EL 9769

NUMERY DEEPS PROJECT

ILLOGWA CREEK 1 : 250 000 Map, SF 53/15

THIRD ANNUAL REPORT -- to August 8, 2004

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SUMMARY

The Numery Deeps exploration program is designed to explore the proterozoic geology in areas of geophysical interest within EL 9769 by drill sampling, and to test those rocks for economic mineralisation.

During the Anniversary Year one hole (of a planned minimum three) was drilled to the bottom of the tertiary geology by percussion RAB then by reverse circulation into the basement rock. The total depth reached was 138 metres, the basement being intersected at 122 metres. Targeting was achieved via a ground based gravity variation survey conducted by Haines Surveys during Year Two and an earlier DBIRD – NTGS regional airborne geophysical survey.

Unfortunately the drilling had to be terminated prematurely due to the onset of an extensive rain system from the south-west and the hasty (and perfectly reasonable) departure of the drill contractor toward the north east.

Expenditure for the term totalled **$18 140.00**

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MAPS AND FIGURES

LOCALITY

EL 9769 is situated in the Allans Bore locality on the northern part of Numery Station. Generally speaking, this places it to the south east of the eastern Harts Ranges (Map 1, from ILLOGWA CREEK Topographical 1:250 000, SF 53 -15).

The Exploration Licence is reached via the Plenty Highway, Indiana Station homestead access road and other station tracks.

In the main the Numery Deeps project area occupies blocks 16, 17 and 24 of the EL area as granted – counting left to right from top to bottom (Map 2).

PROJECT AIMS

The aim of the Numery Deeps project is to explore the magnetic/gravity anomaly lying within the EL, to determine the nature of its geology and to discover whether the structure might carry any economic mineralisation. This is being attempted by using RAB and/or diamond core drilling, then subjecting selected samples to petrological and laboratory analysis. The drilling comes after the acquisition of gravity variation data for drill targeting purposes, which followed the earlier DBIRD/NTGS geophysical survey (see EL 9769 Second Annual Report – Haines Surveys attachment and various maps).

The initial drilling program was not completed due to rain. One hole was completed, however, and the basement rocks were successfully intersected and sampled.

HISTORY

The Numery Deeps magnetics were first identified by the (then) Commonwealth Bureau of Mineral Resources some time in 1962/63, during a regional airborn magnetic survey. The magnetic variation contour map they issued showed that, by chance, the 8km-spaced east/west-orientated flight lines used for this part of the survey had passed either side of the feature. A subsequent northerly control line overflew it to the west of Allans Bore, however.

In the late nineteen-seventies AGIP Nucleare Australia Ltd drilled a number of percussion holes in the region as part of a uranium exploration program. One of these holes (IR4) was located on the road about three kilometres WSW of Allans Bore, the basement there being some 150-plus metres. (These holes were drilled to gain information about the underlying proterozoic rocks, presumably, and to conduct geo-chem tests on the samples and water retrieved therefrom.)

During the mid-1990's the area was held by Roebuck Resources as EL8093, their EL boundaries indicating that the exploration licence was planned around the broader regional magnetic trends as indicated on the BMR map. Yet they must have focused their attention elsewhere as they don't appear to have conducted any magnetic survey of the Allans Bore feature.

In 1997 the land became vacant and I applied for exploration rights over the area. Due to Native Title issues, however, granting was delayed until August 8, 2002. In the meantime the NTGS conducted a broad program of airborn geophysical surveys through the region, and some time in early 2002 the data for that part of the Eromanga covered by EL 9769 was released (Map 3).

As it happened, the Department's 400 metre spaced, north/south orientated flight lines proved exactly right for delineating the Numery Deeps feature – given its dimensions and placement in the ground.

WORK CONDUCTED DURING THE THIRD ANNIVERSARY YEAR

One excursion was made to the project area during the year and that was to conduct the initial drilling. The drill contractor was Johannsen Drilling of Port Lincoln, their plant consisting of a truck-mounted drill, a compressor truck and a service truck. My presence was supplemented by an associate who drove out from Alice Springs to assist with the project.

Due to the onset of rain only one hole was drilled (TJP 1), the details of which follow below).

DRILL HOLE TJP 1

Comments and observations

Drilling Method And Tertiary Geology Samples:

Drilling was by five inch percussion RAB to 122m, then reverse circulation to 138m.

Samples were collected at one metre intervals from 3 metres onward, but continuity of sequence plus all sample integrity was lost at around 70 metres. Nuisance-value water entering the hole when attaching new rods combined with the clayey nature of the material drilled gradually rendered the sample-collecting cyclone inoperable.

