



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT



Oregon State Office  
P.O. Box 2965  
Portland, Oregon 97208

**OREGON/WASHINGTON BUREAU OF LAND MANAGEMENT  
POLICY FOR 43 C.F.R. 3809 NOTICE-LEVEL OPERATIONS  
AND RECLAMATION COST ESTIMATES**

**RECLAMATION COST ESTIMATE GENERAL INFORMATION**

The following information is a general guideline for preparation of Notices and Reclamation cost estimates for Notice-level operations on lands administered by the Oregon/Washington Bureau of Land Management (OR/WA BLM). Any of the following topics may be modified, based on site specific circumstances with approval by the BLM. The intent of this policy is to provide a framework for claimants and/or operators preparing notices and reclamation cost estimates to be provided to the local BLM District Offices for review. This guidance should be used in coordination with all applicable Federal and State Regulations.

This document is interim guidance until such time as the National BLM 3809 Handbook is finalized.

The following attached documents have been included to assist Operators in developing a reclamation cost estimate:

- Attachment 1: Sample BLM District local equipment rates and current costs (Note that page 2 is a reference to Information Bulletin No. OR-2003-206 which details the required percentages that must be added to reclamation cost estimates when using Davis-Bacon wages).
- Attachment 2: Examples of equipment production rates and an acceptable methodology that can be used to determine equipment production rates.

- Attachment 3: A summary of the process to obtain a financial guarantee for Notice-level operations including required administrative charges that are to be included on all reclamation cost estimates.
- Attachment 4: Optional 43 CFR 3809 NOTICE-LEVEL OPERATIONS GENERAL INFORMATION form.

## 1. NOTICE-LEVEL APPLICATION REQUIREMENTS

### Notice Information

To be considered complete, a Notice must contain all information required by 43 CFR §3809.301. A Notice must include an activity description, a reclamation plan, and a reclamation cost estimate. The activity description must contain the appropriate detail to determine the exact size and scale of the operation and understandable measures that will be used to prevent unnecessary or undue degradation. The reclamation plan must contain sufficient detail to determine compliance with Surface Management Regulation performance standards. The reclamation cost estimate must include the costs to fully reclaim the operations as if the BLM were to contract with a third party to reclaim the operations according to the reclamation plan.

Using the guidelines from this document and the requirements of §3809.301, a detailed description of all aspects of the project area and proposed exploration procedures will expedite the Notice processing time. In general, the more detailed information that can be provided about the proposed operation and any existing land disturbance will minimize the need for requests for additional information from BLM.

An optional Notice-level form is available from the BLM District Offices (see Attachment 4). This form is not required; however, it will assist the applicant in providing all of the required information. The original signature of the operator(s) and/or claimant(s) must be provided to the BLM when applying for Notice-level activities. Additionally, any Notice amendments must have original signatures.

One operator cannot have overlapping notices covering the same project area. Two different operators may each have a separate notice on the same area. If any or all of the project area described in each notice overlaps, both operators will be required to post a financial guarantee covering the reclamation cost associated with the activities described in that notice. For areas of disturbance that overlap, neither financial guarantee will be refunded until all reclamation is completed and approved by BLM.

Maps showing all project activities, proposed and existing, are required for extended and new notices. The maps must show claim location and orientation as applicable. These maps must include a known geographic landmark and/or specific information to allow the BLM to navigate to the project area from a surveyed point and determine the exact location of the planned operation. Project specific activities include, but are not limited to: existing/proposed excavation sites, adits, shafts, settling ponds, pipelines, equipment pad locations, drill hole locations, water wells/monitor wells, equipment storage areas, tailings disposal sites, stockpile locations, access routes, and any other information to provide an accurate description of the operations.

For Notices where the operator is not the claimant, the BLM must receive written notification that the claim holder is aware of the proposed Notice-level operation.

## 2. NOTICE-LEVEL COST ESTIMATE GUIDELINES

### Components of a Reclamation Cost Estimate

#### General

It is anticipated that an operator will perform reclamation activities upon completion of exploration activities. Typically, the actual cost of reclamation is less expensive when completed by the operator with existing, on-site equipment. However, **a reclamation cost estimate must be calculated as if the BLM were to contract with a licensed and bonded third party to complete reclamation** of the project area in the event an operator vacates prior to the completion of reclamation.

The cost of mobilization and demobilization for each piece of equipment and personnel is to be included in the estimate. The cost to back fill and re-contour all ground disturbance associated with the Notice operation must be calculated using acceptable industry standard equipment production rates. Equipment production information and construction cost estimating guidelines can be found in the Caterpillar Performance Handbook and R.S. Means Building Construction Cost Data, respectively. For most operation sites, operator efficiency (0.75%) and job efficiency (0.83%) are the only correction factors which should be used when calculating reclamation costs.

The reclamation earthwork should focus on blending the operation with the surrounding topography and site stabilization. Reclamation of all excavations, including ponds and constructed water courses is required. Please refer to 43 CFR 3809.5 and §3809.420 for the definition of the terms associated with reclamation activities.

