INTERNATIONAL
URANIUM (USA)
CORPORATION

m/037/006
m/037/012
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June 6, 2005

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DIV. OF OIL, GAS & MINING

Doug Jensen, Reclamation Specialist
State of Utah, Department of Natural Resources
Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801

Re: Responses on Reclamation Surety Reviews: Rim - Columbus Mine, Permit M/037/006; Pandora Mine, Permit M/037/012; LaSal-Snowball Permit M/037/026; Hecla Shaft Permit M/037/043.

Dear Mr. Jensen:

International Uranium (USA) Corporation (the "Operator") received an inquiry dated April 22, 2005 from the Utah Division of Oil, Gas and Mining (the "Division") regarding reclamation surety reviews for the four mine permits listed above. The following information is the Operator's response to the inquiries.

The Division's inquiries are replicated in *italics* in the following text, and the Operator's responses are provided separately for each specific information request.

**M/037/006 – Rim-Columbus**

*Maps dated 1991 indicate the there was additional disturbance north of the disturbed area outline on your latest map. Also areas were shown as disturbed northeast of your disturbed area outline. There is sewer and water lines extending out in those areas. Please state why these areas should not be considered part of the disturbance.*

**Response:** The Operator acquired the Rim-Columbus Mine is 1997, and although relevant project data was also obtained , the 1991 map referenced in the above inquiry cannot be located in this Operator's files. Therefore, references to specific features in the inquiry are difficult to tie into the current site.

The Operator conducted a complete surface survey of the mine site in late 2003, and the mine site map submitted by the Operator ("REGIONAL LOCATION MAP, RIM-COLUMBUS, Permit M/037-006," 1" = 200', submitted February 1, 2005) depicts all surface features at the site as it now exists.

In August and September 2002 the Operator conducted extensive site cleanup and maintenance work, partially in response to a number of items noted in field inspections by Division staff. This work was followed up by additional site work in August 2003, which was necessitated by site vandalism during which metal siding was removed from portions of two

buildings, resulting in debris and siding being blown around the mine site. The current site map reflects these site activities by the Operator, and these actions have been reported in the 2002 and 2003 ANNUAL REPORT OF MINING OPERATIONS submitted by the Operator.

The disturbed areas north and northeast of the present-day disturbed area outline have been reclaimed by the Operator; this was done in conjunction with 2002 site maintenance work. All old structures, lines, and debris were removed, and the site was tilled and seeded.

*The area impacted by the topsoil pile was not included in the disturbed area calculation; this area should be included in the total disturbance*

**Response:** The area under the topsoil pile is less than 50 feet by 40 feet (0.04 acres). This area is within the estimation accuracy of the total disturbed area calculation. During final reclamation, the Operator will till and seed the area occupied by the topsoil pile.

*A map dated 1978 indicates that a vent hole was proposed that would have fallen off the eastern edge of your latest Rim-Columbus map. Was this vent hole ever constructed?*

**Response:** This vent hole has not been constructed.

*The area around the Columbus Mine is not noted as part of the disturbance. Was this area left off the total acreage for a reason? If this was an oversight on IUC's part, please include this area in the total disturbance acreage of this permit. If this area should not be included in the final reclamation, please note where in the plan this area was exempt.*

**Response:** The Division acknowledged by letter dated August 6, 1985 that the operator's (i.e. previous permitee's) only responsibility at this site is to seal the portal. The permit held by the Operator stipulates reclamation of about 4 acres of the surface of the Humbug Mine site surface dump, as this is the only area that has been actively utilized by the this Operator and by previous operators under this permit.

A Division letter dated August 21, 1997, wherein the Operator sought approval to use the top of the Humbug waste dump as a temporary ore stockpile area, notes "... The approved permit did not include utilizing these portals for ore removal or placing additional waste rock on the mine dumps. Reclamation of these four acres as described in the permit includes closure or sealing of the portals and seeding the affected areas. The pre-law angle of repose waste dumps were not required to be regraded or topsoiled at final reclamation."