Drill Hole:

At first the hard clay characteristics of the tertiary geology appeared stable enough to maintain reasonable hole integrity, so when the water was initially encountered it presented no immediate problem. Around 110 metres depth, however, the driller commented that a considerable amount of material was being ejected in excess of that drilled, indicating the high pressure air return was scouring the hole – most likely in the deeper beds.

Drilling continued to 122 metres when the driller decided to stop and pull out, commenting that it was the deepest hole he'd ever drilled without hitting basement. This was particularly disappointing, so after the RAB gear had been extracted I tentatively broached with him the issue of drilling further but instead using his reverse circulation equipment. It was eventually agreed that he would try going on but only if returning the RC hammer and rods to the hole went smoothly. Apparently his RC hammer and rods were of a slightly bigger guage than the RAB gear and made a straighter hole; the issues of jammed rods, blocked hammers and the loss of costly new equipment made him decidedly wary.

It took half a day to run the forty-one 3 metre rods back down and clear the loose material from the bottom, but in the event everything went smoothly and we were able to continue drilling.

Basement Geology Samples

By coincidence the change to reverse circulation at 122 metres happened almost exactly on the unconformity, so from there to 138 metres all samples were high integrity RC samples of basement geology. Rock fragments observed in the first sample (122m to 123m) seem relatively fresh, but the samples collected after that appear more weathered. At 137m the drill samples became less weathered again, and at 138m the hole was terminated in dry, relatively fresh rock.

All excess basement material was collected for use as an uncontrolled bulk sample. This plus the first of the one metre samples was passed through a ½ inch (12.5mm) sieve and a few +12.5mm fragments that had survived the RC percussion hammer were recovered. Most of these specimens are thoroughly weathered, but the fresher looking pieces are dark in colour and have a sooty appearance. Some of the latter were hand polished for observation under the microscope.

A copy of my observations (below), plus selected coarse fragments and drill samples were forwarded to Dr S K Dobos of Dobos and Associates in Brisbane. While these matters have been discussed in general by phone no data has so far been received.

Basement Sample Observations

The basement rock at this location is a weathered metabasalt of some type. Apart from containing a high number of evenly disseminated magnetite particles, it has a fine, nongranulated texture. Along with the magnetite grains, the principal constituents are a clear glassy feldspar (some being a transparent yellow) and a dark-coloured mica (probably biotite). Occasional linear fan-like aggregates of a fine clear to white acicular mineral were noted as well – possibly the feldspathoid, natrolite.

Garnet is rare. Quartz was not observed. No dark coloured minerals other than the biotite and magnetite were seen.

The magnetite is present in the form of a great many irregularly shaped grains. Sizes range up to a maximum of about 0.75mm, the average being about 0.5mm. These grains are disseminated fairly evenly throughout the differing minerals that make up the rock, including in the one instance of garnet observed in the polished specimens.

Each magnetite grain is comprised of many individual particles of minus 0.15mm, rather than being a single crystal or a composite of several. As a result, the pulverising nature of the RC percussion hammer has reduced all the magnetite in the samples to their constituent particles rather than liberating them as whole grains. In the samples tested the entire magnetite fraction presented in the minus 0.15mm fraction, though in less weathered rock the result may be different.

A magnetic separation test on material from the 137m to 138m sample showed that the magnetite fraction comprised about 9.5 percent of that sample by weight. Under the microscope the dry concentrate had a tendency to clump together in aggregates of up to ten or so grains, indicating that the magnetite might possess certain magnetic properties of its own.

No heavy minerals were observed in the pan once the magnetite had been removed from the washed and sized fractions of the bulk composite sample, other than a few fragments of garnet.

Fine weathered flakes of mica could be seen in both the washed and the polished samples. Examples separated from the bulk sample had a maximum size of about 0.75mm and exhibited a decidedly bronze sheen. As with vermiculite, they are flexible and lack elasticity, yet they did not appear to exfoliate in a flame.

Drilling Issues

The drilling program proposed for Year Three was three holes to be drilled by diamond core, the idea being to try and determine the nature of the basement geology as well as the reasons for the gravity and magnetic anomalies. In the event my diamond drill was not available as expected due to its having suffered acute “Kimberly-isation” (as was explained to me), the result of an extended truck and helicopter mobilised diamond search program in that region during the latter part of 2003 – for which the rig was leased to Johannsen Drilling.

