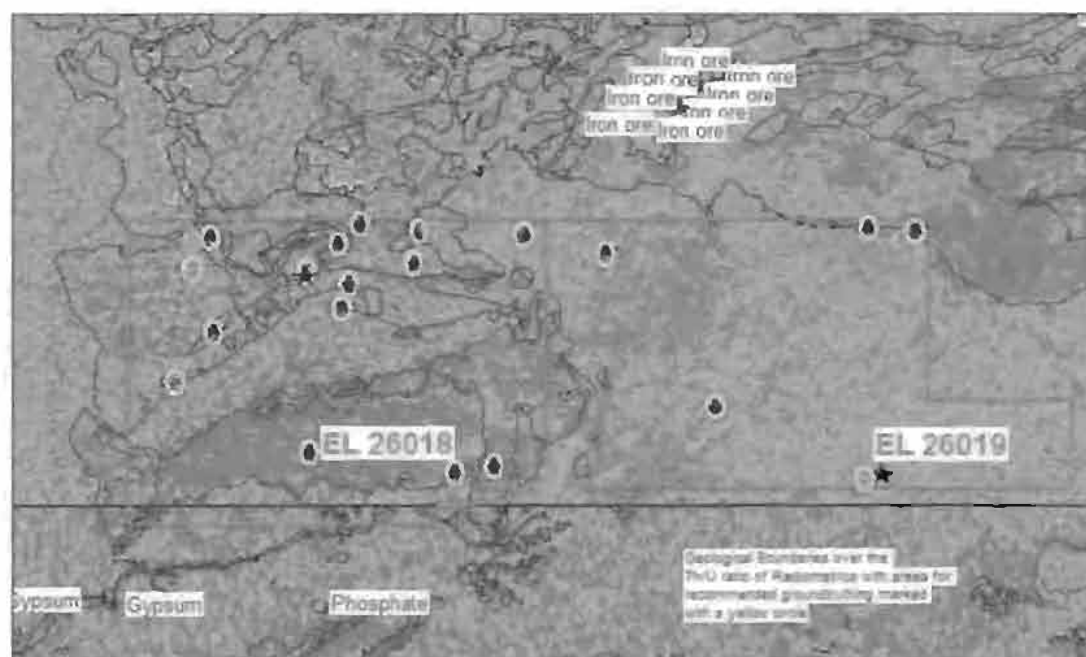


Figure 8 Ratios of the radiometric data in the northern tenements.

Regional magnetic data used in this study is not only of poor spatial resolution but unlike the radiometrics it may relate to units at some depth and have no correlation with surface and near surface lithologies. In areas of deep sedimentary sequences gravity data may also relate to units below the basin sequence. Past research shows little evidence to support magnetic and gravity data as a direct means of locating palaeochannels. An indirect method of using magnetic data in regions of deep sediments is the magnetic intensity below thick sediments is sometimes diffused. The feature of phosphates is their morphology rather than their density or magnetic susceptibility so it is unlikely these can be located either directly or through secondary observations. In the Barkly project area low magnetic trends can be observed but further investigations are required prior to reaching any conclusions about the correlation of magnetics with the phosphatic units.

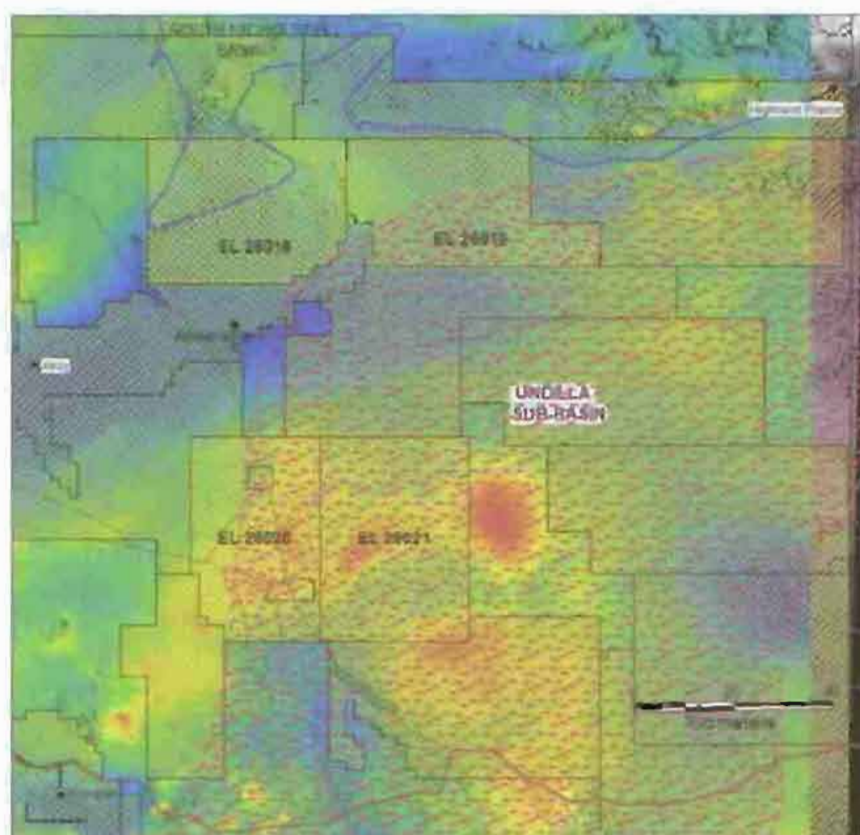


Figure 9 The project area as well as other tenements and available land is draped over the regional magnetics. EL 26020 and 26021 are located on magnetic highs. The approximate extent of the Undilla Sub-basin of the larger Georgina Basin is shaded in pink. Known U occurrences are also marked and they appear to be in the phosphatic units outside the Undilla Sub-basin.

High resolution gravity surveys are used to locate palaeochannels by comparing the contrast in density of the basement with the sediments. Sediments will be less dense and the palaeovalley can be distinguished by the low density of channel sediments. In the Barkly Project the underlying units of EL 26021 appear to have a high gravity feature with a corresponding high magnetic region however correlations made would be inconclusive as the resolution of the gravity data is unreliable.

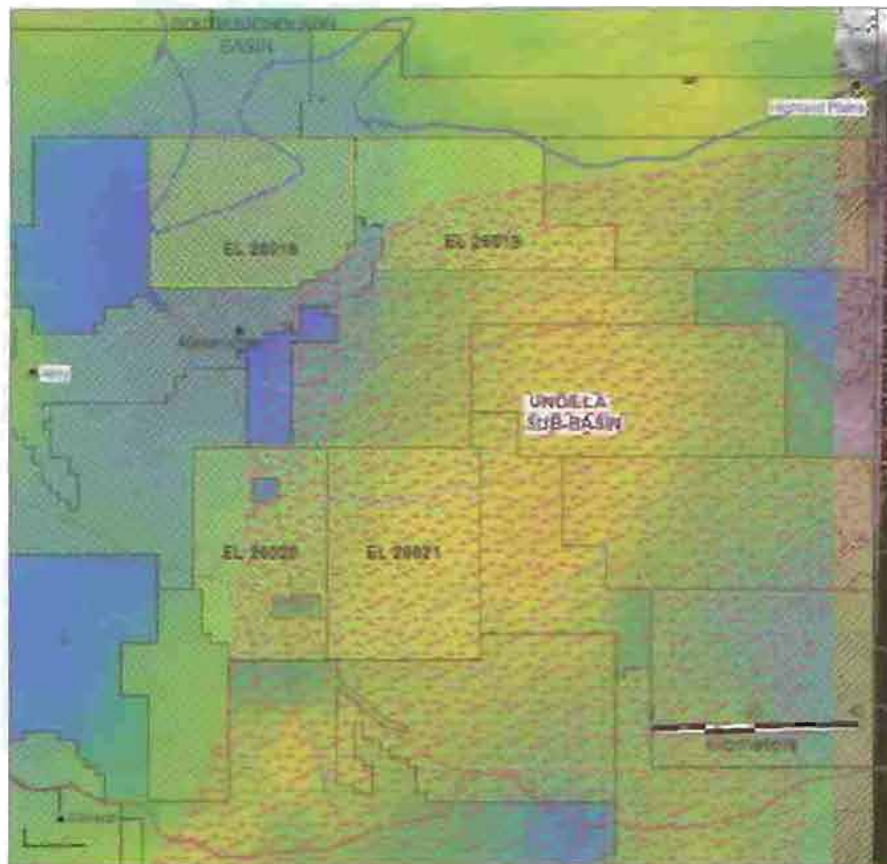


Figure 10 Regional geology shows material in yellow (denser) contained mostly in the sub-basin.

In addition to regional data, findings from past research were also incorporated into this study. The work of Kahn (and others 2007) defined the prospective region of the Alexandria-Wonarah topographic high. The Barkly Project tenements lie on the edge of the prospective area described in Fig 11. Basin analysis presented on a continental scale by Geoscience Australia can only be used on broad scale as the output relies on data such as seismic which is often sparse. It can only provide a framework for further studies on a tenement scale.

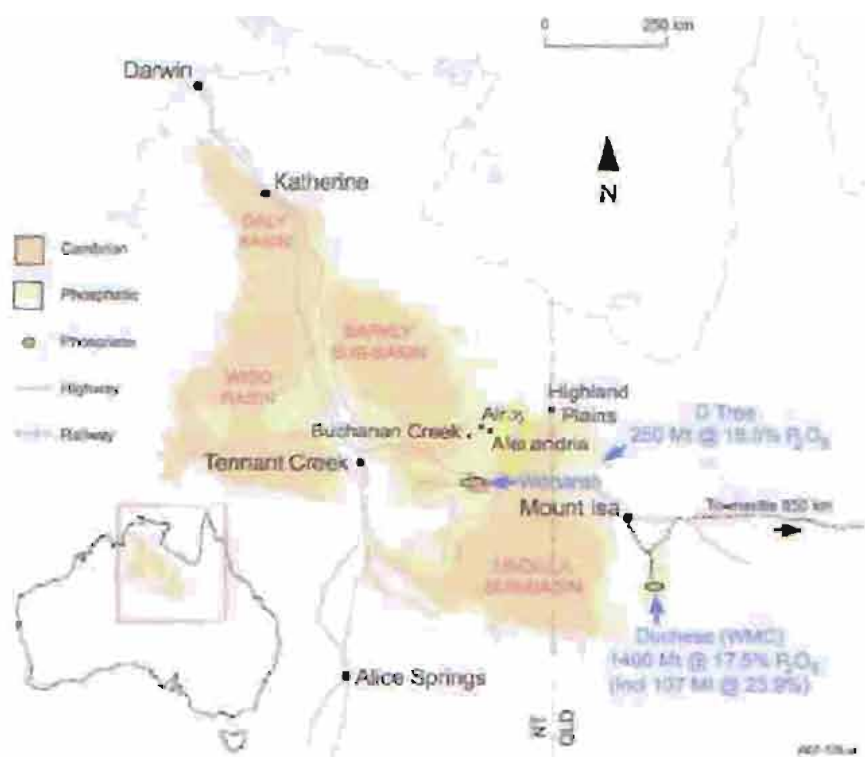


Figure 11 (After Khan et al 2007). The approximate area of The Barkly Project ELs is circled in yellow

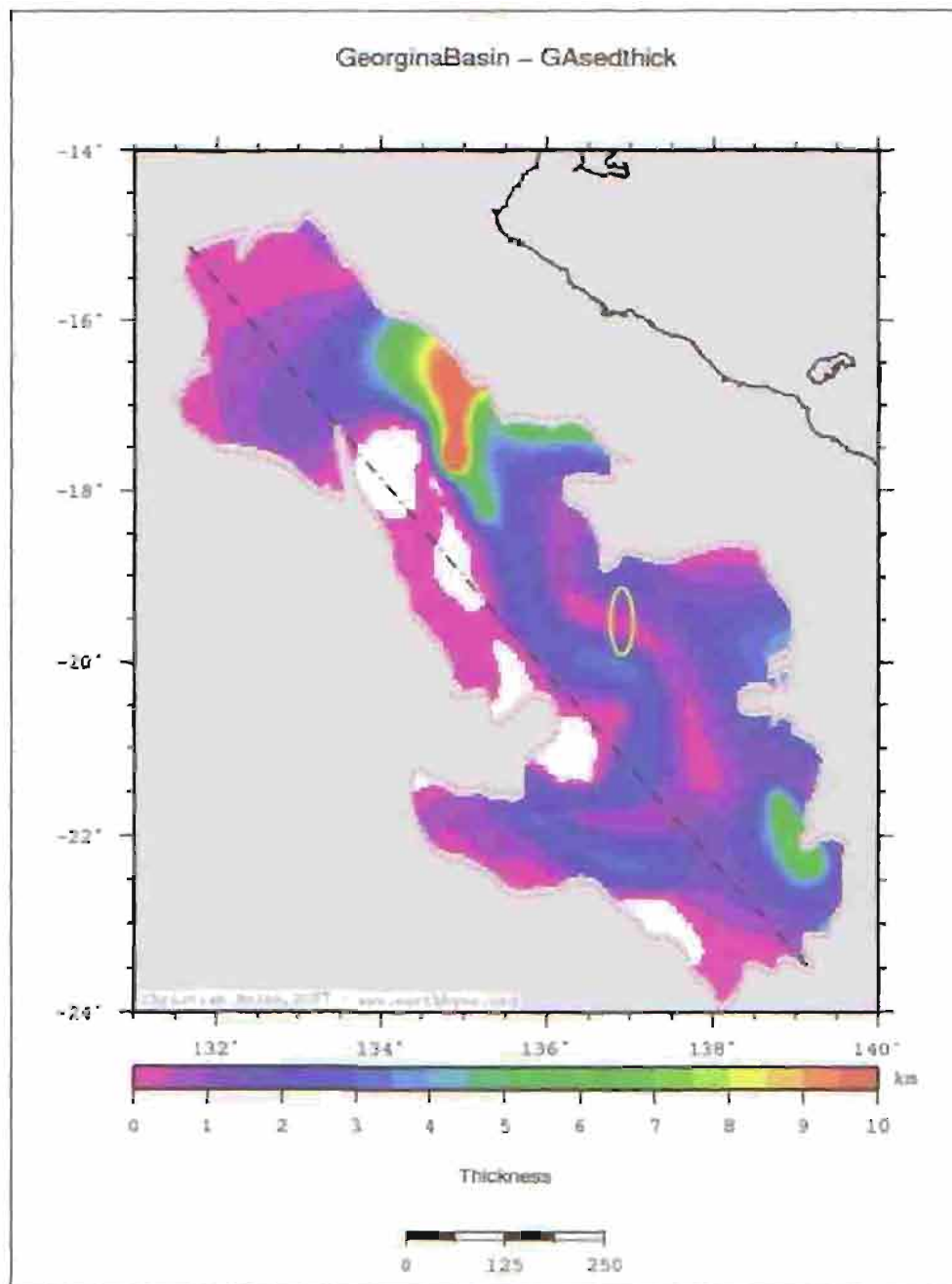


Figure 12 In this Basin study seismic data has been used to distinguish the depth of sediments. The pink/magenta zones are the shallow areas. The approximate area of the tenements is circled in yellow

Target Generation

Targets generated for field examination are based on numerical evaluation of the statistics and values linked to the raw geophysical data. The geophysical and processing terminology for this analysis produces "region of interest", (ROIs) where sub-sets of pixels on raster images show the same values. They can be selected from an individual or integrated datasets where they share values in more than one dataset. It is a mathematical evaluation similar to the concept of sets of populations. Outside the field of geophysics and remote sensing, ROI is terminology also used in medical imaging. To the naked eye these variations in data referred to as ROIs may not be visible despite using surface and near surface datasets. Gamma-ray spectrometry (radiometrics) emissivity measurements are taken from a region beyond the visible part of the spectrum.

Based on their geomorphological setting the ROIs can be grouped into the North and South Tenement Groups. Targets from the North Group (EL 26018 and EL 26019) lie on the basin margin. They have variations in topography with outcropping and near surface units. More targets were selected in this group as the area has a variety of reported mineral occurrences. The Southern Group EL 26020 and EL 26021 are topographically uniform with a network of drainages with U and Gypsum mineral occurrences in the vicinity.

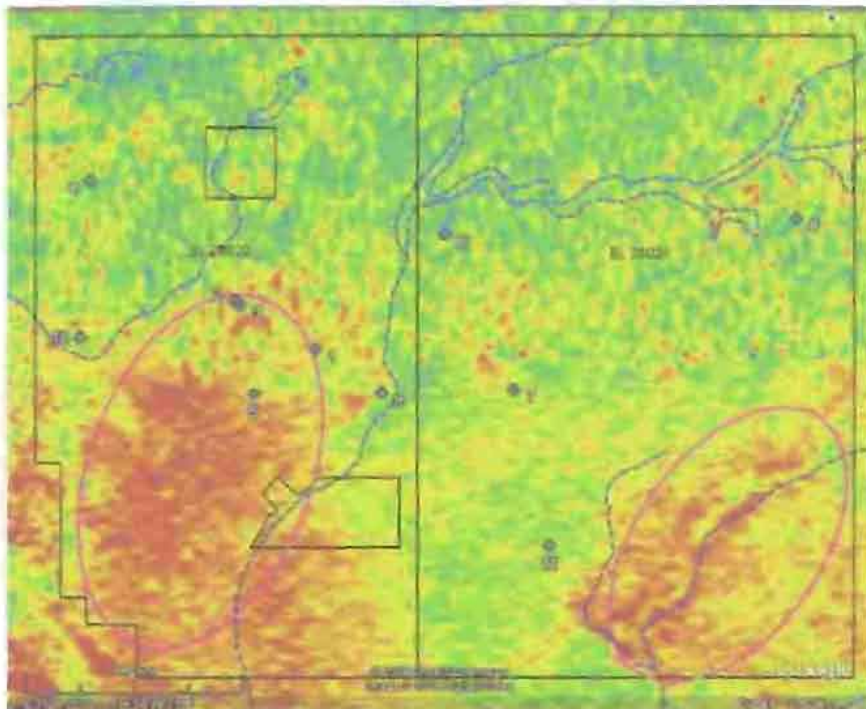


Figure 13 Mapinfo airborne radiometric Uranium channel raster image has been exported to Google. The ROIs selected show a difference in statistical variation. There are less samples from here but they are representative of a small but diverse group.

<i>Location</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>	<i>Tenement Group</i>
1	19° 29' 17"	136° 53' 38"	South Group
2	19° 27' 39"	136° 52' 13"	
3	19° 27' 35"	136° 52' 32"	
4	19° 22' 40"	136° 46' 43"	
5	19° 31' 04"	136° 53' 05"	
6	19° 24' 59"	137° 00' 30"	
7	19° 30' 47"	137° 03' 15"	
8	19° 24' 24"	137° 14' 02"	
9	19° 31' 12"	136° 58' 17"	
10	19° 28' 55"	136° 46' 13"	
11	19° 37' 02"	137° 04' 59"	
12	18° 42' 55"	137° 01' 14"	North Group
13	18° 42' 42"	136° 55' 20"	
14	18° 45' 45"	136° 55' 11"	
15	18° 46' 20"	136° 51' 25"	
16	18° 48' 07"	136° 51' 15"	
17	18° 45' 40"	136° 49' 46"	
18	18° 48' 46"	136° 44' 30"	
19	18° 43' 15"	136° 43' 38"	
20	18° 43' 21"	136° 52' 26"	
21	18° 55' 20"	136° 50' 47"	
22	18° 56' 10"	136° 59' 44"	
23	18° 56' 41"	136° 57' 41"	
24	18° 59' 35"	136° 54' 14"	
25	18° 50' 27"	137° 00' 40"	
26	18° 52' 59"	136° 59' 58"	
27	18° 52' 50"	137° 11' 35"	
28	18° 44' 30"	137° 05' 37"	
29	18° 48' 40"	137° 05' 42"	
30	18° 43' 30"	137° 19' 50"	
31	18° 42' 59"	137° 23' 08"	
32	18° 43' 30"	137° 22' 02"	
33	18° 16' 10"	137° 20' 32"	
34	18° 52' 23"	137° 16' 23"	
35	18° 45' 10"	137° 09' 00"	

Table 2 Latitude and longitude of ROIs extracted from Google Earth

Discussion

The aim of the study was to gather required geophysical data and any other available which can assist with locating ROI relating to phosphate units in the Georgina Basin area. A way of understanding the geophysical signatures of these targets is to compare the area with known phosphate occurrences. The outcome was:

- Some have elevated U counts
- Some are related to Th highs (proportional to background)
- Density contrast, this remains unknown as the regional data lacks detail.
- Magnetic data may relate to deeper structures in the basin.
- They lie in different geomorphological terrains (Indicating different models?)

Attempting to define sampling locations of deposits from regional scale geophysical data of deposits which do not have specific geophysical characteristics is difficult. The method used to identify locations is based on secondary characteristic, sample locations are based on surface expressions, and influenced by recent studies. Figure 11 is a diagram showing the sub-basins within the Georgina Basin. Deposits such as Wonarah and Alexandra lie in this region which has been identified as the Wonarah- Alexandra topographic high.

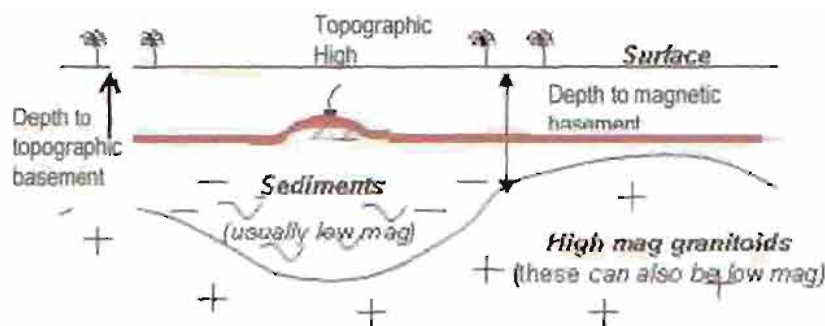


Figure 14 Schematic diagram illustrating the depth to topographic high in regions associated with Phosphate deposits such as Wonarah and Alexandra

Geophysical methods required to detect these highs would need to distinguish sedimentary boundaries. To acquire this information in a cost-effective manner and prior to drilling is difficult. Shallow seismic data may be suitable. Downhole logging tools can be used but this would require drilling first. Surface mineral recognition through high resolution remotely sensed data may provide mineralogical discrimination between zones phosphatic origin and those not, but this will be subject to surface or near surface exposure.

The use of airborne regional radiometric data has contributed in locating mineralogical variations within mapped geological units. The information comes from half a meter depth so these small surface expressions may indicate the presence of larger deeper anomalies (similar to Alexandra prospect?). Regional airborne radiometric data was able to detect large surface anomalies from the U channel in EL 26020 – 26021. A possible explanation for this vast distribution is the U-rich sedimentary units are slightly elevated domes and erosion has depleted the cover masking this U in this region. The alternative is this may reflect neotectonism. The creeks bounding the anomaly in EL26020 may follow faults. This middle section where the anomaly is located may have been uplifted slightly to reveal an underlying unit. The overwhelming spatial distribution of the anomalous zones requires detailed fieldwork.

Recommendation

Ideal follow-up of this work is

1. sampling and assaying of the large anomalous areas in EL 26020 and EL 26021.
2. to examine the geochemistry of smaller targets for different commodities.
3. if geochemistry proves unsuccessful or marginally so, consideration should be given to acquiring higher spectral data such as HyMap.

References

Dickson BL & Scott KM. 1998. Recognition of aeolian soils of the Blayney district, NSW: Implications for exploration. *Journal of Geochemical Exploration*; 63:237–251

Hou B, Fabris AJ, Keeling JL, and Fairclough MC
2007. Cainozoic palaeochannel-hosted uranium and current exploration methods, South Australia. *MESA Journal* 46:34–39. Department of Primary Industries and Resources South Australia, Adelaide.

Khan M, Ferezeni PA, Ahmad M and Kruse PD. 2007. Waterbores and diamond drillcore in the Georgina, Wiso and Daly basins, Northern Territory. NORTHERN TERRITORY DEPARTMENT OF PRIMARY INDUSTRY, FISHERIES AND MINES GEOLOGICAL SURVEY RECORD 2007-003

Wilford JR, Bierwirth PN & Craig MA. 1997. Application of airborne gamma-ray spectrometry in soil/regolith mapping and applied geomorphology. *AGSO Journal of Australian Geology & Geophysics*; 17(2):201–216. 8.



