



# Mine Closure Program

**EML's 6151, 6152, 6153  
& 6341(formerly 6217)**

**TWO WELLS  
“REEVES PLAINS”  
SAND LEASES**

CONTACT  
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JULY 2009

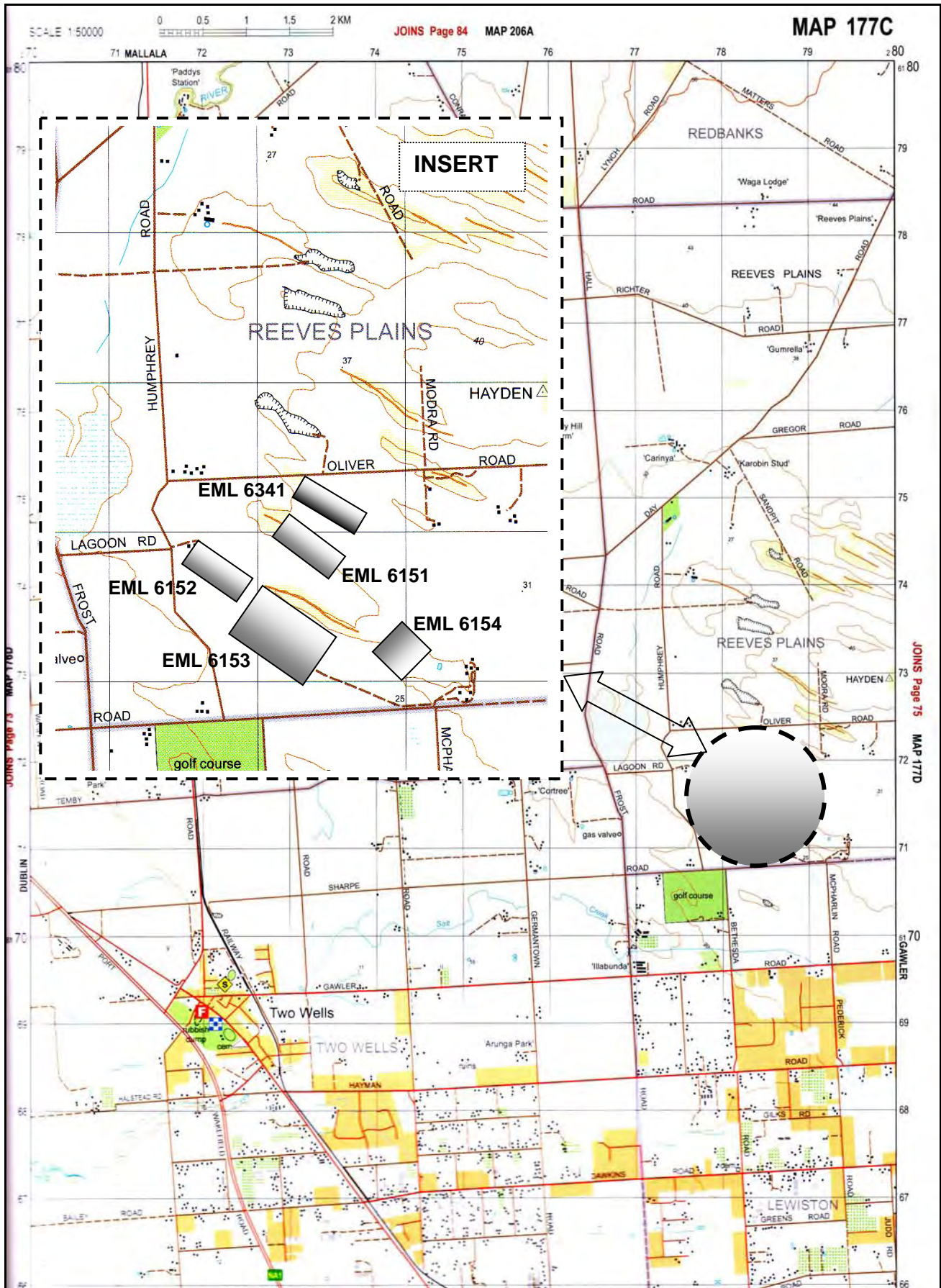


**Prepared by David Keane**  
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## LOCATION MAP – MINE CLOSURE SITES



## MINE COMPLETION

This program for mine completion of EML's 6151, 6152, 6153 and 6341 (EML 6341 was formerly known as EML 6217) is made under the MARP Regulatory Guideline No.6 Revision: 1.7 May 2008 and supports the EARF Application submitted in December 2008 for EML 6151. Mining and rehabilitation programs (MARP) were submitted to PIRSA in 2003/2005 by Johnson Geological Services Pty Ltd and are pending approval.