It currently resides in my son’s yard in Port Lincoln – a surprisingly small pile of fractured aluminium framework, winches and hydraulic hoses etc … though I am reliably informed it looks considerably worse than it actually is. Even now I am awaiting its reassembly.

Because of this situation (and because of my being anxious to proceed with the exploration at Numery Deeps) it was agreed that Johannsen Drilling would employ their RAB rig for the job and do the work when time became available between contractual arrangements with others. In due course they gave notice of availability and were met at the appointed time and place. They were then shown to the EL 9769 target area and drilling commenced.

As mentioned in the Page 2 summary, however, only one hole was completed before we were forced to retire from the field by the onset of steady rain. The rain kept up for several days, too, so there was no possibility of taking the drill back and continuing the work. In any case, Johannsen Drilling had contractual obligations with a major diamond exploration company to meet, alongside which the Numery Deeps EL operator’s aspirations were viewed as mere lusts and desires.

So, regrettably, with percussion being used instead of diamond core and one hole being completed instead of a minimum three, the expenditure commitment proposed in the EL 9769 Second Annual Report was not fulfilled (see Summary, page 2; and Expenditure Details, page 11).

Looking at the positive side, though, we did get one hole down successfully and we did get samples of the basement rocks, so the primary aim of the year three program – to discover the nature and composition of the basement rocks – was actually achieved … if a little less fulsomely than had been anticipated. (…Ah, but would that those rocks might have comprised something a little more exciting.)

Nevertheless, if the density and magnetite content of the weathered metabasalt as indicated by sample 137-138 is anything to go by (and given a reasonable expectation that the metabasalt lies on generally less mafic rocks *à la* the Harts Range geology, say), then the presence of the Numery Deeps geophysical anomalies is not difficult to appreciate.

In Contemplation Of Year Four

While samples from RC hole TJP 1 indicate possible answers to the geophysical questions and show the general nature of the rock intersected, the fact of their having been drilled by percussion means they hold little information about the basement geology itself. And it is here that there may lie scope for just a shadow of optimism. For example, further work might indicate whether the metabasalt deposits are deep enough and of sufficient volume for fractional crystalisation and mechanical separation/concentration of minerals to have occurred in the magma prior to or during emplacement.

Overall it leads me to suggest that the EL 9769 Year Four proposal should focus on acquiring some good geological data. This would be achieved by creating a diamond core record of the geological sequence at the Numery Deeps target locality – from a site say 50 metres upsection of hole TJP 1 (Map 5). The core record would commence near surface and form a continuous sample of the 120 odd metres of tertiary geology before continuing as far into (or through) the metabasalt as the drill can manage.

On Life, The Universe and … well, Everything

There is another reason for my proposal**:** It's because I want to finish the job properly.

This will be my last exploration project before retirement, as I seem to have run out of ideas. Of course, if I should stumble over Lasseter's Lost Legend or the like I'll use this newly-acquired free time to drill and explore whatever fabulous orebody it might be. Otherwise I intend to spend my days, a) selling, giving to high schools or disseminating by whatever means possible, copies of *Kevin Cassidy* (my less-than-famous book), b) acting as quality-control taster at my son's small oyster lease in Coffin Bay, c) painting Harts Rangian landscapes and, d) writing nonsense verse for my grandchildren – though not necessarily in that order.

As for Numery Deeps… Well, I've always answered my questioners by saying you have to create your own luck. I've never been blinded with optimism about the project – or about any of my exploration, for that matter – but there is definitely *some*thing there. The fact is, I don't intend going to my grave wondering what it might be. —And anyway, who knows; my first hole might simply have been 50 metres off target ... 50 metres too far down-section to the south-west.

But whatever the result, when I get around to writing my *final* Final Report I'll take satisfaction in knowing that it should make a half decent contribution to the geological knowledge of the area, as well as being helpful to anyone looking at further exploration there.

Predictive Technology

I might add as a footnote that there have been interesting and successful advances in the predictive modelling of fluid flows through basalt 'dome' structures in Victoria. Detailed geological and geophysical knowledge of the well-understood Stawell Gold Mine orebody was used to construct a detailed 3D model of its subterranean basalt dome. Fluid flow and ore deposition models were then tested against the mine's known mineralisation and the best model/s used to successfully predict further gold deposits in that (already well explored) area.

While techniques such as this are quickly embraced by the mining and exploration industry they may or may not have relevance to any future exploration of the Numery metabasalt. This is a matter for others to consider.

