

**Compliance audit program**  
Castle Mountain Zeolites  
**Castle Mountain Enterprises Pty Ltd**

*March 2023*

**Published by the Department of Regional NSW**

Title: Compliance audit program: Castle Mountain Zeolites, Castle Mountain Enterprises Pty Ltd

First published: March 2023

Department reference number: RDOC22/259587

Amendment schedule		
Date	Version	Amendment
March 2023	1.0	First published

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# 1. Introduction

## 1.1. Background

Castle Mountain Zeolites is an open-cut zeolite mine located about five kilometres south-east of the town of Quirindi in NSW. The mine comprised of one mining authorisation as summarised in Table 1.

Table 1 Summary of mining titles comprising Castle Mountain Zeolites

Title	Grant	Expiry
Mining lease 1395 (ML1395)	4 June 1996	3 June 2032

ML1395 is held by Castle Mountain Enterprises Pty Limited.

As part of the compliance audit program undertaken by the Resources Regulator, an audit of the mining operations associated with Castle Mountain Zeolites was undertaken on 17 March 2022.

## 1.2. Audit objectives

The objectives of the audit were to:

- undertake a compliance audit of the Castle Mountain Zeolite Mine, title held and operated by Castle Mountain Enterprises Pty Limited, against the requirements of the *Mining Act 1992* and the conditions of the mining lease issued pursuant to that Act
- assess the operational performance of the Castle Mountain Zeolites mining operations and the ability of the titleholder and/or operator to implement management systems and controls to provide for sustainable management of the operations.

## 1.3. Audit scope

The scope of the audit included:

- the mining activities associated with the Castle Mountain Zeolite Mine including:
  - mine development within ML1395
  - rehabilitation activities associated with mining and exploration activities
  - the stability of the overburden emplacement area and highwall area.
- a review of documents and records pertaining to the mining and exploration activities
- the assessment of compliance for the period between 17 March 2020 and 17 March 2022.

## 1.4. Audit criteria

The audit criteria against which compliance was assessed included:

- conditions attached to ML1395 (granted 4 June 1996 and renewed 18 October 2013)
- commitments made in Castle Mountain mining operations plan dated October 2015 (approved 29 October 2015)
- commitments made in Castle Mountain mining operations amendment 1 dated September 2016 (approved 1 November 2016)
- *Exploration reporting: A guide for reporting on exploration and prospecting in New South Wales* (Version 2, March 2016)
- *Rehabilitation Cost Estimation Tool Handbook* (June 2017)
- *ESG3: Mining Operations Plan (MOP) Guidelines*, September 2013
- *Guidelines and Format for Preparation of an Annual Environmental Management Report* (January 2006)

## 1.5. Publishing and disclosure of information

This audit report was published on the Regulator’s website consistent with:

- Section 365 of the *Mining Act 1992*
- Resources Regulator’s Public comment policy
- *Government Information (Public Access) Act 2009*.

## 2. Audit methods

The audit process involved the interview of site personnel, a review of documentation and samples of records provided by the licence holder and/or operator to determine the level of compliance of the operations and assess the status of the operational performance. The audit process and methodology are described in more detail in the sections below.

### 2.1. Opening meeting

The opening meeting was held at the Castle Mountain Zeolite Mine office on 17 March 2022. The audit team was introduced, and the scope of their responsibilities was conveyed to the auditees. The objectives and scope of the audit were outlined. The methods to be used by the team to conduct the audit were explained, including interview of personnel, review of documentation, examination of records and a site inspection to assess specific compliance requirements. Site interviews and inspections

#### 2.1.1. Data collection and verification

Where possible, documents and data collected during the audit process were reviewed on site. All information obtained during the audit process was verified by the audit team where possible. For example, statements made by site personnel were verified by viewing documentation and/or site inspections where possible. Where suitable verification could not be provided, this has been identified in the audit findings as not determined. Site inspections

#### 2.1.2. Site inspections

A site inspection was undertaken of the Castle Mountain Zeolite Mine including:

- infrastructure areas
- access tracks and haul roads
- stockpiles, overburden emplacement areas and waste dumps
- rehabilitation areas
- wall slippage area.