### Description of rehabilitation

The sites are within a flat landscape slightly undulating in a region used for cropping and grazing. The rehabilitation will return the land to cropping and will require basic methods of battering down, back filling and leveling of the extraction sites.

## SNAP SHOT OF THE SITES

| <i>Mine Completion Program</i>       |   |
|--------------------------------------|---|
| Tenement numbers                     | EML 6151, 6152, 6153 & 6341   |
| Location                             | Between Sharpe and Oliver Roads, Reeves Plains  |
| Tenement Holder                      | Clay & Mineral Sales Pty Ltd – PO Box 155 Surrey Downs SA 5126 (Richard Fricker 08 8251 4000) |
| Land Designation                     | Sect 612 Hd of Port Gawler ( CT 5813/907) Freehold  |
| Location & address                   | 6 kms east of Two Wells   |
| Site name                            | Reeves Plains   |
| Landowner & contact                  | John Sharpe 0408 951 649 C/- PO Two Wells SA 5501   |
| Operator                             | Clay & Minerals Sales Pty Ltd   |
| Contact – Site Manager               | Ian Hughes Ph: 8251 4000 or 0417 450 020  |
| Mineral mined                        | Sandy loam  |
| Area of mining (approximately)       | 10 hectares (in total for all leases)   |
| Expected closure date for all leases | 2011 -2012  |
| Final closure condition              | Returned to cropping and grazing  |



## SITE LOCATION – AERIAL PHOTO

### SHOWING ACTIVE, REHABILITATED AND PROPOSED MINE AREAS

#### OPERATIONAL SUMMARY

| MINING LEASE    | COMMENTS   |
|-----------------|--|
| EML 6151        | <b>Closed</b> from mining & <b>Rehabilitated</b> in July 2009 – sown to pasture        |
| <b>EML 6152</b> | Mining not started yet (possibly two years operational period)                         |
| <b>EML 6153</b> | Still operational (possibly two years operational period remaining)                    |
| EML 6154        | <b>Closed</b> from mining & <b>Rehabilitated</b> in 2007 – sown to pasture             |
| <b>EML 6341</b> | (Oliver Road site, was 6217) Recently opened (possibly 1 to 2 year operational period) |