MAP COMMENTS

Map 1 is from the Illogwa Creek 1: 250 000 topographical map and shows access roads from Indiana Station homestead to EL 9769 via Acacia Bore.

Map 2 shows EL 9769 as granted, identifying the blocks to be retained for Year Four and those already surrendered. The main target area is situated in block 24, with secondary zones of interest lying in blocks 16 & 17.

Map 3 is a reproduction of the Numery Deeps RTP magnetic variation contour as delineated by the DBIRD / NTGS regional airborne survey. It covers the whole Numery Deeps magnetic anomaly and shows the main target area where the drilling was conducted.

MAP 4 shows a coloured second derivative gravity contour (Bouguer anomaly data minus survey area regional gradient). This is overlain with a reconfigured DBIRD / NTGS magnetic variation contour. Gravity survey stations are marked in red. The resultant graphic gives an overall picture of the Numery Deeps geophysical anomaly and summarises the gravity survey carried out there.

Map 5 was used to position the initial drill sites on section GC3000 and was constructed using target area data sets. Please note that the project baseline and section lines shown are mapping and exploration aids only and are purely notional. No lines have been cleared for any purpose and no line clearing is anticipated.

ENVIRONMENTAL CONSIDERATIONS

No environmental issues were encountered during the exploratory drilling at Numery Deeps during the year. The target area comprises lightly scrubbed savannah grassland with many broad avenues. Drill access was achieved by keeping to these broader scrub-free areas.

A temporary camp was established on a nearby clayey area that was free of scrub and contained little grass. All rubbish was removed on departure.

The drill hole TJP1 was left with an extended collar in place, the top of which was sealed. This was done so as to not preclude an option whereby diamond core rods could be run to the bottom and a metre or so of basement sample be extracted by slow rotation. This probably won't happen as it's a lot of effort for not much return, but the option is there and the decision can be made later. Whatever the case, the collar will be removed and the hole backfilled before I vacate the area – as will every hole I drill there .

After the Year Four MMP application was lodged a query was raised in respect of drill-water sumps for the proposed core-drilling. The reply is that no sumps will be dug for this purpose. At Numery Deeps the diamond drill will be mounted on a conventional truck and drilling will proceed over the back of the tray-body. This means that the drilling head is elevated enough for a small above-ground plastic lined tank to be set up to receive the drill-water, and negates any necessity to dig holes for sumps.

EXPENDITURE DURING THE THIRD ANNIVERSARY YEAR

The expenditure estimate lodged for year three of the project was an amount of $30,000.00, being costs associated with the initial exploratory drilling – as proposed.

This total was not reached and a summary of the actual expenditure is as follows:

Costs summary

Mobilisation of drill, compressor truck and service truck ex Wuddina SA …	$9 600.00
122 metres 5” percussion RAB drilling @ $30.00/m …	$3 660.00
16 metres 5” reverse circulation drilling @ $55.00/m plus $850.00 rig and compressor time running rods	$1 730.00
Self - (3 days @ say $300.00 / day) =	$900.00
One assistant - (3 days @ $200.00 / day) =	$600.00
Vehicle costs - (1 rtn trip ex Baikal – $750.00, plus 1 rtn trip ex Alice Springs – $900.00) =	$1,650.00

Total $18 140.00

PROPOSED EXPLORATION WORK FOR YEAR FOUR

Identifying the basement rock under the Numery Deeps target area as a type of weathered metabasalt limits by its nature any proposal I would consider making in respect of further mineral exploration on the geophysical anomalies there. I must say, though, that this position is not held as confidently as it might be, due to the current lack of analytical data from the TJP 1 drill samples.

Nevertheless, I believe the best course of action (as mentioned above) is to return with the diamond drill and acquire, for posterity at least, a continuous record of the geological sequence leading down and into the Numery Deeps basement rocks. It would not be prudent, though – given what we now know of the geology there – to commit to further expenditure when it currently seems unwarranted.

UNCOSTED ADDITIONAL WORK CONTINGENCY

I want to emphasise, however, that I would be more than happy to drill additional holes should the proposed core sampling result in any mineralisation or geochem data that offered the slightest encouragement. The first of any such holes would be sited on section GC3000 (Map 5), the idea being to get a handle on the geological profile there. Subsequent work would depend on results.

(I mean, when I did find a half decent prospect (the Molyhil scheelite/molybdenite deposit) I didn't have a diamond-core drill to explore it properly. Now that I got a drill I ain't got no orebody. Ah me; such is life.)