On June 20, 1997, the Division approved an amendment to the permit which provides "The amendment describes the use of 1.6 acres of previously disturbed area for stockpiling ore and waste rock placement. This amendment does not increase the "permit disturbed area" but changes the proposed use of portions of the four acre area."

The footprints of the Humbug and Columbus waste dumps have not been increased as a result of operations under the permit.

*A 20-inch vent hole is shown between the Rim and Humbug areas. This area and access to this area needs to be included in the total disturbance.*

**Response:** This old vent hole has been shown only as a general feature in the area and is not covered under the Rim-Columbus permit. This vent is pre-law and not a part of modern

mine operations, and is therefore not included in the disturbed area and the reclamation obligations under the permit.

*There is nothing in the plan that alludes to the responsibility for the removal of the power lines and transformers that exist on the site. Is the removal of these items a reclamation responsibility of IUC or are they the property of Utah Power? Removal of these lines and transformers will need to be included in the reclamation surety if they are the responsibility of IUC.*

**Response:** The Operator's representative recently visited this site with Utah Power & Light personnel. As often happens in many older mine sites, the ownership/responsibility for power installations has become obscure. Generally the Utah Power & Light system ends just north of the mine site where the main feeder heads south into the mine site. The power line extending west over the rim to the 20-inch vent hole and the Columbus portal were used by past operators in pre-law mining operations. This Operator no longer uses these lines in the mining operations.

At present, transformers remain immediately north of the hoist house and adjacent to the water treatment building. The transformer for the vent hole and the transformers that were near the shop buildings (now removed) have been removed by the Operator.

**M/037/012 – Pandora**

*A discount was allowed on the surety for salvage value for the buildings and the water tank at the site. Because of fluctuating markets, salvage values cannot be used to reduce the reclamation liabilities at the site. The original estimated cost for the removal of these items will be added back into the surety calculations.*

**Response:** The Operator unfortunately understands the difficulty in allowing salvage credit for the old buildings at the LaSal mine site. For reference purposes, the Operator recently engaged in negotiations to sell the main warehouse building at the LaSal mine site for in excess of $30,000, so there is clearly a viable salvage market.

Although credit against the surety amount understandably cannot be allowed for sale of buildings as an offset against expenses, the Operator requests that estimates costs for the demolition of buildings be at **no cost** in the reclamation estimate. The Operator has a number of recent experiences wherein local community individuals will tear down buildings and clean up all debris in exchange for keeping the building materials to be used in farming and ranching operations. This has been done at the Rim-Columbus mine where the adjoining surface owner took the maintenance buildings down and cleaned up the site in exchange for the building materials, and the Operator continues to receive calls from local parties interested in obtaining salvageable building materials.

**M/037/026 – LaSal-Snowball Mines**

*The Pandora & LaSal-Snowball sureties were recalculated in 1989. At that time, closure of the vent holes and removal of the power lines were included. The Pandora mine surety indicated a total of 4,000 linear feet of power lines to be removed and 8 vent holes to be closed. The LaSal-Snowball surety showed a total of 10 vent holes to be closed and 8,000 linear feet of power line to be removed.*

*Your letter dated April 6, 2004 shows only 5 vent holes being assigned to the Pandora Mine and 19 vent holes assigned to the LaSal-Snowball Mine (two of which are shown to be reclaimed). Which of these numbers are correct?*

**Response:** The Operator's representative recently accompanied Utah Power & Light ("UP&L") personnel on a thorough inspection trip of all the mine sites and power installations to ascertain ownership of power lines. Generally, primary metering is installed at the point where the customer's lines start, thus providing a point for the utility to assess costs for power usage.

