



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Mining Programs

# **2014 Bond Rate Guidelines for the Calculation of Land Reclamation Bonds on Coal Mining Operations**

MRAB Meeting

April 25, 2013

**TABLE 1****Standard Bond Rate Guidelines  
For Year 2013**

Unit Operation	Unit Measure	Unit Costs (\$)
Mobilization/Demobilization	Job	4% of direct costs or \$40,000, whichever is less
Grading (< 500-foot push)	Cubic Yard	0.85
Grading (≥500-foot push/haul)	Cubic Yard	1.15
Selective Grading	Acre	1,075.00
Revegetation	Acre	1,600.00
Tree Planting	Tree	0.15
Ditch Excavation	Cubic Yard	6.80
Jute Matting	Square Yard	3.80
High Velocity Erosion Control	Square Yard	3.70
AASHTO No. 1	Ton	28.00
AASHTO No. 57	Ton	30.00
R3 Rock Lining	Square Yard	32.00
R4 Rock Lining	Square Yard	25.00
R5 Rock Lining	Square Yard	25.00
Geotextile/Filter Fabric	Square Yard	2.80
PVC Lining <sup>1</sup>	Square Yard	12.00
Subsurface Drain	Lineal Foot	16.3 0
Erosion and Sedimentation Control (Temporary Installation)	Job	Lump sum (5% of direct costs for site)
Pond Removal Active Phase <sup>2</sup>	Pond	3,800.00

Stage 3 Maintenance Bond Non-Cropland Areas (Land Uses Where Crop Yields Are Not Required)	Acre	100.00
Stage 3 Maintenance Bond Cropland (Not Row Crops) Pastureland Or Land Occasional Cut For Hay (Excludes Seed Cost)	Acre	440.00
Stage 3 Maintenance Bond Cropland Area-Row Crops (includes seed cost)	Acre	700.00
Stage 3 Mobilization	Job	2,500.00
Pond Removal-Stage 3	Cubic Yards (Embankment Volume) Plus Topsoiling & Revegetation Cost	Use <500 Grading For Pond Embankment Volume Plus Topsoiling & Revegetation Cost For The Area Disturbed
Ditch Removal-Stage 3	Lineal Foot	0.75
Equipment Tire Removal and Disposal	Tire	300.00
Structure Demolition	Costs Will Be Calculated Using Costs Listed In The Construction Industry's Latest Annual Cost Publications, Such As <i>Means Building Construction Cost Data</i> .	

**TABLE 2**  
**Mine Sealing Bond Rate Guidelines**  
**For Year 2013**

**Sealing Bituminous Underground Mine Drift and Slope Openings**

Unit Operation	Unit Measure	Unit Costs (\$)
Concrete Work	Cubic yard	128.00
Masonry Work	Square foot	11.00
Fill Material & Earthwork <sup>3</sup>	Cubic yard	23.00
Security Fencing	Lineal foot	29.00
Mobilization Cost	Job	5% of Total Amount

**Sealing Bituminous Underground Mine Shaft Openings**

Concrete Material	Cubic Yard	96.00
Aggregate Material	Cubic Yard	27.00
Fill material and Earthwork <sup>3</sup>	Cubic Yard	4.00
Security Fencing	Lineal Foot	29.00
Mobilization Cost	Job	5% of Total Amount

