PRELIMINARY SITE ASSESSMENT
BAYHORSE MINING AREA
CUSTER COUNTY, IDAHO

Maxim Project No. 4540065.100

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1.0 INTRODUCTION

Idaho Department of Parks and Recreation (DPR) is reviewing the feasibility of purchase of former mine properties in the Bayhorse Mining Area in Custer County, Idaho for the purpose of development of the properties as a historic park. The properties are currently owned by Umont Mining Company (Umont). Development of the properties as a historic park would preserve historic features within the historic mining district. It would provide recreational and educational opportunities to the citizens of Idaho and other users. Development of the park would also provide economic benefits to the City of Challis and Custer County through increased tourism.

DPR has been in communication with Umont concerning purchase of the properties. However, the environmental liabilities associated with the properties are unknown. DPR requested that Federal, state and local agencies assist in evaluation of the sites. In 2003, Idaho Department of Environmental Quality (DEQ) personnel conducted limited field reconnaissance of the sites. Minimal soil and surface water samples were collected. Federal agencies, including the US Forest Service, US Fish and Wildlife Service and US Bureau of Land Management (BLM) were notified of the potential project. Input has also been sought from Custer County Commissioners.

Given the potential recreational, educational and economic benefits to development of these properties, DEQ provided funds to conduct this preliminary site assessment via the Brownfield grant program. The Brownfield grant program is funded by US Environmental Protection Agency (EPA) for environmental assessment and remediation at sites with development and economic benefit potential.

2.0 SITE OVERVIEW

The properties consist of approximately 500 acres, distributed over a several square mile area in Custer County, Idaho, approximately 8 miles southwest of Challis, Idaho (see Figure 1). The properties are located within the Bayhorse Creek drainage. Surrounding land ownership is predominantly Forest Service and BLM. The properties are variously accessed by the gravel road located along Bayhorse Creek, or by less developed trails suitable for all-terrain vehicles (ATVs), motorcycles, horses, or foot travel. If developed, DPR estimates that the individual properties will be accessed via the existing roads and trails.

Elevations near the properties range from about 9,600 feet on the north portion of Skylark-Ramshorn Mine to about 6,200 feet on the east end of the Bayhorse townsite. Land within the vicinity is moderately to steeply sloped, and variously covered with conifers, mountain mahogany, sagebrush, and similar high desert shrubs and grasses. Bayhorse Creek is a perennial stream, flowing west to east toward the Salmon River, located approximately three miles east of the properties.

Figure 2 is a land use map showing the distribution of the properties within Forest Service and BLM land. The historic mining operations provide the names for the various properties, including the following:

- **Skylark-Ramshorn Mine:** The Skylark-Ramshorn property consists of approximately 113 acres located in the northwest portion of the study area. The northern portion of Skylark-Ramshorn is largely undeveloped and appeared to consist mainly of prospects based on lithologic similarity to developed mining sites. The central and eastern portions of property contain the majority of historic mining operations and structures, including adits, waste rock dumps, bunkhouses, mills and other structures. Mine tailings are located at the southern end of the property, near Bayhorse Creek. Remnants of a large conveyor, including the support towers and much of the cable, extend from the central portion of the site, eastward across Bayhorse Creek. Photographs from all the properties are presented in Appendix 1. A site map showing Skylark-Ramshorn and adjacent features is presented as Figure 3.