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Field Inspection

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EXECUTIVE SUMMARY

Two geologists and two field assistants made a field trip of 13 days duration to exploration licences 26018, 26019, 26020 and 26021. The field team was tasked with examining 35 sites, which had been selected as “interesting” by Vicki Stamoulis, of Chrysoar Exploration on behalf of Mantle Mining Corporation Ltd. At the completion of the field trip 33 of the 35 sites had been visited.

The commodities of particular interest to Mantle Mining Corporation were phosphate, uranium, iron ore and base metals.

By the end of the field visit it was realised that the target sites were only marginally different from the surrounding areas if any difference at all could be noticed. It was concluded that the target sites were areas of slight elevation, different grass or vegetation density or areas where wind ablation has caused the accumulation of polished gibbers.

A Radiation Solution’s RS-125 spectrometer was used to measure the uranium content of several samples and along numerous traverses. The results were uniformly low.

Several samples have been dispatched for assay. Once the results are received a reassessment of the target areas maybe in order.

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Appendix 1 Spectrometer Results

Attachments

Attachment 1 Target Coordinate List

Attachment 2 AAPA Clearance Certificate

1 Introduction

1.1 Scope of Work

CSA Global was asked to supply geologists, field assistants, vehicles and camping gear to facilitate a prospecting trip of about two weeks duration in the Barkly Region of the Northern Territory. The purpose of the trip was to examine for signs of mineralisation 35 sites, the locations of which were supplied by Mantle Mining Corporation.

To complete the assignment the field team was supplied with a spectrometer and sampling gear. At each of sites geological descriptions, rock chip and soil samples and spectrometer readings were made.

1.2 Sources of Information

Prior to departing CSA Global was supplied with a copy of the report prepared by Ms Stamoulis and several plans of geology draped over magnetic and radiometric data. The list of target co-ordinates was supplied as a .tif image and is included here as attachment 1.

Despite detailed examination of Ms Stamoulis's report little information regarding the target generation process was learnt. It was also noted, and brought to Mantle Mining's attention, that several of the sites were located outside Mantle Mining's tenements and the locations supplied in the target co-ordinate list were different to those shown on the diagrams contained in the report.

As part of their standard equipment the field team was supplied with a laptop computer which contains the entire Northern Territory GIS database as supplied freely by the Department of Business, Industry and Resource Development.

1.3 Location and Access

Exploration Licences 26018, 26019, 26020 and 26021 are located on the Barkly Tableland towards the Northern Territory, Queensland border. The licences are located approximately 1000km in a straight line southeast of Darwin. Road access is available via either the Stuart and Barkly highways (1300km) or the Stuart and Carpentaria Highways (1150km). A network of station roads and tracks provided access to within a few kilometers of each site. Figure 1 shows the location of the tenements

Following discussions with the Marty Doyle, the manager of Mittiebah Station where the field team was based it was agreed that the surest access for first time travelers was the slightly longer Barkly Highway route.

An Aboriginal Areas Protection Authority examination of the Register of Sacred Sites was completed before the team departed to ensure no conflicts arose from inadvertently working on any known sites. A copy of the search documents is included as attachment 2.

Permission for the field team to work on Mittiebah and Alexandria Stations was sought prior to the start of the trip. Mr Doyle, the manager of Mittiebah Station allowed the team the use of his “contractors shed” which has running water and electricity connected.

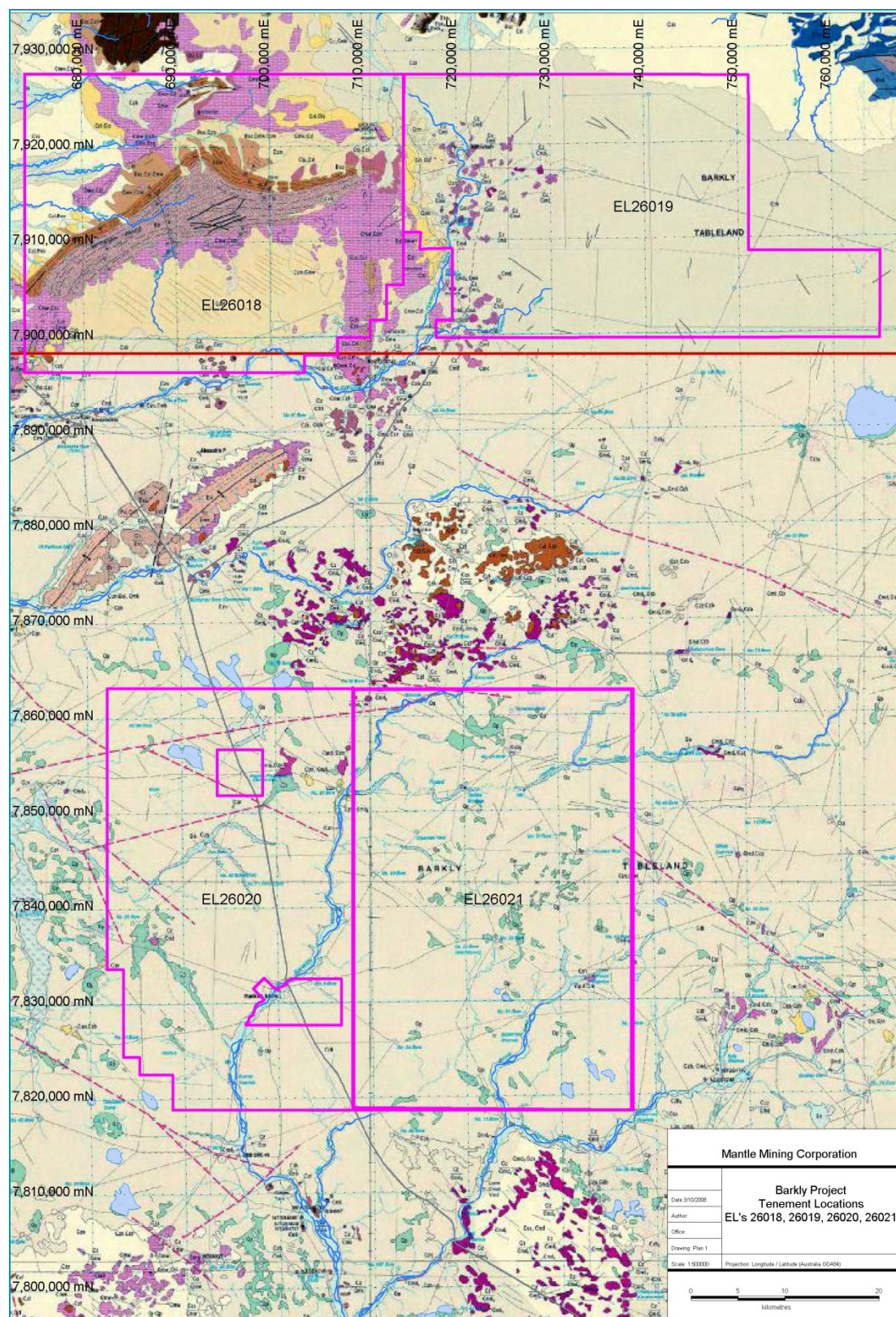


Figure 1. Project Location Plan

2 Geology and Mineralisation

2.1 Regional Geology

The majority of the four licences consist of Cambrian, Georgina Basin sediments. Most commonly these are limestone, shale, sandstone and some conglomerate. Overlying the Cambrian sediments are Tertiary sands, clay and calcrete.

Within EL 26018 the Mittiebah Range exposes Mesoproterozoic units of the South Nicholson Group. The exposed Mittiebah Sandstone is described as a cross-bedded sandstone, glauconitic, with rare pebbles and cobbles.

A brief review of the stratigraphy presented in the Mt Drummond (EL's 26018, 26019) and the Ranken (EL's 26020, 26021) 1:250,000 geological map sheets explanatory notes indicates there is some variation in the units present. The original mapping, done by the Bureau of Mineral Resources in 1966 and 1972 was done on a sheet-by-sheet basis with very little attempt to correlate units between the sheets. A more recent synthesis of the Northern Territory geology completed by the Northern Territory Geological Survey suggests the Cambrian stratigraphy on both map sheets is very similar.

2.2 Site Descriptions

Figures 2 and 3 display the site numbers that correspond to the site descriptions.

2.3 Southern Licence Areas EL's 26020 and 26021

2.3.1 Anomaly 1

This anomaly is accessible via the Ranken Road and is located about 10 km north of the Ranken store. The landform at anomaly 1 is completely flat with grey grasses and siltstone fragments (gravels). Two samples were collected from the area as shown below. Spectrometer readings were low.

Table 1. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000614		698770	7844065	Dark red brown siltstone fragments (gravels) with quartz veins
3000615		698770	7844065	Grey brown soil (soil sample). Dug with small shovel to 16 cm deep and 30 cm wide.

2.3.2 Anomaly 2

The anomaly is about 300m west of Anomaly 3 and is accessed via the main Alexandria Station road to the north. Limestone gravel and boulders were observed 5 km north of anomalies 2 and 3. Rock chip and soil samples were collected from the location.

Table 2. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000611		696303	7847080	Dark red brown siltstone fragments (gravels) with chert and iron
3000621		696303	7847080	Grey brown soil (soil sample). Dug with small shovel to 10 cm deep and 30 cm wide.
3000622	1361	695501	7850943	Pale grey medium grained limestone with chert.

2.3.3 Anomaly 3

Anomaly 3 lies approximately 1.6 km west of the Ranken road. The location is flat with grasses and polished siltstone and sandstone gravels. Spectrometer readings were relatively low. Two samples were collected from here; one rock chip and one soil sample as described below.

Table 3. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000616		696983	7847123	Dark red brown siltstone fragments (gravels) with chert veins
3000617		696983	7847123	Grey brown soil (soil sample). Dug with small shovel to 12 cm deep and 30 cm wide.

2.3.4 Anomaly 4

Access to the site is gained by driving about 17 km west along the Ranken Plain Bore track followed by 7 km NNW. There were only siltstone fragments (gravels) on the location. Two samples were taken from here; rock chips and soil sample. Spectrometer readings were low.

Table 4. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000635		686797	7856403	Dark red brown siltstone fragments (gravels) with chert and iron
3000636		686797	7856403	Grey brown soil (soil sample). Dug with small shovel to 12 cm deep and 30 cm wide.

2.3.5 Anomaly 5

Anomaly 5 is located 9 km north of Ranken Store and 2 km west of Ranken road. The site lies in pasture land with gray grasses and siltstone fragments. A siltstone and soil sample were collected from the area.

Table 5. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000612		697772	7840790	Dark red brown siltstone fragments (gravels) with quartz veins and iron
3000613		697772	7840790	Grey brown soil (soil sample). Dug with small shovel to 15 cm deep and 30 cm wide.

2.3.6 Anomaly 6

Anomaly 6 is located 17 km east of Ranken road or 22 km NNE of Ranken Store. This site is accessed via the Ranken Plain Bore track to the east of Ranken road and drive past the water bore. There is an old track from the water bore to anomaly 6. There are two types of rocks on the location; a small outcrop of limestone gravel and boulders and siltstone fragments. Siltstone fragments and limestone boulders were collected for analysis.

Table 6. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000618		710938	7851856	Dark red brown siltstone fragments (gravels)
3000619		710830	7851936	Pale brown medium grained limestone fragments. The limestone is highly reactive with HCl
3000620		685901	7844906	Dark red brown gossanous siltstone

2.3.7 Anomaly 7

Anomaly 7 is located 19 km NE of the Ranken Store. The access route is via Ranken Store track to the east and across the water bore to the anomaly 9 and 11 and drive 5 km NE to the cross road and drive further 7 km NNW to the location. Spectrometer readings were low and two samples were taken (dark red brown siltstone gravels and soil sample).

Table 7. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000627		715560	7841116	Dark red brown siltstone fragments (gravels) with chert and iron
3000628		715560	7841116	Grey brown soil (soil sample). Dug with small shovel to 13 cm deep and 30 cm wide.

2.3.8 Anomaly 8

Anomaly 8 is located 38 km east of the Ranken road or 35 km NNE of the Ranken Store. The location is accessed by travelling east on the Ranken Plain Bore track to the water bore near anomaly 6. Drive 15 km north from the water bore and a further 25 km east to the last gate (locked) and walk 1.1 km to the location. There are few limestone outcrops along the track from the water bore to anomaly 6 and anomaly 8. A dark red brown siltstone gravel and a soil sample were collected from here.

Table 8. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000623		734504	7852903	Dark red brown siltstone fragments (gravels) with chert and iron
3000624		734504	7852903	Grey brown soil (soil sample). Dug with small shovel to 10 cm deep and 30 cm wide.

2.3.9 Anomaly 9

The access route to anomaly 9 is via the Ranken road and the Ranken Store track to the east; approximately 4 km to the water bore and then drive 8 km north to the location. Spectrometer

readings were low and two samples were taken from here. Dark red brown siltstone gravel and a soil sample.

Table 9. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000633	1549	706854	7840136	Dark red brown siltstone fragments (gravels) with chert and iron
3000634		706854	7840136	Grey brown soil (soil sample). Dug with small shovel to 12 cm deep and 30 cm wide.

2.3.10 Anomaly 10

This anomaly is reached via the Ranken Plain Bore track to the west of Ranken road. Drive 11 km south to the water bore and drive 8 km west along the fence. Anomaly 10 is approximately 3.2 km walk to the south of the fence line. Dark red brown siltstone gravels and soil sample were collected from the location.

Table 10. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000609		685901	7844906	Dark red brown siltstone fragments (gravels) with chert and iron
3000610	1310	692446	7846810	Grey brown soil (soil sample). Dug with small shovel to 16 cm deep and 40 cm wide.

2.3.11 Anomaly 11

The anomaly is located 18 km east of the Ranken Store. The location can be reached via the Ranken Store track to the east, past the water bore near anomaly 9 and drive 6 km south from the last water bore. Spectrometer readings were low and two samples were taken (dark red brown siltstone gravels and soil sample).

Table 11. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000625		718467	7829539	Dark red brown siltstone fragments (gravels) with iron
3000626		718467	7829539	Grey brown soil (soil sample). Dug with small shovel to 10 cm deep and 30 cm wide.

2.4 Northern Licence Areas EL's 29018, 26019

2.4.1 Anomaly 12

This anomaly is located 10 km north of Mittiebah St. Access is via the Mittiebah St access road from the south. The anomaly is 9 km north of Mt Morgan. Spectrometer readings were low and no samples were collected. There were few dark red brown siltstone fragments observed on the area.

2.4.2 Anomaly 13

The anomaly 13 is located 18 km NW of Mittiebah St. Access route is via the Mittiebah St road south to Mt. Morgan and Corkwood bore. This anomaly is about 5.1 km west of Corkwood bore. There is some sandstone, siltstone and chert breccia float at the location.

Table 12. Rock and Soil Description

MM ID	Assay ID	Easting	Northing	Comments
3000534		702688	7929982	Sandstone, siltstone ,chert and breccia float.

2.4.3 Anomaly 14

Anomaly 14 is located about 18 km west of Mittiebah St. Access is via the Mittiebah St road to Mt Morgan and drive further 12 km west. It was hard to drive due to turpentine bush. Walking distance to the location is 2.1 km. There was only one sample collected from the site.

Table 13. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000606	1018	702376	7924299	Dark red brown siltstone fragments with some lateritic materials

2.4.4 Anomaly 15

The location of anomaly 15 is about 25 km west of Mittiebah St. The anomaly is accessed via a station track that runs past Mt Morgan. There is a lot of turpentine bush but the location can be accessed by car. Three samples were collected from the location.

Table 14. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000501		695681	7923347	Silicified dark red brown siltstone with chert
3000502		695682	7923287	Silicified dark red brown siltstone with some residual iron
3000503		695692	7923217	Silicified red yellowish siltstone

2.4.5 Anomaly 16

Anomaly 16 is located to the south of anomaly 15, approximately 17 km west of Mt Morgan. There was lot turpentine bush making vehicle access to the location difficult. Three rock samples were collected.

Table 15. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000603	993	695883	7920606	Dark red brown colour siltstone
3000604	1009	695585	7920476	Yellow grey gossanous siltstone
3000605	1010	695598	7920501	Yellow grey siltstone. Massive

2.4.6 Anomaly 17

The anomaly is 27 km west of Mittiebah St. and accessed via the Mt Morgan track. The anomaly is about 800m north of the main track. The location is close to the Mittiebah Range. Dark brown siltstone with chert and veinlets of a yellow coloured material were observed in the area. Trilobite fossils were also found on the location. The chepalon (head) and thorax (body) of the fossils are well preserved on the fine sandstone or siltstone.

Table 16. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000504		694846	7922729	Limestone breccia, marl
3000505		692858	7924611	Dark red brown siltstone fragments with lateritic materials and chert.
3000506		692856	7924600	Dark brown siltstone fragments.

2.4.7 Anomaly 18

The anomaly is located about 36 km west of Mittiebah St. Access is via the Mt Morgan station road. There are a lot of siltstone and chert beds in the area. The turpentine bush made it difficult to walk through to the area. Two samples were collected from the area.

Table 17. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000607	1060	684203	7920211	Massive dark red brown siltstone
3000608	1061	684657	7922178	Massive red brown siltstone with chert

2.4.8 Anomaly 19

This anomaly is about 40 km west of Mittiebah St and reached via the Mt Morgan track. The anomaly is part of the Mittiebah Range due it has higher elevation. Massive chert and red sandstone beds were observed on the area. Medium grained sandstone with ripple marks dipping W (120/68) and strikes NNW. Two samples were collected from here.

Table 18. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000601	977	682063	7928842	Dark red brown siltstone fragments (gravels) with some veinlets yellow minerals
3000602		682005	7929090	Medium grained red sandstone with ripple marks. The sandstone bed strikes NNW and dipping west (120/68 W)

2.4.9 Anomaly 20

The location of anomaly 20 is 26 km west of Mittiebah St. The access route is via the Mt Morgan track. The anomaly is located on the top of red, yellow and brown iron oxides that formed(?) by weathering (Ochre Range, which is part of the Mittiebah Range). There are a lot of siltstone fragments and chert fragments observed on the location. Three samples were collected from the area.

Table 19. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000630		697623	7928827	Red brown oxidized medium grained sand with chert.
3000631	1508	697076	7927811	Dark brown siltstone fragments with lateritic materials.
3000632	1501	696328	7927242	Dark red brown medium grained iron oxides, Ochre with chert.

2.4.10 Anomaly 21

Anomaly 21 is located 27 km SW of Mittiebah St. This anomaly can be accessed via the Mittiebah St to Alexandria St. road. The area is part of Alexandria St. A Sample of sand and quartz breccia were taken from the location.

Table 20. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000519		695392	7906205	Dark red brown quartz breccia. Matrix support breccia with some iron stained.

2.4.11 Anomaly 22

The anomaly is located 14km SSW of Mittiebah St. on Alexandria St. The anomaly is approximately 16 km east of anomaly 21. There were few outcrops on the area and 4 samples were collected from the location:

- Breccia subcrop, black and grey angular chert fragments in fine sandstone matrix.
- Breccia with fragments up to 30mm of chert and black shale ,weak iron staining
- Sandstone float up to 70 cm. Metallic black mineral in a couple of boulders. Sandstone is very fine grained and the grains very rounded
- Sandstone and breccia
- Gossanous micro breccia float but probably close to source

Table 21. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000514		710228	7905085	Sandstone breccia with fragments up to 30mm of chert and weak iron stain.
3000515		710273	7904941	Black and grey angular chert fragments in fine sandstone matrix
3000516		710149	7905053	Brown and yellow medium grained sandstone with weak iron stain.
3000517		710149	7905053	Dark red brown gossanous sandstone.

2.4.12 Anomaly 23

The anomaly is located 16 km SSW of Mittiebah St. The anomaly is only 1.2 km west of anomaly 22. The anomaly is 800m from the track and no outcrop or float was located. There are some scattered trees and termite mounds. One soil sample was collected from the location.

Table 22. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000523		706538	7904133	Dark brown and yellow soil with some sand and silt.

2.4.13 Anomaly 24

Anomaly 24 can be accessed via the Mittiebah St access road from the south. The area is a flat black soil plain. There is sparse iron stained sandstone and siltstone float between the road and anomaly 24. One steam sediment and sandstone float sample was collected from the area.

Table 23. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000535		700421	7898856	Steam sediment- pale grey fine to medium grained sand and silt.
3000536		700421	7898856	Dark grey fine to medium grained sandstone with some quartz crystals

2.4.14 Anomaly 25

The anomaly is located 7 km west of Mittiebah St. Access is via the Mittiebah St road from the south then drive west on the Peaker Piker Creek road and then south across country for about 5 km. The anomaly is situated in open bush. No outcrop or float. To the west about 100m is larger area with pebble float of sandstone siltstone and chert. Three samples were collected from the location.

Table 24. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000520		712188	7915569	Silicified dark brown fine grained sandstone with some iron stained
3000521		711996	7915459	White grey quartzitic breccia. The clasts are angular to sub rounded.
3000522		712740	7915052	Black and white angular chert in quartz sandstone matrix

2.4.15 Anomaly 26

The anomaly is located 9 km SSW of Mittiebah St. The location is reached via the Mittiebah St access road from the south. The anomaly was hard to access due to thick vegetation. There is sandstone and siltstone float with fragments of chert on the area. Six samples were collected.

Table 25. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000524		707080	7903613	Dark brown sandstone/siltstone with some iron
3000525		709058	7905394	Dark red brown iron stained float. One fragment has possible box works or quartz after calcite.
3000527		710629	7910923	Dark brown fine sandstone/siltstone breccia. The breccia has haematite fragments.
3000529		708945	7905875	Dark brown fine sandstone/siltstone with iron and haematite mineral. The sample rock chips are relatively heavy.
3000530		708852	7905870	Dark brown fine sandstone/siltstone with some iron. The rock chips are heavy.
3000531		708911	7905878	Dark brown fine sandstone/siltstone with some iron.

2.4.16 Anomaly 27

Anomaly 27 is accessible by car. There is some sparse float of chert with haematite staining. One sample was collected from the area.

Table 26. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000508		731026	7910965	Dark red brown polished fine sandstone/siltstone with haematite

2.4.17 Anomaly 28

Anomaly 28 lies about 7 km north Mittiebah St. The access route is via Mittiebah St access route from the south. This location is flat with grass and a few siltstone fragments. One sample was collected from the area.

Table 27. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000629		720730	7926464	Dark red brown siltstone fragments (gravels) with iron.

2.4.18 Anomaly 29

The anomaly is only 1.4 km SE of Mittiebah St. Access is via Mittiebah St access road from the south. There are few cherty types of sediment in float (they are rounded and banded). No sample was taken from the area.

2.4.19 Anomaly 30

Anomaly 30 lies in a desiccated soil plain. There are a few stones and some small sandstone pebbles. Two soil samples were collected.

Table 28. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000537		745739	7927995	Dark brown soil with some sand
3000538		745739	7927995	Dark red brown sandstone gravel and pebbles

2.4.20 Anomaly 31

Anomaly 31 was not inspected.

2.4.21 Anomaly 32

No outcrops or float was found at this location. Only one soil sample was collected.

Table 29. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000539		749601	7927944	Dark brown sandy soil

2.4.22 Anomaly 33

Anomaly 33 was not inspected.

2.4.23 Anomaly 34

The anomaly lies on a black soil plane. There are some sparsely scattered pebbles of chert. Two samples were collected.

Table 30. Rock Description

MM ID	Assay ID	Easting	Northing	Comments
3000509		739469	7911681	Dark brown polished siltstone gravels
3000510		740471	7915054	Dark brown gossanous sandstone

2.4.24 Anomaly 35

The anomaly lies on a black soil plain with some areas of scattered sandstone, siltstone and chert pebbles. No samples were collected.