ACTIVE

REHABILITATED

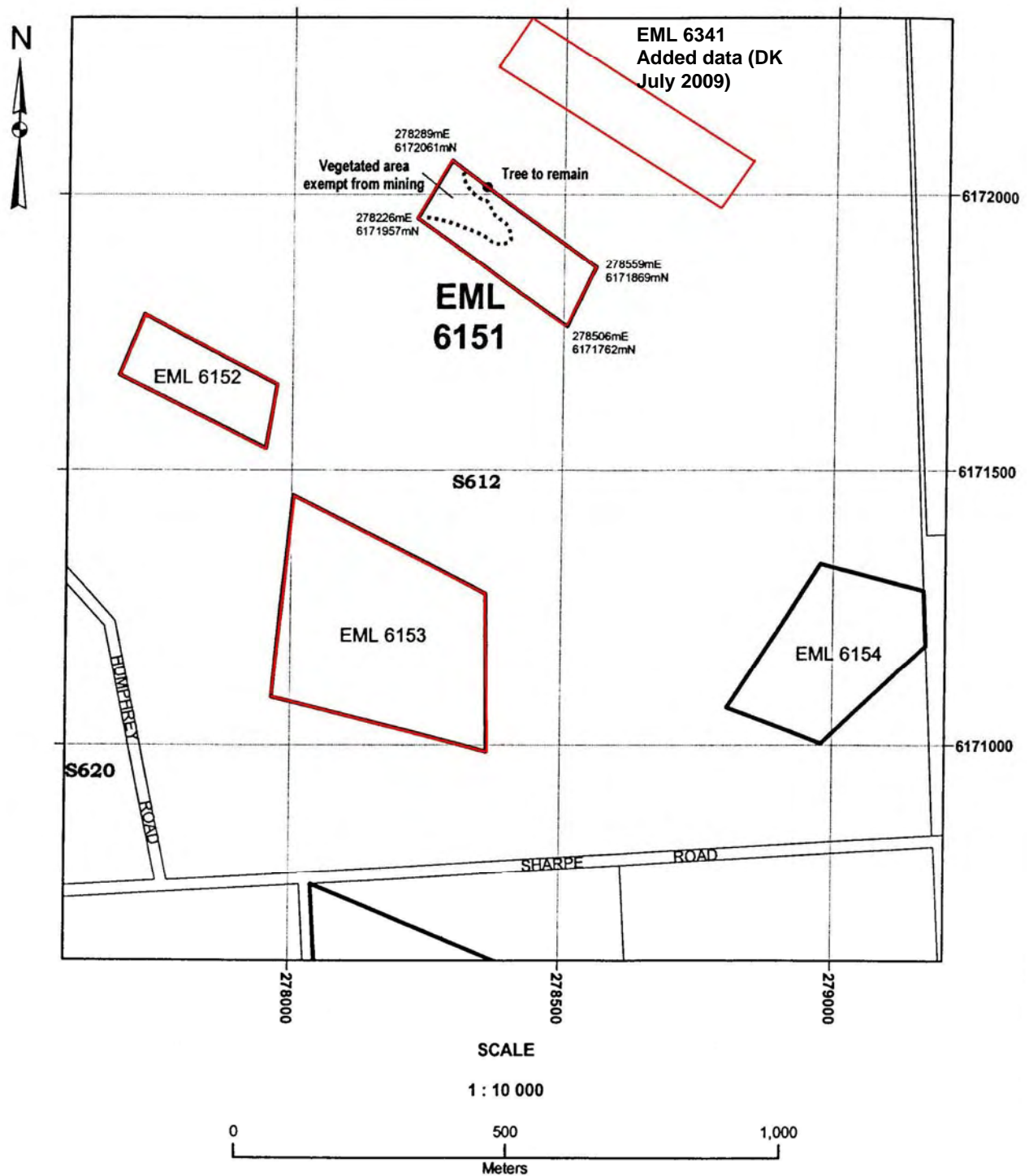
NOT YET OPEN



Note: The above photo shows the extent of mining to occur. No trees or native vegetation is to be removed or damaged during mining and rehabilitation operations.

# ACTUAL LEASE CONFIGURATION

## ANNEXURE 'A' HUNDRED OF PORT GAWLER



Data checked by PIRSA  
Coordinates MGA Zone 54

## Completion risk assessment

Final risks associated with completion of the operation are rated as follows:

| Risk                                    | Context   | Risk Rating |
|---|---|-------------|
| Financial                               | Application under the Extractive Areas Rehabilitation Fund (EARF) sect 63 Mining Act will be made by the tenement holder if funding assistance is required. Some progressive levelling will be carried out during operations prior to final rehabilitation.   | Medium      |
| Visual amenity                          | The land will be returned to a condition, use and contouring similar to that existing prior to mining, so visual amenity will not be diminished.  | Nil         |
| Rehabilitation management and technique | The amount, distribution and variability of precipitation together with evaporation and temperature patterns, including the incidence of frosts and heat waves, have a marked effect on the nature and success of a rehabilitation program through their effect on vegetation, cropping and on erosion. Specialist rehabilitation expertise will be engaged to ensure quality outcomes, providing advice on timeliness, technique and sustainability issues. Rehabilitation technique is straight forward using a loader/excavator and dozer. | Low         |
| Maintenance                             | Post operation monitoring and maintenance program for two years to address erosion, weed control and stock management issues, in conjunction with the landowner, will ensure sustainability standards are met.  | Low         |
| Land use                                | There will be no change to land use as the land capability will be returned.  | Nil         |
| Environment impacts                     | Inspections to manage environmental aspects will be undertaken to ensure no lasting impacts from the mining operations or rehabilitation on land stability, surface and groundwater, weed control or site contamination.  | Low         |