- **Pacific Mine:** The Pacific property is located approximately 1.5 miles east of the Skylark-Ramshorn and about ½ mile north of Bayhorse Creek. The Pacific property occupies approximately 218 acres. The bulk of mining activity appears to have been on the south and east portions of the site, with numerous mine adits and waste rock dumps located along the south portion of the site, and more developed structures (living quarters, office space, ore chutes, concentrators, mills, etc.) on the east side of the property. The north and west portions of the site were less accessible and appeared to be claimed due to favorable lithology, similar to Skylark.
- **Beardsley-Excelsior Mine:** The Beardsley-Excelsior Mine consists of two small parcels located approximately 1,000 feet east of the Pacific property, and ¼ to ½ mile north of Bayhorse Creek. The western parcel is approximately 21 acres and consists mainly of prospects or small mining operations. The 37 acre eastern parcel is located within an ephemeral drainage, with buildings, an elevated train-fed ore chute, and smaller outbuildings located in the bottom of the drainage, and a series of mine adits located generally further up the ridge to the east.
- **Bayhorse Mine and Townsite:** The Bayhorse Mine is a large, irregular shaped parcel of approximately 162 acres located along both sides of Bayhorse Creek. There are three lobes of the Bayhorse Mine property. The area south of Bayhorse Creek consists of prospects, adits and waste rock dumps. The bulk of the mining occurred in the north portion of this lobe, near Bayhorse Creek. Ore appears to have been moved to an ore chute located near the current Bayhorse Creek road, and presumably moved to the smelter/mill area located in the northeast lobe of the property. A series of five domed stone charcoal kilns are a striking attraction, located along Bayhorse Creek road in the central portion of the property. The northeast lobe contains a smelter and mill with buildings remaining in generally good condition. The Bayhorse townsite, consisting of numerous buildings in varying states of preservation is also in this area. The northwest lobe of the Bayhorse property contains several large waste rock dumps. It appears that a rail system was in place to move this material from this area to the smelter to the east. However, only a few traces of the rail remain.
- **Unnamed South Parcel Mine:** The unnamed south parcel is located approximately 2,000 feet south of Bayhorse Creek, and about one mile southeast of Bayhorse Mine. The unnamed parcel is rectangular in shape and occupies approximately 21 acres. This property includes several small adits and waste rock dumps. Ore on this property appears to have been moved to a loading location located just off the northeast portion of the property, as evidenced by an ore chute and outbuildings. No evidence of milling was detected at this property.

3.0 GEOLOGY AND MINERAL RESOURCES

The Bayhorse mining area is located at the northern end of the Bayhorse Mining District in Custer County, Idaho (Mitchell, et al, 1986). The mines and prospects in this area were developed in silver-copper-lead-zinc vein and carbonate replacement deposits hosted by lower Paleozoic dolomites, phyllites, and slates (Fisher, 1995a).

The Paleozoic sedimentary sequence is part of a Basin and Range fault-bounded block exposed east of the Upper Cretaceous Atlanta Lobe of the Idaho batholith (Fisher, 1995a). The units within this block have been tightly folded and faulted. The Bayhorse mining area is situated along the axis of one of these folds, the N-S trending Bayhorse Anticline (Hobbs, 1985b). The rock units exposed in the anticline are, from oldest to youngest: the Cambrian Dolomite of Bayhorse Creek, the Cambrian Garden Creek Phyllite, the Cambrian – Lower Ordovician Bayhorse Dolomite, and the Lower Ordovician Ramshorn Slate (Hobbs, et al, 1991). The contact between the Bayhorse Dolomite and Ramshorn Slate is a major erosional disconformity which is characterized by a zone of brecciated, vuggy, deeply weathered material as thick as

200' which probably represents paleokarst topography (ibid.). This zone serves as the major host for the Pacific and Beardsley-Excelsior and Riverview mine deposits. The Ramshorn Slate is locally being mined as ornamental stone and is the host for the Ramshorn-Skylark mine deposits.

The entire Paleozoic structural block is overlain by the Middle Eocene Challis Volcanic Group. This sequence ranges from basalts to rhyolites and comprises a sequence of flows, breccias, and tuffaceous deposits which originated from a caldera complex north of Bayhorse Creek and blanket the area on all sides (Hobbs, et al, 1991).