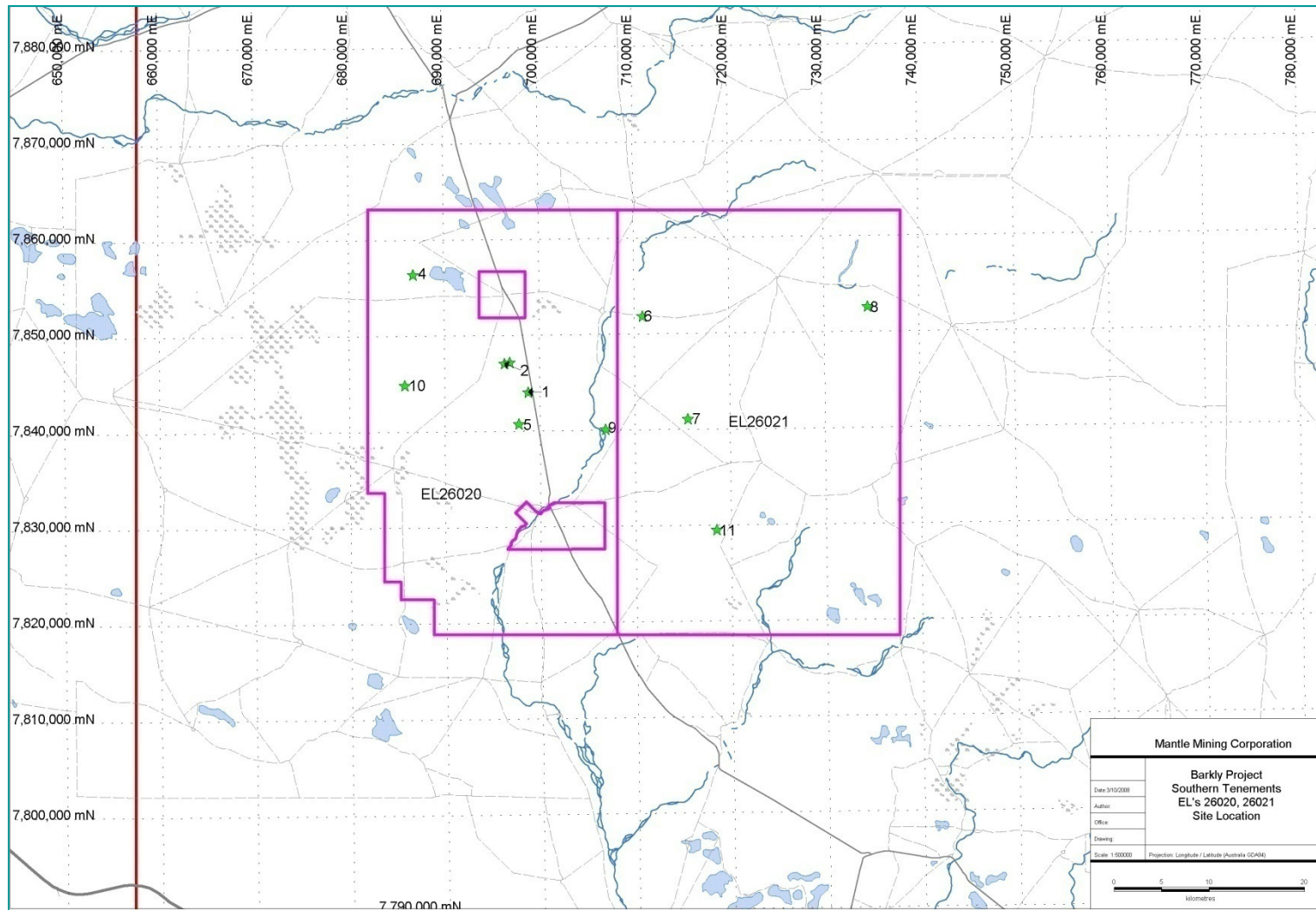


Figure 2. Site Numbers and locations EL's 26020, 26021

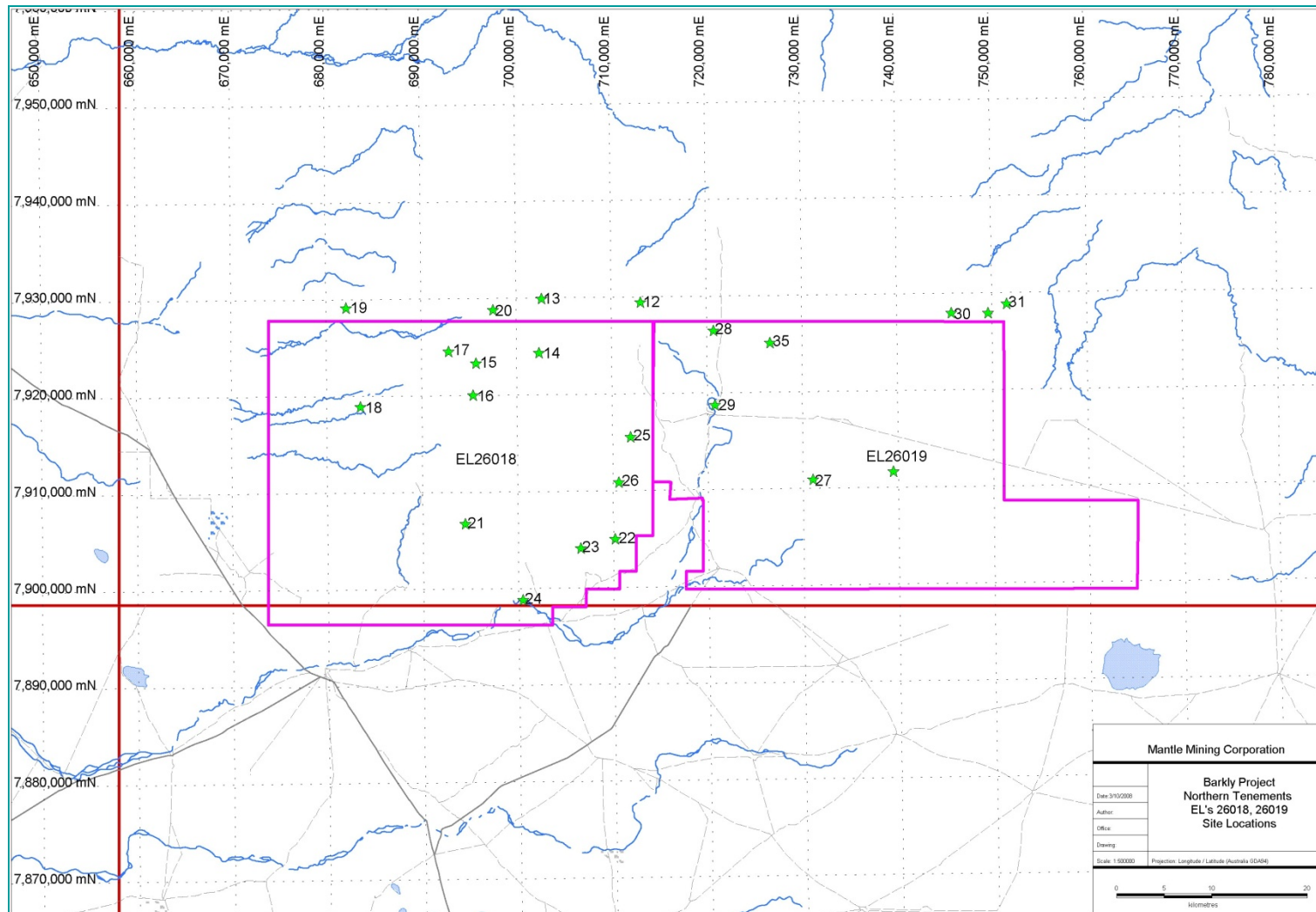


Figure 3. Site Numbers and locations EL's 26018, 26019



4 Conclusions

The work completed on the four exploration licences has failed to find any obvious signs of mineralisation, however several samples have been sent for analysis and the results are awaited. The general feeling was that the targeted sites are barely if at all different from the surrounding areas.

It was noted that some of the sites were slightly elevated or lower than the surrounding areas while others had slightly thicker or thinner vegetation. At some sites there was a greater coverage of wind polished gibbers while at others there was less. At most of the site no variation from the surrounding country was noted. Thus it is presumed that the targeting method used might be responding to subtle variations that are not necessarily related to bedrock composition or recognisable in the field.



3 Spectrometer Results

A Radiation Solutions RS-125 spectrometer was used to measure the uranium content in several samples and along numerous traverses. The data generated is presented in appendix 1. A detailed statistical analysis of the results is not warranted as casual inspection of the data indicates there is only minor variance present.

The spectrometer was set to read for 120 seconds at each site so that high- quality data was collected. The highest uranium value returned was just over 12 eppm with the average for the 995 readings being 2.33eppm.

The results obtained are not surprising given the physical environment that exists in the exploration area. The rainfall pattern and erosion regime that exists over the Barkly Tableland is much more likely to see the accumulation of uranium at the base of calcrete layers or within sandy aquifers in the limestone units. It is highly unlikely that uranium would be accumulating in the surface environment.



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Regional Assessment and Exploration Model

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Barkley Phosphate Project

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EXECUTIVE SUMMARY

In September 2008 a field party spent 9 days examining areas of interest identified in four tenements owned by Mantle Mining Corporation. The tenements, numbered 26018 to 26021, lie near the north eastern end of the Georgina Basin in the Northern Territory. In all 33 out of 35 areas of interest were inspected and sampled.

Following the field trip, the information gained was assessed in conjunction with the regional geological and geophysical data. The assessment has resulted in the recognition of several parameters considered to be important in the exploration for phosphate mineralisation.

An exploration program is being designed to advance the understanding of the area and to provide the framework in which additional work in 2009 can be planned.



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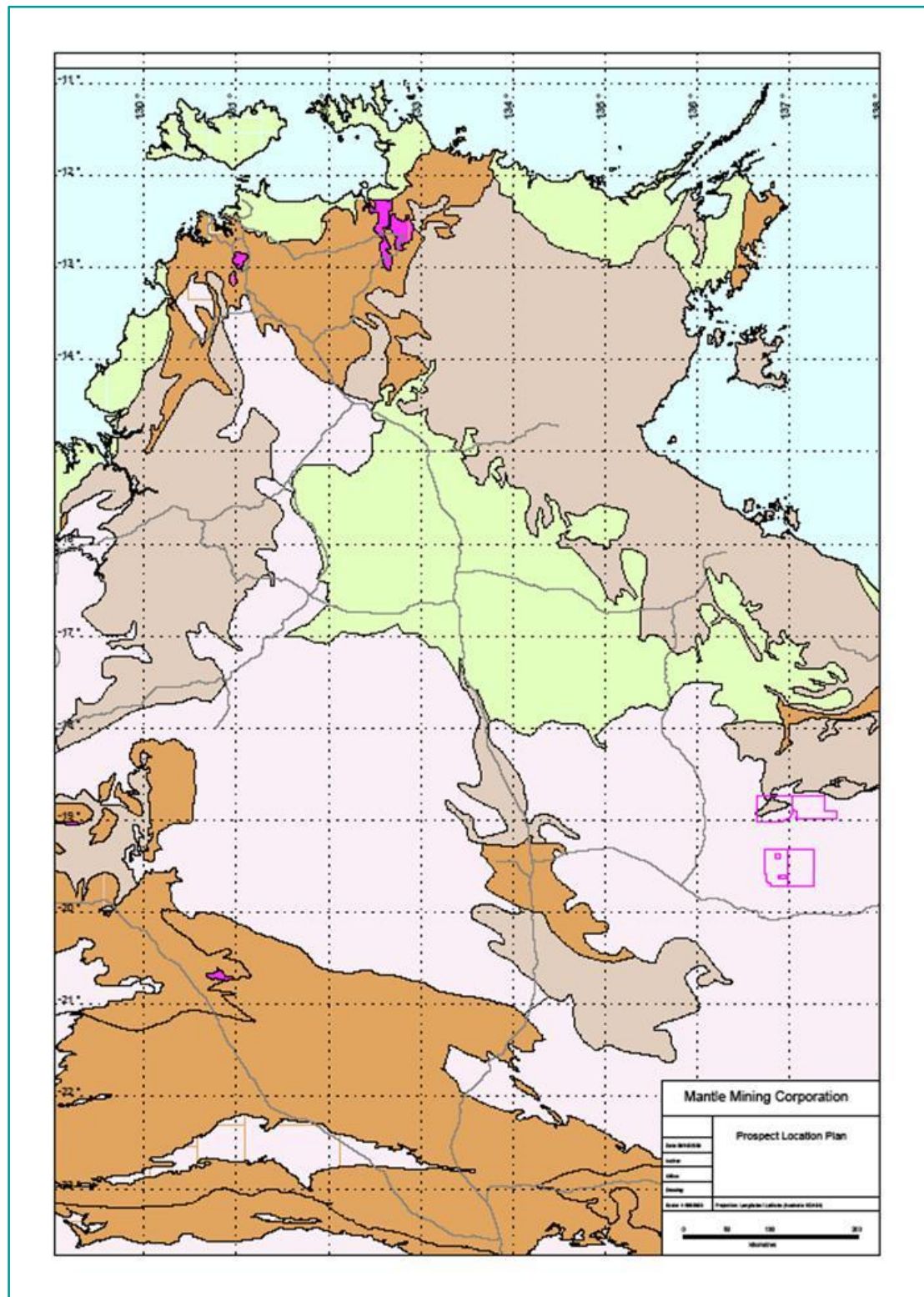
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1 Introduction

In 2007, Mantle Mining Corporation applied for four exploration licences in the Barkly Region of the Northern Territory. The licences were granted late in November and early December 2007. The tenements are located 1500km south of Darwin (Plan 1), 450km east of Tennant creek. The Wonarah Phosphate deposit owned by Minemakers Ltd (72mt @ >23%P₂O₄) lies 80km to the southwest and the Highland Plains mineralisation currently being defined by Australian Phosphate Pty Ltd lies 140km to the northeast. Figure 1 shows the locations of Mantle Mining's tenements and the locations of the Wonarah and Highland Plains deposits. The figure also shows the positions of the Alexandria, Alroy and Buchanan Dam phosphate occurrences.

The licences consist primarily of sedimentary rocks belonging to the middle Cambrian Georgina Basin. Exploration licence 26018, which is the north-western most of the four contains the Mittebah Range, a sandstone exposure of the Proterozoic South Nicholson Group. In general, the area of the tenements is flat, black soil with ruminants of sand dunes and mildly incised creeks. Outcrop is extremely poor.

**Plan 1. Project Location Plan**

2 Field inspection October 2008

In June, 2008 Ms Vicki Stamoulis of Chrysoar Exploration prepared a report that identified 35 areas of interest within the four Barkly tenements. Ms Stamoulis used the regional radiometric, magnetic, landsat and Seebase data to define areas that had unique spectral characteristics. The areas identified were not specifically related to phosphate or any other type of mineralisation.

In October 2008 CSA Global was asked to undertake the ground inspection of the areas of interest. Two teams consisting of a geologist, field assistant and vehicle were tasked with the job. The teams spent 9 days on site inspecting, sampling and using a spectrometer to measure the radioactivity.

At the completion of the field visit it concluded that the various geophysical and spectral techniques were responding to subtle variations in elevation, ground cover and vegetation. No obvious signs of mineralisation were recognized. Photo1 shows the typical landform associated with the Mittebah Range. Photos 2 and 3 show the landform commonly found in the southern part of the northern tenements and the southern tenements.

3 Exploration Model

There are three categories of sedimentary phosphorite deposit recognised:

1. Guano- The accumulated excreta of seabirds or bats. Economically viable deposits are generally found on oceanic islands in dry climates.
2. Bone Beds- Local accumulations of bone, teeth, scales and coprolites. Generally these deposits are small but can form significant deposits where leaching of several bone beds leads to the phosphatisation of limestone beds at lower levels.
3. Primary Marine deposits- All marine sediments, especially limestone contain some phosphorite and on occasion, the concentration reaches significantly high levels. The presence of hydrocarbons and glauconite in many deposits suggests that slightly anaerobic conditions favour the formation of phosphorite. Deposits of this type are generally extremely large but low-grade.

To form commercial concentrations of phosphorite a secondary enrichment process is required. Three processes have been recognised that lead to the required enrichment. Firstly, the re-precipitation of phosphorite leached from higher in the sediment pile; secondly, the selective leaching or replacement of the limestone in the phosphatic horizon and thirdly, mechanical up-grading where phosphorite concentration has occurred.

Examination of photos of the drill core derived from the Wonarah deposit suggests it belongs in the second category. The Highland Plains deposit is described by Phosphate Australia as an unconsolidated sand and phosphorite occurrence which implies the third mechanism of up-grading.

The chemical nature of phosphate, the descriptions of the deposit styles, in particular the primary marine deposits, and the methods of secondary enrichment lend themselves to the development of exploration criteria that can be applied to target selection. In brief the criteria are:

1. Phosphate in small quantities is beneficial to plants, in large doses it is a poison.
2. Evidence for the removal or replacement of limestone is considered to be important.
3. Anaerobic, shallow marine conditions form in restricted basins and these maybe recognizable in geophysical and remotely sensed data. These are sites for the enhanced formation of phosphorite and also for its mechanical up-grading.
4. The development of broad areas of limestone and the presence of several phosphorite deposits and occurrences indicates the required primary material is present and secondary processes have been active.

4 Model Application

Evidence gained during the October field visit and from the published geological mapping and geophysical data has shown that all of the required parameters, as set out in the model are present in the tenements owned by Mantle Mining. The points in the model area addressed below.

1. Phosphate in small quantities is beneficial to plants, in large doses it is a poison.

Examination of the three photos demonstrates point one. Photo 1, Mittebah Range (EL 26018) shows trees and tall grass species are supported by the climate. Photos 2 and 3 (El 26020) amply demonstrate the effects of too much phosphate within the tree root zone. Figure 2 shows the Uranium radiometric response over the tenement area. The elevated uranium response in the southern part of EL's 26020 and 26021 suggests the Tertiary cover is thinner there than elsewhere.

2. Evidence for the removal or replacement of limestone is considered to be important.

Close examination of photo 2 reveals several chalcedony / chert pebbles and stones lying on the surface. During the September field visit, it was noted that some of the areas of interest were nothing more than areas covered by chert stones and less grass. The significance of this was missed at the time but it is now considered that the chert stones have formed by the replacement of limestone by silica. The photos of core drilled at Wonarah show it consists of quartz-chert pebbles in a soft, fine-grained phosphorite rock.

3. Anaerobic, shallow marine conditions form in restricted basins and these maybe recognizable in geophysical and remotely sensed data. These are sites for the enhanced formation of phosphorite and also for its mechanical up-grading.

Figure 1 shows the Mantle Mining tenements superimposed on the regional Total Magnetic Intensity image. The locations of the Wonarah and Highland Plains deposits and the Alexandria, Alroy and Buchanan Dam occurrences are also shown. The latter four occur on the northern side of an area of elevated magnetics whilst the Wonarah deposit lies to the south

of the same feature. The interpretation placed on the magnetic image is; the magnetic high is a response to an elevated area in the basin at the time of deposition and the lower magnetic areas are slightly deeper water sub or restricted basins. In the magnetic data an embayment or sub basin can be seen in the southern half of EL's 26020 and 26021.

4. The development of broad areas of limestone and the presence of several phosphorite deposits and occurrences indicates the required primary material is present and secondary processes have been active.

Figure 3 has been compiled from the published 1:250,000 scale geological maps. The pink units mapped are limestone and demonstrate the broad extent of these units. The Wonarah deposit is hosted by the Middle Cambrian Wonarah Beds, which are described as silicified limestone, siltstone, sandstone, chert and shale. The Wonarah beds extend to the northeast of the Wonarah deposit and an outcropping of the unit is mapped within EL26020. The Highland Plains deposit occurs in the Middle Cambrian Camooweal Dolomite, which is described as Dolomite, chert and sandstone lenses. The Camooweal Dolomite is an extensive unit and occurs in EL 26021.