### 2.2. Closing meeting

The closing meeting was held onsite at the Castle Mountain Zeolite Mine on 17 March 2022. The objectives of this meeting were to discuss any outstanding matters, present preliminary findings and outline the process for finalising the audit report.

### 2.3. Compliance assessment definitions

The reporting of results from the compliance audit was determined based on the definitions presented below in Table 1.

Table 1 Compliance assessment criteria

ASSESSMENT	CRITERIA
Compliance	Sufficient and appropriate evidence is available to demonstrate the particular requirement has been complied with.

ASSESSMENT	CRITERIA
Non-compliance	<p>Clear evidence has been collected to demonstrate the particular requirement has not been complied with. There are three subcategories of non-compliance reflecting the severity and level of risk associated with the non-compliance:</p> <p><b>NC1</b> – the absence of planning or implementation of a required operational element which has the potential to result in a significant risk.</p> <p><b>NC2</b> – an isolated lapse or absence of control in the implementation of an operational element which is unlikely to result in a significant risk.</p> <p><b>NC3</b> – an administrative or reporting non-compliance which does not have a direct environmental or safety significance.</p> <p>Note: The identification of a non-compliance in this audit may or may not constitute a breach of, or offence under, the <i>Mining Act 1992</i>. Non-compliances identified in this audit report may be further investigated by the Regulator and regulatory actions may be undertaken.</p>
Observation of concern	<p>Where an auditee may be compliant at the time of the audit but there are issues that exist that could result in the potential for future non-compliance if not addressed.</p> <p>Observation of concern was also used where an issue may not have particular compliance requirements, but which was not conducive to good management or best practice.</p>
Suggestion for improvement	Where changes in processes or activities inspected or evaluated at the time of the audit could deliver improvement in relation to risk minimisation, sustainable outcomes and management practices.
Not determined	<p>The necessary evidence has not been collected to enable an assessment of compliance to be made within the scope of the audit.</p> <p>Reasons why the audit team could not collect the required information include:</p> <ul style="list-style-type: none"> <li>■ insufficient information on the file relating to the period covered by the audit or insufficient evidence collected to reach a conclusion</li> <li>■ the wording on the criteria (approval condition) meant that no evidence could be gathered, or it was too difficult to gather the evidence.</li> </ul> <p>A 'not determined' assessment was also made where the condition was outside the scope of the audit.</p>
Not applicable	<p>The circumstances of the authorisation or licence holder have changed and are no longer relevant ( e.g. no longer mining, mining equipment and plant has been removed).</p> <p>An invoking element in the criteria was not activated within the scope of the audit.</p>

## 2.4. Reporting

Following completion of the audit, the audit checklists were completed, and audit notes were reviewed to compile a list of outstanding matters to be noted in the audit report. This report was prepared to provide an overview of the operational performance of the site in relation to the exploration activities and identify any non-compliances or observations of concern noted by the auditors during the site inspection, documentation review, and interviews.

The draft audit findings were forwarded to Castle Mountain Zeolites for comment. Consideration was given to the representations made while finalising the audit report as discussed in the audit findings.

## 3. Audit findings

### 3.1. Mining operations plan

Condition 3 of ML1395 require the lease holder carry out mining operations in accordance with an approved mining operations plan (MOP).

Castle Mountain Zeolites prepared a MOP in September 2016 that was approved by the Resources Regulator on 1 November 2016. The MOP was approved until 3 November 2022. ML1395 had an expiry to 2032 and had a number of years of operational life remaining. Castle Mountain Zeolites was investigating a modification to its approval to modify the roadways within the mine site area to access additional reserves of zeolite. It was expected that this modification would be submitted within the next 12 months, after which a closure MOP would be submitted for approval.