The ownership of power facilities and the designation of individual vent holes and power lines under specific mine permits has gotten confused for a number of reasons:

- The mines were originally permitted by different operators;
- The mines were later consolidated under a single operator, but the individual original permits remained;
- Over the course of years of mining operations, mine workings were joined underground to facilitate ventilation and to provide alternative access routes and escapeways;
- The original mine developers and early permittees entered into arrangements with the local utility wherein the mine operators would pay for initial installation of power facilities, and then would be allowed to recoup the initial investment through reduced utility fees. After full recoupment of the initial investments, ownership of the facilities would reside with the utility.
- In the case of vent holes, the interconnection of mine workings obscures the identification of individual vents with specific mine permits; therefore, the vent holes can be assigned (for purposes of estimating reclamation surety) to whichever permit is convenient.

Mr. Wayne Hedberg, Permit Supervisor, sent the Operator a letter on March 12, 2004 seeking to clarify the question of which vent holes belong with which mine permits. In Mr. Hedberg's letter he accounted for nine vent holes associated with the Pandora permit and eleven active and four planned vent holes associated with LaSal-Snowball mine permit (for a total of 24 vent holes associated with the two permits, which matches the Operator's maps). The Operator responded on April 16, 2004 by providing a list of all the vent holes and designating which mine each vent hole is "normally" associated with, although this distinction is superfluous, as noted.

The Operator's April 16 response has apparently created confusion, as it lists only five vents associated with the Pandora permit. To facilitate the assignment of each vent hole to a permit for purposes of estimating reclamation amounts for each permit, the Operator has modified the table submitted with the April 16 response letter. The revised table is attached.

The table assigns a total of nine vent holes to the Pandora permit and 15 vent holes to the LaSal-Snowball permit, which corresponds with the actual permit designations according to Mr. Hedberg's analysis. Although a number of the vent holes are named "Snowball" vents on the map submitted by the Operator, they are actually more closely associated with the Pandora mine and have thus been designated as Pandora vent holes.

Your letter states that the existing surety for closure of vent holes is for eight holes under the Pandora permit and ten holes under the LaSal-Snowball permit. Understandably, the surety will need to be revised to allow for closure of the additional vent holes. Please note that three holes have been reclaimed (Snowball #6, Snowball #4, and one hole south of Snowball #4). The remaining number of unreclaimed holes to be added to the updated surety estimate is **three**.

*Scaling from your General Location Map for permits M/037/012, M/037/026, M/037/043, M/037/046 there is approximately 25,000 linear feet of power line associated with these 19 vent holes. If this number is correct, additional footage will need to included in the surety to reflect this increased total.*

**Response:** Based on actual field inspection by UP&L personnel in May 2005, the footage of power line which remains the responsibility of the Operator is almost zero. The **only** segments of power line which remain under the ownership of the Operator are:

- Approximately 120' feeder into vent hole 1050;
- Short segments from each metering point/transformer platform to the Operator's facility/switchgear. These lengths are not shown on the map, and can be estimated at ~50' for each site where line power is delivered.

Based on the recent update by UP&L, the amounts estimated for power line removal in the reclamation sureties should be eliminated.

*Only 6 of the sites show that there are transformers to be removed (three sites show that transformers have been removed), is this number correct?*

**Response:** The GENERAL LOCATION MAP is generally correct and portrays the current status of transformers at vent sites. At some vent holes transformers have been removed, at other sites power is provided from within the mine (hence no transformers on the surface), and in a one case, there is no power at all to one vent hole as it circulates by natural convection.

For the LaSal-Snowball and Pandora permits combined, the map currently shows a total of 10 vent sites that still have transformers. For purposes of surety estimation, the assumption should be used that all the transformers are the Operator's property.

