

Mine Name	MineID	Operator	Activity Type	Activity Date
Exp - Queensland Coking Coal - CN - Saraji West	MI02493	Vitrinite Pty Ltd	Inspection	06/02/2020

Vision: Our Industries Free of Safety and Health Incidents

Mine Record Entry

This report forms part of the Mine Record under s68 of the Coal Mining Safety and Health Act 1999. It must be placed in the Mine Record and displayed on Safety Notice Boards.

Note that inspection or audit activities conducted by the Mines Inspectorate are based upon sample techniques. It remains the primary responsibility of Mine Personnel to identify hazards, and risks associated with Operations and ensure those risks are at an acceptable level.

Today I inspected the safety and health management system (SHMS) for exploration.

At the offices in Dysart, I attended a pre-start meeting led by Mark Robinson – Supervising Geologist. I also met Mike Cavanagh - Site Senior Executive (SSE); Duncan Russ – Logger (Read Wireline); Cassidy Lewis – Geologist; Stephen – Geologist; Matt Bressington – Driller/Director [East Coast Drilling (ECD)]; Damian Lagos – Driller/Supervisor/Director (ECD) and Daniel Cook – Senior Offsider (ECD).

Following the pre-start meeting, Mike and I did a contractor management audit. The results of this audit are recorded in a separate mine record entry (MRE)

Mike and I travelled to the site on the agricultural property known as *Cherwell* where a large bulk sample pit is planned for construction later this year. We then continued to the exploration area at Saraji West where we were met by the ECD personnel and Cassidy.

After Matt had provided me with rig induction, I reviewed documentation and did an inspection of the site and equipment. It included light vehicles; a Volvo FL7 support truck and a KL600 Drill rig with Sullair 350 psi/950 cfm compressor mounted on a Leader truck.

At the conclusion of the inspection I provided feedback to all on site.

The following items apply:

<u>Number</u>	<u>Substandard Condition or Practice</u>	<u>Due Date</u>
1	Protection against high pressure hydraulic fluid	21/03/2020

On the drill rig I noticed hydraulic hoses near the driller's control panel that were not fully covered with a burst protection sleeve.

The sleeves are needed to protect persons from the risk of high pressure fluid injection in case of a hose failure.

Please implement measures that will mitigate this risk on all hydraulic components on exploration and earthmoving equipment on site.

<u>Number</u>	<u>Recommendation</u>	<u>Due Date</u>
2	Guarding around hydraulic valve	N/A
I noticed that the hydraulic supply to the cylinders that lift the drill mast had been fitted with valves that will prevent the mast from falling in case of a hose failure. The valves are attached to the cylinder with metal pipe fittings.		

This is a great safety feature that, if it had been fitted, may have prevented a mast fall on another Vitrinite site during 2019.

The valves that were inspected today are exposed and may potentially 'snap off' if e.g. impacted by a falling object or a person walking by.

It is recommended that the fitting of appropriate guarding around the valve be considered, following a risk assessment by competent persons.

<u>Number</u>	<u>Substandard Condition or Practice</u>	<u>Due Date</u>
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3	Pressure equipment inspections	21/03/2020
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I inspected the air receiver and pressure relieve device (PRD) for the onboard compressor. I noticed that:

- The latest inspection reports weren't available
- According to the tag on the PRD, it was last inspected on 3 February 2010, more than 10 years ago.

The PRD is an important safety device designed to provide protection against overpressure and subsequent explosion of the pressure vessel. It is the last line of defence in case of a control system failure.

Please rectify the above, considering the note below:

Note:

It is recommended that Original Equipment Manufacturer (OEM) requirements and relevant Australian standards be considered when an inspection regime is set.

It has come to my attention that some pressure vessel (PV) inspection companies do not include an inspection or calibration of the PRD, unless it is specifically asked for in the order for the PV inspection.

The PRD is an essential safety device and a firm arrangement must be in place to ensure its regular inspections and maintenance at the frequency recommended by AS/NZS 3788 - Pressure equipment; In-service inspection.

It is recommended that three separate sets of preventative maintenance items be scheduled

in the maintenance management system. (Internal, external and the PRD inspections). This applies to all PRDs and PVs on site.

Inspection frequency for different PVs are detailed in AS/NZS 3788. The inspection interval that applies to most air receivers with pressure-volume product exceeding 150MPaL are indicated in brackets:

- External PV inspections (2 years)
- Internal PV Inspections (4 years)
- PRDs (1 year)

Please refer to the standard for inspection intervals on PVs that are containing gases or fluids other than air or where they operate in harsh environments.

Conditions for increasing or decreasing the general inspection intervals are given in AS/NZS 3788.

The inspection company should be instructed to attach weather and wear resistant tags for both the PVs and PRDs in an accessible location on or near the equipment. The tags should be legible. They should also be durable enough to last to beyond the next inspection.

(Metalised stick-on tags generally do not meet this requirement. Hard-stamped or neatly engraved solid metal tags, attached to the equipment with wire is probably more durable. Note that relatively inexpensive tools are available in the market that can be used to easily hard-stamp number and letter characters onto stainless steel sheet metal)

A good tag (or set of tags) legibly and accurately displays at least 6 sets of information and could be designed as follows:

Inspection	Last inspection date	Next inspection due
Internal Pressure Vessel	dd/mm/yyyy	dd/mm/yyyy
External Pressure Vessel	dd/mm/yyyy	dd/mm/yyyy
Pressure Relief Device	dd/mm/yyyy	dd/mm/yyyy

As an alternative, an existing PRD may be replaced by a new calibrated item, when the existing

PRD's inspection and calibration become due.

It is recommended that the credentials of the inspection company be checked.

On receipt of the inspection company's report, a competent person should read and understand the inspection findings. Measures should be in place to ensure that all identified action items are implemented in a timely manner.

Please provide a written status report on each SCP together with the actions taken to address each item by their due dates

A handwritten signature in dark ink, appearing to read 'TK', with a long horizontal stroke extending to the right.

Theo Kahl
Inspector of Mines