Section 2 of the MOP described the mining activities to be undertaken during the MOP period including:

- the primary surface disturbance activities during the 2015/2022 MOP term included further vegetation clearing and pre stripping of 'topsoil materials', to extend the mine, overburden emplacement and processing plant stockpile facility.
- further exploration drilling of the zeolite outcrop would continue during the MOP period (SDN (Attachment 2b in the MOP) was valid until 22 June 2016).
- an additional (0.4 ha) stockpiling area for ROM zeolite rock/overburden was included immediately north and adjacent to the current processing plant domain.
- zeolite and overburden would continue to be drilled and blasted using contract services on a campaign basis.
- the waste emplacement (which occupied an area of approximately 0.3 ha was in a gully) was likely to extend over a further 1.6 ha and in total occupy approximately 1.9 ha as indicated by the defined overburden emplacement domain.
- zeolite mined and some rock/overburden was hauled approximately 0.5 km eastward to the crushing, screening and fine grinding plant within the combined 2.4 ha infrastructure and stockpiled material domains.

Section 3 provided an assessment of the environmental issues associated with the mining operations, including an environmental risk assessment focussed on rehabilitation-specific risks.

The remaining sections of the MOP (sections 4 to 9) focussed on rehabilitation, including:

- post mining land use
- rehabilitation planning and management
- performance indicators and completion criteria
- rehabilitation implementation
- rehabilitation monitoring and research and
- intervention and adaptive management, including a trigger action response plan (TARP).

Generally, evidence was available to confirm that the controls and mitigative strategies outlined in the MOP were implemented. However, some issues of concern were identified, as discussed in the following sections.

### 3.2. Rehabilitation

Condition 2 of ML1395 required any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister. An assessment of compliance with the MOP commitments in relation to rehabilitation of the site was undertaken during the audit as detailed in the following sections.

### 3.2.1. Risk assessment

To achieve successful rehabilitation outcomes, the lease holder must be able to identify and manage any risks that could compromise rehabilitation outcomes.

An environmental risk assessment was documented in section 3 of the approved MOP and summarised in Table 3.1. All levels of impacts were assessed as low. It was noted in Section 3.1 of the approved MOP that 'no formal risk assessment has been undertaken in accordance with AS/NZ ISO 21000:2009 Risk Management – Principles and Guidelines. Environmental issues previously identified have been reviewed and re-assessed based on current risk and the success of existing management controls'.

It was stated during the audit that the rehabilitation risk assessment was being reviewed due to the slippage that occurred on site in November 2021. Before that, there was no evidence that the risk assessment was regularly reviewed and updated.

The risk assessment considered risks 'possible' in likelihood were listed as:

- visual - low visibility. The site was set back on the title and away from most neighbouring landholders where visual risks were an issue.
- surface erosion - Sediment dams and structures. No sediment dam or structure was observed during the audit. Erosion was observed adjacent to the 2016 rehabilitation area on the bund from disturbance by feral pigs. This area while moderate in disturbance was not likely to have a major impact and was being repaired after the audit was conducted.
- noise - Concealed location. Campaign mining allows flexible work arrangement during favourable weather conditions. Monitoring conducted as required. All blasts (1 - 2 annually) were monitored.
- erosion and sediment - Existing ephemeral creeks within the mining lease area continued to drain north ward toward Quirindi Creek. The two main creek lines contained existing farm dams. Four of these dams continued to function effectively as sediment control structures for surface water run-off. Two small dams (one in place) were being constructed for control of any sediment laden run-off along the eastern perimeter of the processing plant area.

Annual inspection of these dams or inspection after heavy rainfall will continue. 'Any material build up was to be removed as required to maintain effective sediment control'. No evidence of annual inspections of these dams was provided during the audit.

- Surface water management control - Run-off from undisturbed areas was diverted from mine disturbed areas by the use of diversion drains. The run-off from disturbed areas including the open cut mine area and access roads was directed to both existing and new sediment dams that were sized and constructed by the former Soil Conservation Services. Evidence of run-off control was not observed during the audit. It was noted that heavy rainfall resulted in the 'slippage' that occurred at the face of mining.
- Weed control and management – the MOP references the biodiversity and offset management plan that documents regular weed monitoring and targeted weed control programs. Evidence of weed control in the rehabilitation area on top of the waste emplacement was observed during the audit site inspection.
- For geology and geochemistry risks to rehabilitation – Geology and geochemistry of the zeolite mineral and overburden/interburden materials was considered to have no geochemical risks or impediments to rehabilitation. Evidence of geotechnical assessment reports was not able to be provided during or after the audit for previous and current assessments.