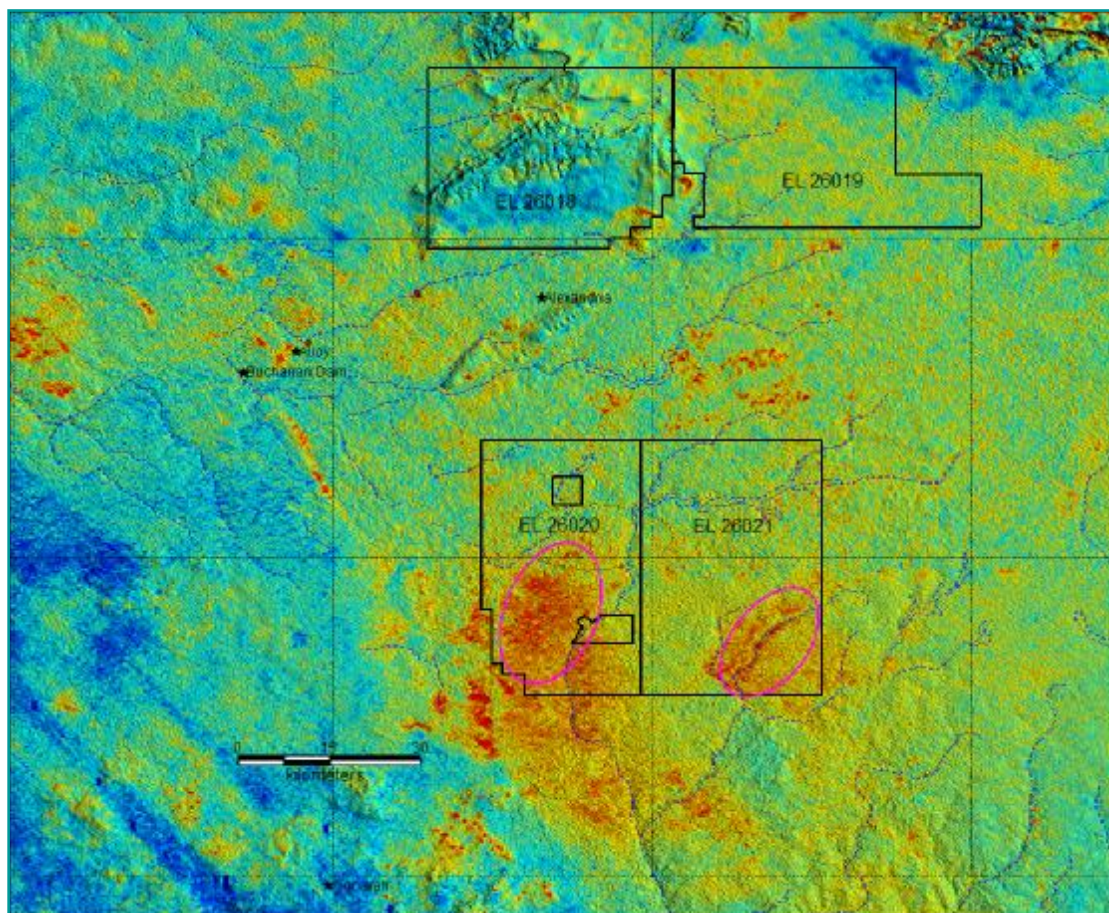


Figure 2. Uranium Radiometric Response

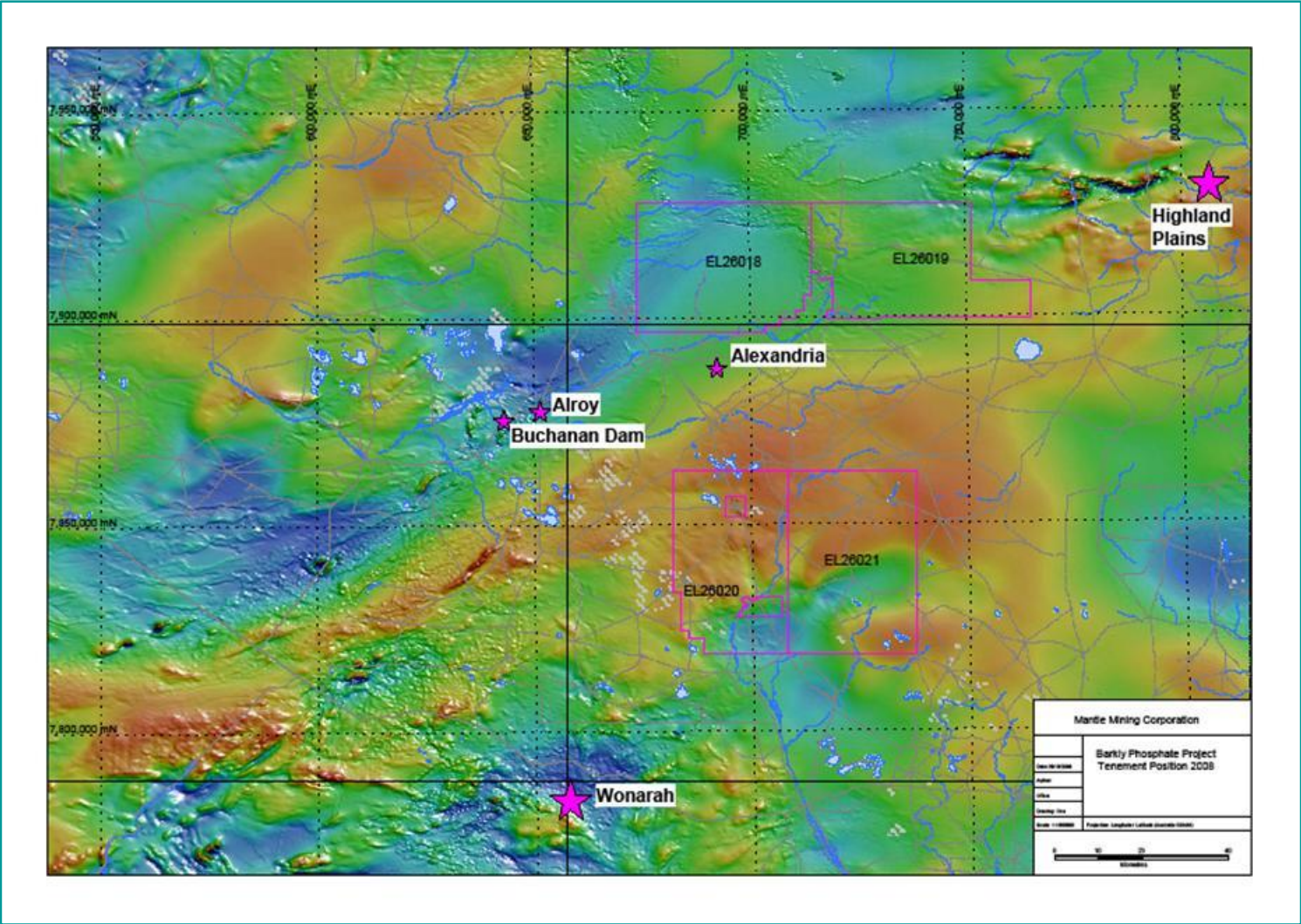


Figure 1. Tenement Location

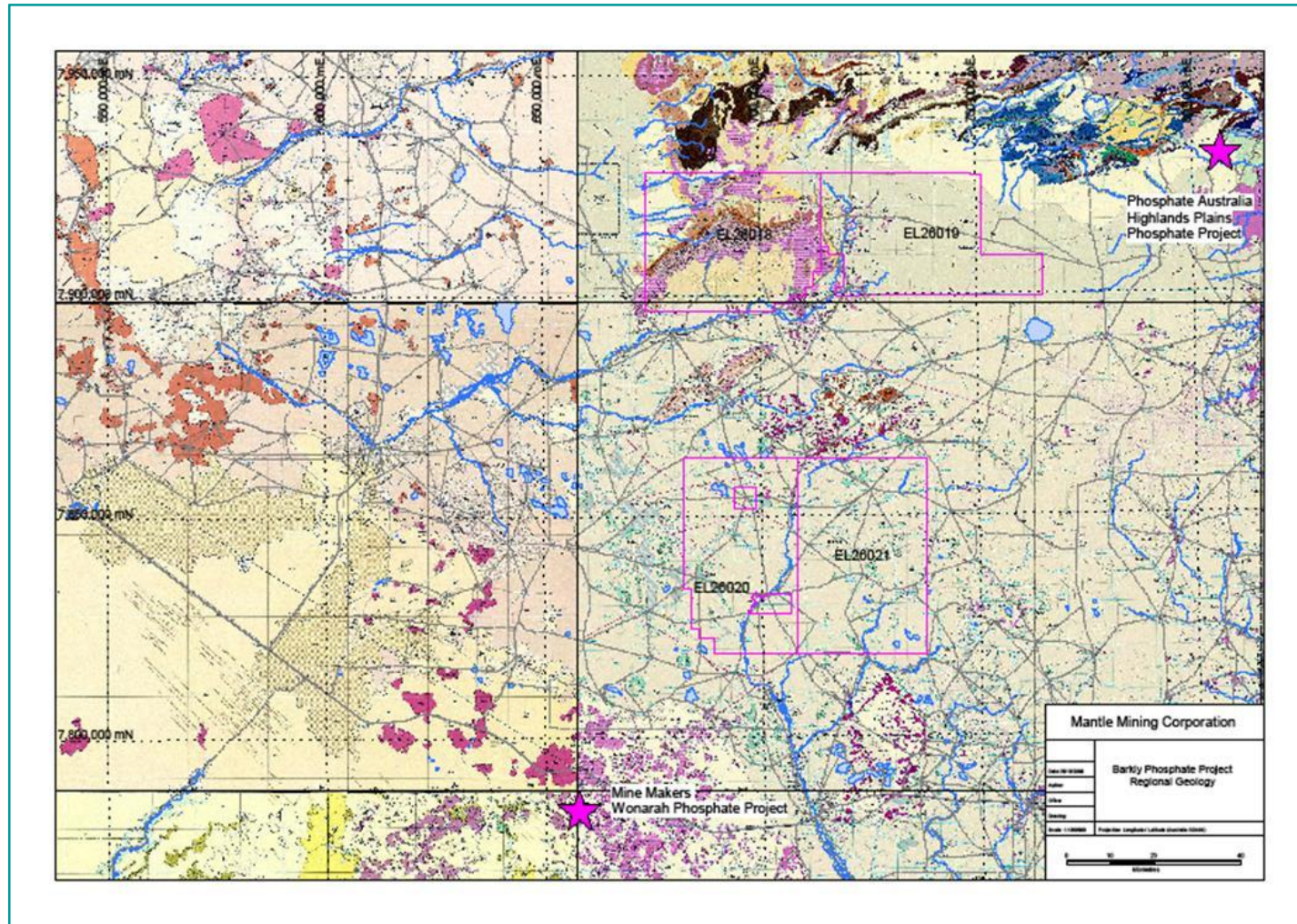


Figure 3. Regional Geology

CONCLUSIONS

An exploration model for the discovery of commercially viable quantities of phosphorite has been developed from knowledge of the mode of formation of the deposits and by placing the known deposits into a geological and geophysical framework. The key points of the model have been applied to the Mantle Mining tenements and the southern parts of EL's 26020 and 26021 have emerged as the areas of greatest prospectivity.

A first past exploration program is being developed to assess the area.



Photo 1. Mittiebah Range



Photo 2. EL 26020-EL26021



Photo 3. EL 26020



Geochemical sampling results

Exploration Licences 26018 to 26021

Barkly Region, Northern Territory

APPENDIX V

ANNUAL REPORT - EXPLORATION LICENCES 26018 - 26021

JANUARY 2009

MANTLE MINING CORPORATION LTD - BARKLY PROJECT - SAMPLES

ID	Ca	Ce	Cu	Dy	Er	Eu	Fe	Gd	Ho
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	G321I	G321M	G321M	G321M	G321M	G321M	G321I	G321M	G321M
3000513	300	11.8	4	0.45	0.3	0.1	4000	0.45	0.1
3000603	300	28.7	3	1.55	1.05	0.25	10500	1.15	0.35
3000613	2400	43.9	10	2.95	1.4	1.1	21000	4.2	0.5
3000615	4500	57	15	2.95	1.45	0.95	24500	3.6	0.5
3000617	4900	55.9	14	2.7	1.35	0.9	24000	3.45	0.55
3000618	261000	18.3	4	1.2	0.7	0.3	7000	1.45	0.2
3000621	7600	57.2	16	2.95	1.5	0.9	27000	3.55	0.55
3000622	374000	7.6	4	0.6	0.3	0.15	2500	0.75	0.1
3000624	3900	64.1	16	3.65	1.8	1.15	27500	4.5	0.7
3000626	5000	45	14	2.8	1.5	0.85	26500	3.6	0.55
3000628	2900	51.9	57	2.85	1.4	0.85	24500	3.6	0.55
3000634	3200	51.8	14	3.15	1.45	1	25000	3.8	0.6
3000636	5400	64.3	17	3.55	1.7	1.15	29000	4.35	0.65

ID	K	La	Lu	Mg	Mn	Nd	P	Pb	Pr
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	G321I	G321M	G321M	G321I	G321I	G321M	G321I	G321M	G321M
3000513	200	5.7	<0.05	100	<100	4.5	<500	4	1.3
3000603	100	19.6	0.2	400	300	8.1	<500	12	2.6
3000613	1200	29.5	0.15	2300	500	28.3	<500	12	7.15
3000615	1800	22.8	0.15	3300	800	22.6	<500	14	5.8
3000617	1600	21.7	0.15	3600	800	21.7	<500	15	5.6
3000618	300	9.65	0.1	51300	500	8.6	<500	3	2.15
3000621	1900	21.3	0.2	4200	800	22.1	<500	16	5.4
3000622	300	4.9	<0.05	12800	300	4.3	<500	3	1.05
3000624	2600	25.2	0.2	4100	900	26.6	<500	16	6.65
3000626	3500	20.2	0.15	4600	600	20.4	<500	13	5.15
3000628	2000	19.6	0.2	3400	800	21	<500	19	5.15
3000634	1400	22.1	0.2	3500	700	22.8	<500	14	5.75
3000636	2600	26.4	0.2	4200	900	27.7	<500	16	6.85

ID	Sm	Sr	Tb	Th	Tm	U	Y	Yb	Zn
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	G321M	G321M	G321M	G321M	G321M	G321M	G321M	G321M	G321M
3000513	0.75	22.8	0.05	2.8	0.05	0.7	2.2	0.3	10
3000603	1.35	21.8	0.2	11.2	0.2	1.8	7.85	1.2	6
3000613	5	80.8	0.6	4.6	0.2	0.5	14.3	1.1	30
3000615	4.4	70.8	0.5	6	0.2	1.15	13.4	1.2	30
3000617	4.35	485	0.5	6	0.2	0.85	13.3	1.3	28
3000618	1.65	125	0.2	2.35	0.1	1.3	6.85	0.6	8
3000621	4.35	101	0.5	6.45	0.2	1.35	14.4	1.3	36
3000622	0.75	288	0.1	0.95	<0.05	0.9	3.65	0.2	8
3000624	5.1	81	0.65	6.4	0.25	0.85	17.4	1.6	32
3000626	4.2	59.6	0.5	5.75	0.2	0.3	14.6	1.3	34
3000628	3.95	52.4	0.5	4.8	0.2	0.45	13.5	1.2	90
3000634	4.55	62.2	0.55	8.95	0.2	0.35	14.9	1.3	30
3000636	5.3	96	0.65	7.5	0.25	0.8	16.8	1.5	34



Rock chip and spectrometer readings

Exploration Licences 26018 to 26021

Barkly Region, Northern Territory

MM ID	Assay ID	Easting	Northing	Total[ppm]	Total[cpm]	K[ppm]	K[cpm]	U[ppm]	U[cpm]	Th[ppm]	Th[cpm]	Dose	Dose units
	609	719939	7918986	81.6	683.2	0.32	30.5	0	9.6	9.24	17.5	29.06	nGy/h
	610	720659	7917754	105.6	885	0.13	44.9	3.11	29.3	10.56	20.7	47.07	nGy/h
	611	722342	7917575	95.9	803.2	0.16	34.6	2.22	20	6.83	13.4	32.55	nGy/h
	612	714431	7922218	97.6	817.7	0.54	46	0.71	11.7	5.82	11.3	26.61	nGy/h
	613	701874	7921232	84.3	706	0.1	28.4	2.27	17.9	5.2	10.3	27.6	nGy/h
	614	695835	7923344	123.1	1030.9	0.67	62.5	0.31	18.9	12.36	23.8	43.74	nGy/h
MM3000501	615	695681	7923347	140.6	1178.2	0.25	58.4	3.4	34.4	13.23	25.8	57.44	nGy/h
MM3000502		695682	7923287										
MM3000503		695692	7923217										
MM3000504		694846	7922729										
	616	695600	7923100	150.1	1257.8	0.21	54.3	3.51	33.4	12.15	23.8	54.48	nGy/h
	617	695600	7923200	105.4	883.1	0.17	30.9	0.43	16.7	10.55	20.2	32.96	nGy/h
	618	695600	7923300	110.5	925.8	0	25.3	3.4	28.2	8.94	17.5	42.53	nGy/h
	619	695600	7923400	100.4	841	0.34	39.7	0.31	15.8	10.23	19.6	33.73	nGy/h
	620	695600	7923500	68.8	576.3	0.02	29.4	4	22	2.34	5.1	28.31	nGy/h
	621	695700	7923100	69.5	582.5	0.08	27.3	3.09	17.9	2.41	5.1	24.3	nGy/h
	622	695700	7923200	78.1	654.4	0.4	39.8	1.61	13.2	3.9	7.8	24.45	nGy/h
	623	695700	7923300	67.5	565.9	0.13	25.3	1.85	13.7	3.6	7.2	21.51	nGy/h
	624	695700	7923400	87.8	735.5	0	19.1	3.28	26.2	7.87	15.5	39.01	nGy/h
	625	695700	7923500	91	762.4	0	35.6	4.37	28.2	5.57	11.3	38.74	nGy/h
	626	695800	7923100	96.7	810	0.51	52.2	0.75	17.9	10.17	19.6	38.17	nGy/h
	627	695900	7923200	103.6	867.9	0	37.7	3.1	34.4	14.39	27.9	55.61	nGy/h
	628	695900	7923300	113.2	948.6	0.3	48	3.11	24.1	6.73	13.4	38.96	nGy/h
	629	695900	7923400	142.4	1193	0.53	58.4	2.97	22	5.63	11.3	38.18	nGy/h
	630	695900	7923500	141.6	1186.5	0.22	64.6	6.4	40.6	7.54	15.5	58	nGy/h
	631	696000	7923100	139.8	1171.6	0.39	65	3.74	33.6	11.42	22.5	56.13	nGy/h
	632	696000	7923200	127.3	1066.4	0.27	54.2	3.48	30.3	9.96	19.6	49.31	nGy/h
	633	696000	7923300	149.8	1255.3	0	48	5.44	40.7	10.93	21.7	59	nGy/h
	634	696000	7923400	139.2	1166.1	0.41	64.6	4.91	32.4	6.56	13.4	49.65	nGy/h
	635	696000	7923500	170.6	1429.1	0.05	70.8	9.46	53.1	6.21	13.4	68.84	nGy/h
	636			140.6	1178.2	0.25	58.4	3.4	34.4	13.23	25.8	57.44	nGy/h
	637			108.3	907.2	0.68	56.3	0.49	13.7	7.99	15.5	33.03	nGy/h
	638			128.5	1076.8	0.29	60.4	3.07	34.4	14.34	27.9	59.1	nGy/h
	639			106.8	894.3	0.26	47	3.83	25.1	5.05	10.3	37.82	nGy/h
	640			108.6	909.8	0.11	43.9	5.08	29.3	3.87	8.2	39.51	nGy/h
	641			126.1	1056.1	0.5	72.8	5.68	34.4	5.39	11.3	51.96	nGy/h
	642			104.6	876.2	0.43	50.1	3.18	20	3.45	7.2	32.17	nGy/h
	643			98.5	824.9	0.26	41.5	2.98	20.7	4.76	9.6	32.43	nGy/h
	644			84.6	708.7	0.17	37.7	3.33	22	4.56	9.3	32.52	nGy/h
	645			108	905.1	0	37.7	4.82	30.3	5.54	11.3	41.09	nGy/h
	646			114.2	956.8	0.2	50.1	4.47	30.3	6.62	13.4	44.76	nGy/h
	647			114.2	956.9	0.67	66.6	1.64	22	10.07	19.6	44.83	nGy/h
	648	694846	7922729	65.6	549.6	0.28	24.2	0	6.5	8.74	16.5	27.21	nGy/h
	649	692891	7924771	97.8	819.5	0.1	36.2	2.97	24.1	7.32	14.4	37.07	nGy/h
	650	692885	7924721	92	770.7	0.11	39.7	3.91	26.2	5.6	11.3	37.76	nGy/h
	651	692891	7924670	82.6	692.1	0.19	33.5	3.41	17.9	1.29	3.1	24.4	nGy/h
	652	692861	7924622	89.6	750.2	0.6	50.6	1.92	12.7	2.45	5.1	24.82	nGy/h

	653	692861	7924622	84.1	704.2	0.41	43.2	1.32	15.3	6.38	12.5	29.76	nGy/h
	654	692859	7924566	95	796.2	0.14	45.1	3.14	29.1	10.32	20.2	46.69	nGy/h
	655	692854	7925598	89.8	751.9	0.58	43.3	0	7.8	5.89	11.3	23.45	nGy/h
	656	692854	7924423	106.6	893	0.57	49.1	0	12.7	9.14	17.5	32.13	nGy/h
MM3000505	657	692858	7924611	122.8	1028.9	0.32	44.4	3.22	20.2	3.5	7.3	31.18	nGy/h
MM3000506		692856	7924600										
	658	719997	7918900	127.6	1068.6	0	46	7.47	46.8	8.59	17.5	63.71	nGy/h
	659			112.9	945.4	0.19	33.9	0	18.1	19.31	36.5	54.57	nGy/h
	660			112.2	940.3	0	40.3	6.46	34.8	3.27	7.3	43.89	nGy/h
	661			96.8	810.7	0.42	34	0	7.7	12.74	24	39.89	nGy/h
	662			104.7	877.4	0.06	44.2	3.68	31.8	10.46	20.5	49.01	nGy/h
	663			113.8	953.1	0.47	70.1	5.15	34	6.87	14.1	52.58	nGy/h
	664			109.4	916.4	0.52	59.3	1.75	23.1	10.57	20.5	44.79	nGy/h
	665			105.3	881.7	0	29	3.43	27.5	8.24	16.2	40.84	nGy/h
	666	719968	7918846	107.6	901	0.3	48	2.12	24.1	10.07	19.6	42.63	nGy/h
	667			105.1	880.7	0.12	48.6	4.65	32.7	7.79	15.6	47.82	nGy/h
	668			93.8	785.7	0.34	50.7	3.81	24.4	4.55	9.4	37.4	nGy/h
	669			97.3	814.9	0.25	40.3	3.23	20.2	3.51	7.3	30.33	nGy/h
	670			109.6	918.5	0	26.9	3.91	29.6	8.2	16.2	43.36	nGy/h
	671			105	879.6	0.04	39.8	3.9	29.6	8.18	16.2	43.67	nGy/h
	672			119.4	1000.6	0.19	37.7	3.02	21	4.83	9.7	31.91	nGy/h
	673			105.3	881.7	0.38	48.5	1.29	21	10.63	20.5	40.61	nGy/h
	674			100.1	838.5	0	44.2	7.04	36.1	2.23	5.4	44.23	nGy/h
	675			107.5	900.6	0.42	63.3	4.84	30.6	5.54	11.5	46.72	nGy/h
	676			113.2	948.7	0	44.4	6.5	41.1	7.67	15.6	55.99	nGy/h
	677			107.3	899	0	42	3.13	34	13.93	27	54.51	nGy/h
	678	720024	7918826	126.3	1058.2	0	50.1	7.79	46.8	7.47	15.5	62.44	nGy/h
	679	720067	7918811	101.9	853.4	0.32	43.9	0.23	20	13.5	25.8	41.85	nGy/h
	680	720146	7918791	88.5	741.8	0.49	45.9	1.82	13.7	3.56	7.2	25.93	nGy/h
	681	720214	7918801	112	938.2	0.48	50.1	1.41	17.9	7.94	15.5	35.28	nGy/h
	682	720313	7918811	117.4	983.7	0.21	48	4.02	28.2	6.66	13.4	42.53	nGy/h
	683	720701	7918811	88.8	743.8	0	31.5	4.04	28.2	6.7	13.4	40.01	nGy/h
	684	720760	7918820	95.9	803.3	0.03	27.3	2.06	20.3	7.63	14.9	32.11	nGy/h
	685	720785	7918768	103.9	870	0.06	31.5	3.34	22	4.57	9.3	31.2	nGy/h
	686	720799	7918738	92.7	776.9	0.14	33.5	1.89	20	7.94	15.5	33.53	nGy/h
	687	720818	7918733	104.3	874.1	0	25.3	1.37	22	11.27	21.7	37.82	nGy/h
	688	720839	7918742	95.5	799.8	0	32.7	2.31	29.1	13.21	25.5	48.16	nGy/h
	689			99.1	830.6	0	27.7	6.39	39	6.6	13.5	52.51	nGy/h
	690			86	720.8	0	23.5	3.26	20.2	3.55	7.3	27.25	nGy/h
	691			90.5	758.3	0.37	33.5	0	9.6	7	13.4	23.71	nGy/h
	692	720873	7918756	88.5	741.8	0	21.1	3.15	24.1	6.79	13.4	35.38	nGy/h
	693			91.2	763.8	0.08	46.5	5.32	32.7	5.54	11.4	44.9	nGy/h
	694			91.3	764.8	0	38.2	0	30.6	22.5	42.8	60.62	nGy/h
	695	720866	7918807	99.2	830.7	0.21	37.7	2.54	20	5.7	11.3	31.96	nGy/h
	696			102.4	857.7	0.21	48.6	4.06	28.5	6.73	13.5	42.98	nGy/h
	697			86	720.9	0	19.4	1.47	18.1	8.1	15.6	29.83	nGy/h
	698			92.5	775.1	0	36.1	5.67	32.7	4.44	9.4	42.77	nGy/h
	699			92.5	775.2	0	38.2	5.21	30.6	4.47	9.4	40.33	nGy/h

	700			113.2	948.7	0.36	46.5	1.56	20.2	9.13	17.7	37.85	nGy/h
	701	720883	7918862	102.9	861.7	0	39.7	6.36	44.8	10.87	21.7	63.85	nGy/h
	702			93.9	786.8	0.05	33.9	3.83	24.3	4.58	9.4	33.79	nGy/h
	703			96.5	808.6	0.53	59.1	1.68	22.3	10.2	19.8	43.56	nGy/h
	704	720805	7918874	101.6	851.4	0.19	43.9	1.27	26.2	14.51	27.9	48.43	nGy/h
	705			97.4	816	0.07	29.8	1.92	20.2	8.03	15.6	33	nGy/h
	706			89.8	752	0.17	38.2	3.7	22.3	3.48	7.3	31.68	nGy/h
	707	720743	7918885	91	762.5	0.02	29.1	4.42	22	0.91	2.5	26.68	nGy/h
	708			86.2	722	0.17	38.1	1.7	22.3	10.23	19.8	39.05	nGy/h
	709			92	770.8	0.3	40.3	1.78	18.1	6.92	13.5	32.22	nGy/h
	710			92.3	773.1	0.3	40.3	2.44	18.1	4.67	9.4	29.76	nGy/h
	711			94.8	793.9	0	29.8	5.55	30.6	3.36	7.3	39.21	nGy/h
	712			99	829.4	0	27.7	2.18	24.4	10.23	19.8	39.4	nGy/h
	713			95.5	800.2	0.19	44.4	4.28	26.5	4.53	9.4	37.86	nGy/h
	714			107	896.4	0.05	34	3.17	24.4	6.84	13.6	36.3	nGy/h
	715			88	737.6	0.23	44.4	3.82	24.4	4.56	9.4	36.06	nGy/h
	716			89.8	752.2	0.18	36.1	2.91	20.2	4.65	9.4	30.67	nGy/h
	717			98.8	827.4	0.41	46.5	0.11	18.1	12.54	24	39.75	nGy/h
	718			90	754.2	0.33	52.8	2.6	26.5	10.14	19.8	45.83	nGy/h
	719			89	745.8	0	27.7	6.81	34.8	2.17	5.2	42.82	nGy/h
	720			84.3	706	0.3	40.2	2.11	18.1	5.8	11.5	30.98	nGy/h
	721			93.3	781.4	0.05	25.6	2.46	18.1	4.7	9.4	26.63	nGy/h
	722			93	779.3	0	23.5	4.64	26.5	3.45	7.3	34.48	nGy/h
	723			85.8	718.6	0.21	40.3	3.03	22.3	5.73	11.5	34.59	nGy/h
	724			97.8	819.1	0	27.7	3.18	24.4	6.85	13.6	35.71	nGy/h
	725			95.3	798.2	0.57	50.7	0.51	13.9	8.1	15.6	32.09	nGy/h
	726			92	770.9	0.2	31.9	1.99	16	4.72	9.4	26.17	nGy/h
	727			77	645.3	0	27.7	3.05	22.3	5.76	11.5	32.05	nGy/h
	728			92.4	774.2	0	38.1	5.46	34.8	6.65	13.5	47.55	nGy/h
	729			88.8	743.8	0	19.4	1.99	26.5	12.47	24	44.38	nGy/h
	730			64	536.4	0.06	21.4	2.21	13.9	2.52	5.2	19.64	nGy/h
	731			100.6	843.1	0.4	37.7	0	11.7	10.3	19.6	32.96	nGy/h
	732			75.2	629.8	0.35	38.1	1.52	13.9	4.74	9.4	25.65	nGy/h
	733			82.3	689.1	0.35	40.2	0.65	16	9.21	17.7	32.88	nGy/h
	734			81.3	680.8	0.47	44.4	0.52	13.9	8.11	15.6	30.74	nGy/h
	735			62.3	521.7	0.07	29.8	2.91	20.2	4.66	9.4	29.3	nGy/h
	736			70.3	588.6	0.19	25.6	0.08	11.8	8.18	15.6	24.91	nGy/h
	737			74.7	626.2	0	17.3	1.6	20.2	9.19	17.7	33.46	nGy/h
	738			81	678.4	0	17.3	0.81	18.1	10.35	19.8	32.29	nGy/h
	739			82.2	689	0.48	50.7	0.43	18.1	11.4	21.9	39.38	nGy/h
	740			87.3	731.2	0.09	25.6	0.67	16	9.24	17.7	29.78	nGy/h
	741			118.2	990.5	0.1	52.8	5.57	36.9	7.72	15.6	52.37	nGy/h
	742			110.5	925.7	0.18	46.5	3.41	28.6	9	17.7	45.06	nGy/h
	743			109	913.2	0	31.9	1.89	30.6	15.75	30.3	52.73	nGy/h
	744	726664	7925159	110.9	929.2	0	30.9	1.86	30.9	16.06	30.8	53.37	nGy/h
	745			120.1	1006	0.13	46.5	3.86	30.6	8.95	17.7	46.8	nGy/h
	746			111.2	932	0.54	57	1.22	20.2	10.24	19.8	41.32	nGy/h
	747			115.2	965.4	0.48	50.7	0	18.1	13.66	26.1	43.14	nGy/h

