

**Varra Companies, Inc.**  
**Office of Special Projects**

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**Thursday 3 January 2019**

To:            Peter Hays, E.P.S.  
                 Colorado Office of Mined Land Reclamation (OMLR, or 'the Office')  
                 Division of Reclamation Mining and Safety  
                 1313 Sherman St., #215  
                 Denver, CO 80203

From:          Varra Companies, Inc.  
                 Bradford Janes, Forester  
                 Liaison – Interdisciplinary Affairs

Subject:       FINANCIAL WARRANTY CONSIDERATIONS [to OMLR Permit M-1999-006](#) – [KURTZ Resource Recovery Project](#).

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Legal Description:    A parcel of land located in part of Section 28 & 29; all in Township 3 North; Range 67 West; 6<sup>th</sup> P.M.; Weld County, Colorado.

General Location:    East of St. Vrain Creek and South of Highway 66 along Weld County Road 17.

Total Acres:          295.40

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Good Morning, Peter.

We are attempting to provide some clarification for consideration in your warranty estimates and perspectives indicated in your inspection report of 1 November 2018.

Considerable flexibility for operations in the use of fill – whether utilizing backfilling or unlined water resources.

The original permit – as submitted in 1999, did not anticipate lining the basin. Presently, the operation is in compliance with the Colorado Division of Water Resources (OSE), providing for up to 173.1+/- acres of exposed surface waters. While liberating these waters would necessitate lining the basin, there is no mandate either backfilling exposed groundwaters on extracted locations, or lining of those basins. Your inspection report of 1 November acknowledges we have sufficient shares to cover the exposed groundwater for the unlined ponds.

Because the Operations are in full compliance with the OSE, as provided for under an approved Substitute Water Supply Plan (SWSP), there is considerable latitude to shape the nature, extent, and circumstances of exposed groundwater. This involves an understanding that the extraction limits are just that, limits. The operator has provided for options to both cut and fill within the extraction limits to shape the nature of final reclamation. Regardless, it is the intent of Operations to line the finished basins, and an Technical Revision to do so will be submitted as soon as practicable in 2019; as requested in your inspection report.

Any temporary wash basin is provided for – both for exposed groundwaters – or for extraction or backfilling. There is no necessity to provide reclamation warranty for exposed waters anywhere at the location at the present time. Some history of this Operation may provide some helpful clarity:

First – Extraction provided for a 1H:1V slope until backfilled at 3H:1V from 5 feet above to 10 feet below the anticipated water level. This was retained in the 2009 Revision to the permit, except the extracted slope was reduced to 1-1/4H:1V, subsequent to slope stability analysis. Current cut slopes appear to conform to this standard, or flatter, where they exist, with some *de minimis* exceptions.

Second - Backfilling was addressed in the original [Exhibit D in 1999](#), as a measure to remove edge effect of what was envisioned at the time to be natural unlined ponds; as follows:

- Exhibit D (1999) Page 2: 'Ultimately, the closed system wash pond will fill with silt and be revegetated in a manner consistent with Exhibit E – Reclamation Plan. Interim cleanout of the wash pond will occur, returning the inert materials to the bottom of exhausted pits, or utilizing it in part or in whole as product, or for purposes as substitute soil, soil additive, or as subsoil for reclamation. Silt or other reject fines from the wash pond that are used for reclamation will be soil tested for suitability prior to use, and all tests will be included in the Annual Reports to the DMG' (Note: This addresses use for reclamation on the extracted lands as a soil substitute or additive – and has yet to occur to the present day.)
- Exhibit E, Page 2: 'For Example: The basin irregularities will be provided for, both by direct concurrent grading, post mine landform grading and establishment, and use of fill from excess overburden and reject fines from the operations...' and 'Time and timing will also come into play respective of materials to be used as fill. The utilization of fill is dependent upon the space available for deposition over completed areas of extraction in relation to the rate of creation of reject fines and overburden. Other influences will be the attending space for stockpiling, uses, or market conditions for fill material. Some locations will be more advantageous to fill at a given point in time than others, and the attending circumstances cannot be reasonably anticipated. The random nature of this limitation will actually aid in furthering the establishment of random non-geometric patterns of the finished ponds.' and '
- Backfilling was further refined in the 2009 Technical Revision: Under Tract B: This Revision envisioned the planned movement of the plant site equipment within Tract A following the extraction and backfilling of the extracted area where the later plant site would sit. While this did not occur, the language is clear on

page 3 of the Amendment. Further, the use of wash fines is expanded upon for the entire site under this section, as follows on Page 3 of the Revision:

'The use of wash fines from wet plant activity merits some discussion as it is fundamental to overall site activity and reclamation potentials related to fill. Wash water is now recycled instead of settled and discharged. Water for the plant is settled in internally placed silt ponds, and eventually makes its way to a recycle basin (viii) for return water to the plant. Silt that settles in the ponds is cleaned out and consolidated (xi). In this manner, the wash fines provide the option of either leaving the material in place for final reclamation, or selling it as structural fill if there is adequate demand.'