This issue was raised as observation of concern no. 1. Castle Mountain Zeolites should have geotechnical assessment information available for the site to guide and inform management of risks of stability of the landform being mined and future rehabilitation areas.

Deficiencies that were identified with the development of processes and procedures in the risk assessment during the audit were likely to be addressed during the transition to the operational rehabilitation reforms.

### 3.2.2. Rehabilitation objectives and completion criteria

The post-mining land use goals were documented in section 4.2 of the approved MOP. The approved final landform was briefly described in Section 4.3. Castle Mountain Zeolites stated the final land use would continue as rough grazing over the rehabilitated landform that would comprise safe, stable slopes with minimal erosion. However, it was noted the development consent did not state what the final land use/vegetation was required to be. Castle Mountain needed to develop the final land use vegetation for each domain.

In summary, Castle Mountain Zeolites proposed that the rehabilitation of the mine would form part of a broader strategy that would integrate the rehabilitated mine landform and vegetation types with the remnant native vegetation surrounding the mine. The outside boundary of the site contained natural vegetation and soil that would guide the rehabilitation process.

Rehabilitation objectives and targets to achieve the nominated post-mining land use were documented in Table 4 and Section 5.2 of the approved MOP. It was noted that Castle Mountain Zeolites was not specifically tracking the progress of rehabilitation against the objectives and targets. This was further discussed under annual reporting in section 3.4.1 of this audit report.

This issue was raised as observation of concern no. 2. Castle Mountain Zeolites should determine a definitive final land use for the site. Rehabilitation objectives and completion criteria are also broad and not adequately reported against within the AEMR.

### 3.2.3. Rehabilitation progress

Castle Mountain Zeolites had not carried out any rehabilitation over the previous 2 years. An area was formed up and final landform was ready for vegetation works. However, rainfall occurred during November 2021 and again in March 2022 that resulted in a wall slippage. Further works were unable to be carried out on the area until it was made safe in accordance with the notice issued by the Regulator's mine safety inspectorate.

Seeding mixes used at Castle Mountain were documented in the 'Rehabilitation Strategy for Castle Mountain Zeolites'. Section 3.6 - Revegetation contained the methodology and techniques used by the site for revegetation. The section also contained the methodology including the time of year when seeding would be undertaken, deep ripping, land forming and topsoil requirements.

During the audit inspection the following areas were observed:

- Wall face slippage area, including a chocked area to stabilise the slippage.
- Area for crushing rock that did not go to overburden.
- Temporary site for a 2021 topsoil stockpile area.
- Recent blasting area.
- Rehabilitation area that was formed ready for seeding above slippage area.
- Treed area for proposed roadway alteration.
- 2016 rehabilitation area adjacent preparation plant, including areas ripped by pigs.

It was observed during the audit that the area where the wall slippage occurred was quite substantial and as a result had caused the works to be shut down due to safety concerns. Additionally, a smaller area that slipped during wet weather in December 2021 was observed (Figure 1, Figure 2 and Figure 3). The slippage area was chocked to stabilise the area as part of the mine safety notice (Figure 4). In between the November and December slippage areas, an area of formed land ready for rehabilitation was observed (Figure 5).

A blast area adjacent to the slippage area was inactive at the time of the audit due to the safety notice (Figure 6). Figure 7 showed the crushing area that was for rock to be crushed into another zeolite product and not going into the overburden area.

A temporary topsoil stockpile was placed near the blasting area. This was in place since 2021 and was planned to be moved a few weeks after the audit (Figure 8). The stockpile was not sign posted or vegetated, however Castle Mountain confirmed that employees were aware to not disturb the stockpile without permission.

An area of trees was proposed to be removed to put through a new roadway to continue mining operations was inspected (Figure 9). This area would allow for additional zeolite recovery and access to additional reserves on the site.