*The transformer inventory submitted to the Division December 2002 indicates that a total of 10 vent holes still had transformers at that time, which number is correct? This inventory indicates a total of 64 transformers are located at the sites at LaSal, is this correct? The surety will need to be adjusted to account if these items have been removed. The cost for the removal of the transformers that show PCB contamination will need to be adjusted to reflect the special handling required.*

**Response:** As noted in the preceding response, there are 10 vent holes that still have transformers. The total number of transformers on all sites operated under the permits will need to be verified, as the Operator has removed many transformers in recent years, not only from vent holes but from mine area facilities as well. There are presently 29 transformers located at vent holes.

The total of 64 transformers reported in the Operator's December 2002 letter to the Division includes the mine sites as well as the vent holes, but this total is no longer current. The Operator will provide an updated inventory of all transformers.

The Operator **has removed all transformers that contain PCB's** at the regulatory contamination level. These units have been properly disposed and fully documented. The surety estimate for the subject mine permits should include **no adjustment for handling PCB-contaminated transformers** as none remain at any of the sites.

*There are no items included in the either Pandora or LaSal-Snowball mine sureties for the removal of transformers at the vent hole sites, these items will need to be included in the next surety calculation.*

**Response:** The cost for removal of transformers is minimal as there is little time and effort required when proper equipment is available. The Operator recently sold all transformers in its inventory, confirming there is a commercial market for used transformers. The Operator requests that the cost for transformer removal be 'zero' in the surety updates, because in fact the cost of transformer removal is much less than the value of the used units.

*One 7 ft uncased vent hole northeast of the LaSal Portal shows a power drop but no power line leading to the site. Is there a power line associated with this vent hole?*

**Response:** There is no power line to this vent site. Power is brought **up** the vent hole from within the mine to power the surface fan. Although the map label shows this as a "power drop," it is really a "power rise."

*A line item will need to be added to include the removal of the fence surrounding the LaSal Mine area.*

**Response:** Chain link fencing is a highly sought after reusable commodity. Without any doubt the Operator (or other final reclamation entity) could find local parties that would remove fencing at no cost in exchange for the materials. The Operator requests that removal of chain link fence around mine sites be at no cost in the surety estimates.

**M/037-043 – Hecla Shaft**

*No line items have been placed in the surety for the closure of the onsite well and the removal of the underground water tank. These items will need to be included in the reclamation surety.*

**Response:** No comment.

*Closure of the monitor wells will also have to be included. Is there any long term monitoring requirements for this site? A line item of $15,000 was included in a 1983 bond estimate for continuing or periodic sampling or testing. Is this estimate still valid for this site?*

**Response:** The monitor wells associated with the Hecla Shaft water treatment system are approximately 30 to 50 feet deep and penetrate a shallow alluvium layer above the Mancos Shale. Since these wells only penetrate one hydrologic unit, plugging and closure will be simple and can accomplished by filling the wells with clay material.

The Groundwater Protection Permit associated with the Hecla Shaft mine was terminated in 1999. There is no monitoring or reporting taking place as the facility is on standby, and no water has been discharged to the ponds for many years. Therefore, the $15,000 included in the surety for long term monitoring must be removed.

When the Operator determines that the resumption of mining operations is feasible at the Hecla Shaft, a Groundwater Protection Permit will be required, and at that time the amounts necessary, if any, for long term monitoring will be established. The Operator requests that any amount for long term monitoring under the present surety be removed since this site is not monitored and there is no active permit requiring monitoring.

*None of the site maps received indicate the length of the power feed line into the Hecla site that IUC will be responsible for removing. Please show this line trace on the General Location map and include that distance in your reply.*

**Response:** The power feed line into the Hecla site is the property of UP&L. The UP&L line enters the site from the south and feeds the power drop at the southeast corner of the compressor building. The line is shown on the 1" = 100' "Hecla Shaft" site map. The line extends due north from the power drop point and is above the fence along the east side of the site; the line terminates at a pole just northeast of the loading dock. The orientation of the power line is not easy to see on the 1" = 500' GENERAL LOCATION MAP, but it does show up on the 1" = 100' site map.