Mineral deposits in the Bayhorse area generally occur as veins, disseminations, and massive replacements of carbonate strata by sulfide ore minerals (Hobbs, et al, 1995). Locally, the ore bodies include breccia filling and replacement of breccia fragments. Where deeply weathered and oxidized, the sulfides have been converted to masses of granular carbonates and sulfates of lead and zinc with silver chloride. Deposits in the district have been dated at 95 million years (Fisher, 1995a) and are considered to be related to the Idaho batholith (late Cretaceous in age). Additional mobilization of ore-bearing fluids during Eocene felsic stock and dike emplacement associated with the Challis Volcanic Group has been suggested (Hall, et al, 1995).

The Bayhorse mining area deposits were first noted in 1864 by a prospector traveling through the mountains along the Salmon River (Idaho State Historical Society, 1980). In 1873, the first lode claim was located, and in 1877 a major lead-silver vein was discovered at the Ramshorn Mine. By 1878, a considerable rush to the area had begun and the Beardsley Mine had gone into production. In 1880, a thirty-ton smelter was constructed, and within two years charcoal kilns were constructed to provide the smelter with a local fuel source. By this time, the town of Bayhorse had a population of about 300 and had a complex of substantial, permanent buildings. In 1883, an aerial tramway was constructed at the Ramshorn mine to transport ore down to wagons which served the smelter (ibid.).

Full production at the smelter was limited, however, first by the depletion of the major lead lodes, and transportation problems, and eventually by changes in tariff policies and declining silver prices. The smelter was closed in 1889, reopened briefly in 1893 and 1894, but by 1897 was permanently closed and later dismantled (Idaho State Historical Society, 1980). Production continued from the Bayhorse mines until 1925, with ore being transported to the smelter in Clayton, Idaho. The Bayhorse post office was shut down in 1927 and the town was soon abandoned (ibid.).

Activities by lessees continued through the 1930s and early 1940s. A reexamination of the area in the 1950s indicated that the Bayhorse area mines could be reopened profitably. Claims were consolidated and a new company, Bayhorse Mines, Inc. began to operate the property under lease (DEQ, 2003). A mill was constructed and limited operation began in 1951. In 1959, Umont Mining entered into lease and option agreements and conducted exploration activities until 1962. Interest in fluorite reserves prompted further exploration of the area in the 1970s and 1980s (ibid.). Umont is presently the owner of record for the patented claims in the Bayhorse mining area (IDPR, 2004).

Total production for the area has been estimated at more than $10 million (Alt, et al, 1989), including approximately 200 oz. gold, 6.3 million oz. silver, 6.6 million lb. copper, 37 million lb. lead and 39,000 lb. zinc (Fisher, 1995b).

4.0 FIELD INVESTIGATION

The field investigation was conducted from August 13 to August 16, 2004. Maxim geologists conducted a field reconnaissance of all five properties. Mining sites and other historic features accessible by road were visited from ATVs. Other areas containing mining evidence were accessed on foot, if visible from roadways. The locations of adits, exploration openings, waste rock dumps, potentially hazardous materials (fuel storage tanks, batteries, etc.), and structures were marked using Global Positioning System (GPS) technology. The

locations of springs or seeps were also recorded. Photographs of significant features were obtained with a digital camera.

Soil samples were collected from each property. Soil samples were obtained in areas of significant mining activity or in areas deemed to be of historical interest by the field personnel. Sample locations were recorded using the GPS. The samples consisted of mainly fine grained sediments. Fine sediments are most likely to become airborne during public visits. It is suspected that inhalation or ingestion of dust would be a likely route of exposure from contaminants at the sites. The samples were collected in Ziploc plastic bags, refrigerated, and sent to an analytical laboratory for analysis of target analyte metals and pH. In selected areas near Bayhorse Creek, metals analysis was also performed by the Synthetic Precipitation Leaching Procedure (SPLP) method. SPLP is an analytical method designed to measure the mobility of toxic contaminants. It is used to simulate the mobilization of metals by precipitation or runoff.