Selected core sample quarters would be forwarded to Dobos and Associates of Belbowrie, Qld, for petrological analysis and to a mineral laboratory for geochemical analysis.

Any such extra drilling is covered by the existing Fourth Year Numery Deeps MMP, as the authorisation allows for a maximum of up to twenty-five holes.

PROPOSED EXPENDITURE FOR THE THIRD ANNIVERSARY YEAR

Work proposal and estimated costs for year four drilling are:

One BQ diameter diamond core hole
drilled to a depth of, say, 150 metres
@ $75.00/metre) = … $11,250.00

Given suitable conditions, drilling would continue beyond the estimated 150 metres. Further drilling would be carried out if deemed appropriate.

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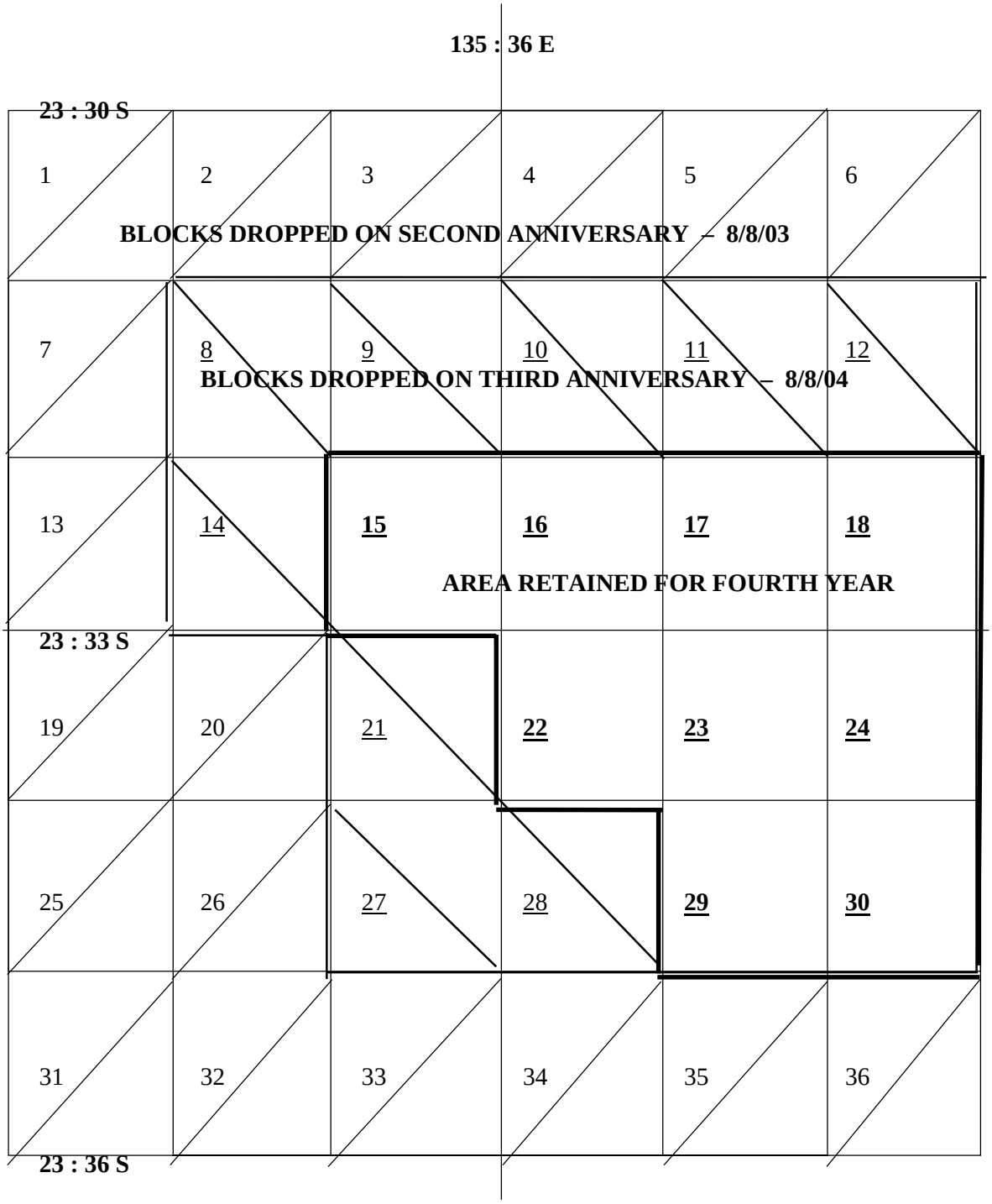
MAP 1

Exerpt from ILLOGWA CREEK 1: 250 000 topographical map, showing access to EL9769 via station roads.