A small patch of 2016 rehabilitation area was inspected during the audit. It was noted that monitoring of this area was not included in reporting of rehabilitation in either the 2020 or 2021 AEMRs. Figure 10 and Figure 11 showed the area with good growth and some weeds. It was observed there was a highly disturbed area on top of a bund from feral pigs. The disturbance if left would continue to erode and lead to further disturbance along the bunded area. Castle Mountain staff advised that the areas were repaired when found and it would be repaired in the next few weeks at the time of the audit.

Figure 1 Slippage area Nov 2021\_1



Figure 2 Slippage area Nov 2021\_2



Figure 3 Slippage area Dec 2021



Figure 4 Chocked area to stabilise slippage



Figure 5 Area that was formed for rehab works that slipped Figure 6 Recent blasting area at time of audit

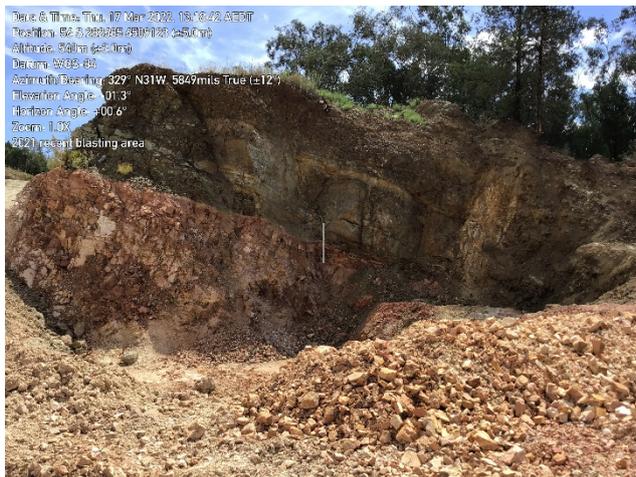


Figure 7 Area for rock crushing not going to overburden

Figure 8 Temporary topsoil staging area est.2021

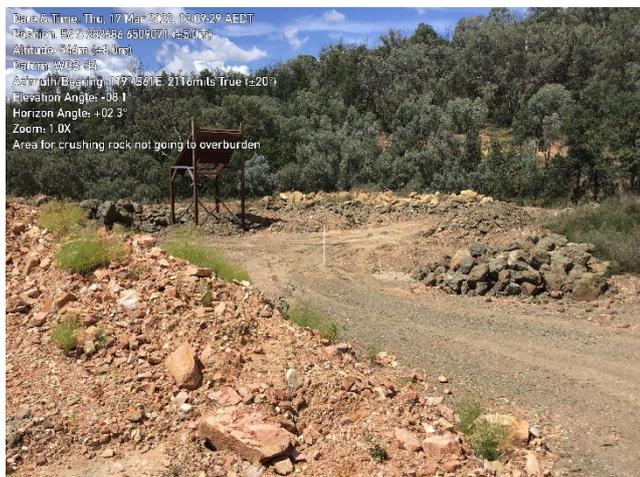


Figure 9 Treed area to be changed into proposed roadway

Figure 10 2016 rehabilitation area adjacent prep plant



Figure 11 2016 rehabilitation area ripped up by pigs



### 3.3. Exploration

Section 2.1 and Section 2.3.1 of the MOP identified that exploration activities would be undertaken within the mine throughout the term of the MOP. The exploration activities identified included:

- further exploration drilling of the zeolite outcrop will continue during the MOP period
- further exploration drilling within ML 1395 will be conducted in accordance with surface disturbance notices as required.

Rehabilitation of the drill holes was not inspected during the audit inspection.

#### 3.3.1. Annual rehabilitation reporting

Condition 3f of ML1395 required the lease holder to lodge an annual rehabilitation report to the satisfaction of the Minister that provided a detailed review of the progress of rehabilitation against performance measures and criteria established in the approved MOP.

An annual report was lodged with the Regulator for the 2021 reporting year on 11 February 2022. The report for the 2020 reporting year was submitted on 16 February 2021.