Soil sample designations were selected to provide information about location, material type (soil-S, waste rock-W, ore-O, or tailings-T), and sample collection method (composite-C or grab-G). For instance, PSC-1 was collected at Pacific Mine (P), and consists of a soil (S) composite (C) sample. BAYWC-1 was collected at Bayhorse Mine (BAY) and consists of a waste rock (W) composite (C) sample. Composite samples were collected from three to five closely-spaced individual locations.

Surface water samples were collected from several locations in Bayhorse Creek, and at three seeps in the southern portion of Ramshorn property. No other surface water seeps were identified on any of the properties. Field water parameters were collected, including specific conductance, oxidation reduction potential (ORP), temperature, and turbidity. Due to a malfunctioning gauge, we were unable to measure pH. Water samples were placed in plastic containers and preserved with nitric acid. The samples were refrigerated and shipped to the analytical laboratory for analysis of target analyte metals.

5.0 SITE ASSESSMENT RESULTS

For each property, soil and water samples were analyzed and results presented in Tables described below. The average of metals concentrations was calculated for each constituent at each site. The average concentrations were entered into DEQ's risk assessment model to evaluate overall site risks, and to develop risk assessment target levels (RATL-2). The risk assessment model provides human health risk standards for all metals constituents except lead.

Risk assessment variables presented in the model were altered to anticipate site specific conditions. For instance, we assumed an on-site commercial worker may be on-site for 100 days per year (approximately Memorial Day to Labor Day). The age adjusted residential exposures were used to evaluate the effects to recreational users. We conservatively used an exposure duration of two weeks per year. In most cases, recreational children activities or construction worker exposures were the most conservative risk standards.

The average lead levels were compared to the EPA standard for lead in surface soil of 750 milligrams per kilogram (mg/kg). Separate risk assessment modeling was not conducted for lead. However, we present a ratio of the average concentration of lead observed to the regulatory standard. The SPLP results were compared to the acute toxic water standard for surface water organisms. Results of soil sampling for each property are summarized below. Surface water sampling results are discussed in a separate section following the individual mine property summaries. Soil and surface water sampling results are presented in Appendix B and C, respectively.

Skylark-Ramshorn Mine: A total of 12 material samples were collected, including two soil samples, five tailings samples, and five waste rock samples. Analytical sampling results are presented in Table 1. Results of soil sampling indicate that RATLs were exceeded for antimony, arsenic, and manganese. The computer modeling results indicate that the overall site risk is exceeded for commercial workers, construction

workers and recreational users (see Appendix D). The average lead concentration was measured at 2,370 mg/kg, which is more than triple the regulatory standard of 750 mg/kg.

Although the geochemical processes that affect metals mobilities are complex, in general, many metals are more mobile in acidic environments (pH less than 7). pH values of soil samples ranged from 4.2 to 8.4. Four samples had pH values less than 7, and 8 were over 7. Mine tailings located on the south portion of the property extend nearly to Bayhorse Creek. The creek in this area is eroding the roadway, and the potential for introduction of tailings into Bayhorse Creek is significant. Seeps were observed coming from the base of the tailings and entering Bayhorse Creek. In that regard, two tailings samples (RTC-2 and RTC-5) were analyzed using the SPLP method to simulate the potential environmental effects to organisms via precipitation or runoff through the tailings.

SPLP test results suggest that leaching via the SPLP test was significant for zinc (see Table 1). SPLP values for zinc ranged from 0.66 mg/kg to 0.87 mg/kg. The acute toxicity for zinc is 0.114 mg/kg. This suggests that runoff from the Skylark-Ramshorn tailings may contribute acutely toxic levels of zinc to Bayhorse Creek. SPLP values were not exceeded for any other metal. The combination of erosion of the roadway and the close proximity of tailings to Bayhorse Creek makes the south portion of Skylark-Ramshorn property an area of concern from both an environmental and a roadway stability point of view.