*A line item needs to be included for the closure of the escapeway/vent hole located at the Hecla site.*

**Response:** No comment.

*A review of the original surety estimate indicates that the 35 acres site can be reseeded in a 3-hour period. This is not a realistic time estimate; the Division feels that it would be more realistic to estimate 10 hours to seed a 35-acre area. Unless IUC can show that the 3-hour estimate is realistic the surety will be changed to reflect a 10-hour estimate.*

**Response:** IUC agrees that 3 hours may not be adequate to seed the entire site. However, the surety estimate is presumably intended to cover existing disturbances and proposed additional disturbance. At present, the disturbed area totals 23.5 acres, not 35. Within this 23.5 acre area, about 3 acres, between the southwest waste dump and the main shaft area, is undisturbed and does not require any reclamation work (other than possible removal of minor trash and debris). Therefore, while the Operator agrees that 3 hours may not be adequate to see 35 acres, the time estimate for the surety update should be based on not

more than the present 23.5 acres of disturbance. If the mine is reopened, then possible additional disturbance areas will be identified, and if necessary, surety revisions will be made at that time to reflect a larger disturbance area if appropriate.

*As the reclamation sureties were reviewed the for the IUC mines in San Juan County, the following items were found that were not included in the initial bond calculations.*

- *None of the bonds reviewed have a line item for mobilization/demobilization of equipment needed to perform the reclamation. These items will be added into the surety calculations for each mine.*

  **Response:** Certainly mobilization/demobilization costs are to be expected. However, the Operator proposes that mobilization/demobilization charges be on a "project" basis for all of the mine sites rather than on a mine by mine basis. At the time of final reclamation, several sites will be reclaimed in one program, therefore it is not appropriate to calculate mobilization/demobilization costs from a base location to each mine site individually.
- *Supervision for the listed reclamation activities needs to be added. Supervision is calculated at 10% of the reclamation costs. This item will be added to the surety calculations.*

  **Response:** The reclamation plans described in the original permit documents have been reviewed, and there does not appear to be an allowance for Supervision costs associated with the reclamation work.
- *A line item should have been included in each of the sites to include fertilization or mulching, which is committed to in the plans if the test plots show that these treatments would be necessary. There have been no results filed to indicate the results of this testing. Until data is submitted to show that fertilization or mulching would not be necessary, these items will be need to be included in the surety calculation.*

  **Response:** This Operator could not locate complete file records regarding the revegetation test plot work done by Umetco when it was operator under the permits. Notwithstanding this, the permits do contain language that fertilizer and amendments (mulching) **may be employed** if revegetation test plots show that fertilization or addition of amendments provides a significant change in revegetation results.

  Attached are three pages from the 1984 LaSal-Snowball Annual Report by Umetco. This information generally describes results of the test plot study after one growing season. The results are mixed, with some of the better results on Plat D, which is LaSal waste without fertilizer or mulch. Plat F, LaSal waste with fertilizer and mulch, also showed favorable results. One of the worst results was on Beaver waste where fertilizer was used and the only growth was a few Russian thistles.

  The Operator would like clarification on why the existing permit condition has been acceptable to the Division for over 20 years, and now the Division

proposes to add fertilization and mulching costs into the surety amounts. The results provided by Umetco in its 1984 Annual Report do not provide conclusive evidence that fertilizing and mulching ensure better revegetation results. Why is it necessary to add fertilization and mulching costs to sureties at this time when in fact it has not been clearly demonstrated that fertilizing and mulching substantially improve revegetation?