Removal of items utilized in the operation such as wood cribbing material, pipelines, pond liners, buckets, barrels, power poles, electric cable, scrap metal, inoperable equipment/vehicles, junk, trash, and mining and mining related equipment must be included in the reclamation cost estimate for haulage and disposal in the nearest approved landfill or scrap yard. Also, pursuant to §3809.5 *Reclamation* (5), reclamation includes the removal of approved structures, buildings, or other support facilities. These costs should be included in the reclamation cost estimate.

Although not required, the District Reclamation Cost Estimation Summary Sheet (see Attachment) can be used as guidance to ensure all components are included in the reclamation cost estimate.

#### Seeding

Seeding of all disturbed areas including upgraded roads, access routes, and equipment pads is required. The goal of seeding disturbances is to promote a stable, self-sustaining plant population with a focus on returning the land to a productive post-mining use.

Only OR/WA BLM approved seed mix may be applied. The seed bag label or tag must be provided to the BLM within 30 days after the completion of seeding. Seeding shall be

completed between September 15 and December 15, unless otherwise directed by the OR/WA BLM.

Seeding cost shall include scarification, application and mobilization of equipment to and from the site. Scarification costs must be included where the area to be reclaimed has compacted growth medium.

#### Growth Medium

All growth medium, including, but not limited to topsoil, will be saved/stockpiled to facilitate final reclamation. Suitable quality fine material from settling ponds must be retained and applied as growth medium in areas where no or limited growth medium is available. Small prospect pits completely within bedrock may be exempt from seeding.

#### Adit/Shaft Closure

Adit closure typically should be calculated based on in-filling the portal entrance, unless site specific circumstances warrant otherwise. For example, if the adit is located in an area containing threatened and endangered bat species, other types of closures may be required.

Shaft closure will require complete back-filling as practical to prevent safety hazards. A permanent seal near the ground surface may be engineered for abandonment of deeper shafts upon approval by the OR/WA BLM. A perimeter fence must also be constructed around the shaft opening to mitigate potential hazards. Closure should mitigate potential ground water contamination.

#### Drill Hole / Water Well / Monitor Well Abandonment

Drill holes will be abandoned pursuant to State regulations to mitigate potential ground water contamination concerns.

The OR/WA BLM requires that the cost to abandon the deepest drill hole of an exploration drilling project be included in the reclamation cost estimate. The cost for drill rig mobilization /demobilization must be included in the reclamation cost estimate in addition to the materials required for abandoning the deepest hole. It can be assumed that an exploration drilling program is sequential and that subsequent hole abandonment would require rig operation hours and materials which are incrementally less expensive than the first hole.

Water wells, piezometers, and monitor wells will be abandoned pursuant to State regulations which require the work to be completed by a water well driller licensed by the State.

The OR/WA BLM requires that the cost to abandon each water well or monitor well be included in the reclamation cost estimate.

Approved methods of abandonment of horizontal drains, unused blast holes, pit wall seeps and adits and shafts that intercept ground water will be required to mitigate water quality degradation.

#### Physical Hazards And Safety Considerations

No safety or physical hazards will remain on site after final reclamation has been completed. For example, if a nearly vertical slope remains where an adit has been backfilled, the residual slope must be reduced to meet State standards. The final slope must be reclaimed to insure long-term stability and integrity. In general, this would equate to a stable 1.5 to 1 (horizontal to vertical) for cut slopes and 2 to 1 for fill slopes.

During operations, the operator shall maintain structures, equipment, and other facilities in a safe and orderly manner.

#### Equipment, Use and Occupancy Issues

If the applicant wishes to leave mining equipment, trailers, structures, footings, foundations, fences, etc., on OR/WA BLM administered public land after seasonal closure of the site; the cost to remove and dispose of these items must be included in the reclamation cost estimate. All use and occupancy issues must first be determined by the OR/WA BLM to be reasonably incident to the operation. Licensed and highway-legal vehicles may be calculated at a mobilization rate; all other equipment should be calculated assuming loading and haulage by truck to the nearest approved landfill or salvage yard.

#### Power Poles and Lines

The cost to remove all power poles, phone poles, antenna, and cable structures and associated wire must be included. Likewise, materials from the primary transmission line to place of use at a remote mine site must be included. The estimate must also address the removal of any transformers, electric meters and associated hardware. Idaho Power has indicated that this cost could range from \$400 to \$500 for each power pole, plus mobilization mileage depending on the timing of removal. The cost would typically be higher if mechanized equipment is required to construct access to the power poles. OR/WA BLM requires that \$100 per power pole be included in the reclamation cost estimate if electrical service is established at the operations site. If a transformer is present, additional costs would be required for disposal of hazardous material.