Pacific Mine: A total of 11 material samples were collected, including five soil samples and six waste rock samples. Analytical sampling results are presented in Table 2. Results of the materials sampling indicate that RATLs were exceeded for antimony, arsenic, cadmium, copper, manganese, mercury, silver, and zinc. pH values of materials samples ranged from 6.7 to 8.1. Only one sample yielded a pH of less than 7. The computer modeling results indicate that the overall site risk is exceeded for commercial workers and recreational users. The computer modeling results are presented in Appendix D. The average lead concentration was calculated at 12,473 mg/kg which is more than 16 times the regulatory standard.

Beardsley-Excelsior Mine: A total of 6 material samples were collected, including two soil samples and four waste rock samples. Analytical sampling results are presented in Table 3. Results of the materials sampling indicate that RATLs were exceeded for antimony, arsenic, cadmium, copper, manganese, mercury, silver, and zinc. Sample pH ranged from 7.7 to 8. The computer modeling results indicate that the overall site risk is exceeded for recreational users only (see Appendix D). The average lead concentration was calculated at 11,049 mg/kg which is more than 14 times the regulatory standard.

Bayhorse Mine and Townsite: A total of 15 material samples were collected, including five soil samples, three tailings samples, four waste rock samples and three slag samples. Analytical sampling results are presented in Table 4. Results of the materials sampling indicate that RATLs were exceeded for antimony, arsenic, cadmium, copper, manganese, mercury, silver, and zinc. Sample pH ranged from 3.6 to 8.1. Only two of the samples contained pH less than 7. The computer modeling results indicate that the overall site risk is exceeded for recreational and commercial users, as well as construction workers (see Appendix D). The average lead concentration was calculated at 5,700 mg/kg which is more than 7 times the regulatory standard.

Mine tailings and slag are located in the central portion of the parcel, adjacent to Bayhorse Creek. Two of the samples (BAYTC-2 and SLAG-1) collected from these materials were analyzed by SPLP. SPLP test results from the tailings sample indicate that leaching via the SPLP test was significant for zinc (see Table 1). The tailings SPLP for zinc was 1.19 mg/kg, which compares to the acute toxicity for zinc of 0.114 mg/kg. The SPLP from the slag indicated significant exceedances of copper, lead, and zinc. Results of the SPLP testing at Bayhorse Townsite suggest that the slag and tailings near Bayhorse Creek may be capable of contributing copper, lead and zinc in concentrations exceeding acute toxic limits for organisms.

Unnamed South Parcel: A total of 5 material samples were collected, including one soil sample, one ore sample, and three waste rock samples. Analytical sampling results are presented in Table 5. Results of the materials sampling indicate that RATLs were exceeded for antimony, arsenic, cadmium, copper, manganese, mercury, silver, and zinc. Sample pH ranged from 7.4 to 8.1. The computer modeling results indicate that the overall site risk is exceeded for recreational and commercial users, as well as construction workers. (see Appendix D). The average lead concentration was calculated at 30,328 mg/kg which is more than 40 times the regulatory standard.

Surface Water Results:

Table 6 presents the results of surface water samples collected from seeps at Skylark-Ramshorn, or from Bayhorse Creek. The results were compared to the minimum surface water criteria for human health consumption (water and organisms) or organism toxicity standards (IDAPA 58.01.02). A summary of sampling results is presented on Table 6. Water sampling results are discussed by location, below:

Ramshorn Adit Seep (W-1): The location of the seep is in the south portion of the Ramshorn parcel, as shown on Figure 3. The sample contained low levels of the following regulated metals: antimony, arsenic and copper. The sample met surface water standards for all constituents.

Bayhorse Creek (W-2) and (W-3): Surface water samples collected in Bayhorse Creek upstream (W-2) and at the Ramshorn tailings pile (W-3). Neither sample contained regulated constituents.