- and -

'The flexibility of the material for both production and reclamation requires some mutual flexibility in the representation of the final site configuration within a known area. By this measure, the basin limits (Map 1) are determined as the maximum extent of the basins based upon approved setbacks, and may be smaller, but will not be larger, as a result of the final placement of structural fill from wash plant recycling activities.'

Third – Current Conditions for Grading and Backfilling (Note: Tract Letters Changed from the original 1999 Submittal with the 2009 Technical Revision):

1. Tract B –

- Wash Plant and Stockpile Area: Given the current state of the approved SWSP and allowed backfilling, there should be no warranty exposure to account for the extraction of a temporary wash pond at Tract B (The Wet Plant and Stockpile Area). The new plant site location was provided for under the 2009 Technical Revision.

## 2. Tract A –

- Principle Extraction, Reclamation, and Dry Plant Area: The sedimentation ponds were addressed in the 1999 Original Permit and further clarified in the 2009 Technical Revision and should be fully accounted for. The resulting profile is essentially a below ground stockpile within a previously extracted area. Should the resource be removed, it will conform to the approved mining and reclamation plan extents. Should the final disposition be deemed more valuable for development, the silt is amenable to revegetation.
- Pond backfilling is provided for in the in the 1999 Original Permit and further clarified in the 2009 Technical Revision.
- Lining Basin A at Tract A will be accounted for in a forthcoming Amendment later this year. Shadow and Mounding Analysis is being initiated. The lining is only partially completed.
- Provisions for extraction of relic oil and gas facility locations, such as the resulting peninsula along the south boundary at Tract A – will be accounted for in any map revisions under the planned Amendment, or by separate Technical Revision prior to extraction.

## 3. Tract C –

- Backfilling of Tract C – should be covered by prior intent as Tract C has always been within the Original permit boundary. The details of the basin were described in a later Technical Revision. Backfilling remains an option, however, if the basin is lined it will be attended to under the forthcoming Amendment. If the Operator determines to keep the basin as an unlined basin it is already provided for.
- Tract D – no comment.

Financial Warranty Considerations (NOTE: land measurements utilized a combination of ground and digital tools – including Google Earth):

**1. Grading –**

- a. Warranty – no comment
- b. Clarification. Once grading complete on area ia of Tract A, we trust correlated dewater costs necessary for grading (should a default occur prior to grading completion in Tract A) should be satisfied.

**2. Replacing Topsoil Tract B -**

- a. **Tract A - Warranty Considerations** – Please Note: All areas except Area ia have been resoiled. The below ground stockpile where wash plant silts are deposited should not require resoiling if left in place instead of being removed for market at the time of final reclamation. The silts should respond to soil amendments instead of resoiling. Please examine if your resoiling costs may take into account this consideration if it is lacking. Similar conditions exist at **Tract D.**

**3. Seeding on disturbed areas – Warranty Considerations**

- a. The seed mixtures selected for use on disturbed lands are developed with considerable thought as to their suitability and adaptability to altered soil medium in the pioneer state. Because seed is a commodity, its prices may fluctuate dramatically depending upon market conditions of supply and demand. If a seed falls dramatically in availability, it may result in a significant increase in the total cost of a mixture. For this reason, applying temporal inflated costs for seed may act as a discouragement to the development of the better mixtures via simplification of the mix to accommodate cost, not purpose. We can by measure attempt to gain current real world costs for these mixtures, as attached. It might prove a better solution to average the prior and current costs in a revision to encourage proper scientific seed mixture development over that of expediency. Just a thought.

- b. All of our permitted operations utilize the option of broadcast seeding, which would negate the need for Tilling and Drilling costs. We believe if the cost of Tilling and Drilling discourages drilling seed, then the costs for direct application of broadcast seed at double the drill rate should be considered in the OMLR warranty estimate.
- c. While Regreen does not appear in the seed mixture costs, it is called out in the mixtures below the stated mixtures in the text. It simply needs a cost attending it. That cost is reflected in the Buffalo Seeds mixture and costs for Western Sugar and Kurtz, and can be applied to the total. When it comes time to Revise the permit for purposes of establishing an approved liner, we may update the mixture to gain more favorable costs for warranty.

#### **4. The Conveyor System – Warranty Considerations**

- a. Attached, is the current Salvage Value for the Conveyor System. At the least, there is Zero (\$00.00) liability for such a demand transport system. More, the Salvage Value of the Conveyor System should be used as an Asset against the site liability. Please consider this information respective of the final Warranty determination by the Division.