#### Roads, Vehicle Access and Ways

The cost to reclaim any new road, or modified or upgraded road, must be included in the cost estimate. This may include scarification, backfill/re-contour, culvert removal/disposal, energy dissipation structures, grade controls and other erosion control structures. Final road slope configurations should be calculated to minimize long-term erosion potential and limit post-mining access.

### **3. FINANCIAL GUARANTEE PROCESS FOR NOTICE LEVEL OPERATIONS UNDER 43 CFR 3809 SURFACE MANAGEMENT REGULATIONS**

Pursuant to §3809.554(b) and §3809.503(c), you must provide a financial guarantee acceptable to the BLM before you can begin operations under a new notice. Your financial guarantee must cover the estimated reclamation cost as if the BLM were to contract with a licensed and bonded third party to reclaim your operations pursuant to §3809.552(a) and §3809.554(a). Acceptable financial guarantee instruments may be found at §3809.555.

#### **Financial Guarantee Process**

To fulfill the 43 CFR 3809 Surface Management financial guarantee requirements, the following process must be followed.

1. The BLM District Office (DO) determines that your Notice is complete.
2. The Notice must be accompanied by the operator’s reclamation cost estimate. The Notice will not be considered “acceptable” by the DO without an acceptable reclamation cost estimate being submitted by the operator. (see Davis Bacon and Administrative Charges below).

#### **Davis Bacon Wages**

Davis Bacon wages must be used in the reclamation cost estimate for all amounts over \$2,000.

#### **Administrative Charges<sup>1</sup>**

The following administrative charges must be added to the reclamation cost estimate and included in the financial guarantee:

Contingency	3.0%
Contract Administration Cost (Operational Project costs)	10.0%
BLM Indirect Cost	
Variable	

The Administrative Charges are applied to the total reclamation estimate. Please round the total up to the nearest dollar when submitting the financial instrument.

A portion of an existing financial guarantee for reclamation earthwork that has been completed may be applied to proposed earthwork in another location. For example, if a trench has been bonded, excavated and backfilled, the dollar amount associated with the earthwork portion of the bond can be applied to a second phase of trench excavation.

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<sup>1</sup> IM No. 2003-082, Change 1, Reclamation Cost Estimates for Notices and Plans of Operations. Profit and insurance premium percentages are included in the contractor rates presented in Attachment 1 of this policy.

3. The DO reviews the reclamation cost estimate and determines if it is acceptable. If it is determined to be acceptable, the DO sends the operator a decision letter accepting the estimate.
4. The operator obtains one of the following types of financial instruments which the OR/WA BLM has determined to be acceptable: surety bonds, cash, irrevocable letters of credit, certificates of deposit, or assignments of deposit. Financial guarantee forms for surety and personal bonds are available from District offices and the completed forms must accompany the submittal of the financial instrument. It is recommended that the financial instrument and accompanying form be sent certified mail-return receipt requested. The financial instrument and accompanying form must be sent to the appropriate District office with the address indicating: **Attention: Bond Adjudicator.**
5. The DO will determine if the financial instrument is acceptable. The goal is to adjudicate the bond in less than 30 days.
6. The DO issues a decision letter accepting the financial guarantee. Operations may not commence until the DO Notice and the reclamation bond acceptance letter are received by the operator.

#### **RELEASE OF FINANCIAL GUARANTEES**

Requests for release of existing financial guarantees must be provided to the DO in writing before BLM will contact the financial institution. These requests must include the Notice "OR" serial number, name(s) of all claimants and operators, mailing addresses, phone numbers, and the amount requested for release. The DO must verify satisfactory completion of site reclamation prior to authorizing the release of the financial guarantee.

## **Attachment 1**

### **District “Local” Contractor Equipment and Labor Rates**

Information Bulletin No. OR-2003-206 outlines the percentages that must be added to Davis-Bacon wage rates for each particular job listed. In general, the BLM will only apply the following rates to estimates for construction contracts for mining reclamation projects of \$2,000.00 and greater requiring the use of Davis-Bacon wage rates:

Social Security (FICA)	7.65%
Federal Unemployment Tax (FUTA)	0.08%
State Unemployment Tax (SUTA)	3.10%
and Worker’s Compensation Premium	8.00%

These percentages are not required to be added to “Local” contractor rates used for projects below the \$2,000.00 cost threshold.

## Attachment 2

### District Examples of Scarification and Earthwork Production Estimation

The following information has been referenced from the Caterpillar Performance Handbook, Editions 32, October 2001, and 33, October 2002. These calculations should be used as a general guideline in calculating off-the-job equipment performance. On-the-job equipment performance may differ from these calculations depending upon material type, blade/bucket configuration, job size, operator skill, and site conditions. The available equipment may not always match the earthmoving job volume creating performance and cost variances. Equipment mobilization costs must be included in the cost estimate.

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#### EXAMPLE RECLAMATION COST ESTIMATE Non Davis Bacon Rates

PROJECT DESCRIPTION: Three hundred feet (300') of road is going to be upgraded and used for access. Three trenches, each 20' x 30' x 12' deep, will be excavated and backfilled after processing. The processing site area of disturbance is approximately 400 square feet.