It was noted that both the 2021 and 2020 reports did not include a discussion of rehabilitation monitoring that was undertaken. However, it was also noted that the annual reports did not specifically report progress of rehabilitation against the objectives and completion criteria that were documented in the MOP. This issue was raised as observation of concern no. 3. Castle Mountain Zeolites should include information in the annual reports to demonstrate that rehabilitation was progressing and was on trajectory to meet the documented rehabilitation objectives and completion criteria.

#### 3.3.2. Annual exploration reporting

Section 163C of the *Mining Act 1992* and clause 59 of the Mining Regulation 2016 require the preparation and submission of an annual report which provides full particulars of all exploration and other operations or activities conducted during the 12-month period.

There was no evidence that the reports for 2019-2020 and 2020-2021 reporting periods were submitted. Failure to submit exploration reports within 30 days of the grant anniversary date in accordance with the guidelines was raised as non-compliance no.1.

It was recommended that Castle Mountain update their reporting requirements to include submission of exploration reports even when no exploration has occurred. This is non-compliant against Section 163C of the *Mining Act 1992* and clause 59 of the Mining Regulation 2016.

### 3.3.3. Compliance and environmental incident reporting

Condition 4 and condition 5 of ML1395 required the lease holder to report any environmental incidents causing or threatening material harm to the environment within 24 hours of the environmental incident occurring.

Castle Mountain Zeolites advised that no environmental incidents had been reported. No breaches were reported to the Resources Regulator.

## 3.4. Other mining lease compliance requirements

### 3.4.1. Notice to landholders

Condition 1 of ML1395 required the lease holder to provide a notice in writing to each landholder within the lease area advising that the lease has been granted or renewed. ML1395 was granted in 1996 and renewed in 2013. These timeframes fall outside of the scope of the audit therefore the notification requirements were not verified during the audit.

### 3.4.2. Security deposit

Condition 7 of ML1395 required the lease holder to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future.

A review of the security deposit was undertaken in 2016 in conjunction with the submission of the MOP. A security of \$174,550.00 was identified as being required and department records confirm that this amount was held.

### 3.4.3. Co-operation agreement

Condition 8 of ML1395 requires the lease holder to make reasonable attempts to enter into a co-operation agreement with the holders of any overlapping titles.

A review of published department mapping systems Common ground and Minview identified that Petroleum Exploration Licence 0001 (PEL0001) overlapped part of ML1395 at the time of the audit. Castle Mountain staff were not aware of the overlapping title and there was no evidence that any attempts had been made to enter into a co-operation agreement with the overlapping title.

Failure to attempt to enter into a cooperation agreement with the holder of the overlapping title was raised as non-compliance no 2. This was a breach of Section 378D of the Mining Act, being a breach of condition 8 of the title.

In April 2022, after the audit in March 2022, PEL0001 was renewed with a reduced area. It was noted that PEL0001 no longer overlapped ML1395 and a co-operation agreement was no longer required.

## 4. Compliance management

### 4.1. Identifying compliance obligations

Identifying compliance obligations is a critical step in the development of an effective compliance management system. Compliance obligations for a mine can include:

- regulatory requirements (for example, environmental legislation)
- conditions imposed on the grant, renewal, or transfer of mining leases
- specific commitments made by the organisation (for example, MOP commitments)

Once identified, compliance obligations should be reviewed periodically to identify any changes in those obligations (for example, changes in legislation).

Castle Mountain Zeolites captured annual environment management report compliance dates within an Excel spreadsheet. There was no function to monitor against compliance conditions. The Excel spreadsheet was also used to track and monitor other reporting requirements (such as MOP due dates).

It was noted that obligations imposed by the Mining Act, or other obligations were not included on the excel spreadsheet.

As a suggestion for improvement no 1, Castle Mountain Zeolites should consider the development of a more robust system for identification and management of compliance obligations. This should include (but not limited to) statutory conditions and other obligations under the Mining Act and Regulation, compliance actions, recommendations from consultants and environmental monitoring requirements.

### 4.2. Inspections, monitoring and evaluation

An effective inspection, monitoring and evaluation process is required to:

- monitor the implementation of the risk controls
- evaluate the effectiveness of those controls based on an assessment of inspection and monitoring data
- implement an adaptive management approach if monitoring shows that controls may be ineffective.