	748			104.5	875.5	0.21	50.7	2.53	30.6	13.46	26.1	52.7	nGy/h
	749			103	862.9	0.12	40.3	0.96	26.5	15.8	30.3	49.33	nGy/h
	750			105.5	883.9	0	31.9	4.42	28.6	5.65	11.5	39.24	nGy/h
	751	726662	7925246	95.9	803.8	0.15	31.5	0.45	17.9	11.33	21.7	34.97	nGy/h
	752			92.4	774.2	0.38	42.3	0	16	12.57	24	38.89	nGy/h
	753	726626	7925248	89.8	752.1	0.26	48	3.24	26.2	7.81	15.5	41.97	nGy/h
	754			100.1	839	0.59	46.5	0	9.7	10.42	19.8	35.84	nGy/h
	755			101.3	848.3	0	38.2	4.21	30.6	7.85	15.6	44.03	nGy/h
	756			106	888.1	0.37	44.4	1.11	18.1	9.17	17.7	35.6	nGy/h
	757			114.5	959.1	0	50.7	4.83	41.1	13.29	26.1	62.06	nGy/h
	758	726636	7925111	92.3	773.2	0.39	41.5	1.99	14.9	3.87	7.8	26.36	nGy/h
	759			85.9	719.8	0.44	40.2	0	11.8	10.39	19.8	33.75	nGy/h
	760	726695	7925111	94.2	789.3	0.24	52.2	2.17	30.3	14.42	27.9	53.76	nGy/h
	761			86.7	726	0.07	29.8	2.25	20.2	6.9	13.5	31.75	nGy/h
	762	726697	7925169	94.5	791.4	0	29.4	2.15	24.1	10.12	19.6	38.93	nGy/h
	763	731026	7910965	105.2	881.3	0.25	38	0.81	18.5	10.51	20.2	36	nGy/h
	764			109.6	918.3	0.71	52.7	0	9.7	16.03	30.2	52.41	nGy/h
	765			109.5	917.3	0	34	3.42	28.6	9.02	17.7	42.91	nGy/h
	766			105	879.7	0.52	42.4	0	9.7	8.18	15.6	28.88	nGy/h
	767			101.8	852.6	0.33	52.8	2.27	26.5	11.27	21.9	47.07	nGy/h
	768	731021	7911014	116.6	977.1	0.37	53.9	1.5	25.6	13.23	25.5	48.68	nGy/h
	769			104.4	874.5	0.45	56.9	3.13	24.3	6.78	13.5	41.16	nGy/h
	770			106.3	890.2	0.05	44.4	0.68	32.7	21.33	40.7	61.82	nGy/h
	771	730966	7911008	107.3	899	0.18	46	2.38	28.2	12.24	23.7	48.21	nGy/h
	772			114.2	956.8	0.06	42.2	2.87	30.6	12.32	23.9	49.55	nGy/h
	773			109.5	917.3	0.18	46.5	3.07	28.6	10.12	19.8	46.3	nGy/h
	774			107.5	900.6	0	23.5	1.6	20.2	9.18	17.7	33.41	nGy/h
	775	730997	7910897	116.5	976.3	0	26.1	2.7	23.3	7.69	15.1	35.36	nGy/h
	776			112.9	945.4	0.26	40.2	0.24	20.2	13.64	26.1	41.4	nGy/h
	777			102.8	860.9	0.47	44.4	0	13.9	10.37	19.8	34.02	nGy/h
	778			119	996.8	0.22	46.5	3.28	26.5	7.9	15.6	42.02	nGy/h
	779			107.5	900.6	0.26	48.6	4.27	26.5	4.52	9.4	38.76	nGy/h
	780			106.3	890.2	0.21	48.6	3.4	28.6	8.99	17.7	45.51	nGy/h
	781	731103	7910920	120.1	1006.5	0.56	60.4	2.31	22	7.85	15.5	41.05	nGy/h
	782			112.1	939.2	0.05	44.4	3	32.7	13.42	26.1	53.1	nGy/h
	783			116.5	975.9	0.4	48.6	2.23	20.2	6.87	13.6	35.82	nGy/h
	784			104	871.4	0.17	48.6	2.87	30.6	12.34	24	51.02	nGy/h
	785	731075	7911035	110	921.7	0.47	52.2	1.54	20	9.02	17.5	38.73	nGy/h
	786			110.1	922.4	0.44	48.6	2.1	18.1	5.77	11.4	32.74	nGy/h
	787			116	971.7	0.36	57	1.73	28.6	14.61	28.2	53.47	nGy/h
	788			105.3	881.8	0.4	57	4.26	26.5	4.5	9.4	40.54	nGy/h
	789			88.5	741.7	0.27	27.7	0.29	9.7	5.96	11.5	21.11	nGy/h
	790			86.7	726.5	0	29.8	5.88	30.6	2.23	5.2	37.95	nGy/h
	791			80	670.1	0.12	29.8	1.13	18.1	9.19	17.7	32.44	nGy/h
	792			85	711.8	0.03	29.8	1.38	22.3	11.38	21.9	38.51	nGy/h
	793	719986	7918897	88.5	741	0.34	50.7	3.47	24.3	5.67	11.5	38.6	nGy/h
	794			84.5	707.6	0.59	46.5	0	9.7	10.42	19.8	35.84	nGy/h
	795			72.3	605.3	0	19.3	2.6	20.2	5.8	11.5	29.74	nGy/h

	796			77.5	649.1	0.48	42.3	0	11.8	10.39	19.8	34.22	nGy/h
	797			71.5	599	0.33	34	0.74	11.8	5.91	11.5	24.22	nGy/h
	798			77.2	647	0.31	27.7	0	7.6	7.12	13.5	23.27	nGy/h
	799			78	653.3	0.32	36	0.53	13.9	8.12	15.6	28.94	nGy/h
	800			76	636.6	0	13.1	1.61	20.2	9.19	17.7	33.52	nGy/h
	801			74.7	626.1	0.27	46.5	3.48	24.3	5.68	11.5	37.7	nGy/h
	802			81.5	682.6	0.32	25.6	0.03	5.6	3.78	7.3	14.57	nGy/h
	803			82.5	691	0.31	38.1	1.32	16	6.96	13.5	29.95	nGy/h
	804			90.5	757.7	0.08	38.1	3.62	26.4	6.79	13.5	38.96	nGy/h
	805			79.2	663.7	0	27.7	5.22	30.6	4.49	9.4	40.43	nGy/h
	806			78.6	658.8	0.56	44.3	0	9.7	9.29	17.7	32.3	nGy/h
	807			88.2	739	0.12	29.8	1.79	18.1	6.94	13.5	29.97	nGy/h
	808			77.5	649.2	0.23	36	2.45	18.1	4.68	9.4	28.84	nGy/h
	809			62.5	523.8	0	15.2	0.76	11.8	5.95	11.5	20.21	nGy/h
	810			76.2	638.7	0	21.4	3.18	24.3	6.86	13.5	35.76	nGy/h
	811			81	678.4	0.25	31.9	0	13.9	11.51	21.9	34.25	nGy/h
	812			80.5	674.2	0	34	5.87	30.6	2.23	5.2	37.89	nGy/h
	813			77.2	647	0.33	34	0.4	11.8	7.03	13.5	25.46	nGy/h
	814			71.8	601.1	0.44	48.6	2.1	18.1	5.77	11.5	32.74	nGy/h
	815			77	644.9	0.24	34	1.32	16	6.97	13.5	29.06	nGy/h
	816			72.7	609.4	0.18	25.6	0.75	11.8	5.93	11.5	22.44	nGy/h
	817			74.7	626.1	0.39	40.2	1.19	13.9	5.86	11.5	27.36	nGy/h
	818			74.7	626.2	0.06	23.5	0.68	16	9.24	17.7	29.3	nGy/h
	819			83.5	699.3	0.42	44.4	1.31	16	6.94	13.5	31.29	nGy/h
	820			90.2	755.6	0.38	42.3	1.98	16	4.7	9.4	28.37	nGy/h
	821			88.2	739	0.44	40.2	0.4	11.8	7.02	13.5	26.8	nGy/h
	822			80.7	676.3	0.26	38.1	2.77	18.1	3.55	7.3	28.05	nGy/h
	823			84.7	709.6	0.14	25.6	0.88	13.9	7.02	13.5	25.47	nGy/h
	824			75	628.2	0	29.8	4.09	28.5	6.77	13.5	40.46	nGy/h
	825			79	661.7	0.29	52.7	2.73	28.5	11.22	21.9	48.82	nGy/h
	826			68.9	577.4	0.22	27.6	1.74	11.8	2.54	5.2	19.15	nGy/h
	827			74	619.9	0.5	46.5	1.84	13.9	3.6	7.3	26.23	nGy/h
	828			82	686.8	0.17	29.8	0	16	12.6	24	36.13	nGy/h
	829			84.7	709.8	0.01	23.5	1.8	18.1	6.96	13.5	28.64	nGy/h
	830			77.7	651.2	0.19	34	2.12	18.1	5.81	11.5	29.62	nGy/h
	831			68.3	571.9	0.19	23.5	0	9.7	7.09	13.5	21.65	nGy/h
	832			97.4	816.3	0	25.6	1.92	20.2	8.04	15.6	32.12	nGy/h
	833			91.7	768.4	0.48	42.3	0	11.8	14.9	28.2	46.38	nGy/h
	834			94	787.1	0	29.8	5.4	39	9.98	19.8	56.2	nGy/h
	835			80.5	674.3	0.39	31.9	0	7.6	9.36	17.7	30.28	nGy/h
	836			88.2	738.9	0.39	31.9	0.15	7.6	4.85	9.4	18.94	nGy/h
	837			89	745.4	0.03	38.1	5.08	28.5	3.38	7.3	37.06	nGy/h
	838			81.7	684.7	0.26	38.1	2.77	18.1	3.55	7.3	28.05	nGy/h
	839			81.7	684.7	0.28	25.6	0	7.6	7.12	13.5	22.81	nGy/h
	840			78.5	657.5	0.37	44.4	1.11	18.1	9.16	17.7	35.56	nGy/h
	841			81.2	680.5	0.05	34	3.5	24.3	5.71	11.5	35.03	nGy/h
	842			79.7	667.9	0.25	31.9	0.87	13.9	7	13.5	26.81	nGy/h
	843			77	645	0.21	29.8	0.21	13.9	9.26	17.7	28.84	nGy/h

	844			84.7	709.7	0.64	46.5	0	7.6	11.58	21.9	39.58	nGy/h
	845			81.2	680.4	0.2	31.9	2.65	16	2.47	5.2	23.67	nGy/h
	846			89.1	746.4	0.37	36	0	11.8	13.77	26	41.9	nGy/h
	847			80.2	672.2	0	27.7	2.71	22.3	6.88	13.5	33.27	nGy/h
	848			76.5	640.8	0	13.1	0	11.8	9.33	17.7	25.14	nGy/h
	849			86	720.1	0.07	29.8	3.25	20.2	3.53	7.3	28.06	nGy/h
	850			85	711.8	0.55	46.5	0	11.8	11.51	21.9	38.19	nGy/h
	851			91.7	768.2	0	31.9	3.88	30.6	8.98	17.7	45.3	nGy/h
	852			84	703.5	0.07	21.4	0.55	13.9	8.15	15.6	25.82	nGy/h
	853			88.2	739	0.34	40.2	2.31	16	3.58	7.3	26.7	nGy/h
	854			91.2	764.1	0.09	36	3.16	24.4	6.83	13.5	36.72	nGy/h
	855			76	636.6	0.17	27.7	1.21	13.9	5.89	11.5	24.69	nGy/h
	856			79	661.6	0.08	27.7	2.46	18.1	4.69	9.4	27.05	nGy/h
	857			81.7	684.6	0.11	40.2	3.28	26.4	7.91	15.6	40.64	nGy/h
	858			83.7	701.3	0.06	31.9	1.05	22.3	12.5	24	40.19	nGy/h
	859			82.5	690.9	0.22	27.7	0.41	11.8	7.05	13.5	24.12	nGy/h
	860			87	728.6	0.17	38.1	2.7	22.3	6.86	13.5	35.36	nGy/h
	861			95.7	801.8	0	19.3	3.59	20.2	2.43	5.2	26.06	nGy/h
	862			94.2	789.3	0.7	63.2	0.75	18.1	10.25	19.8	40.82	nGy/h
	863			101.2	847.8	0.3	50.7	3.27	26.4	7.89	15.6	42.89	nGy/h
	864			96	803.9	0	27.7	1.18	24.4	13.6	26.1	43.07	nGy/h
	865			97.9	820.5	0.09	36.1	0.84	24.4	14.71	28.2	45.37	nGy/h
	866			97.8	819.6	0.41	46.4	0.44	18.1	11.4	21.9	38.44	nGy/h
	867			96.4	807.9	0.35	40.2	0	16	18.21	34.4	53.64	nGy/h
	868			74.8	626.3	0.19	23.5	0.62	9.7	4.84	9.4	18.96	nGy/h
	869			93	778.7	0	27.7	3.51	24.4	5.72	11.5	34.45	nGy/h
	870			94.2	789.3	0.16	31.9	0.46	18.1	11.44	21.9	35.37	nGy/h
	871			97.4	816.4	0.07	40.2	2.08	28.5	13.51	26.1	48.63	nGy/h
	872			94.2	789.1	0.04	36	1.63	26.4	13.55	26.1	45.92	nGy/h
	873			82.2	688.9	0.31	27.7	0.16	7.6	4.86	9.4	18.05	nGy/h
	874			83.7	701.4	0.16	31.9	1.12	18.1	9.19	17.7	32.89	nGy/h
	875			90.5	757.8	0	21.4	2.78	28.5	11.29	21.9	45.5	nGy/h
	876			84.7	709.8	0	21.4	2.59	20.2	5.8	11.5	29.72	nGy/h
	877			85	711.8	0.05	25.6	0.47	18.1	11.45	21.9	34.02	nGy/h
	878			86	720.1	0.47	44.4	0.52	13.9	8.1	15.6	30.72	nGy/h
	879			86.5	724.3	0.52	61.1	2.13	24.3	10.15	19.8	45.77	nGy/h
	880			95.7	801.7	0.1	42.3	4.74	28.5	4.49	9.4	39.19	nGy/h
	881			84.5	707.7	0.18	27.7	0.21	13.9	9.27	17.7	28.39	nGy/h
	882			82	686.8	0	19.3	1.81	18.1	6.97	13.5	28.57	nGy/h
	883			85.2	713.9	0.18	36	2.24	20.2	6.89	13.5	33.11	nGy/h
	884			86	720.2	0	19.3	0	18.1	14.84	28.2	39.99	nGy/h
	885			85.1	713.3	0.01	30.5	3.69	23.5	4.42	9	32.11	nGy/h
	886			78.6	658.4	0.09	29	1.18	18.8	9.53	18.4	33.28	nGy/h
	887			92.9	778.6	0.26	38.1	0.45	18.1	11.43	21.9	36.69	nGy/h
	888			85	711.8	0.02	31.9	1.18	24.3	13.59	26.1	43.23	nGy/h
	889			87.2	730.5	0	25.6	8.7	49.4	6.44	13.5	64.58	nGy/h
	890			78.5	657.5	0.36	27.7	0	5.6	11.65	21.9	36.12	nGy/h
	891			80.2	672.1	0	25.6	1.26	20.2	10.29	19.8	34.59	nGy/h

	892			79.7	668	0.54	48.6	0.18	13.9	9.22	17.7	32.85	nGy/h
	893			74.5	624.1	0.33	34	2.06	11.8	1.41	3.1	19.28	nGy/h
	894			77.5	649.1	0	15.2	3.52	24.3	5.75	11.5	34.61	nGy/h
	895			90.9	761.8	0.37	34	0.94	9.7	3.69	7.3	19.95	nGy/h
	896			84.5	707.6	0.27	27.7	0	9.7	8.21	15.6	25.61	nGy/h
	897			88.2	739	0	21.4	2.06	22.3	9.14	17.7	35.81	nGy/h
	898			88	736.9	0.18	36	1.25	20.2	10.27	19.8	36.82	nGy/h
	899			80.5	674.3	0.16	31.9	0.46	18.1	11.44	21.9	35.36	nGy/h
	900			83.5	699.4	0.22	38.1	2.24	20.2	6.89	13.5	33.56	nGy/h
	901			84.7	709.8	0	23.5	2.06	22.3	9.14	17.7	35.79	nGy/h
	902			85.7	718.1	0.36	36	1.4	11.8	3.65	7.3	22.2	nGy/h
	903			83	695.1	0.16	21.4	0	9.7	9.35	17.7	27.27	nGy/h
	904			84.5	707.6	0.06	34	0.18	24.3	16.96	32.3	47.38	nGy/h
	905			90	753.7	0.32	36.1	0.86	13.9	7	13.5	27.71	nGy/h
	906			84.6	708.8	0.17	29.7	0	16	13.71	26	39.12	nGy/h
	907			88.2	738.9	0.21	40.2	3.69	22.3	3.47	7.3	32.09	nGy/h
	908			87.2	730.7	0.21	40.2	3.03	22.3	5.73	11.5	34.57	nGy/h
	909			80.7	676.3	0.16	21.4	0.96	9.7	3.72	7.3	17.28	nGy/h
	910			79.7	667.9	0.02	21.4	2.34	16	3.62	7.3	22.68	nGy/h
	911			88.2	739	0	40.2	5.99	32.7	3.3	7.3	41.44	nGy/h
	912			71	594.8	0.19	25.6	0	11.8	13.81	26.1	39.64	nGy/h
	913			71.5	599.1	0.46	36	0.14	7.6	4.85	9.4	19.83	nGy/h
	914			85	711.8	0.3	40.2	1.78	18.1	6.92	13.5	32.2	nGy/h
	915			91	762	0.32	36	0.53	13.9	8.12	15.6	28.94	nGy/h
	916			87.7	734.9	0	23.5	6.14	34.8	4.43	9.4	45.31	nGy/h
	917			85	711.8	0	25.6	3.84	24.3	4.6	9.4	33.24	nGy/h
	918			92.5	774.6	0.45	48.6	1.43	18.1	8.03	15.6	35.22	nGy/h
	919			91.7	768.2	0.57	42.3	0	7.6	9.34	17.7	32.58	nGy/h
	920			89.2	747.4	0.25	40.2	2.24	20.2	6.89	13.5	34	nGy/h
	921			98.7	826.8	0.15	34	0	20.2	14.78	28.2	41.74	nGy/h
	922			86.2	722.3	0.09	25.6	0	16	13.74	26.1	38.25	nGy/h
	923			86.5	724.4	0	25.6	1.26	20.2	10.3	19.8	34.59	nGy/h
	924			88	736.9	0.34	42.3	0.45	18.1	11.42	21.9	37.59	nGy/h
	925			87.2	730.7	0.39	50.7	2.68	22.3	6.83	13.5	38.03	nGy/h
	926			88.1	738.1	0.02	40.2	4.53	30.6	6.71	13.5	42.96	nGy/h
	927			96.5	808.1	0.43	42.3	0.85	13.9	6.98	13.5	29.05	nGy/h
	928			88.2	739.1	0.22	27.7	0	11.8	14.93	28.2	43.15	nGy/h
	929			83	695.1	0	17.3	1.73	22.3	10.28	19.8	37.1	nGy/h
	930			90	753.6	0.23	44.4	2.82	24.3	7.93	15.6	39.73	nGy/h
	931			96.2	805.8	0.3	40.2	0.45	18.1	11.42	21.9	37.14	nGy/h
	932			81	678.4	0.44	48.6	2.43	18.1	4.65	9.4	31.51	nGy/h
	933			86.2	722.3	0.22	27.7	0.41	11.8	7.05	13.5	24.12	nGy/h
	934			81	678.4	0	17.3	2.93	20.2	4.68	9.4	28.54	nGy/h
	935			94.2	789.1	0.29	42.3	3.23	20.2	3.5	7.3	30.74	nGy/h
	936			85	712	0.28	36.1	0	16	13.72	26.1	40.57	nGy/h
	937			85.7	718.1	0.28	44.4	2.36	22.3	7.97	15.6	37.93	nGy/h
	938			89.9	753.5	0.25	40.2	2.57	20.2	5.76	11.5	32.76	nGy/h
	939			89	745.4	0.26	38.1	1.11	18.1	9.18	17.7	34.23	nGy/h