Earthwork:

##### Backfilling

$$20' \times 30' \times 12' = 7,200 \text{ ft}^3 / 27 \text{ ft}^3/1 \text{ y}^3 = 267 \text{ y}^3$$

The production rate for a D-6 bulldozer including industry standard corrections factors is 280 y<sup>3</sup>/hr. The time it will take to back fill one excavation is: 267 y<sup>3</sup>/280 y<sup>3</sup>/hr = .95 hr. For three trenches the time would be 3 x .95/hr = 2.85 hrs.\*\*

\$88.97 is the cost per hour for a D-6 from the average cost table:

$$\mathbf{\$88.97 \times 2.85 \text{ hrs.} = \$253.56}$$

**\$254.00**

The total area of disturbance, which must be scarified and seeded is:

Processing area	400 ft <sup>2</sup>	
Trenches	1,800 ft <sup>2</sup>	
Road	<u>3,000 ft<sup>2</sup></u>	assume a 10' width

Total area disturbed: 5,200 ft<sup>2</sup>

Scarifying

A D-6 can rip 19,296 ft<sup>2</sup>/hr . Therefore, the time it would take to rip the area of disturbance is:  
5,200 ft<sup>2</sup> /19,296 ft<sup>2</sup>/hr = .27 hrs x \$88.97 = \$24.02 **\$24.00**

Seeding:

The seed application rate is 20 lbs seed/acre at a cost of \$100/ac

Seed cost = 5,200 ft<sup>2</sup>/43,560 ft<sup>2</sup>/ac = .12 ac

**\$100/ac x .12 ac = \$12.00** **12.00**

The seed application with an ATV is \$45/hr. at 1 ac/hr

**Labor = .12 ac x \$45/hr = \$5.40** **5.40**

Pickup truck & driver to haul in ATV and seed site: **100 miles x \$.44/mi = 44.00**

Driver **2 hours x \$25.17/hr = \$50.34** **50.34**

Mobilization: **\$67.64/hr x 2 hrs = \$135.28** **135.28**

**Total Costs: \$525.00**

Administrative Charges

Contingency 3.0% x \$525.00 = 15.75

Contract Administration 10% x \$525.00 = 52.50

BLM Indirect Cost 21% x \$52.50 = 11.03

**Total Financial Guarantee \$604.00**

\*\* If only one trench is open at a time, bond for only one is required.

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## Attachment 3

### District Examples of Earthwork Estimation

#### Scarifying / Ripping Calculations

**Dozer make:** Caterpillar D6  
**Ripper type:** Multi-shank Ripper bar = 8 feet (ft)  
Rip Spacing = 2 ft

**Ripping Speed:** (ft/minute (min) = 88 to 134 ) = 134 ft/min = 1.5 miles/hour (hr)

**Ripper Penetration:** 0.5 ft.

**Area Ripped / Pass:** = 4.0 ft<sup>2</sup>/ft

**Ripping Production:** 134 ft/min X 60 min. X 4 ft/ft in a pass = 32,160 ft<sup>2</sup>/hr

**Conversion:** 1 Acre = 43,560 ft<sup>2</sup>

**Correction Factors:** Caterpillar Performance Handbook

**Job Efficiency:** 83%

**Average operator Efficiency:** 75%

**Ripping Production:** 32,160 X 0.80 X 0.75 = 19,296 ft<sup>2</sup>/hr

Equivalent to 0.45 acres/hr or 2.22 hrs/ acre ÷ ¼ = 0.56 hrs for 1/4 acre

Cost to scarify 1 acre is D6 dozer rate of \$88.97 x 2.2 hrs = \$196.00

#### Methodology for Determining Cost of Earthwork

A production rate for a D-6 bulldozer with an average push distance of 50 feet is 450 yard<sup>3</sup>/hour (yd<sup>3</sup>/hr). The industry standard correction factors applied are average operator efficiency (0.75) and job efficiency (0.83). Therefore, the standard production rate is 450 yd<sup>3</sup>/hr x 0.75 x 0.83 = 280 yd<sup>3</sup>/hr.

**Example:** Reclamation of an open trench in gravels and soil using a CAT D-6: 10' x 20' x 5' deep =  $1,000 \text{ ft}^3 \div 27 \text{ ft}^3/\text{cy} = 37 \text{ yd}^3 \div 280 \text{ yd}^3/\text{hr} \times \$88.97/\text{hr}$  (D-6 rate) = \$11.75, rounded to \$12.00.

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A production rate for a D-7 bulldozer with an average push distance of 50' is  $750 \text{ yd}^3/\text{hr}$ . The industry standard correction factors applied are average operator efficiency (0.75) and job efficiency (0.83). Therefore, the standard production rate is  $750 \text{ yd}^3 \times 0.75 \times 0.83 = 467 \text{ yd}^3/\text{hr}$ .