It was noted in Section 8 of the approved MOP included:

‘Once the first 2 rehabilitation sites have been established monitoring will be conducted within 2 years to assess vegetation performance using the techniques proposed as well as a comparison of the effect of topsoil depth on vegetation performance. Progress to be reported in the Rehabilitation Report.’

It was noted that there was no evidence of a formal monitoring procedure in place at Castle Mountain Zeolites. Photographic evidence has been collected, however no documentation about a formal program was produced during the audit. No rehabilitation works were completed in 2020 and 2021, due to drought, rain and land slippage issues that have prevented rehabilitation areas being available.

The rehabilitation strategy (Attachment 6 to the approved MOP) stated:

Walk through audit - In addition to monitoring the above plots an annual walk-through audit of rehabilitated areas is recommended in order to assess the need for remedial action. This assessment examines:

- adequacy of vegetation cover and the need for resowing of bare areas and/or modification of the seed mix
- presence of weeds

- presence of unacceptable erosion, washouts etc
- need for fertiliser addition and/or other maintenance
- recommended improvements in top soiling and site preparation.

There was no evidence provided by Castle Mountain Zeolites to indicate that walk-through audits were undertaken as described in the approved MOP. Castle Mountain staff advised that this was planned to be implemented with future documentation within the operational rehabilitation reform requirements.

This issue of a lack of rehabilitation monitoring was raised as observation of concern no 4. Castle Mountain Zeolites procedure for annual walk-through audit of rehabilitated areas should be formalised, documented and implemented.

Castle Mountain should consider developing a more robust system for tracking any actions required. In addition, this system could be used to track reviews required and other reporting requirements for the site.

As suggestion for improvement no 2. Castle Mountain Zeolites should formalise a process for periodic review and evaluation of monitoring and inspections.

### 4.3. Record keeping

Sections 163D and 163E of the *Mining Act 1992* relate to the creation and maintenance of records required under the Act, the Regulations, or a condition of title. Records must be kept in a legible form for production to any inspector and must be maintained for a period of four years after the expiry or cancellation of the title.

Generally, records were available to demonstrate compliance with most requirements, including MOP requirements. Records requested during the audit were made available for the audit team to review. Examples of records sighted during the audit included:

- seeding requirements records
- photographic evidence of monitoring records
- photos of land forming
- personnel pre-shift meeting and additional controls forms.

It was noted the following documents were not supplied at the time of the audit or as requested well after the audit:

- geotech report from November 2021 slippage incident
- geotech report as stated in the 2019 AEMR (Attachment 1 within the AEMR).

It was noted that supporting records were not routinely maintained as evidence of actions taken. As suggestion for improvement no 3. Castle Mountain Zeolites should consider maintaining records to demonstrate the completion of actions undertaken to address the issue as part of the close out process.

## 5. Audit conclusions

From the evidence reviewed during the audit, and observations made on site during the audit site inspections, it was concluded that Castle Mountain Zeolites has generally achieved a satisfactory level of compliance with the requirements of the mining lease and MOP in relation to the operations of Castle Mountain Zeolites Mine.

Castle Mountain should determine a definitive final land use for the site. This would enable further refinement of rehabilitation objectives and completion criteria to achieve final land use. In addition to this, information should be included in the annual reports to demonstrate that rehabilitation was progressing and was on trajectory to meet the documented rehabilitation objectives and completion criteria.

It was recommended that Castle Mountain Zeolites consider developing a more robust system for identifying and managing compliance obligations to include statutory conditions and other obligations under the Mining Act and Regulation, compliance actions, recommendations from consultants and environmental monitoring requirements.

Two non-compliances, 4 observations of concern and 3 suggestions for improvement were noted by the auditor as summarised in Table 3, Table 4 and Table 5. Regulatory actions may be undertaken in relation to the observations of concern identified during the audit.