- *An additional line item needs to be placed in all surety calculations to include ripping prior to seeding. Although dozer and grader time has been allocated for recontouring features at all sites, there is no contingency for ripping to remove compaction before seeding takes place.*
  **Response:** The reclamation plans for each of the permits have been reviewed, and in all cases except the Rim-Columbus, the cost of **scarifying** has been included in the reclamation estimates. Scarifying is ripping or chiseling of the ground surface to relieve compaction and is accomplished by a toothed implement mounted on the back of a motor grader, dozer, or tractor (typically). The Operator feels the item of "ripping" is adequately addressed in the existing surety estimates.
- *None of the mine site maps indicate the presence of transformers or the number of transformers. Please indicate whether these items are located at the mine site that will need to be removed during reclamation.*
- **Response:** There are transformers at the mine sites. As noted previously in this letter, a number of transformers (at mine sites and at vent holes) have been removed over the past few years. Therefore, the Operator will need to provide an updated inventory to the Division on the number of transformers at each mine site. This information will be provided under separate cover.

The Operator thanks the Division for allowing additional time to prepare responses to the Division's questions, as this afforded the opportunity to provide more complete and current information. The mine site transformer inventory will be updated as noted. If there is any other information needed to support the surety reviews, please contact me a (303) 389-4161.

Sincerely,

Terry V. Wetz

Terry V. Wetz
Director of Project Development
International Uranium (USA) Corporation

Attachments

cc: David C. Frydenlund
Ron F. Hochstein
Jim Fisher
Harold R. Roberts

## ASSIGNMENT OF VENT HOLES TO PERMITS

| Vent Shaft / Name | Location | Mine/Permit |
|---|---|---|
| | | |
| 1. Hecla 7' Vent | Hecla Mine Yard, NE/NE Sec. 6 | Hecla Shaft |
| 2. 2400 Vent | SE Sec. 34, near Section line | LaSal/Snowball |
| 3. 1800 Vent | 1250' west of Beaver Shaft | LaSal/Snowball |
| 4. 1301 Vent | 400' southwest of Beaver Shaft | LaSal/Snowball |
| 5. 1280 Vent | 200' south of Beaver Shaft | LaSal/Snowball |
| 6. Beaver Shaft | Beaver Shaft | LaSal/Snowball |
| 7. 1050 Vent | West edge of east Beaver waste dump | LaSal/Snowball |
| 8. 900 Vent | East of east Beaver waste dump | LaSal/Snowball |
| 9. 700 Vent (plugged) | N. of highway, close to NE corner Sec. 2 | LaSal/Snowball |
| 10. 500 Vent | N. of highway, close to SW corner Sec. 36 | LaSal/Snowball |
| 11. 2200 Vent | N. of highway, SE/SW Sec. 36 | LaSal/Snowball |
| 12. Unnamed 7' | S. of highway, NE/NW Sec. 1 | Pandora |
| 13. 2300 #1 Vent | 1500' NE of LaSal portal | LaSal/Snowball |
| 14. 2300 #2 Vent | Midway between LaSal & Pandora portals | LaSal/Snowball |
| 15. Snowball #5 Vent | NE/NE Sec. 1, 1500; NW of Snowball portal | LaSal/Snowball |
| 16. Unnamed 7' | 1800; N. of Snowball portal, on Sec. 36/31 line | LaSal,/Snowball |
| 17. Snowball #6 (reclaimed) | Off SE toe of Snowball dump | Pandora |
| 18. Snowball #3 | 1800' east of Snowball portal | Pandora |
| 19. Unnamed 5' Vent | SE/SW Sec. 31, close to Sec. 31/6 line | LaSal-Snowball |
| 20. Snowball #1 | West vent in cluster N. Sec.6 | Pandora |
| 21. Unnamed 7' Vent | North vent in cluster N. Sec. 6 | Pandora |
| 22. Snowball #4 (reclaimed) | South vent in cluster N. Sec.6 | Pandora |
| 23. Reclaimed vent @ Snowball #4 Location | South vent in cluster N. Sec. 6 | Pandora |
| 24. Unnamed 40" Vent | East vent of cluster in N. Sec.6 | Pandora |
| 25. Pine Ridge | Easternmost vent, in edge of Sec. 5 | Pandora |