	940			89.2	747.4	0.29	31.9	0	11.8	9.29	17.7	28.88	nGy/h
	941			73.5	615.8	0	15.2	1.55	13.9	4.79	9.4	21.35	nGy/h
	942			94.7	793.3	0	27.7	4.09	28.5	6.78	13.5	40.49	nGy/h
	943			93.4	782.8	0.26	29.8	0.41	11.8	7.04	13.5	24.57	nGy/h
	944			81.5	682.6	0.03	29.8	3.04	22.3	5.75	11.5	32.34	nGy/h
	945			86.7	726.5	0	25.6	1.59	20.2	9.17	17.7	33.35	nGy/h
	946			84.9	711	0	31.8	3.29	26.4	7.92	15.6	39.21	nGy/h
	947			88.7	743.2	0	19.3	0	16	13.75	26.1	37.05	nGy/h
	948			106.2	890.1	0.07	31.9	0.05	22.3	15.89	30.3	43.94	nGy/h
	949			112	938.2	0.02	31.9	2.84	24.4	7.97	15.6	37.09	nGy/h
	950	739474	7911671	111.3	932	0.35	48	2.65	22	6.76	13.4	37.18	nGy/h
	951			109.9	920.4	0	29.8	4.86	41	13.32	26.1	62.27	nGy/h
	952			103	863	0	27.7	4.48	34.8	10.06	19.8	51.45	nGy/h
	953			103.5	867.2	0.22	38.2	2.24	20.2	6.9	13.6	33.59	nGy/h
	954			104.5	875.5	0.26	48.6	0.95	26.5	15.79	30.3	51.12	nGy/h
	955	739477	7911734	110	921.7	0.18	35.6	1.89	20	7.94	15.5	33.97	nGy/h
	956			104.1	872.4	0.61	52.7	0	13.9	12.59	24	41.9	nGy/h
	957			108	904.8	0.09	44.4	5.2	30.6	4.46	9.4	41.47	nGy/h
	958			114.2	957	0.5	46.5	0	13.9	12.61	24	40.57	nGy/h
	959	739399	7919399	118.4	992	0.47	70.8	3.38	34.4	13.2	25.8	60.08	nGy/h
	960			104.6	876.6	0.38	33.9	0	9.7	9.32	17.7	30.03	nGy/h
	961			115.5	967.5	0.6	54.9	0.63	16	9.18	17.7	36.03	nGy/h
	962			112.2	940.3	0.58	50.7	0	13.9	11.48	21.9	38.45	nGy/h
	963			108.8	911.1	0.21	40.3	3.03	22.3	5.73	11.5	34.6	nGy/h
	964	739412	7911614	112.2	939.6	0.14	36.9	0.93	23	13.38	25.7	42.9	nGy/h
	965			110.4	924.6	0	27.7	2.38	22.3	8	15.6	34.49	nGy/h
	966			112.7	944.5	0.01	34	3.63	26.5	6.8	13.6	38.11	nGy/h
	967	739407	7911558	108.8	911.3	0.16	39.7	1.81	24.1	11.21	21.7	42.09	nGy/h
	968			117.7	986	0.05	44.3	2	32.7	16.78	32.3	56.73	nGy/h
	969			107	896.4	0.13	36.1	3.7	22.3	3.49	7.3	31.24	nGy/h
	970			111.2	932	0.32	46.5	2.36	22.3	7.97	15.6	38.42	nGy/h
	971	739523	7911563	107.1	896.9	0.51	52.2	0	17.9	14.63	27.9	46.12	nGy/h
	972			110.9	928.7	0.11	40.2	3.61	26.4	6.78	13.5	39.39	nGy/h
	973			110	921.5	0	25.6	3.69	32.7	11.23	21.9	50.3	nGy/h
	974			112	938.2	0.34	42.4	0.11	18.1	12.56	24	38.86	nGy/h
	975	739477	7911734	104.3	874.1	0.42	52.2	2.98	22	5.64	11.3	36.84	nGy/h
	976	681498	7928049	77.4	648.7	0.23	43.9	4.1	24.1	3.39	7.2	34.41	nGy/h
MM3000601	977	682063	7928842	117.7	985.8	0.34	50.1	2.45	24.1	8.95	17.5	41.85	nGy/h
	978	682113	7929187	97.7	818.3	0.42	60.4	4.33	28.2	5.52	11.3	43.96	nGy/h
	979	682100	7929400	105.8	886.5	0.19	41.8	4.11	24.1	3.4	7.2	33.97	nGy/h
	980	682200	7929000	93.6	783.8	0.92	69.9	0.72	13.2	6.7	13.1	34.03	nGy/h
	981	682200	7929100	114.2	956.8	0.35	56.3	3.68	28.2	7.76	15.5	45.52	nGy/h
	982	682200	7929200	97.2	814.1	0.68	54.2	0.37	11.7	6.92	13.4	29.58	nGy/h
	983	682200	7929300	95.7	801.7	0.36	45.9	0.89	20	11.26	21.7	39.85	nGy/h
	984	682200	7929400	97.3	814.9	0.84	55.9	0	5.9	7.9	15.1	32.31	nGy/h
	985	682100	7929000	109.8	919.6	0.34	50.1	2.45	24.1	8.96	17.5	41.85	nGy/h
	986	682100	7929100	113.5	950.6	0.43	50.1	1.54	20	9.02	17.5	38.28	nGy/h
	987	682000	7929100	103.1	863.8	0.6	52.2	1.48	13.7	4.66	9.3	28.48	nGy/h

	988	682000	7929200	98.9	828.6	0.47	41.8	0.06	11.7	8.06	15.5	28.16	nGy/h
	989	682000	7929300	105.3	882.4	0	43.9	7.29	38.6	3.16	7.2	48.11	nGy/h
	990	682000	7929400	106.6	892.7	0.21	48	3.36	28.2	8.89	17.5	44.98	nGy/h
	991	682000	7929000	108.3	907.2	0.16	29.4	0.66	15.8	9.13	17.5	30.3	nGy/h
MM3000602		682005	7929090										
	992	696107	7921007	139.3	1166.7	0.23	43.9	3.12	24.1	6.74	13.4	38.12	nGy/h
MM3000603	993	695883	7920606	345.2	2892	0.37	112.4	8.26	71.9	23.72	46.6	113.58	nGy/h
	994	695400	7920059	125.6	1052	0.62	68.7	1.24	26.2	14.46	27.9	53.73	nGy/h
	995	695400	7920000	133	1114	0.45	64.6	4.13	30.3	7.71	15.5	49.07	nGy/h
	996	695400	7919900	102.6	859.6	0.8	58.4	0	9.6	6.94	13.4	29.2	nGy/h
	997	695300	7919900	96.2	805.9	0.3	48	2.78	24.1	7.84	15.5	40.19	nGy/h
	998	695300	7920000	118.9	996.1	0.53	58.4	3.3	22	4.51	9.3	36.94	nGy/h
	999	695300	7920100	123.8	1037.5	0.01	41.8	3.3	32.4	12.18	23.7	50.89	nGy/h
	1000	695300	7920200	123.1	1031.3	0.32	62.5	4.71	34.4	8.76	17.5	53.42	nGy/h
	1001	695300	7920300	121.4	1017	0.59	54.2	0.62	15.8	9.08	17.5	35.6	nGy/h
	1002	695400	7920300	120.4	1008.6	0.49	48	0.63	15.8	9.09	17.5	34.28	nGy/h
	1003	695400	7920200	124.3	1041.7	0.26	48	2.58	26.2	10.04	19.6	44.42	nGy/h
	1004	695500	7920200	142.7	1195.4	0.58	66.7	0.25	26.2	17.82	34.1	56.99	nGy/h
	1005	695500	7920100	104.1	872	0.88	70.8	0.93	15.8	7.93	15.5	37.91	nGy/h
	1006	695500	7920000	115.9	971.3	0.35	48	3.64	22	3.42	7.2	33.51	nGy/h
	1007	695500	7919900	115.7	969.2	0.74	70.8	0.65	22	13.4	25.8	49.38	nGy/h
	1008	695500	7920300	142.6	1195	0.15	70.8	7.23	48.9	10.74	21.7	70.15	nGy/h
MM3000604	1009	695585	7920476	235.9	1975.8	0.29	89.6	6.74	57.3	18.4	36.2	89.97	nGy/h
MM3000605	1010	695598	7920501	396.9	3325.3	0.76	174.8	12.07	103	33.16	65.3	164.83	nGy/h
	1011	702363	7924359	142.1	1190.7	0	41.8	6.23	42.7	9.79	19.6	60.22	nGy/h
	1012	702400	7924400	151.3	1267.7	0.03	48	2.23	36.5	18.8	36.2	63.16	nGy/h
	1013	702400	7924500	125.6	1052	0	46	4.86	36.5	9.88	19.6	53.01	nGy/h
	1014	702500	7924500	141.9	1188.6	0.42	52.2	0.68	22	13.45	25.8	45.41	nGy/h
	1015	702500	7924400	125.3	1050	0.12	48	2.96	32.4	13.29	25.8	53.45	nGy/h
	1016	702500	7924300	102.6	859.6	0.11	39.7	2.26	26.2	11.17	21.7	43.88	nGy/h
	1017	702400	7924300	124.3	1041.6	0	39.7	3.1	34.4	14.38	27.9	55.58	nGy/h
MM3000606	1018	702376	7924299	116.4	975.4	0.41	45.9	0.1	17.9	12.41	23.7	39.29	nGy/h
	1019	702300	7924300	107.1	896.9	0	19.1	3.61	26.2	6.76	13.4	37.8	nGy/h
	1020	702300	7924400	127.1	1064.4	0.41	54.2	2.44	24.1	8.95	17.5	42.74	nGy/h
	1021	702300	7924500	115.2	965.1	0.18	54.2	3.08	34.4	14.35	27.9	57.78	nGy/h
	1022	713064	7929469	96.2	805.9	0.3	39.7	0.11	17.9	12.42	23.7	37.96	nGy/h
	1023	713100	7929400	117.7	985.8	0.17	56.3	5.5	36.5	7.62	15.5	52.66	nGy/h
	1024	713100	7929300	100.9	845.2	0.08	45.9	4.94	32.4	6.6	13.4	45.66	nGy/h
	1025	713200	7929300	94.2	789.3	0	21.1	3.55	20	2.39	5.1	25.74	nGy/h
	1026	713200	7929400	102.9	861.7	0.09	35.6	4.11	24.1	3.41	7.2	32.64	nGy/h
	1027	713200	7929500	99.7	835.6	0.13	27.3	2.14	15.8	4.12	8.2	24.36	nGy/h
	1028	713200	7929600	96.2	805.9	0.01	23.2	2.76	17.9	3.54	7.2	24.64	nGy/h
	1029	713100	7929600	98.9	828.6	0.14	25.3	0.86	13.7	6.95	13.4	25.19	nGy/h
	1030	713000	7929600	89	745.9	0.3	29.4	1.26	9.6	2.54	5.1	17.61	nGy/h
	1031	713000	7929500	97.4	816.2	0	21.1	2.11	17.9	5.77	11.3	27.01	nGy/h
	1032	713000	7929400	103.6	867.9	0.07	29.4	3.54	20	2.38	5.1	26.53	nGy/h
	1033			96.4	807.9	0.54	45.9	1.69	11.7	2.48	5.1	22.92	nGy/h
	1034	684894	7922704	57.4	481.1	0.15	31.5	2.75	17.9	3.52	7.2	26.41	nGy/h

	1035	684555	7921680	83.1	696.2	0	23.2	2.36	22	7.93	15.5	34.19	nGy/h
	1036	684484	7921376	84.8	710.7	0.17	37.7	2.34	22	7.9	15.5	36.2	nGy/h
	1037	684441	7921113	73.5	615.5	0.36	27.3	0	5.5	5.96	11.3	20.71	nGy/h
	1038	684374	7920793	71.5	598.6	0.41	34.2	0	8.2	5.9	11.3	21.32	nGy/h
	1039	684281	7920532	68.8	576.3	0.11	21.1	0.41	11.7	6.99	13.4	22.52	nGy/h
	1040	684232	7920262	85.1	712.8	0	27.3	4.38	28.2	5.59	11.3	38.85	nGy/h
	1041	684229	7920220	166.7	1396.8	0	64.6	9.4	57.2	9.51	19.6	76.68	nGy/h
	1042	683814	7919403	123.1	1031.3	0.24	52.2	2.17	30.3	14.42	27.9	53.76	nGy/h
	1043	683544	7918978	111.5	934.1	0.7	60.4	1.93	15.8	4.61	9.3	32.03	nGy/h
	1044	683500	7918900	87.6	733.5	0.69	54.2	0	11.7	11.38	21.7	39.63	nGy/h
	1045	683500	7918800	101.9	853.4	0.34	39.7	1.3	15.8	6.88	13.4	30.06	nGy/h
	1046	683400	7918800	94.7	793.4	0.38	50.1	2.32	22	7.87	15.5	38.84	nGy/h
	1047	683400	7918900	99.7	834.8	0.42	52.2	1.66	22	10.1	19.6	41.73	nGy/h
	1048	683400	7919000	110.8	927.9	0.34	50.1	2.45	24.1	8.95	17.5	41.85	nGy/h
	1049	683400	7919100	111.7	936.2	0.47	70.8	5.69	34.4	5.4	11.3	51.52	nGy/h
	1050	683400	7919200	108.3	907.2	0.41	35.6	0	9.6	13.68	25.8	42.22	nGy/h
	1051	683500	7919200	106.6	892.7	0.51	52.2	3.38	17.9	1.25	3.1	28.38	nGy/h
	1052	683500	7919100	105.3	882.4	0.8	68.7	1.39	17.9	7.9	15.5	39.25	nGy/h
	1053	683500	7919000	92.7	776.9	0.32	35.6	0.52	13.7	8.04	15.5	28.62	nGy/h
	1054	683600	7919000	123.6	1035.5	0.28	43.9	0.36	22	14.58	27.9	44.86	nGy/h
	1055	683600	7918900	101.6	851.4	0.52	50.1	0	15.8	16.9	32	52.37	nGy/h
	1056	683600	7918800	101.9	853.4	0.16	39.7	4.11	24.1	3.4	7.2	33.53	nGy/h
	1057	683600	7919100	118.2	989.9	0.76	66.6	1.06	17.9	9.02	17.5	40.03	nGy/h
	1058	683600	7919200	117.4	983.7	0.33	41.8	1.42	17.9	7.96	15.5	33.51	nGy/h
	1059	683702	7919387	105.3	882.4	0.42	43.9	0	15.8	14.68	27.9	44.98	nGy/h
MM3000607	1060	684203	7920211	116.2	973.4	0.18	46	0.41	28.2	18.93	36.2	55.55	nGy/h
MM3000608	1061	684657	7922178	47.8	400.3	0.08	17	1.61	9.6	1.46	3.1	13.73	nGy/h
	1062			90.9	761.3	0.45	46.4	1.64	16	5.81	11.4	30.48	nGy/h
	1063			97.2	814.7	0.62	50.7	0	11.8	10.38	19.8	36.1	nGy/h
	1064			82.5	691.3	0.05	34	3.17	24.4	6.83	13.5	36.29	nGy/h
	1065			90.7	760	0.32	37.2	0.58	14.8	8.58	16.5	30.48	nGy/h
	1066			90.9	761.4	0.27	38.4	0.77	17.9	10.2	19.6	35.24	nGy/h
	1067			87.8	735.9	0.04	32.7	1.99	23.8	10.43	20.2	39.45	nGy/h
	1068			89.8	752.1	0.48	50.1	1.41	17.9	7.94	15.5	35.28	nGy/h
	1069			97.5	817.1	0.03	30.5	1.86	22.7	10.03	19.4	37.54	nGy/h
	1070			89	745.3	0.22	35.6	1.43	17.9	7.98	15.5	32.21	nGy/h
	1071			99.9	836.7	0.19	25.6	0	11.8	13.8	26.1	39.63	nGy/h
	1072			102.2	856.5	0	23.5	3.11	28.5	10.17	19.8	44.27	nGy/h
	1073			81.8	685.1	0.39	40.2	0.52	13.9	8.12	15.6	29.85	nGy/h
	1074			93.7	785.4	0	40.2	6	32.7	3.31	7.3	41.47	nGy/h
	1075			86.5	724.9	0.51	36.1	0	5.6	8.26	15.6	28.88	nGy/h
	1076			92.6	776.2	0.07	29.8	1.59	20.2	9.15	17.7	34.22	nGy/h
	1077			82.1	688.2	0.03	33.6	2.46	25.1	9.81	19.1	40.14	nGy/h
	1078			87.8	735.5	0.56	44.3	0	9.7	8.16	15.6	29.25	nGy/h
	1079			93.3	781.2	0.26	29.8	0.08	11.8	8.17	15.6	25.82	nGy/h
	1080			96.8	810.6	0.1	34	3.04	22.3	5.74	11.5	33.26	nGy/h
	1081			90.8	760.8	0.3	43.3	3.45	20.3	2.82	6	30.28	nGy/h
	1082			90	754.4	0.06	42.2	3.86	30.6	8.95	17.7	45.84	nGy/h

	1083	697775	7840789	112.2	940.3	0.41	54.2	0.47	24.1	15.64	29.9	50.08	nGy/h
	1084	697800	7840800	112.7	944.4	0.29	41.8	1.55	20	9.04	17.5	36.52	nGy/h
	1085			112.9	945.4	0	29.8	2.97	26.4	9.05	17.7	40.5	nGy/h
	1086			113.2	948.7	0.44	59.1	2.26	26.5	11.26	21.9	48.41	nGy/h
	1087			111.5	934.1	0.18	36.1	0.58	20.2	12.53	24	39.33	nGy/h
	1088	697800	7840900	108	905.1	0.57	58.4	0.87	20	11.23	21.7	42.5	nGy/h
	1089			103.4	866.1	0	27.7	3.04	22.3	5.75	11.4	32.03	nGy/h
	1090			103.3	865.1	0.35	40.3	0.65	16	9.21	17.7	32.9	nGy/h
	1091	697900	7840900	106.1	888.6	0	48	6.23	42.7	9.77	19.6	60.13	nGy/h
	1092			107.1	897.4	0.27	38.1	0	18.1	15.93	30.2	46.39	nGy/h
	1093			115	963.3	0.09	44.4	4.2	30.6	7.84	15.6	45.18	nGy/h
	1094	697900	7840800	114.2	956.8	0.55	54.2	1.08	17.9	9.05	17.5	37.38	nGy/h
	1095			99.6	834.7	0.4	48.6	0	20.2	14.74	28.1	44.96	nGy/h
	1096			116.7	977.9	0.23	44.4	2.16	24.4	10.19	19.8	42.24	nGy/h
	1097	697900	7840700	108.3	907.2	0.12	37.7	2.47	24.1	8.98	17.5	39.2	nGy/h
	1098			101.9	853.6	0.4	48.6	2.22	20.2	6.86	13.5	35.78	nGy/h
	1099			104.3	873.4	0.28	44.4	3.36	22.3	4.59	9.4	34.26	nGy/h
	1100	697800	7840700	111	929.9	0.16	29.4	0.66	15.8	9.13	17.5	30.3	nGy/h
	1101			112.6	943.5	0.3	54.8	1.46	29.5	16.25	31.2	55.65	nGy/h
	1102			115.3	966.1	0.65	52.8	0.41	12.3	7.26	14.1	30.24	nGy/h
	1103	697700	7840700	112.2	940.3	0.06	31.5	2.35	22	7.91	15.5	34.87	nGy/h
	1104			109.1	914.1	0.47	52.7	3.21	20.2	3.48	7.3	32.96	nGy/h
	1105			107.3	898.5	0.57	50.7	1.17	13.9	5.84	11.5	29.62	nGy/h
	1106	697700	7840800	112	938.2	0.07	39.7	3.05	28.2	10.03	19.6	44.44	nGy/h
	1107			103.1	864	0.22	38.1	1.24	20.2	10.26	19.8	37.25	nGy/h
	1108			107.5	900.6	0.08	48.6	4.45	34.8	10.02	19.8	52.15	nGy/h
	1109	697700	7840900	102.6	859.7	0	21.1	2.77	17.9	3.54	7.2	24.58	nGy/h
MM3000612		697772	7840790										
MM3000613		697772	7840790										
	1110	698767	7844058	83.4	698.3	0.49	37.7	0	7.5	7.02	13.4	25.31	nGy/h
	1111			104.4	874.4	0.17	38.1	2.37	22.3	7.98	15.6	36.58	nGy/h
	1112	698800	7844100	100.1	839	0.26	56.3	4.92	32.4	6.58	13.4	47.87	nGy/h
	1113			106.4	891.2	0.52	61.1	2.79	24.3	7.9	15.6	43.29	nGy/h
	1114			120.5	1009.3	0.63	59.1	1.75	18.1	6.88	13.6	36.25	nGy/h
	1115	698900	7844100	99.7	834.8	0.38	60.4	3.14	30.3	11.06	21.7	51.86	nGy/h
	1116			105.9	887	0.47	52.7	0.89	20.2	11.36	21.9	41.61	nGy/h
	1117			110.7	927.8	0.27	46.5	3.15	24.4	6.81	13.6	38.98	nGy/h
	1118	699000	7844100	95.9	803.8	0.23	43.9	2.79	24.1	7.85	15.5	39.3	nGy/h
	1119			116.8	978.8	0.24	52.7	4.85	30.6	5.56	11.4	44.44	nGy/h
	1120			101	846.3	0.28	44.4	2.03	22.3	9.1	17.7	39.21	nGy/h
	1121	699000	7844000	98.7	826.6	0.7	60.4	1.27	15.8	6.84	13.4	34.48	nGy/h
	1122			105.1	880.7	0.39	50.6	2.02	22.3	9.08	17.7	40.49	nGy/h
	1123			108.8	911.1	0.11	31.9	1.92	20.2	8.04	15.6	33.49	nGy/h
	1124	698900	7844000	109.8	919.6	0.28	52.2	4.02	28.2	6.65	13.4	43.42	nGy/h
	1125			119.3	999.7	0.38	71.5	6.33	39	6.51	13.5	56.89	nGy/h
	1126			119	996.8	0.39	50.7	1.69	22.3	10.22	19.8	41.78	nGy/h
	1127	698800	7844000	102.4	857.6	0.28	52.2	4.02	28.2	6.65	13.4	43.42	nGy/h
	1128			109.1	914.1	0	40.2	5.45	34.8	6.65	13.5	47.53	nGy/h

	1129			104	871.4	0.36	46.5	1.56	20.2	9.13	17.7	37.85	nGy/h
	1130	698700	7844000	100.1	839	0.58	48	0	11.7	10.28	19.6	35.25	nGy/h
	1131			111.6	935	0.71	50.6	0	7.6	10.44	19.8	37.46	nGy/h
	1132			103	863	0.94	71.6	0	13.9	10.31	19.8	40.03	nGy/h
	1133	698600	7844000	119.6	1002.3	0.29	60.4	5.37	34.4	6.53	13.4	50.53	nGy/h
	1134			98.9	828.5	0.32	46.5	2.35	22.3	7.96	15.6	38.37	nGy/h
	1135			97.5	817	0.33	52.8	3.6	26.5	6.76	13.6	42.12	nGy/h
	1136	698600	7844100	104.6	876.2	0.14	43.9	3.7	28.2	7.79	15.5	42.88	nGy/h
	1137			103.1	864	0.25	40.2	3.23	20.2	3.51	7.3	30.29	nGy/h
	1138			100.3	840	0.32	46.5	3.35	22.3	4.59	9.4	34.71	nGy/h
	1139	698700	7844100	109.5	917.5	0	31.5	4.25	26.2	4.5	9.3	35.19	nGy/h
	1140			99.4	832.7	0.15	33.9	1.25	20.2	10.27	19.8	36.36	nGy/h
	1141			114.5	959.1	0.53	59.1	3	22.3	5.69	11.5	38.62	nGy/h
	1142			106	888.1	0.13	46.5	6.52	30.6	0	1	37.12	nGy/h
	1143			105.5	883.9	0.81	50.7	0	3.5	8.27	15.6	32.82	nGy/h
	1144	698600	7844200	105.6	884.5	0.09	35.6	3.46	24.1	5.64	11.3	35.09	nGy/h
	1145			105.1	880.7	0.39	50.6	2.68	22.3	6.83	13.5	38.02	nGy/h
	1146			101	846.3	0.3	50.7	4.27	26.5	4.51	9.4	39.2	nGy/h
	1147	698700	7844200	104.1	872.1	0.13	35.6	3.66	22	3.44	7.2	30.86	nGy/h
	1148			97.2	813.9	0.06	31.9	1.71	22.3	10.24	19.8	37.72	nGy/h
	1149			104.3	873.4	0.27	46.5	4.15	24.4	3.43	7.3	35.27	nGy/h
	1150			95.8	802.4	0	36.1	6.13	34.8	4.41	9.4	45.18	nGy/h
	1151	698800	7844200	103.9	870	0.18	46	2.38	28.2	12.24	23.7	48.21	nGy/h
	1152			102.9	861.9	0.61	52.7	0	13.9	10.33	19.8	35.83	nGy/h
	1153			107.8	902.7	0	34	5.8	34.8	5.54	11.5	46.44	nGy/h
	1154	698900	7844200	108.5	909.3	0.84	60.4	0	9.6	8.05	15.5	32.66	nGy/h
	1155			97.4	816	0.4	38.1	0.4	11.8	7.02	13.5	26.34	nGy/h
	1156			102.5	858.8	0.25	40.3	1.57	20.2	9.15	17.7	36.51	nGy/h
	1157	699000	7844200	97.9	820.3	0.72	66.6	3.16	20	3.41	7.2	35.7	nGy/h
MM3000614		698770	7844065										
MM3000615		698770	7844065										
	1158			112.1	939.1	0.47	52.7	2.88	20.2	4.6	9.4	34.2	nGy/h
	1159			99.5	833.7	0	27.7	5.15	34.8	7.81	15.6	48.99	nGy/h
	1160			93	779.4	0.31	38.2	1.32	16	6.96	13.6	29.99	nGy/h
	1161			105.8	886	0.77	59.1	0	11.8	11.49	21.9	41	nGy/h
	1162			112.7	944.5	0.2	50.7	4.86	30.6	5.57	11.5	44.05	nGy/h
	1163			106.5	892.3	0.4	48.6	3.56	20.2	2.37	5.2	30.88	nGy/h
	1164	699112	7844158	86.1	721.1	0.06	23.2	0.01	15.8	11.38	21.7	31.42	nGy/h
	1165	696884	7847228	107.5	900.7	0.67	56.8	0	14.3	13.29	25.3	44.61	nGy/h
	1166			107.6	901.6	0.79	63.2	0.82	13.9	6.93	13.5	33.49	nGy/h
	1167	696900	7847200	114.2	956.8	0.63	56.3	0	15.8	13.54	25.8	44.72	nGy/h
	1168			90.4	757.5	0	25.6	4.68	32.7	7.84	15.6	46.55	nGy/h
	1169			112.2	940.3	0.29	31.9	0.08	11.8	8.17	15.6	26.28	nGy/h
	1170			105.3	881.8	0	38.2	3.34	32.7	12.33	24	51.36	nGy/h
	1171			99	829.5	0.51	44.4	0	11.8	9.27	17.7	31.68	nGy/h
	1172	697000	7847200	108	905.1	0.32	35.6	0	13.7	11.38	21.7	34.82	nGy/h
	1173			101.6	851.5	0.51	44.4	0.72	11.8	5.88	11.4	26.45	nGy/h
	1174			105.3	881.8	0.68	67.4	1.33	22.3	11.31	21.9	46.59	nGy/h