**Sealing Boreholes at Bituminous Underground Mines**

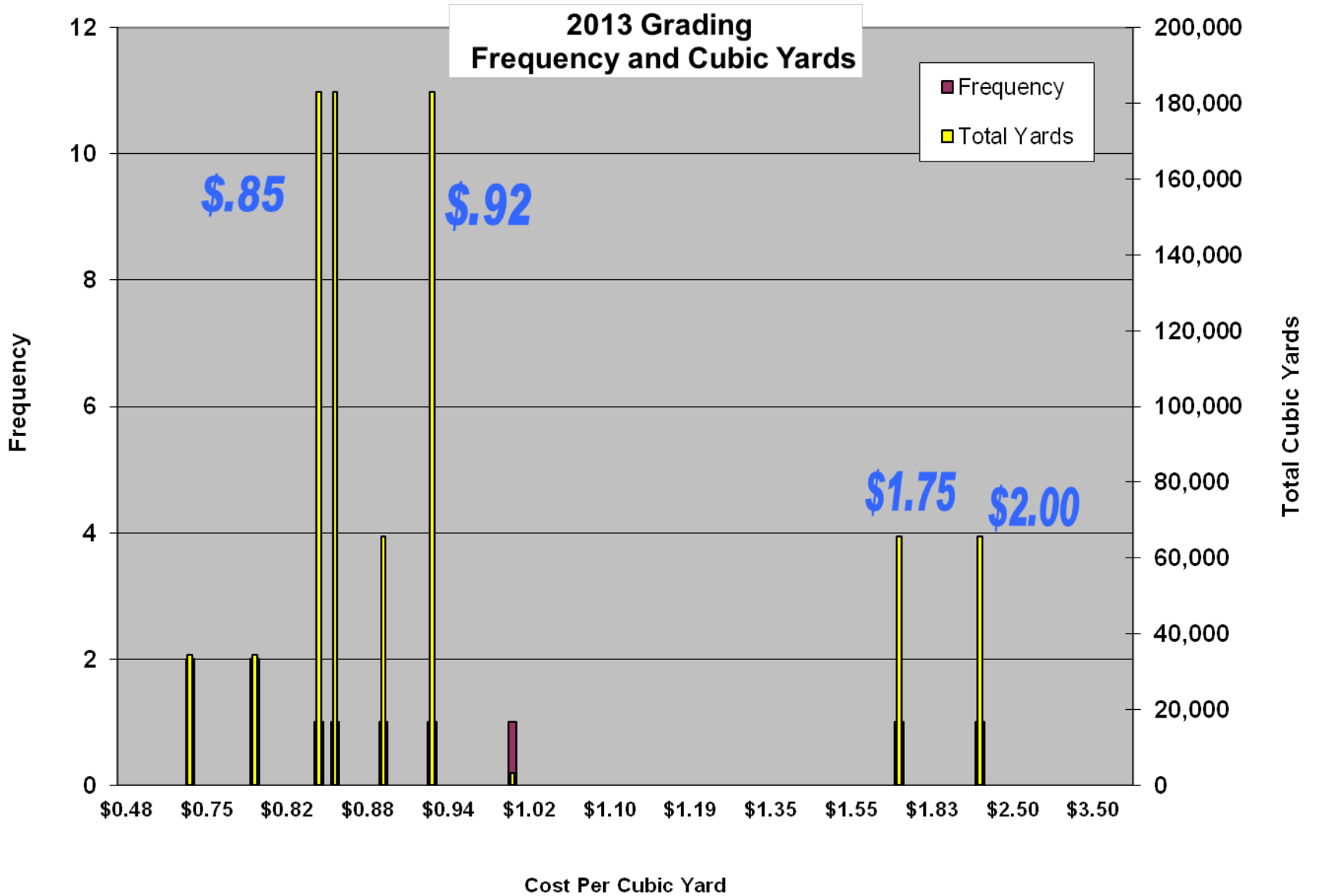
Dimension	Minimum Cost Per Hole (\$)	Unit Cost (\$) Per Lineal Foot
12 Inch or Less Diameter	1,500	5.50
Larger Than 12 Inch Diameter	2,000	5.50

## 2013 AML Reclamation Grading Costs - 3 Lowest Project Bids

	DESCRIPTION	QUANTITIES	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL		
Reclamation Project	Task	Cubic Yards	Cost per CY	Low Project Bid	Cost per CY	2nd Project Bid	Cost per CY	3rd Project Bid		
OSM 16(0886,3316)101.1	Grading	183,000	\$0.85	\$155,550.00	\$0.92	\$168,360.00	\$0.86	\$157,380.00		
OSM 54(3101)104.1	Grading									
	A) Grading Area A	31,150	\$0.74	\$23,051.00	\$0.80	\$24,920.00	\$1.00	\$31,150.00		
	B) Grading Area A to B	65,750	\$0.89	\$58,517.50	\$1.75	\$115,062.50	\$2.00	\$131,500.00		
	C) Grading Area B	3,250	\$0.74	\$2,405.00	\$0.80	\$2,600.00	\$1.00	\$3,250.00		
2		<b>283,150</b>	<b>\$0.85</b>	<b>\$239,523.50</b>	<b>\$1.10</b>	<b>\$310,942.50</b>	<b>\$1.14</b>	<b>\$323,280.00</b>	<b>\$1.03</b>	<b>\$291,248.67</b>

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	C) Grading Area B	3,250	\$0.74	\$2,405.00	\$0.80	\$2,600.00	\$1.00	\$3,250.00		
2		<b>217,400</b>	<b>\$0.83</b>	\$181,006.00	<b>\$0.90</b>	\$195,880.00	<b>\$0.88</b>	\$191,780.00	<b>\$0.87</b>	\$189,555.33





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