Table 3 Summary of non-compliances

NON-COMPLIANCE NO.	DESCRIPTION OF ISSUE	RECOMMENDATION
1 (NC3)	<p>No exploration reports have been submitted over the past 2 years as there was enough work to carry the site through without doing more exploration.</p> <p>The site was unaware that reports were still required to be submitted even if there has been no exploration. A NIL report should be submitted each year.</p>	<p>Failure to submit exploration reports within 30 days of the grant anniversary date in accordance with the guidelines was raised as non-compliance no 1. It was recommended that Castle Mountain update their reporting requirements to include submission of exploration reports even when no exploration has occurred. This is non-compliant against Section 163C of the <i>Mining Act 1992</i> and clause 59 of the <i>Mining Regulation 2016</i>.</p>
2 (NC3)	<p>A review of published departmental mapping systems Common ground and Minview identified that Petroleum Exploration Licence 0001 (PEL0001) overlapped part of ML1395 at the time of the audit.</p> <p>Castle Mountain staff were not aware of the overlapping title and there was no evidence that any attempts has been made to enter into a co-operation agreement with the overlapping titleholder.</p>	<p>Failure to attempt to enter into a co-operation agreement with the holder of the overlapping title is raised as non-compliance no.2. This was a breach of Section 378D of the <i>Mining Act</i>, being a breach of condition 8 of the title..</p>

Table 4 Summary of observations of concern

OBSERVATION OF CONCERN NO.	DESCRIPTION OF ISSUE	RECOMMENDATION
1	For geology and geochemistry risks to rehabilitation – Geology and geochemistry of the zeolite mineral and overburden/interburden materials are considered to have no geochemical risks or impediments to rehabilitation. Evidence of geotechnical assessment reports was not able to be provided during or after the audit for previous and current assessments.	This issue is raised as observation of concern no. 1. Castle Mountain Zeolites should have geotechnical assessment information available for the site to guide and inform management of risks of stability of the landform being mined and future rehabilitation areas.
2	The post-mining land use goals were documented in section 4.2 of the approved MOP. The approved final landform was briefly described in Section 4.3. Castle Mountain Zeolites have land use that continues as rough grazing over the rehabilitated landform that comprises safe, stable slopes with minimal erosion. However, the development consent does not state what the final land use/vegetation was required to be. The site needs to develop what the domains need to be rehabilitated back to.	Castle Mountain Zeolites should determine a definitive final land use for the site. Rehabilitation objectives and completion criteria are also broad and not adequately reported against within the AEMR.
3	It was noted that both the 2021 and 2020 reports did not include a discussion of rehabilitation monitoring that was undertaken. However, it was also noted that the annual reports did not specifically report progress of rehabilitation against the objectives and completion criteria that are documented in the MOP.	This issue was raised as observation of concern no.2. Castle Mountain Zeolites should include information in the annual reports to demonstrate that rehabilitation is progressing and is on trajectory to meet the documented rehabilitation objectives and completion criteria.
4	There was no evidence provided by Castle Mountain Zeolites to indicate that walk-through audits were undertaken as described in the approved MOP. Castle Mountain staff advised that this was planned to be implemented with future documentation within the operational rehab reform requirements.	The lack of rehabilitation monitoring was raised as observation of concern no.3. Castle Mountain Zeolites procedures for annual walk-through audit of rehabilitated areas should be formalised, documented and implemented.

Table 5 Summary of suggestions for improvement

SUGGESTIONS FOR IMPROVEMENT	DESCRIPTION OF ISSUE
1	It was recommended that Castle Mountain Zeolites consider developing a more robust system for identifying and managing compliance obligations to include statutory conditions and other obligations under the Mining Act and Regulation, compliance actions, recommendations from consultants and environmental monitoring requirements
2	It was recommended that Castle Mountain Zeolites should formalise a process for periodic review and evaluation of monitoring and inspections.
3	It was noted that supporting records are not routinely maintained as evidence of actions taken. As suggestion for improvement no 3. Castle Mountain Zeolites

<b>SUGGESTIONS FOR IMPROVEMENT</b>	<b>DESCRIPTION OF ISSUE</b>
	should consider maintaining records to demonstrate the completion of actions undertaken to address the issue as part of the close out process.