



OGMCOAL DNR &lt;ogmcoal@utah.gov&gt;

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**Re: Dugout Methane Degasification Bond**

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**Cheryl Parker** <cherylparker@utah.gov>

Mon, Nov 24, 2014 at 2:38 PM

To: Bill King &lt;bking@bowieresources.com&gt;, OGMCOAL DNR &lt;ogmcoal@utah.gov&gt;

Cc: Daron Haddock &lt;daronhaddock@utah.gov&gt;, Steve Christensen &lt;stevechristensen@utah.gov&gt;

Bill,

First, I've attached a Findings pdf explaining the points of concern in the bonding estimate submitted.

Secondly, I've also attached the Division memo showing the Division approved 5 year average CPI based escalation rates used.

Finally, the final TOTAL pdf is two pages of total calculations with the corrected information. The first page shows everything corrected except the Earthwork, which is still erroneously in 2005 Dollars, to help show you the error; while the second page shows how everything should compute with the information corrected.

If you read through the attachments and are still confused, please give me a call. I should be near my desk Monday-Wednesday this week.

Thanks,

Cheryl Parker, M.S., P.E.

Mine Engineer

801-538-5286

State of Utah

DNR - Division of Oil Gas &amp; Mining

1594 W North Temple, Suite 1210

Salt Lake City, UT 84116

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**3 attachments****20141124 Findings.pdf**

83K

**EscalationMemo2014.pdf**

48K

**TOTAL to permittee.pdf**

83K

# FINDINGS

C0070039

DUGOUT PHASE I & II BOND RELEASE

TASK 4711

## RECLAMATION PLAN

### BONDING DETERMINATION OF AMOUNT

#### ANALYSIS

The mine currently has a surety bond in place of \$3,550,000. The principal hold is Lexon Insurance Co as of 8/15/13 with Iron Shore Indemnity Inc. providing a rider as full guarantee for obligations undertaken by Lexon Insurance Co.

#### DEFICIENCIES

R645-301-830.410 The Division may adjust the amount of bond or deposit required from time to time as the area requiring bond coverage is increased or decreased or where the cost of future reclamation changes. The Division took the opportunity to review the permittee's current bond calculations due to a bond release request and found the following error or discrepancies:

- The "Subtotal Earthwork- Backfill and Grading" was not updated to 2011 Dollars during the 2011 Midterm Review, Task #3728.
  - The Subtotal Earthwork- Backfill and Grading was escalated from 2005 dollars to 2011 dollars using the U.S. Bureau of Labor Statistics Cost Index (CPI) for Site Construction and Division approved escalation factor of 1.2%, see Escalation Memo 2014, 2/10/14.
- An incorrect escalation factor of 0.5% was used in the bond calculation to 2015.
  - See Escalation Memo 2014, 2/10/14 for correct 2011 escalation rate of 1.2%
- There is an error in the calculation of the escalation. The rate and years were switched in the version submitted to the Division.
  - This is the proper escalation equation

$$Escalated\$ = \left( \$ \times [1 + Rate]^{years} \right)$$

- The bond was escalated for the incorrect number of years but was labeled correctly as 2015 in the Reclamation Costs.
  - The bond needs to be escalated to the next midterm, 2015 but the cost estimate sheets are in 2011 Dollars (2015-2011=4)
- The Bond was posted in 2009 and is in 2009 Dollars, not in 2010 Dollars
  - There was a midterm review that was conducted starting in June 2010 but no additional bond was posted or adjusted.

As per R645-301-830.422 an informal meeting or conference call can be set up between the Division and the permittee to discuss these deficiencies at the Permittee's request.



GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

February 10, 2014

TO: General File  
Dana Dean, Associate Director  
Steve Christensen, Permit Supervisor  
Daron Haddock, Permit Supervisor  
Paul Baker, Minerals Program Manager

FROM: Wayne Western, Environmental Scientist

RE: Escalation Factor for 2014 – 1.9%

Following are the index numbers and escalation factor from the Means Historical Cost Index for Site Construction, National Average:

Year	Index	Escalation (5 Year Averages)
2003	119.2	
2004	120.2	1.005
2005	125.0	1.016
2006	131.8	1.032
2007	134.6	1.038
2008	130.0	1.013
2009*	133.8	1.005
2010	136.2	1.017
2011**	140.2	1.012
2012	145.0	1.015
2013	143.1	1.019

The escalation factor for bonds estimated from this date forward in 2014 will use the 1.9% escalation factor. The escalation factor was calculated from the Historic Cost Index for Site Construction.

\*Starting with January 2009, fuel costs and routine maintenance costs are included in the equipment cost.

\*\* Starting in 2011 the escalation will be based on a five-year prior factors were based on a three-year average.

P:\GROUPS\MINERALS\WP\BondAverageCostPerAcre\2014\EscalationMemo2014.doc



**Direct Costs**

Subtotal Demolition and Removal	\$1,162,694.00	2011 \$
Subtotal Backfilling and Grading	\$812,380.00	2005 \$
Subtotal Revegetation	\$335,065.00	2011 \$
<b>Direct Costs</b>	<b>\$2,310,139.00</b>	

**Indirect Costs**

Mob/Demob	\$231,014.00	10.0%
Contingency	\$115,507.00	5.0%
Engineering Redesign	\$57,753.00	2.5%
Main Office Expense	\$157,089.00	6.8%
Project Mainagement Fee	\$57,753.00	2.5%
<b>Subtotal Indirect Costs</b>	<b>\$619,117.00</b>	<b>26.8%</b>

**Total Reclamation Cost 2011 Dollars \$2,929,256.00**

Number of Years to Next Review		4
Escalation factor for 2011		1.012
Escalation	\$143,155.47	

**Escalated Reclamation Cost to 2015 \$3,072,411.47**

Bond Amount (rounded to nearest \$1,000)	\$3,072,000.00
Posted Bond 2009	\$3,550,000.00
Difference Between Cost Estimate and Bond	\$478,000.00
Percent Difference	13.46%

$$Escalated\$ = (\$ \times [1 + Rate]^{Years})$$

Dugout Canyon Mine  
 2014 Phase I II Bond Release  
 Task # 4711

Total Required Bond Amount  
 Lump Escalated to 2015

Revised November 5, 2014

**Direct Costs**

Subtotal Demolition and Removal	\$1,162,694.00	2011 \$
Subtotal Backfilling and Grading	\$911,830.00	2011 \$
Subtotal Revegetation	\$335,065.00	2011 \$
<b>Direct Costs</b>	<b>\$2,409,589.00</b>	

**Indirect Costs**

Mob/Demob	\$240,959.00	10.0%
Contingency	\$120,479.00	5.0%
Engineering Redesign	\$60,240.00	2.5%
Main Office Expense	\$163,852.00	6.8%
Project Mainagement Fee	\$60,240.00	2.5%
<b>Subtotal Indirect Costs</b>	<b>\$645,769.85</b>	<b>26.8%</b>

**Total Reclamation Cost 2011 Dollars \$3,046,590.63**

Number of Years Since Review		4
Escalation factor for 2011		1.012
Escalation	\$148,889.73	

**Escalated Reclamation Cost to 2015 \$3,195,480.36**

Bond Amount (rounded to nearest \$1,000)	\$3,195,000.00
<i>Posted Bond 2009</i>	<i>\$3,550,000.00</i>
Difference Between Cost Estimate and Bond	\$355,000.00
Percent Difference	10.00%