**Example:** Reclamation of an open trench in gravels and soil using a CAT D-7: 10' x 20' x 5' deep =  $1,000 \text{ ft}^3 \div 27 \text{ ft}^3/\text{yd}^3 = 37 \text{ yd}^3 \div 467 \text{ yd}^3/\text{hr} \times \$89.38/\text{hr}$  (D-7 rate) = \$7.09, rounded to \$7.00.

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Production rates for a 312C excavator fitted with a  $0.68 \text{ yd}^3$  bucket is  $194 \text{ yd}^3/\text{hr}$ . The industry standard correction factors applied are average operator efficiency (0.75) and job efficiency (0.83). Therefore, the standard production rate is  $194 \text{ yd}^3 \times 0.75 \times 0.83 = 121 \text{ yd}^3/\text{hr}$ .

**Example:** Replacing side-cast material to backfill to topography a 1000 ft long road cut, 10 ft wide in bedrock on a 30° slope using a CAT 312C:  $1000' \times 10' \times 8' \text{ average depth} = 80,000 \text{ ft}^3 \div 27 \text{ ft}^3/\text{yd}^3 = 2963 \text{ yd}^3 \div 121 \text{ yd}^3/\text{hr} \times \$90.00/\text{hr}$  (excavator rate) = \$2,204.00

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A production rate for a CAT Loader with a  $3.5 \text{ yd}^3$  bucket with an average haul distance of 100 feet on a 6% grade is  $350 \text{ yd}^3/\text{hr}$ . The industry standard correction factors applied are average operator efficiency (0.75) and job efficiency (0.83). Therefore, the standard production rate is  $350 \text{ yd}^3/\text{hr} \times 0.75 \times 0.83 = 218 \text{ yd}^3/\text{hr}$ .

**Example:** Reclamation of an open trench in silicified rock using a CAT 950G Loader: The project site is 60 miles (assume 1 hour for one way travel) from the contractor's location. The trench is 15' x 40' x 5' deep =  $3,000 \text{ ft}^3 \div 27 \text{ ft}^3/\text{yd}^3 = 111 \text{ yd}^3 \div 218 \text{ yd}^3/\text{hr} \times \$67.50/\text{hr}$  ( $3.5 \text{ yd}^3$  loader rate) = \$34.40. Mobilization and demobilization cost is  $2 \times \$67.64/\text{hr} = \$135.28$ . Total cost is

$$\$34.40 + \$135.28 = \$169.68 \text{ or } \$170.00$$

Plus, the added BLM Administrative costs:

Contingency	$3\% \times \$170.00 = \$ 5.10$
Contract Administration Cost	$10\% \times \$170.00 = \$17.00$
BLM Indirect Cost	$21\% \times \$17.00 = \underline{\$ 3.57}$
	$\$25.67$

This brings the total example reclamation cost to  $\$170.00 + 25.67 = \$195.67$ , rounded to \$196.00.

## Attachment 4

### District Examples of Earthwork Estimation

#### 43 CFR 3809 NOTICE–LEVEL OPERATIONS GENERAL INFORMATION

(Ver. 10/2006)

As required by the Surface Management Regulations (43 CFR 3809), any operator who intends to use mechanized earth-moving equipment or explosives to conduct exploration-related work, annual assessment work or bulk sampling on BLM administered “Federal Lands,” whether claimed or not, must submit a completed Notice and receive notification of the BLM’s acceptance of the associated financial guarantee prior to commencing operations.

Per the Use and Occupancy Regulations (43 CFR 3715), any operator who proposes to erect a structure (e.g., building or fence) and/or proposes to stay on public lands on a full or part-time basis for more than 14 calendar days in any 90-day period within a 25-mile radius of the initially occupied site, must include the proposal as part of the Notice. Written concurrence from the BLM is required before erecting the structure or occupying the lands.

#### Filing Locations:

Notice level-operations within the \_\_\_\_\_ **Resource Areas** must be filed with the \_\_\_\_\_ District Office, \_\_\_\_\_, \_\_\_\_\_, Oregon 97918.

(District Name)

(Address)

(City)

Notices submitted without all of the information required by 43 CFR 3809.300 will not be accepted as complete until all of the necessary information is included. This is an optional notice form for your use, if you so desired. Regulations do not require that you use this form. However, the form was developed to make it easier for you to file a complete Notice and avoid unnecessary review and processing delays. We recommend that you make one or more copies for your records and that you submit the completed form be by Certified Mail, Return Receipt Requested, or hand delivered it to the above stated Office.

Be sure that your Notice is complete and as detailed as possible; that all roads, existing and proposed disturbances and structures are shown on sketches or maps (**preferably expanded 7½' topographic quadrangles**); and the township(s), range(s), and section(s), are clearly labeled on the maps. Generally, information that could be considered proprietary is not necessary to fulfill Notice requirements. However, information and data submitted and specifically identified by the operator as containing trade secrets or confidential or privileged commercial or financial information should be attached as clearly marked separate pages and cited in the text of the Notice. This information will be filed separately and will not be available for public inspection.