MAP 2

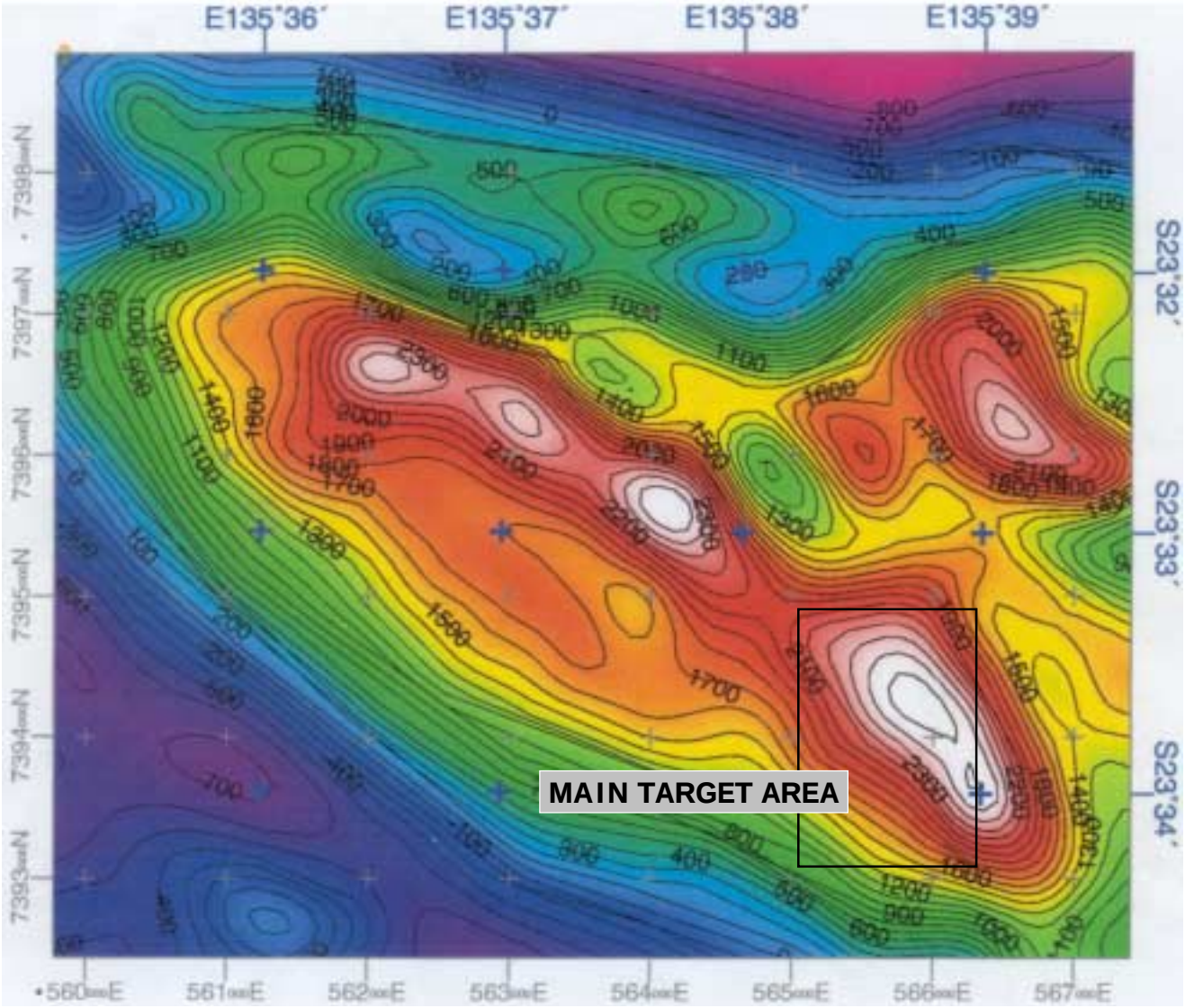
EL 9769

Blocks to be retained for the fourth anniversary year.
(No's 15 to 18, 22 to 24, plus 29 and 30.)



