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State of Utah
DEPARTMENT OF NATURAL RESOURCES

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Division of Oil, Gas and Mining

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April 11, 2016

TO: The Board of Oil Gas and Mining

THROUGH: Paul B. Baker – Mining Program Coordinator PBB

FROM: Wayne H. Western – Environmental Scientist III WHW

SUBJECT: 2016 Reclamation Surety Costs for Exploration and Small Mining Operations Including Small Mine Three- and Five-Year Escalation

Rules R647-2-111.3.11 and R647-111.3-3.13 require the Minerals Regulatory Program to calculate reclamation cost estimates based on the average costs per acre for reclamation of similar operations, as determined by the Division, based upon approved surety amounts for current large mining operations. These average costs must be approved by the Board of Oil, Gas and Mining. This memorandum details the amounts recommended to the Board for the average costs to be used for small mines and exploration projects.

Small mine sites are areas with 10 or fewer acres of disturbance in unincorporated areas or five or fewer acres in incorporated areas. For the purpose of calculating the cost per acre, the Division assumes there are no structures, that earthwork and revegetation will be required for each site, and earthwork and revegetation will be conducted at the same time, not in separate operations.

If a site has structures, including vent shafts or portals, the cost of structure removal will be calculated as a line item. Sites with unusual features, such as large underground openings, are calculated based on information from vendors and other sources, such as the Abandoned Mine Land Reclamation program.

For mine sites with five or fewer acres, the Division assumes that all reclamation work can be accomplished with an excavator and a pickup truck for support. For sites larger than five acres but smaller than ten acres, the Division assumes reclamation will require an excavator and a D-8 bulldozer with a pickup truck for support.

For sites that have received partial bond release for earthwork the Division assumes that surface preparation will be needed.

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The reclamation cost estimates are escalated three or five years into the future for small mines using five years of the Average Means Historical Cost Index for Site Construction, National Average. Costs for exploration projects are escalated one year into the future then re-evaluated if an operator requests an extension for the project.

In the past the Division assumed a 150-mile mobilizaion/demobilization cost. Beginning in 2014 the Division has allowed the mob/demob cost to be decreased to a minimum of 50 miles (if there are at least three contractors that could conduct reclamation based within 50 miles of the site). The mob/demob costs should be increased as shown in the tables if the haul distance is greater than 50 miles.

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Exploration Notices

Project Size (Acres)	Surety ($ Amount-2016)	Comments
	1 year escalation through November 30, 2017	
1 or fewer acres	$7,600.00	Minimum surety required $7,600.00 (includes $2,800.00 mob/demob charge)
Each additional acre	$4,800 per acre (No restriction on acreage)	Partial acreages are rounded up to next highest # (no maximum $ amount)
Additional mod/demob costs	Mob up to 50 miles one way - no additional charge Mob 51 to 100 miles (one way) - add $1,300.00 Mob 101 – 150 miles (one way) - add $2700.00 Mob 151 – 200 miles (one way) - add $4,000.00	
Drilling (dry)	$1,000 mob/demob plus $210.00/hole	In addition to above costs
Drilling (wet) up to 7" diameter	• $7,000 mobilization charge for holes 800 feet or less plus $4.25/foot plus $210 for cap. • $10,000 mobilization charge for hole between 801 and 1,600 feet plus $4.81/foot plus $210 for cap. $16,000 mobilization for holes greater than 1,600 feet and $5.44/foot plus $210 for cap.	In addition to above costs
Wells greater than 7" diameter and or 1,600 feet deep	The Division may request a third-party estimate	In addition to above costs
Portal	$2,000.00 each opening	
Shafts	$3,000.00 each opening	

Small Mining Operation Five or Fewer Acres Using an Excavator

Project Size (Acres)	**Surety** **3 & 5 year escalation** **2016**	**Comments**
	3 year escalation through March 31, 2019 **5 year escalation through March 31, 2021**	
1 or fewer acres	3 year escalation $7,700.00 5-year escalation $7,800.00	Minimum amount required 3 year escalation $7,700.00 which includes $2,800.00 mob/demob 5 year escalation $7,800.00 which includes $2,800.00 mob/demob
Additional acres up to 5 total acres	$4,900.00/ acre (3-year escalation) $5,000.00/acre (5-year escalation)	Partial acreages rounded up (e.g., 1.2 acres = 2 acres)
Additional mod/demob costs	3 year escalation Mob up to 50 miles one way no additional charge Mob 51 to 100 miles (one way) add $1,400.00 Mob 101 – 150 miles (one way) add $2,700.00 Mob 151 – 200 miles (one way) add $4,100.00 5 year escalation Mob up to 50 miles one way no additional charge Mob 51 to 100 miles (one way) add $1,400.00 Mob 101 – 150 miles (one way) add $2,800.00 Mob 151 – 200 miles (one way) add $4,100.00	
Cumulative Amount for 5 acres	$27,300.00 (3-year escalation) $27,800.00(5-year escalation)	$500.00 difference between 3 and 5 year escalation amount for 5-acres of disturbance.
Portal	$2,000.00 each opening	
Shafts	$3,000.00 each opening	

Small Mining Operation over Five to Ten Acres Using an Excavator then Dozer

Project Size (Acres)	**Surety** **3 & 5 year escalation** **2016**	**Comments**
	3 year escalation through March 31, 2019 **5 year escalation through March 31, 2021**	
6 acres	3-year escalation $36,200.00 5 year escalation $36,900.00	Minimum amount required (3-year escalation) $36,200.00 3 year mod/demob $6,100.00 5 year escalation $36,900.00 5 year mod/demob $6,200.00
Additional acres up to 10 total acres	$5,600/ acre (3-year escalation) $5,700/acre (5-year escalation)	Partial acreages rounded up (e.g., 5.2 acres = 6 acres)
Additional mod/demob costs	3 year escalation Mob up to 50 miles one way no additional charge Mob 51 to 100 miles (one way) add $3,000.00 Mob 101 – 150 miles (one way) add $6,000.00 Mob 151 – 200 miles (one way) add $9,100.00 5 year escalation Mob up to 50 miles one way no additional charge Mob 51 to 100 miles (one way) $3,100.00 Mob 101 – 150 miles (one way) add $6,000.00 Mob 151 – 200 miles (one way) add $9,100.00	
Cumulative Amount for 10 acres	3-year escalation $61,100.00 5-year escalation $61,700.00	$600.00 difference between 3 and 5 year escalation amount for 10-acres of disturbance.
Portal	$2,000.00 each opening	
Shafts	$3,000.00 each opening	