Reclamation is required on all disturbed areas (refer to 43 CFR 3809.420). The requirements include, but are not limited to, reshaping and stabilization of all disturbed areas; removal, segregation and storage of topsoil or other suitable growth material to minimize erosion and sustain its utility for re-vegetation; measures to isolate, remove, or control toxic materials; and re-vegetation of disturbed lands by establishing a stable and self-sustaining vegetative cover.

**43 CFR 3809**  
**NOTICE-LEVEL OPERATIONS**

NOTICE NUMBER: OR - \_\_\_\_\_

**1. GENERAL INFORMATION**

NAMES AND ADDRESSES

Include the name, permanent mailing address, and telephone number of the mining claimant(s) and operator(s), if other than the claimant. If the operator has a temporary local address and telephone number, include that as well. Use additional sheets as necessary. You are required to notify the local BLM Office, in writing, within 30 days, of all changes of address or operators.

Claimant(s) \*

(1) _____	(2) _____
_____	_____
_____	_____
_____	_____

(3) _____	(4) _____
_____	_____
_____	_____
_____	_____

(Use additional sheets as necessary)

\* If the claim is an association placer (i.e., 160 acres and 8 claimants), only the name, address and telephone number of the claimant who acts as the spokesperson or attorney-in-fact for the group (if one is chosen) is required.



Type of access route proposed:

Existing, no upgrading needed \_\_\_\_\_

Existing, major upgrading needed \_\_\_\_\_

Dimensions of proposed upgrade: Width \_\_\_\_\_ Length \_\_\_\_\_ (miles / feet).

New Road(s) \_\_\_\_\_ Location(s) \_\_\_\_\_

Dimensions of new road: Width \_\_\_\_\_ Length \_\_\_\_\_ (miles / feet).

Total disturbed width (top of cut to bottom of fill) \_\_\_\_\_ feet; at Grade \_\_\_\_\_ %.

Will any road cuts be greater than 3 feet in height on the inside edge \_\_\_\_\_?

If "yes," describe: \_\_\_\_\_ .

Include sketch of typical road cross sections.

### 3. DESCRIPTION OF EXPLORATION OPERATIONS

Show the specific location of all drill holes, mud pits, trenches, adits, shafts, bulk sample sites, exploration roads, etc., on an expanded **7½'** **topographic map** or appropriate scale map.

Type of Exploration Activities:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ .

Proposed start date of exploration operations \_\_\_\_\_; Proposed end-date \_\_\_\_\_ .

List inactive periods: \_\_\_\_\_ .

Reclamation will be completed by: \_\_\_\_\_ .

Total surface disturbance proposed (including all road work) \_\_\_\_\_ .

Square feet \_\_\_\_\_ and acres \_\_\_\_\_ (1 acre = 43,560 square feet).

Will explosives be used \_\_\_\_\_ ?

If "yes," where will they be stored on site \_\_\_\_\_ ;

during what periods of time \_\_\_\_\_ .  
(show on attached map).

Will hazardous materials (e.g., cyanide, arsenic, mercury, etc.) be used or generated on site \_\_\_\_\_ ?

If "yes," describe: \_\_\_\_\_ .

Will any hazardous materials be stored on site \_\_\_\_\_ ?

If "yes," where and how will they be stored \_\_\_\_\_ .

(Show on attached map).

Will any fuels, lubricants, or coolants be stored on site \_\_\_\_\_ ?

If "yes," where and how will they be stored \_\_\_\_\_ .

(Show on attached map).

Will water be used in the operation \_\_\_\_\_ ?

If "yes," how many \_\_\_\_\_ gallons/day).

Where will it be obtained \_\_\_\_\_ .

How will it be transported to the site \_\_\_\_\_ .

How will it be stored at site \_\_\_\_\_ .

(show water source, transportation route, and storage on attached map).

Will settling ponds be constructed \_\_\_\_\_ ?

If "yes," dimensions of ponds: \_\_\_\_\_ feet long; by \_\_\_\_\_ feet wide; and \_\_\_\_\_ feet deep.

(show related facilities, settling ponds, pipelines, etc., on attached map).

Will any trees be cut \_\_\_\_\_ ?

If "yes," first obtain a free-use permit from this office.

Will cut trees be put to beneficial use at site \_\_\_\_\_ ?

PITS, TRENCHES, PONDS, BULK SAMPLE SITES

Will trenches, test pits, bulk sample sites, etc., be excavated \_\_\_\_\_ ?

List and describe the number and type of excavations:

Size: \_\_\_\_\_ feet long; by \_\_\_\_\_ feet wide; by \_\_\_\_\_ feet deep.

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

(continue, as needed, on the back of this sheet)

UNDERGROUND WORKINGS

Do adits, shafts or other underground workings exist on the claims \_\_\_\_\_?