EL 9769

MAP 3



DBIRD

NT Geological Service

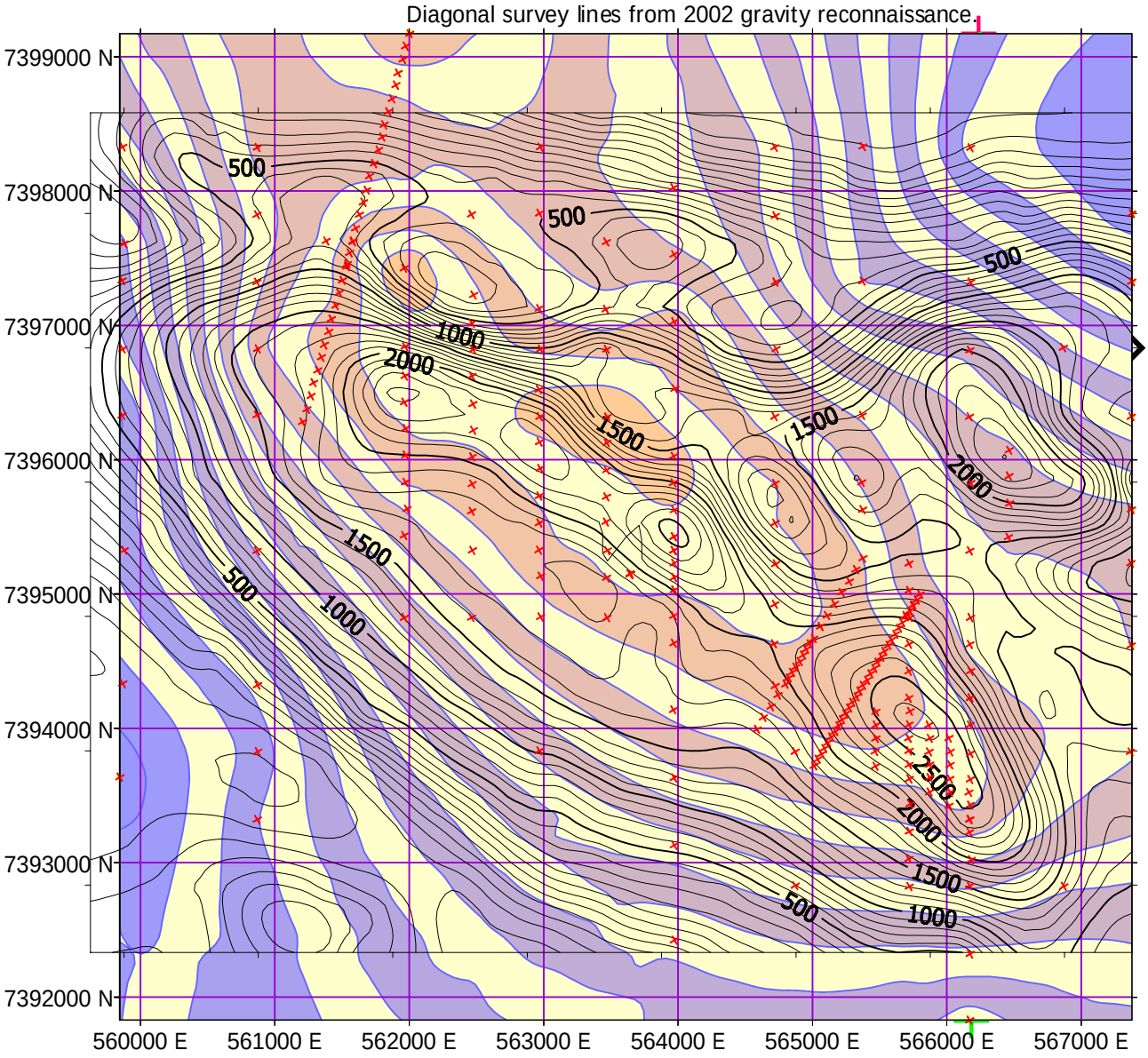
Map Projection: MGA Zone 53
Geodetic Datum: GDA 94
Scale: Approx 1: 50 000