	1175	697000	7847300	100.6	843.1	0	35.6	4.17	30.3	7.77	15.5	43.56	nGy/h
	1176			111.4	932.9	0.4	59	3.05	28.5	10.08	19.8	48.91	nGy/h
	1177			105.3	881.8	0.34	50.7	2.15	24.4	10.18	19.8	43.58	nGy/h
	1178	696900	7847300	111.5	934.1	0.41	43.9	1.95	15.8	4.64	9.3	28.5	nGy/h
	1179			106.6	893.3	0.49	59	2.46	24.3	9.03	17.7	44.08	nGy/h
	1180			99.5	833.7	0.28	44.4	1.7	22.3	10.23	19.8	40.44	nGy/h
	1181	696800	7847300	99.4	832.7	0.22	35.6	0.77	17.9	10.2	19.6	34.63	nGy/h
	1182			101.6	851.5	0.45	56.9	3.8	24.3	4.53	9.4	38.69	nGy/h
	1183			102.5	858.8	0.5	46.5	0.52	13.9	8.11	15.6	31.2	nGy/h
	1184	696800	7847200	111	929.9	0.69	54.2	0	11.7	9.15	17.5	33.61	nGy/h
	1185			107.1	897.4	0.43	52.7	1.35	22.3	11.32	21.9	43.41	nGy/h
	1186			110.2	923.6	0.58	59.1	2.54	20.2	5.72	11.5	36.82	nGy/h
	1187	696800	7847100	126.1	1056.2	0.5	64.6	3.01	28.2	9.97	19.6	49.74	nGy/h
	1188			115.9	970.5	0.92	65.3	0	9.7	10.38	19.8	39.99	nGy/h
	1189			104.8	877.6	0.27	36.1	1.66	16	5.84	11.5	28.3	nGy/h
	1190	696900	7847100	116.4	975.4	0.27	54.2	4.14	30.3	7.73	15.5	46.86	nGy/h
	1191			103.1	864	0.38	52.7	2.81	24.3	7.91	15.6	41.5	nGy/h
	1192			104.3	873.4	0.48	61.2	3.92	26.5	5.62	11.5	42.67	nGy/h
	1193	697000	7847100	109.5	917.5	0.34	39.7	1.3	15.8	6.88	13.4	30.06	nGy/h
	1194			116.8	978.8	0.52	52.7	2.75	18.1	3.51	7.3	31.16	nGy/h
	1195			106.5	892.2	0.42	52.8	3.35	22.3	4.58	9.4	36.04	nGy/h
	1196			105	879.7	0.38	42.4	0.98	16	8.08	15.6	32.11	nGy/h
	1197	698491	7847630	79.9	669.4	0	14.9	1.74	11.7	2.54	5.1	16.3	nGy/h
MM3000616		696983	7847123										
MM3000617		696983	7847123										
	1198	710885	7851869	105.6	884.4	0.33	41.8	1.09	17.9	9.07	17.5	34.73	nGy/h
	1199			107.9	903.7	0.3	59	4.3	32.7	8.89	17.7	51.28	nGy/h
	1200	710900	7851900	97.9	820.3	0.62	48	0	9.6	8.08	15.5	29.92	nGy/h
	1201			110.4	924.5	0.62	61.1	0.21	20.2	13.59	26.1	45.86	nGy/h
	1202			104.5	875.5	0.54	48.6	0	13.9	10.36	19.8	34.95	nGy/h
	1203	710900	7852000	107.8	903.1	0.4	46	2.07	17.9	5.72	11.3	31.95	nGy/h
	1204			95.9	803.5	0.26	29.8	0.08	11.8	8.17	15.6	25.79	nGy/h
	1205			102.3	856.7	0.59	57	1.75	18.1	6.89	13.6	35.8	nGy/h
	1206	710800	7852000	111.5	934.1	0.87	62.5	0.56	9.6	4.7	9.3	27.12	nGy/h
	1207			106.4	891.1	0.38	42.3	0.65	16	9.2	17.7	33.31	nGy/h
	1208			106.8	894.3	0	36.1	4.09	28.6	6.76	13.6	40.41	nGy/h
	1209	710800	7851900	100.9	845.2	0.55	54.2	1.08	17.9	9.05	17.5	37.38	nGy/h
	1210			98.6	826.4	0.45	56.9	3.46	24.3	5.65	11.4	39.92	nGy/h
	1211			108.6	909.8	0.53	46.3	0	12.3	9.61	18.4	32.87	nGy/h
	1212	710800	7851800	108.3	907.2	0.99	66.6	0	7.5	9.19	17.5	37.73	nGy/h
	1213			112.4	941.2	0.75	52.7	0.45	7.6	3.68	7.3	22.16	nGy/h
	1214			112.5	942.4	0.36	46.5	1.56	20.2	9.13	17.7	37.85	nGy/h
	1215	710900	7851800	109.3	915.5	0.21	58.4	4.19	36.5	12.08	23.7	57.99	nGy/h
	1216			99.2	830.6	0.37	44.4	2.43	18.1	4.66	9.4	30.61	nGy/h
	1217			92.3	773	0.4	48.6	3.22	20.2	3.49	7.3	32.11	nGy/h
	1218	711000	7851800	85.1	712.8	0.11	31.5	2.22	20	6.83	13.4	31.86	nGy/h
	1219			94.9	795.1	0.4	48.6	0.9	20.2	11.37	21.9	40.71	nGy/h
	1220			95.5	800.3	0	27.7	4.56	30.6	6.75	13.6	42.94	nGy/h

	1221	711000	7851900	91.3	764.5	0.25	29.4	1.39	11.7	3.63	7.2	20.61	nGy/h
	1222			85.7	717.7	0	25.6	2.84	24.3	7.97	15.6	36.91	nGy/h
	1223			90.5	758.3	0	19.4	4.7	32.7	7.86	15.6	46.68	nGy/h
	1224	711000	7852000	81.1	679.7	0.64	54.2	1.15	13.7	5.77	11.3	30.14	nGy/h
MM3000618		710938	7851856										
MM3000619		710830	7851936										
	1225			81.9	686.3	0.04	46.5	6.11	34.8	4.38	9.4	45.45	nGy/h
	1226			98.5	825.4	0.06	42.4	4.54	30.6	6.72	13.6	43.5	nGy/h
	1227			105.3	881.8	0.84	71.6	1.4	18.1	7.98	15.6	40.16	nGy/h
	1228			105	879.7	0.59	57	1.42	18.1	8.02	15.6	37.04	nGy/h
	1229			71.4	598.1	0.31	35.8	1.62	14.1	4.58	9.1	25.19	nGy/h
	1230			70.3	588.6	0.33	42.3	3.1	18.1	2.41	5.2	27.7	nGy/h
	1231			119.6	1001.8	0.59	67.3	2.25	26.4	11.22	21.9	50.13	nGy/h
	1232	708510	7852216	112	938.3	0.56	60.4	1.65	22	10.08	19.6	43.5	nGy/h
	1233			78.6	658.8	0.24	31.8	2.85	13.9	0.25	1	19.37	nGy/h
	1234			95.6	800.9	0.12	33.1	2.5	20.5	6.27	12.4	32.06	nGy/h
	1235			102.5	858.9	0.41	50.8	0.75	21.4	12.72	24.5	43.74	nGy/h
	1236			100.5	841.8	0.24	42.4	2.86	22.6	6.49	12.9	36.14	nGy/h
	1237			89	745.9	0.07	36.4	3.39	25.4	6.84	13.6	37.74	nGy/h
	1238			100.3	840.3	0.24	41.9	2.01	22	9.01	17.6	38.33	nGy/h
	1239			103.5	867.4	0.24	41.8	2.17	22	8.45	16.5	37.71	nGy/h
	1240			100.4	841.3	0.16	35.6	2.48	20.7	6.44	12.7	32.95	nGy/h
	1241	685799	7844890	124.1	1039.9	0.96	72.9	0.14	13.8	9.08	17.5	37.8	nGy/h
	1242	685800	7844900	123.1	1031.5	1.1	83.2	0	15.8	13.48	25.8	50.68	nGy/h
	1243	685700	7844900	128.8	1079	0.72	67.3	1.86	20.2	7.95	15.6	41.02	nGy/h
	1244	685600	7844900	126	1055.3	0.32	65.3	4.23	36.9	12.2	24	60	nGy/h
	1245			124.5	1042.7	0.56	63.3	4.12	24.4	3.39	7.3	38.84	nGy/h
	1246			125.6	1052.1	0.88	70.8	0.6	15.8	9.05	17.5	39.14	nGy/h
	1247			125.3	1049.8	0.44	48.6	1.43	18.1	8.02	15.6	35.21	nGy/h
	1248			119.7	1003	0.25	50.7	1.41	28.6	15.75	30.3	53.37	nGy/h
	1249			121.6	1019	0.2	41.8	1.8	24.1	11.2	21.7	42.54	nGy/h
	1250			118.1	989.3	0.48	69.4	3.29	32.7	12.24	24	57.21	nGy/h
	1251			128	1072	0.34	61.2	4.97	32.7	6.64	13.6	49.32	nGy/h
	1252			127.7	1069.9	0.7	63.3	2.41	18.1	4.62	9.4	34.67	nGy/h
	1253	685600	7844800	120.9	1012.9	0.9	85.3	2.86	26.2	8.85	17.5	51.15	nGy/h
	1254			124.8	1045.6	0.86	77.8	0.65	22.3	13.52	26.1	51.23	nGy/h
	1255			115.5	967.5	0.71	69.5	2.99	22.3	5.67	11.5	40.85	nGy/h
	1256	685600	7844700	130	1089.5	0.64	64.6	1.65	22	10.07	19.6	44.4	nGy/h
	1257			128.3	1074.9	0.04	46.5	5.78	34.8	5.51	11.4	46.7	nGy/h
	1258			126	1055.3	0.62	61.2	0	20.2	16.99	32.4	53.87	nGy/h
	1259	685700	7844700	121.9	1021.1	0.42	52.2	1.99	22	8.98	17.5	40.51	nGy/h
	1260			119.3	999.7	0.44	50.6	0	20.2	15.86	30.2	48.46	nGy/h
	1261			109.3	915.2	0.51	54.9	0.56	20.2	12.49	24	43.34	nGy/h
	1262	685800	7844700	114.2	956.9	0.35	48	2.98	22	5.65	11.3	35.96	nGy/h
	1263			109.6	918.3	0.4	48.6	2.56	20.2	5.74	11.4	34.54	nGy/h
	1264			106	888.1	0.23	46.5	1.62	26.5	13.54	26.1	48.2	nGy/h
	1265	685900	7844700	114	954.8	0.19	52.2	4.27	32.4	8.82	17.5	49.43	nGy/h
	1266			120.3	1008.1	0	40.2	3.67	32.7	11.18	21.9	50.04	nGy/h

	1267			120	1005.1	0.37	54.9	2.93	26.5	9.01	17.7	45.04	nGy/h
	1268	686000	7844700	123.4	1033.5	0.55	62.5	2.1	24.1	10.04	19.6	45.73	nGy/h
	1269			118.8	995.5	0.19	52.7	4.31	32.7	8.9	17.7	49.94	nGy/h
	1270			130	1088.7	0.5	65.3	4.71	28.6	4.45	9.4	44.13	nGy/h
	1271	686000	7844800	120.4	1008.8	0.87	64.6	0	11.7	15.82	30	53.96	nGy/h
	1272			113.4	949.6	0.81	69.4	0.41	18.1	11.36	21.9	43.37	nGy/h
	1273			114.7	961.2	0.19	44.4	3.95	26.5	5.65	11.5	39.1	nGy/h
	1274	685900	7844800	116.9	979.6	0.52	60.4	2.76	24.1	7.82	15.5	42.84	nGy/h
	1275			112.9	945.4	0.68	56.9	0	13.9	12.58	24	42.83	nGy/h
	1276			117.2	982.1	0	29.8	4.09	28.6	6.78	13.6	40.5	nGy/h
	1277	685800	7844800	112.5	942.4	0.55	54.2	1.08	17.9	9.05	17.5	37.38	nGy/h
	1278			111.6	935	0.71	61.1	1.62	16	5.78	11.4	33.61	nGy/h
	1279			119.5	1000.9	0.39	59.1	5.05	28.6	3.33	7.3	41.56	nGy/h
	1280	685700	7844800	115.9	971.3	0.38	50.1	2.65	22	6.76	13.4	37.62	nGy/h
	1281			109.1	914.1	0.36	46.5	2.23	20.2	6.87	13.5	35.33	nGy/h
	1282			123	1030.2	0.62	69.5	3.91	26.5	5.6	11.5	44.46	nGy/h
	1283			124.2	1040.6	0.52	52.8	1.76	18.1	6.9	13.6	34.91	nGy/h
	1284			120	1005.1	0.22	38.2	2.91	20.2	4.64	9.4	31.12	nGy/h
	1285			91.5	766.8	0.3	29.8	0	9.7	9.34	17.7	29.14	nGy/h
	1286	685700	7845000	93.7	785.2	0	31.5	3.06	28.2	10.04	19.6	43.67	nGy/h
	1287			95.7	801.4	0.14	44.4	5.4	28.5	2.24	5.2	37.15	nGy/h
	1288			104.8	877.6	0.15	42.4	1.62	26.5	13.55	26.1	47.31	nGy/h
	1289	685800	7845000	122.9	1029.3	0.48	58.4	4.08	24.1	3.36	7.2	37.5	nGy/h
	1290			119.3	999.7	0.43	52.7	1.68	22.3	10.2	19.8	42.17	nGy/h
	1291			131.5	1101.2	0.32	54.9	3.4	28.6	8.98	17.7	46.85	nGy/h
	1292	685900	7845000	123.1	1031.3	0.71	48	0	5.5	3.69	7.2	19.26	nGy/h
	1293			131.3	1100	1.03	82	1.05	18.1	9.08	17.7	43.58	nGy/h
	1294			128.2	1074.1	0.77	67.4	1.41	18.1	7.99	15.6	39.27	nGy/h
	1295	686000	7845000	121.6	1019	0.47	60.4	3.88	26.2	5.55	11.3	42.18	nGy/h
	1296			124.8	1045.6	0.02	40.2	5.2	30.6	4.46	9.4	40.53	nGy/h
	1297			140.2	1174.4	0.98	82.1	0.52	20.2	12.43	24	49.14	nGy/h
	1298	686000	7844900	125.9	1054.4	0.44	48	0.43	17.9	11.29	21.7	38.52	nGy/h
	1299			129.8	1087.4	0.21	40.2	0.37	22.3	14.73	28.2	44.44	nGy/h
	1300			122.5	1026	0.61	82.1	6.86	36.9	3.15	7.3	53.68	nGy/h
	1301	685900	7844900	128.3	1074.8	0.36	56.3	2.69	28.2	11.1	21.7	49.19	nGy/h
	1302			122.4	1025.6	0.65	54.7	0	13.9	14.81	28.1	48.38	nGy/h
	1303			125	1046.9	0.27	54.9	5.85	30.6	2.18	5.2	41.23	nGy/h
	1304			124	1038.5	0.86	77.9	0	22.3	18.04	34.5	59.91	nGy/h
	1305			117.2	982.1	0.25	42.4	1.03	22.3	12.49	24	42.47	nGy/h
	1306			126.5	1059.4	0.08	57	6.82	41.1	6.52	13.6	55.64	nGy/h
	1307			121	1013.5	0.63	59.1	0.75	18.1	10.27	19.8	39.96	nGy/h
	1308			129.7	1086.6	0.39	80	6.38	45.3	10.9	21.9	69.1	nGy/h
	1309			118.6	993.5	0.95	77.8	0.39	18.1	11.34	21.9	45.15	nGy/h
MM3000609		685901	7844906										
MM3000610	1310	692446	7846810	81.6	683.8	0.32	35.6	1.18	13.7	5.81	11.3	26.17	nGy/h
	1311	696326	7847111	91.5	766.9	0.51	52.2	0.75	17.9	10.17	19.6	38.18	nGy/h
MM3000611		696303	7847080										
MM3000621		696303	7847080										

	1312	696300	7847100	100.4	841	0.39	39.7	0.84	13.7	6.92	13.4	28.28	nGy/h
	1313			95.7	801.4	0.24	33.9	2.32	16	3.59	7.3	25.35	nGy/h
	1314			103	863	0.27	36.1	0.99	16	8.1	15.6	30.78	nGy/h
	1315	696300	7847200	93	779	0.56	52.2	0.62	15.8	9.08	17.5	35.16	nGy/h
	1316			106.1	889.1	0.64	56.9	0.63	16	9.17	17.7	36.43	nGy/h
	1317			104.3	873.4	0.42	54.9	2.14	24.4	10.17	19.8	44.48	nGy/h
	1318	696300	7847300	109.8	919.6	0	35.6	3.76	34.4	12.16	23.7	53.2	nGy/h
	1319			103.9	870.3	0	36	3.8	34.8	12.28	24	53.73	nGy/h
	1320			95.8	802.4	0.16	40.3	3.16	24.4	6.82	13.6	37.64	nGy/h
	1321	696200	7847300	90.5	758.3	0.3	39.7	2.08	17.9	5.73	11.3	30.62	nGy/h
	1322			98.7	826.5	0.67	59	2.28	16	3.53	7.3	30.7	nGy/h
	1323			110	921.5	0.27	57	5.31	32.7	5.52	11.5	47.19	nGy/h
	1324	696200	7847200	108.3	907.2	0	31.5	5.61	32.4	4.4	9.3	42.34	nGy/h
	1325			104.4	874.5	0.31	46.5	4.01	22.3	2.33	5.2	32.19	nGy/h
	1326			97.3	814.7	0.47	48.5	3.09	16.7	1.37	3.2	26.65	nGy/h
	1327	696200	7847100	106.8	894.8	0.31	45.9	2.33	22	7.88	15.5	37.96	nGy/h
	1328			102.6	859.9	0.28	44.4	2.69	22.3	6.84	13.5	36.68	nGy/h
	1329			103.8	869.3	0.53	50.7	0.97	16	8.06	15.6	33.9	nGy/h
	1330	696200	7847000	107.3	898.9	0.52	60.4	3.75	24.1	4.47	9.3	39.17	nGy/h
	1331			105.4	882.8	0.44	48.6	2.76	18.1	3.52	7.3	30.27	nGy/h
	1332			106.8	894.3	0.19	34	1.45	18.1	8.07	15.6	32.13	nGy/h
	1333	696200	7846900	98.7	826.5	0.31	37.7	0	15.8	12.46	23.7	37.59	nGy/h
	1334			96.2	805.6	0.13	36	2.7	22.3	6.86	13.5	34.9	nGy/h
	1335			101	846.3	0.53	59.1	2.67	22.3	6.82	13.6	39.86	nGy/h
	1336	696300	7846900	111.5	934.1	0.35	48	1.67	22	10.11	19.6	40.85	nGy/h
	1337			105.4	882.8	0	40.2	5.99	32.7	3.3	7.3	41.43	nGy/h
	1338			103	863	0.49	48.6	0.64	16	9.2	17.7	34.69	nGy/h
	1339	696400	7846900	106.6	892.7	0	27.3	5.42	34.4	6.61	13.4	47.22	nGy/h
	1340			100.9	845.2	0.51	54.8	1.88	20.2	7.98	15.6	38.35	nGy/h
	1341			95	796.1	0.12	40.3	2.96	26.5	9.04	17.7	41.92	nGy/h
	1342	696400	7847000	111.5	934.1	0	37.7	4.09	34.4	11.04	21.7	51.96	nGy/h
	1343			105.6	884.9	0.76	50.6	0	5.6	5.97	11.4	26.01	nGy/h
	1344			106.5	892.3	0.37	54.9	3.93	26.5	5.63	11.5	41.33	nGy/h
	1345	696400	7847100	102.6	859.7	0.37	43.9	0.43	17.9	11.3	21.7	37.62	nGy/h
	1346			107.6	901.6	0.17	48.6	5.85	30.6	2.19	5.2	39.84	nGy/h
	1347			100.3	840	0.29	50.7	5.27	26.5	1.13	3.1	35.5	nGy/h
	1348	696400	7847200	104.8	878.2	0.27	45.9	3.44	24.1	5.62	11.3	37.3	nGy/h
	1349			104.9	878.6	0.38	52.7	2.81	24.3	7.91	15.6	41.5	nGy/h
	1350			96.5	808.7	0.54	48.6	1.84	13.9	3.59	7.3	26.7	nGy/h
	1351	696400	7847300	97.6	817.5	0.25	46.8	3.48	25.6	6.55	13.1	39.82	nGy/h
	1352			113.4	949.6	0.53	50.6	0	16	12.56	24	40.74	nGy/h
	1353			112.2	940.3	0	36.1	5.72	39	8.85	17.7	54.92	nGy/h
	1354			100	837.9	0.52	42.4	0	9.7	12.69	24	41.04	nGy/h
	1355			95.3	798.2	0.81	50.7	0	3.5	10.52	19.8	38.9	nGy/h
	1356			110.7	927.8	0.27	57	4.65	32.7	7.78	15.6	49.66	nGy/h
	1357			105.3	881.7	0.6	52.8	0.89	14.5	7.23	14.1	32.1	nGy/h
	1358			110.9	928.7	0.43	52.7	1.35	22.3	11.32	21.9	43.41	nGy/h
	1359			104.8	877.6	0.43	42.4	0.52	13.9	8.12	15.6	30.31	nGy/h