If "yes," describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Describe any proposed underground exploration and the type of workings to be modified or constructed: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dimensions of Proposed Workings: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLING

Will any holes be drilled \_\_\_\_\_

If "yes," how many \_\_\_\_\_; by how deep \_\_\_\_\_.

Will mud pits be constructed \_\_\_\_\_

If "yes," pit size: \_\_\_\_\_ feet long; by \_\_\_\_\_ feet wide; by \_\_\_\_\_ feet deep.

Will drill pads be constructed \_\_\_\_\_?

If "yes," number \_\_\_\_\_; and location \_\_\_\_\_.

Pad size: \_\_\_\_\_ feet long; by \_\_\_\_\_ feet wide; by \_\_\_\_\_ cut / feet deep.

(show drill pad location on attached map)

**EQUIPMENT TO BE USED**

Equipment (brand and size):

\_\_\_\_\_ Number of Pieces \_\_\_\_\_

(Use additional sheets as necessary)

**4. RECLAMATION COST ESTIMATE INFORMATION**

The BLM requires that operators post bonds sufficient to pay all reclamation costs as if the BLM were to contract with a third party (a licensed and bonded contractor) to reclaim the operation. Please submit a separate estimate of the costs to fully reclaim your operations once your Notice has been determined to be complete by the BLM.

Calculate for all disturbances that you will create or modify, add any disturbances or structures not listed above. List the dimensions of the disturbances (square feet or acres) and/or the volumes in cubic yards (yds<sup>3</sup>) of the necessary earthwork. List the method, type of equipment and number of hours required to complete the reclamation. For structures (and inoperable equipment) list the removal method and transport hours.

Roads / Access dimensions \_\_\_\_\_

Equipment \_\_\_\_\_ Hours \_\_\_\_\_

Equipment \_\_\_\_\_ Hours \_\_\_\_\_

Equipment \_\_\_\_\_ Hours \_\_\_\_\_

Equipment \_\_\_\_\_ Hours \_\_\_\_\_ .

(Continue list, as needed, on back of this sheet)

Pits / Trenches (dimensions and/or yds<sup>3</sup> of each) \_\_\_\_\_

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Equipment \_\_\_\_\_ Hours \_\_\_\_\_ .

(add other items as needed on back of this sheet)

Ponds and ditches (dimensions and/or yds<sup>3</sup>) \_\_\_\_\_

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Equipment \_\_\_\_\_ Hours \_\_\_\_\_ .

(add other items as needed on back of this sheet)

Dumps / Spoils / Tailings (dimensions and/or yds<sup>3</sup>) \_\_\_\_\_

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Equipment \_\_\_\_\_ Hours \_\_\_\_\_ .

(add other items as needed on back of this sheet)

Equipment / Processing Areas for scarification, re-contouring earthwork (Dimensions in ft<sup>2</sup>, acres, or yds.<sup>3</sup>)

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Equipment \_\_\_\_\_ Hours \_\_\_\_\_ .

(add other items as needed on back of this sheet)

Seed costs: Area = \_\_\_\_\_ ft.<sup>2</sup> Seed = \_\_\_\_\_ Acres @ \$ \_\_\_\_\_ / Acre = \_\_\_\_\_

Labor = \_\_\_\_\_ hrs. @ \$ \_\_\_\_\_ hr.

Total = \_\_\_\_\_

Topsoil stockpiles spreading (volume in yds<sup>3</sup>) (haulage distances) \_\_\_\_\_

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Equipment \_\_\_\_\_ Hours \_\_\_\_\_ .

(add other items as needed on back of this sheet)

Structures (buildings, milling facilities, fences, power poles and wire, other infrastructure). List the type, dimensions, removal methods and haulage costs:

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Equipment \_\_\_\_\_ Hours \_\_\_\_\_ .

(add other items as needed on back of this sheet)

Haulage

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Equipment \_\_\_\_\_ Hours \_\_\_\_\_ .

(add other items as needed on back of this sheet)

Underground workings (list the dimensions of the openings, closure methods, safety gates and estimate costs)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Equipment \_\_\_\_\_ Hours \_\_\_\_\_ .

(add other items as needed on back of this sheet)

**5. RECLAMATION**

Reclamation shall include, but is not be limited to, the following:

1. Measures to prevent unnecessary or undue degradation to public lands.
2. Removal, segregation and preservation of topsoil for later application to the disturbed area.
3. Re-vegetation of disturbed lands by the establishment of a stable vegetative cover.
4. Efforts to minimize disturbances and adverse impacts to fish, wildlife and related environmental values.
5. Measures to minimize erosion, siltation, air pollution and impacts to resources.