EL 9769

MAP 4

NUMERY DEEPS

MAGNETIC AND GRAVITY ANOMALIES
showing 2002 and 2003 gravity survey stations



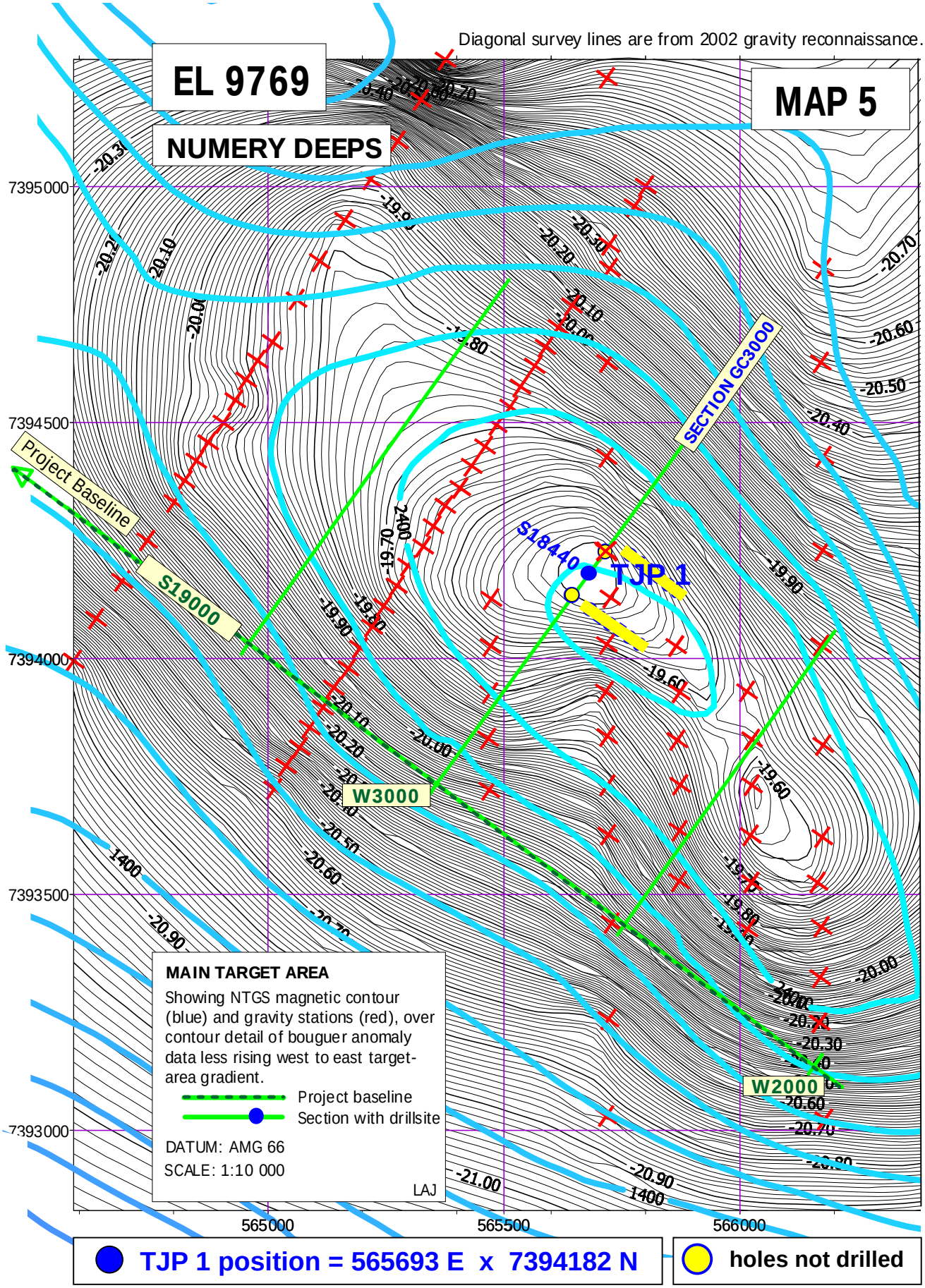
COMPOSITE GEOPHYSICAL MAP
showing reconfigured DBIRD-NT Geological Survey RTP
magnetic contour over second order gravity contour
and gravity survey stations (red).

(GDA 94 magnetic contour adjusted to match AMG 66 gravity datum.)

SCALE: 1:50 000

DATUM: AMG 66

LAJ


EL 9769
NUMERY DEEPS
MAP 5
Diagonal survey lines are from 2002 gravity reconnaissance.
Project Baseline
S19000
W3000
W2000
SECTION GC3000
S18440
TJP 1
7395000
7394500
7394000
7393500
7393000
565000
565500
566000
MAIN TARGET AREA
Showing NTGS magnetic contour (blue) and gravity stations (red), over contour detail of bouguer anomaly data less rising west to east target-area gradient.
Project baseline
Section with drillsite
DATUM: AMG 66
SCALE: 1:10 000
LAJ
TJP 1 position = 565693 E x 7394182 N
holes not drilled