## Completion criteria

| Outcome   | Criteria   |
|---|--|
| External visual amenity of the site is acceptable                                   | Photographs from specified photo points after completion of rehabilitation will demonstrate that the final landform blends with surrounding landscape. (see Appendices for photos & photo points)            |
| Risk to health and safety of the public and fauna is as low as reasonably practical | Inspection of final landform demonstrates no entrapment potential for wildlife or stock, fences and gates remain intact and the land surface is left even and level.   |
| Site is ecologically stable and sustainable   | The landowner accepts that soil productivity and grazing conditions attained post mining are similar to those existing on the leases prior to mining compared with adjacent land.                            |
| Site is physically stable   | Photographs from specified photo points demonstrate no evidence of erosion, slumping or runoff greater than that which existed prior to mining for a period of two years after completion of rehabilitation. |
| Other relevant legislative requirements have been met                               | No other legislative requirements applicable.  |

## OPERATOR COMPLIANCE MONITORING PROGRAM

| <b>Actions</b>  | <b>Purpose</b>  | <b>Frequency and responsible persons</b>   |
|---|---|--|
| Consultation - Landowner                              | To keep the stakeholders informed, to demonstrate that the operators are working within the scope of mining and rehabilitation. | As required during two years of maintenance.<br><br>Landowner  |
| Induction of site personnel                           | To ensure contractors know that a mine completion program is in place and what must be complied with.                           | All contractors<br><br>Tenement holder or Quarry operations manager  |
| Consultation – NRM (Animal and Plant Control Board)   | To identify any declared weeds for early intervention.  | As required by land owner  |
| Reporting to PIRSA                                    | As per MARP and EARF guidelines.  | When required  |
| Photography   | To ascertain compliance with regard to rehabilitation and to monitor visual changes to the natural and physical environment.    | As required or after unforeseen or abnormal events during rehabilitation and completion.<br>Tenement/landholder<br>Quarry operations manager |
| Weeds   | Control/eradication   | Landholder   |
| Fire  | To ensure that fire breaks are in place before the fire season  | October/November<br>Operation/land managers  |
| Unforeseen issues<br>Such as: Heritage, Accidents etc | To record complaints and determine any actions required. Report to PIRSA if a significant incident                              | As required<br><br>Operators of the tenement & holder/landowner  |
| Rehabilitation - Final                                | To report and monitor final works, earthworks, final gradients and effectiveness. Compare with pre mining conditions.           | Annually for a two year period or until accepted by the landowner/PIRSA<br>Operators of the tenement or by delegation                        |



*We submit this document as the Mine Closure Program for the above-mentioned leases.*

*Signed: ..... Clay & Mineral Sales Pty Ltd*

*Print Name: **Richard Fricker** (Manager)*

*Date: .....*

## References:

*Mining and Rehabilitation Programs* by Johnson Geological Services Pty Ltd  
*Mining and Rehabilitation Program Guidelines* – PIRSA  
*Google Earth*  
*CFS Map book* - Mapland

## Acknowledgements:

*Greg Marshall* – PIRSA Chief Inspector of Mines  
*John Morton* – PIRSA Program Manager, Mining Assessment  
*Erica Field* – PIRSA Assessment Officer  
*Richard Fricker* – Director of Clay & Minerals Sales Pty Ltd

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**PHOTOGRAPHS**  
EML 6151



Photo 1 - Before mining in May 2003 (Peter Johnson)



Photo 2 - After rehabilitation July 2009 (David Keane)





Photo 3 - Before mining in May 2003 (PJ)



Photo 4 - After rehabilitation July 2009 (DK)





Photo 5 - During mining May 2009 (DK)



Photo 6 - After rehabilitation July 2009 (DK)





Photo 7 - During mining June 2009 (DK) - Track



Photo 8 - After rehabilitation July 2009 (DK) - Track



EML 6152



Photo 9 - Not mined yet, photo taken May 2003 (PJ)

EML 6153



Photo 10 – During mining in July 2009 (DK)



## EML 6154



Photo 11 – After rehabilitation June 2009 (DK)





Photo 12 - Before mining May 2003 (PJ)



Photo 13 – During mining July 2009



# PHOTOGUIDE – PHOTO POINTS

(See also Photos from PJ MARP dated 2003)