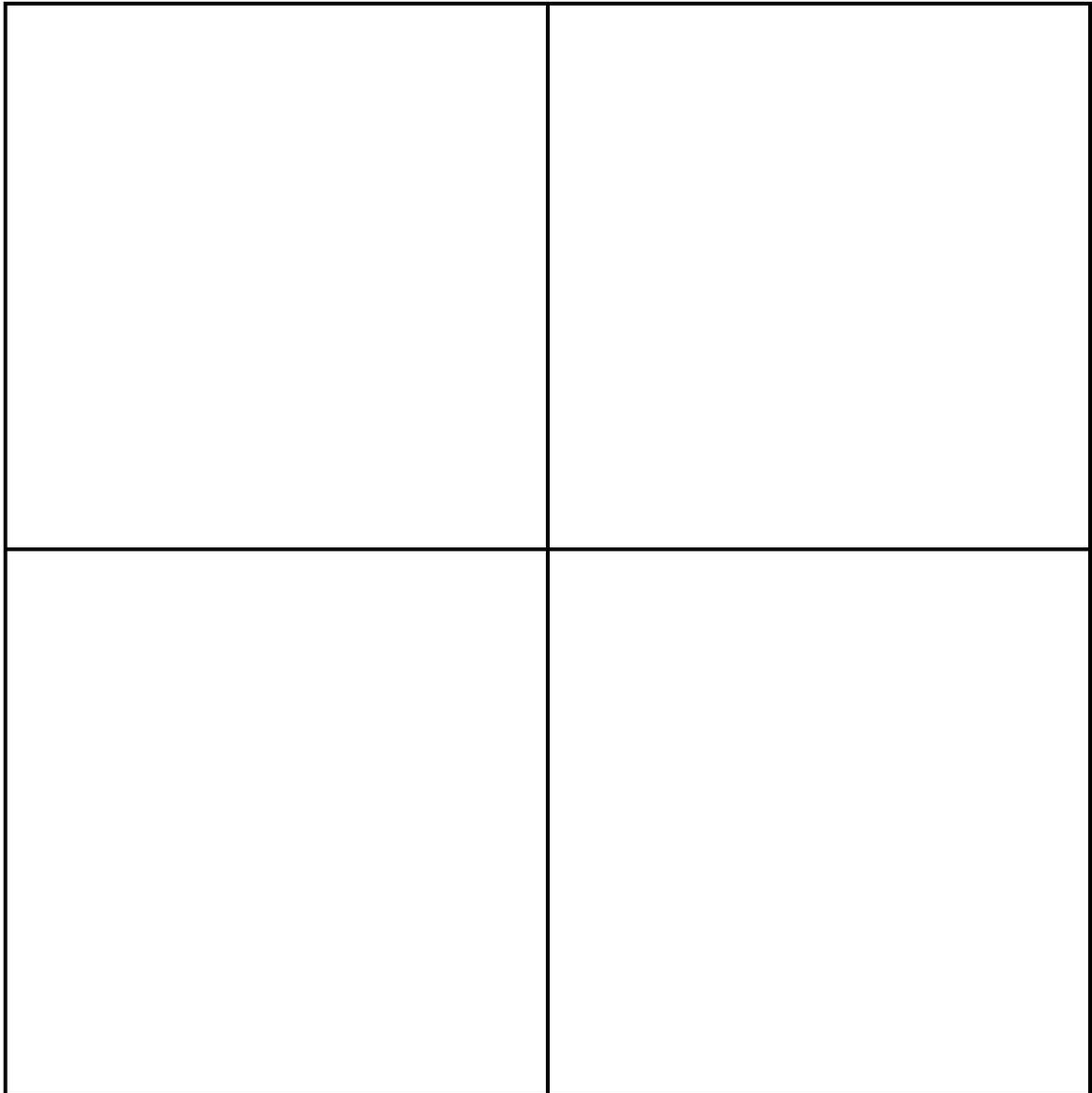




**SKETCH MAP FOR FOUR SECTIONS**

Township \_\_\_\_\_ Range \_\_\_\_\_ Sections \_\_\_\_\_

Scale of sketch blank is 3 inches = 1 mile. At that scale a 20 acre placer claim (1320 feet x 660 feet) would be  $\frac{3}{4}$  inch by  $\frac{3}{8}$  inch. (1320 feet =  $\frac{1}{4}$  mile =  $\frac{3}{4}$  inch).



\_\_\_\_\_  
Claimant's Signature

\_\_\_\_\_  
Date

## MAP of Mining Claims

Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_ State of \_\_\_\_\_

<i>NW/NW</i>	<i>NE/NW</i>	<i>NW/NE</i>	<i>NE/NE</i>
<i>SW/NW</i>	<i>NE/NW</i>	<i>SW/NE</i>	<i>SE/NE</i>
<i>NW/SW</i>	<i>NE/SW</i>	<i>NW/SE</i>	<i>NE/SE</i>
<i>SW/SW</i>	<i>SE/SW</i>	<i>SW/SE</i>	<i>SE/SE</i>

When drawing your claim(s) use an ordinary ruler. 1/8<sup>th</sup> of an inch would be 100 feet so a full size lode claim (600' x 1,500') would be 3/4" by 1 7/8". A full sized placer claim (1,320' x 660') would be 1 5/8" by 13/16".