	1360	696300	7847000	103.6	867.9	0	35.6	7.43	40.6	4.26	9.3	51.82	nGy/h
MM3000622	1361	695501	7850943	104.6	876.2	0	27.3	1.82	24.1	11.23	21.7	40.17	nGy/h
	1362	734588	7852655	115.2	965.3	0.46	43.9	0.18	13.8	9.14	17.5	31.61	nGy/h
	1363	734600	7852700	128.1	1073	0.12	48	4.61	32.4	7.71	15.5	47.34	nGy/h
	1364			120.3	1008.1	0.07	50.6	4.57	36.9	11.09	21.9	55.57	nGy/h
	1365			128.7	1078.5	0.73	65.8	1.13	18.8	9.46	18.4	41.16	nGy/h
	1366	734600	7852800	119.2	998.2	0.31	64.6	6.81	36.5	3.15	7.2	49.53	nGy/h
	1367			113.9	953.8	0.18	36	1.58	20.2	9.14	17.7	35.57	nGy/h
	1368			111.7	936.1	0.39	40.3	0.19	13.9	9.25	17.7	31.1	nGy/h
	1369	734600	7852900	131.3	1099.6	0.31	46	1.67	22	10.11	19.6	40.41	nGy/h
	1370			114.6	960.1	0.79	73.6	2.32	22.3	7.9	15.6	44.16	nGy/h
	1371			109.5	917.3	0.49	48.6	1.31	16	6.94	13.6	32.22	nGy/h
	1372	734700	7852900	105.3	882.4	0.32	43.9	1.88	20	7.92	15.5	35.74	nGy/h
	1373			117.3	983	0.5	67.3	2.51	30.6	13.41	26.1	56.2	nGy/h
	1374			123	1030.2	0.54	77.9	6.2	36.9	5.41	11.5	55.26	nGy/h
	1375	734700	7852800	108.5	909.3	0.48	58.4	3.42	24.1	5.59	11.3	39.95	nGy/h
	1376			106.6	893.3	0.26	48.6	3.27	26.4	7.89	15.6	42.41	nGy/h
	1377			119.2	998.8	1.09	77.9	0.68	11.8	5.82	11.5	33.62	nGy/h
	1378	734700	7852700	114.7	961.1	0.28	43.9	2.99	22	5.66	11.3	35.08	nGy/h
	1379			120.8	1012.2	0	31.9	6.59	36.9	4.38	9.4	47.59	nGy/h
	1380			119.7	1003	0	38.2	5.93	36.9	6.62	13.6	50.02	nGy/h
	1381	734700	7852600	127.8	1070.7	0	41.8	5.2	36.5	8.77	17.5	51.85	nGy/h
	1382			111.6	935	0.33	52.7	3.27	26.4	7.88	15.6	43.3	nGy/h
	1383			146.9	1230.8	0.75	82.1	4.15	30.6	7.76	15.6	53.21	nGy/h
	1384	734700	7852500	136	1139.2	0.31	56.3	2.49	30.3	13.3	25.8	53.44	nGy/h
	1385			119.3	999.7	0.48	50.6	1.76	18.1	6.89	13.5	34.42	nGy/h
	1386			127	1063.6	0.72	80	0.5	30.6	20.16	38.6	66.37	nGy/h
	1387	734600	7852500	136.2	1141.1	0.53	58.4	1.33	22	11.2	21.7	44.29	nGy/h
	1388			117.3	983	0.18	46.5	2.41	28.5	12.36	24	48.71	nGy/h
	1389			126.5	1059.4	0.5	65.3	5.04	28.6	3.32	7.3	42.89	nGy/h
	1390	734600	7852600	129.8	1087.3	0.04	43.9	6.25	32.4	2.14	5.1	40.33	nGy/h
	1391			116.3	974.7	0.32	65.3	6.54	36.9	4.31	9.4	51.28	nGy/h
	1392			128	1072	0.53	61.2	1.8	24.4	11.29	21.9	47.05	nGy/h
	1393			123.2	1032.3	0.06	50.7	5.24	36.9	8.85	17.7	53.16	nGy/h
	1394	734500	7852500	134.4	1126.1	0.61	69.9	2.43	27.3	11.25	22	51.52	nGy/h
	1395			121.8	1020.6	0.34	61.1	4.63	32.7	7.76	15.6	50.49	nGy/h
	1396			122	1021.8	0.21	50.7	1.87	30.6	15.71	30.3	55.17	nGy/h
	1397	734500	7852600	129.3	1083.3	0.02	39.8	4.49	30.3	6.65	13.4	42.56	nGy/h
	1398			126.8	1062.3	0.31	67.3	6	39	7.64	15.6	57.23	nGy/h
	1399			129.2	1082.4	0.46	65.3	2.84	30.6	12.3	24	54.59	nGy/h
	1400			131.1	1097.9	0.79	72.3	0.23	21	14.07	27	49.53	nGy/h
	1401	734500	7852700	127.3	1066.6	0.5	54.2	0.22	20	13.48	25.8	44.07	nGy/h
	1402			111.4	932.9	0.25	61.1	5.22	36.9	8.82	17.7	55.33	nGy/h
	1403			127	1063.9	0.61	73	4.65	29.6	5.32	11.1	47.64	nGy/h
	1404	734500	7852800	121.6	1019.1	0	56.3	9.02	51	6.27	13.4	65.91	nGy/h
	1405			109.1	914.1	0.18	36	3.57	20.2	2.39	5.2	28.16	nGy/h
	1406			110.7	927.8	0	34	4.75	28.6	4.52	9.4	37.98	nGy/h
	1407	734500	7852900	111.5	934.1	0	35.6	7.05	34.4	1.01	3.1	41.02	nGy/h

MM3000623		734504	7852903										
MM3000624		734504	7852903										
	1408				976.8	0.25	48.3	3.06	26.6	8.75	17.2	43.46	nGy/h
	1409				907.8	0.34	58	2.69	30.3	12.64	24.6	53.08	nGy/h
	1410				910.7	0.19	37.5	0.78	20.9	12.39	23.8	40.1	nGy/h
	1411				1032.8	0	51.4	6.85	44.4	8.85	18	61.06	nGy/h
	1412				905.7	0.44	43.3	0.25	14.1	9.14	17.5	31.76	nGy/h
	1413				894.3	0.44	43.9	1.56	14.8	5.22	10.3	28.24	nGy/h
	1414				773.2	0.17	32.5	1.11	17.9	9.1	17.5	32.77	nGy/h
	1415				806.9	0.38	38.6	0.83	13	6.43	12.5	26.85	nGy/h
	1416				826	0.07	38.7	4.47	27.2	4.47	9.3	37.23	nGy/h
	1417				799.7	0.31	49.1	3.14	24.5	6.95	13.8	39.82	nGy/h
	1418				820.5	0.05	34.1	2.67	24.6	8.71	17	38.61	nGy/h
	1419				843.6	0.19	32.5	1.37	16.9	7.44	14.4	30.04	nGy/h
	1420				824.9	0.53	49.9	0.95	15.3	7.58	14.7	32.54	nGy/h
	1421	718452	7829542		826.5	0.4	37.7	1.05	11.7	4.72	9.3	23.6	nGy/h
	1422	718500	7829500		892.7	0.52	50.1	0.96	15.8	7.97	15.5	33.49	nGy/h
	1423				924.5	0.18	36	1.25	20.2	10.27	19.8	36.8	nGy/h
	1424				898.5	0.23	44.4	3.15	24.4	6.81	13.6	38.53	nGy/h
	1425	718500	7829400		826.5	0.27	35.6	1.63	15.8	5.78	11.3	27.95	nGy/h
	1426				895.2	0	31.9	3.88	30.6	8.98	17.7	45.28	nGy/h
	1427				940.3	0.62	50.7	0	11.8	12.64	24	42.19	nGy/h
	1428	718500	7829300		789.3	0.16	29.4	0.98	15.8	8.02	15.5	29.08	nGy/h
	1429				914.1	0.24	42.3	3.36	22.3	4.59	9.4	33.77	nGy/h
	1430				867.1	0.77	59.1	0.7	11.8	5.86	11.5	29.6	nGy/h
	1431	718400	7829400		932	0.06	31.5	1.69	22	10.14	19.6	37.32	nGy/h
	1432				937.1	0.2	42.3	1.49	24.3	12.44	24	44.21	nGy/h
	1433				1017.7	0.6	46.5	0	9.7	11.56	21.9	38.92	nGy/h
	1434	718400	7829500		938.2	0.38	41.8	0.97	15.8	7.99	15.5	31.73	nGy/h
	1435				1008.1	0.52	52.7	0	18.1	15.89	30.2	49.62	nGy/h
	1436				988.4	0.4	48.6	1.56	20.2	9.13	17.7	38.3	nGy/h
	1437	718400	7829600		979.6	0.16	50.1	3.29	32.4	12.17	23.7	52.66	nGy/h
	1438				1018.4	0.22	46.5	1.95	26.4	12.39	24	46.9	nGy/h
	1439				854.6	0.15	31.9	2.79	18.1	3.56	7.3	26.74	nGy/h
	1440	718400	7829700		905.1	0.02	29.4	2.35	22	7.92	15.5	34.43	nGy/h
	1441				932.9	0	25.6	3.05	22.3	5.76	11.4	32.06	nGy/h
	1442				944.5	0.66	52.8	0.05	11.8	8.13	15.6	30.74	nGy/h
	1443				1116.2	0.16	58.4	3.66	38.6	15.39	29.9	63.45	nGy/h
	1444				999.7	0.46	54.8	3.01	22.3	5.69	11.4	37.68	nGy/h
	1445				948.8	0	33.3	2.87	29.6	11.69	22.7	47.09	nGy/h
	1446				1012.7	0	21.1	1.38	22	11.28	21.7	37.88	nGy/h
	1447	718500	7829700		1081.1	0.51	54.8	0.56	20.2	12.48	24	43.29	nGy/h
	1448				948.6	0.32	27.7	0	7.7	11.63	21.9	35.46	nGy/h
	1449	718500	7829600		1023	0.58	66.6	2.55	26.2	10	19.6	48.39	nGy/h
	1450				996	0.39	44.7	0	17.4	16.47	31.2	49.53	nGy/h
	1451				992	0.25	35.5	1.04	16.7	8.4	16.2	31.55	nGy/h
	1452				1000.9	0.38	42.4	0	16	11.46	21.9	35.9	nGy/h
	1453	718600	7829700		894.8	0.63	56.3	2.26	15.8	3.5	7.2	29.92	nGy/h

	1454				934.9	0.01	33.9	0.97	26.4	15.8	30.2	47.93	nGy/h
	1455				929.9	0	27.7	0.39	22.3	14.77	28.2	41.92	nGy/h
	1456	718600	7829600		938.2	0.44	58.4	2.24	26.2	11.13	21.7	47.85	nGy/h
	1457				830.6	0.48	42.3	0	11.8	11.52	21.9	37.25	nGy/h
	1458				900.5	0.48	50.7	1.76	18.1	6.9	13.6	34.46	nGy/h
	1459	718600	7829500		822.4	0.42	41.8	2.16	13.7	2.45	5.1	23.82	nGy/h
	1460				910	0.38	42.3	1.64	16	5.82	11.4	29.6	nGy/h
	1461				800.1	0.29	42.3	1.57	20.2	9.14	17.7	36.95	nGy/h
	1462	718600	7829400		768.6	0.21	37.7	1.88	20	7.93	15.5	34.41	nGy/h
	1463				757.3	0.37	36	0.07	11.8	8.15	15.6	27.12	nGy/h
	1464				735.2	0.31	38.2	0	16	17.1	32.3	50.16	nGy/h
	1465	718600	7829300		743.8	0.08	27.3	1.11	17.9	9.11	17.5	31.64	nGy/h
MM3000625		718467	7829539										
MM3000626		718467	7829539										
	1466	715567	7841108		853.4	0	37.7	5.73	34.4	5.47	11.3	45.86	nGy/h
	1467	715600	7841100		1039.6	0.31	56.3	4.47	30.3	6.61	13.4	46.08	nGy/h
	1468				1033.1	0.21	40.2	1.37	22.3	11.35	21.9	40.73	nGy/h
	1469				909	0.16	40.3	3.16	24.4	6.82	13.6	37.64	nGy/h
	1470	715500	7841100		1054	0.64	45.9	0	7.5	14.81	27.9	48.2	nGy/h
	1471				1122.9	0.05	52.7	6.36	39	6.55	13.5	52.87	nGy/h
	1472				1220.4	0.55	65.3	0.26	26.5	18	34.5	57.17	nGy/h
	1473	715500	7841000		1122.4	0.69	72.8	1.89	26.2	12.22	23.7	52.17	nGy/h
	1474				1054	0.47	44.4	0	13.9	10.35	19.8	33.98	nGy/h
	1475				927.8	0.07	40.3	2.09	28.6	13.52	26.1	48.67	nGy/h
	1476	715600	7841000	113.5	950.6	0.56	52.2	0	15.8	15.78	29.9	49.82	nGy/h
	1477			99.1	830.6	0.52	52.7	1.43	18.1	8.01	15.6	36.1	nGy/h
	1478			109.3	915.2	0.21	50.7	2.53	30.6	13.46	26.1	52.7	nGy/h
	1479	715700	7841000	108.8	911.4	0.11	50.1	5.06	34.4	7.67	15.5	49.55	nGy/h
	1480			108.4	907.9	0.11	42.3	2.74	28.5	11.24	21.9	46.58	nGy/h
	1481			113.2	948.6	0	34	3.35	32.7	12.34	24	51.42	nGy/h
	1482	715700	7841100	111.7	936.2	0.34	50.1	2.12	24.1	10.07	19.6	43.08	nGy/h
	1483			108.6	910	0	29.8	1.64	26.4	13.56	26.1	45.42	nGy/h
	1484			113.7	952.9	0.33	52.8	2.94	26.5	9.02	17.7	44.6	nGy/h
	1485	715700	7841200	105.3	882.4	0.78	72.8	1.63	22	10.05	19.6	46.15	nGy/h
	1486			116.1	972.5	0.24	52.7	1.2	30.6	17.94	34.4	58.02	nGy/h
	1487			107	896.4	0.39	50.7	1.69	22.3	10.21	19.8	41.78	nGy/h
	1488	715600	7841200	108.5	909.2	0.57	50.1	0.83	13.7	6.89	13.4	30.48	nGy/h
	1489			103.9	870.3	0.37	44.4	1.77	18.1	6.91	13.5	33.08	nGy/h
	1490			114.2	957	0.2	42.4	2.82	24.4	7.95	15.6	39.33	nGy/h
	1491	715500	7841200	120.1	1006.5	0.38	50.1	2.65	22	6.76	13.4	37.62	nGy/h
MM3000627													
MM3000628													
	1492	720733	7926460	114.7	961	0.11	39.7	3.25	26.2	7.83	15.5	40.21	nGy/h
	1493			115.7	969.3	0	33.5	3.97	32.4	9.97	19.6	48.41	nGy/h
	1494	720711	7926471	108.5	909.3	0	33.5	3.26	26.2	7.84	15.5	38.88	nGy/h
	1495	720729	7926476	108.5	909.3	0.18	43.9	2.91	26.2	8.94	17.5	42.31	nGy/h
	1496	720746	7926478	109.8	919.7	0.76	66.6	1.72	17.9	6.79	13.4	37.59	nGy/h
	1497	720779	7926462	114.7	961	0	37.7	6.57	42.7	8.68	17.5	59.05	nGy/h

MM3000629		720730	7926464										
	1498			104.2	873.3	0.29	45.6	3.03	22.8	6.04	12.1	36.53	nGy/h
	1499			109.3	915.2	0.02	45	3.92	34.5	11.6	22.7	52.78	nGy/h
	1500			93.1	779.8	0.53	55.6	2.48	19.8	5.67	11.3	35.64	nGy/h
MM3000632	1501	696328	7927242	143.6	1203	1.11	81.1	0	13.8	11.29	21.7	44.89	nGy/h
	1502			154.4	1293.2	0.17	56.4	2.22	36.5	18.79	36.2	64.96	nGy/h
	1503			189.5	1587.2	0.01	52.2	0	40.7	29.9	56.9	80.74	nGy/h
	1504	697579	7928832	137.8	1154.1	0.04	35.6	1.94	26.2	12.31	23.8	44.25	nGy/h
	1505			155.7	1304.7	0.3	59	2.65	32.7	14.52	28.2	57.46	nGy/h
	1506			173.4	1453	0	59.1	6.34	49.5	14.27	28.2	72.85	nGy/h
	1507	6975600	7928900	143.7	1203.7	0.01	52.2	5.77	40.7	9.8	19.6	57.83	nGy/h
MM3000631	1508	697076	7927811	143.3	1200.2	0	46.5	3.43	45.2	21.09	40.7	75.47	nGy/h
	1509			161.4	1352.1	0.58	69.5	1.38	28.6	15.71	30.3	57.39	nGy/h
	1510	6975600	7929000	96.9	812.1	0.05	25.3	0	17.9	14.69	27.9	40.18	nGy/h
	1511			128.1	1072.8	0.42	54.8	1.81	24.3	11.29	21.9	45.65	nGy/h
	1512			114.5	959.1	0.39	40.3	0.19	13.9	9.25	17.7	31.1	nGy/h
	1513	6975700	7929000	120.4	1008.5	0	25.3	3.98	32.4	9.99	19.6	48.52	nGy/h
	1514			127.8	1070.7	0.32	46.5	0	22.3	16.97	32.3	49.88	nGy/h
	1515			146.4	1226.7	0	50.7	3.17	41.1	18.92	36.5	68.22	nGy/h
	1516	6975700	7928900	151.4	1268.1	0.11	50.1	3.42	34.5	13.26	25.8	55.72	nGy/h
	1517			123.3	1033.2	0	40.2	4.05	39	14.46	28.2	60.95	nGy/h
	1518			160.9	1348.1	0.44	69.5	2.76	34.8	15.61	30.3	62.81	nGy/h
	1519	6975700	7928800	169.4	1419.4	0.15	60.5	3.78	40.7	16.49	32	66.97	nGy/h
	1520			151.7	1271.2	0.42	63.2	1.18	30.6	17.92	34.4	60.25	nGy/h
	1521			163.7	1371.4	0.06	52.8	3.04	39	17.83	34.5	65.33	nGy/h
	1522	6975700	7928700	156.3	1309.7	0.14	62.6	4.57	42.7	15.33	30	67.97	nGy/h
	1523			179	1499.6	0.86	77.8	0	22.3	16.91	32.3	56.84	nGy/h
	1524			186.8	1564.5	0.28	63.3	3.57	36.9	14.47	28.2	62.08	nGy/h
	1525	6975700	7928600	205.5	1721.8	0.29	79.1	4.27	49	20.78	40.3	82.99	nGy/h
	1526			193.3	1619.2	0.8	82	0	28.5	31.45	59.5	95.21	nGy/h
	1527			185.8	1556.2	0.36	59.1	0	30.7	32.63	61.7	92.57	nGy/h
	1528	6975600	7928600	209.7	1757	0.1	81.2	3.58	59.3	30.65	59	103.39	nGy/h
	1529			171.3	1434.9	0	57	3.68	49.4	23.27	44.9	82.66	nGy/h
	1530			160.9	1348.2	0.04	57	5.29	43.2	13.25	26.1	64.87	nGy/h
	1531	6975600	7928700	167.9	1406.9	0.42	62.6	1.5	30.3	16.65	32	58.48	nGy/h
	1532			152.5	1277.6	0	54.8	1.97	43.1	24.49	46.9	76.7	nGy/h
	1533			144.7	1212.1	0	36.1	3.27	36.9	15.64	30.3	59.91	nGy/h
	1534			182.9	1532.4	0.62	80	0.76	34.8	22.35	42.8	72.48	nGy/h
	1535	6975500	7928600	213.9	1792.2	1.27	106	0	26.2	23.32	44.5	79.41	nGy/h
	1536			204.5	1713.4	0.55	65.3	0	26.5	21.38	40.7	64.86	nGy/h
	1537			217.5	1822	0.31	67.5	0.7	39	25.71	49.1	77.16	nGy/h
	1538	6975500	7928700	206.3	1728	0.56	91.5	4.12	46.9	19.67	38.3	82.63	nGy/h
	1539			207.3	1736.3	0.39	80	0.73	45.3	30.06	57.4	90.1	nGy/h
	1540			198.3	1660.9	0.41	75.9	0.81	41.1	26.78	51.2	81.99	nGy/h
	1541	6975500	7928800	224.3	1879.2	0.13	75	3.87	53.1	25.18	48.6	90.58	nGy/h
	1542			205.2	1719.3	0.13	67.4	2.54	47.3	25.54	49.1	84.27	nGy/h
	1543			171.7	1438.2	0	67.5	3.92	53.6	25.45	49.1	89.87	nGy/h
	1544	6975500	7928900	136.7	1145.6	0.15	62.5	2.59	42.7	22.02	42.4	75.28	nGy/h

	1545			138.3	1158.4	0.63	77.8	3.28	32.7	12.23	24	59	nGy/h
	1546			110	921.5	0.15	52.8	3.45	34.8	13.39	26.1	56.75	nGy/h
	1547	6975500	7929000	96.9	812	0	43.9	5.65	38.6	8.73	17.5	54.2	nGy/h
MM3000630	1548	697623	7928827	185.5	1554.1	0.07	58.4	2.93	42.8	20.92	40.3	73.22	nGy/h
	1549	706863	7840136	99.4	832.7	0	31.5	3.59	26.2	6.73	13.4	37.63	nGy/h
	1550			86.4	724.1	0	15.2	0.43	11.8	7.07	13.5	21.44	nGy/h
	1551	7068800	7840100	97.2	814.1	0.29	41.8	1.88	20	7.92	15.5	35.29	nGy/h
	1552			98.6	826.3	0.18	27.7	0.21	13.9	9.26	17.7	28.38	nGy/h
	1553			97.3	814.9	0.25	31.9	0.2	13.9	9.26	17.7	29.31	nGy/h
	1554	7068800	7840000	102.4	857.5	0.43	50.1	1.87	20	7.91	15.5	37.06	nGy/h
	1555			94.4	790.9	0	23.5	4.76	28.5	4.53	9.4	38.07	nGy/h
	1556			85	712.3	0	11	1.49	18.1	8.11	15.6	29.93	nGy/h
	1557			98	821.1	0	27.3	1.04	22	12.39	23.7	39.02	nGy/h
	1558	7068700	7840000	89	745.9	0	25.3	2.03	22	9.04	17.5	35.38	nGy/h
	1559			92.1	771.9	0.04	27.7	0.26	20.2	13.66	26.1	38.71	nGy/h
	1560			88	737.5	0.09	25.6	1.34	16	6.99	13.6	27.3	nGy/h
	1561	7068600	7840000	91.8	768.6	0	17	0.85	24.1	14.6	27.9	43.97	nGy/h
	1562			93.2	780.5	0.19	33.9	0.46	18.1	11.43	21.9	35.79	nGy/h
	1563			90	754.1	0	11	2.92	30.6	12.42	24	49.31	nGy/h
	1564	7068600	7840100	97.7	818.3	0	23.2	1.37	22	11.28	21.7	37.85	nGy/h
	1565			90.9	761.7	0.22	38.1	0.58	20.2	12.51	24	39.72	nGy/h
	1566			90.8	760.4	0.26	38.2	2.11	18.1	5.8	11.5	30.54	nGy/h
	1567	7068700	7840100	84.3	706.6	0.02	31.5	2.48	24.1	9	17.5	37.88	nGy/h
	1568			91.7	767.8	0.23	36	0	18.1	20.43	38.6	58.06	nGy/h
	1569			92.3	773	0	42.4	6.64	43.2	8.77	17.7	59.65	nGy/h
	1570			92	770.5	0.2	28.5	0.51	13.4	7.86	15.1	26.57	nGy/h
	1571	7068600	7840200	104.8	878.2	0.44	56.3	3.43	24.1	5.6	11.3	39.51	nGy/h
	1572			99.1	830.6	0.05	33.9	2.5	24.3	9.08	17.7	38.73	nGy/h
	1573			97.5	816.9	0.19	34	1.12	18.1	9.19	17.7	33.36	nGy/h
	1574	7068700	7840200	98.4	824.5	0.27	35.6	1.63	15.8	5.78	11.3	27.95	nGy/h
	1575			99.4	832.7	0.32	36	0.86	13.9	6.99	13.5	27.7	nGy/h
	1576			92.5	775.1	0.23	36.1	0.79	18.1	10.31	19.8	35.04	nGy/h
	1577	7068800	7840200	85.1	712.8	0	8.7	0.23	13.7	9.21	17.5	26.07	nGy/h
MM3000633		706854	7840136										
MM3000634		706854	7840136										
	1578	686793	7856414	115	963	0.23	54.2	3.61	32.4	11.04	21.7	52.32	nGy/h
	1579	686800	7856400	112.2	940.3	0	46	6.96	38.6	4.27	9.3	49.3	nGy/h
	1580			124.8	1045.6	0.63	59	0	18.1	13.63	26.1	44.93	nGy/h
	1581			115.7	969.6	0.29	42.4	1.9	20.2	8.01	15.6	35.72	nGy/h
	1582	686800	7856500	116.4	975.5	0	39.7	4.09	34.4	11.04	21.7	51.93	nGy/h
	1583			117.3	983	0.7	54.8	0	11.8	22.74	42.8	70.39	nGy/h
	1584			123.5	1034.4	0.15	52.8	6.11	34.8	4.37	9.4	46.86	nGy/h
	1585	686700	7856500	111.3	932.1	0	27.3	1.37	22	11.27	21.7	37.79	nGy/h
	1586			114.6	960.1	0.58	69.4	0.72	28.5	17.94	34.4	59.79	nGy/h
	1587			111.2	932	0.09	36.1	1.5	24.4	12.47	24	42.93	nGy/h
	1588	686700	7856400	114.5	958.9	0.85	68.7	0	15.8	15.74	29.9	53.48	nGy/h
	1589			117.8	987.2	0.46	46.5	0.64	16	9.19	17.7	34.2	nGy/h
	1590			117.2	982.1	0	42.4	5.38	39	9.96	19.8	56.07	nGy/h

[illegible]