Ramshorn Tailings Seep (W-4) and East Seep (W-5):

Sample W-4 is a tailings seep that discharges directly into Bayhorse Creek. It is slightly upstream from sample W-3. Sample W-5 is a spring located along the east edge of Ramshorn property. Both samples contained low levels of antimony, arsenic, and copper. None of the constituents exceeded surface water standards.

Bayhorse Mine (W-6) and (W-7): Water samples W-6 and W-7 were collected upstream and downstream of the slag and tailings stockpiles near the Bayhorse townsite. Sample W-6 contained low levels of arsenic. Sample W-7 contained arsenic, cadmium and copper. None of the samples exceeded surface water standards.

Potentially Hazardous Materials

Table 7 presents the identity, location, and approximate quantity of potentially hazardous materials observed at each of the properties. The materials were generally found in small quantities and did not appear to pose a significant source of contamination for the sites. No evidence of rupture or leakage was observed from the fuel tanks or transformers. The batteries observed were generally in very poor condition but the total amount of material that could potentially be released from them would be rather limited.

6.0 SIGNIFICANCE OF RESULTS

The sites contain significant environmental conditions. Significant concentrations of metals are present in soil and rock at all sites. Every site contains metals contaminant levels that exceed risk-based standards for recreational, site worker (non-residential) and/or construction worker. These risks would be higher if the risk from lead were quantified, as lead levels ranged from 3 to 40 times more than the regulatory level for lead in surface soil.

SPLP testing at Skylark-Ramshorn and Bayhorse Mine and Townsite indicate that tailings or slag near Bayhorse Creek may have the potential to release copper, lead and/or zinc concentrations that exceed the

toxic limits for aquatic organisms. However, none of the surface water samples collected at the site exceeded surface water standards.

None of the sites appear to be acceptable, given current environmental conditions. Site access is difficult to control, given the large area of interest and the presence of readily accessible public land surrounding the sites. If DPR owned the sites, there would be difficulties in restricting access to areas with known hazards. Therefore, environmental (and physical hazard) liabilities would probably be the responsibility of DPR. If DPR elects to purchase the sites, additional site investigations, or other considerations are recommended. Maxim offers the following suggestions based on the results of this assessment:

- Maxim could conduct additional risk modeling for lead using an EPA model. However, the results of the modeling would be additive to the already identified site risks and would not affect the outcome of this risk assessment.
- Potentially hazardous materials should be removed from the sites in accordance with all applicable Federal and State regulations. Discovery of additional impacts during material removal could result in additional cleanup requirements for the properties.
- Additional soil sampling is recommended. Collection of soil samples in areas away from mining areas may be useful to establish regional baseline metals levels. Soil sampling is also recommended at regular intervals along roads and trails. Collection of soils data in these areas are recommended to evaluate human health risk of users traveling between the sites.
- DPR may consider engineering solutions to mitigate site risks in expected high traffic areas, such as placement of clean fill to isolate users from surface soil, construction of physical barriers, or removal and disposal of materials in certain areas.
- DPR may want to look at the site risks of particular sites, and base purchasing decisions on the environmental risk, compared to the historical significance of each site. For instance, the unnamed south area has extremely high lead levels, and a relative scarcity of well developed historical features. If a smaller area were purchased, for instance only the Bayhorse parcel, costs for environmental solutions would be decreased, while preservation of interesting historical features would be maximized.
- Appropriate Federal and state agencies should be contacted (EPA, Forest Service, BLM). DEQ and/or EPA should provide an opinion on the significance of the SPLP tests regarding copper, lead and zinc. The Forest Service and BLM may require an Environmental Assessment via the National Environmental Policy Act (NEPA) to study the effects of users traveling between the properties.

We appreciate the opportunity to have presented this report. This copy has been sent as an unsigned draft. Recipients are invited to provide comments, request additional information, or otherwise review this document. When comments have been received and incorporated, a final report will be submitted.

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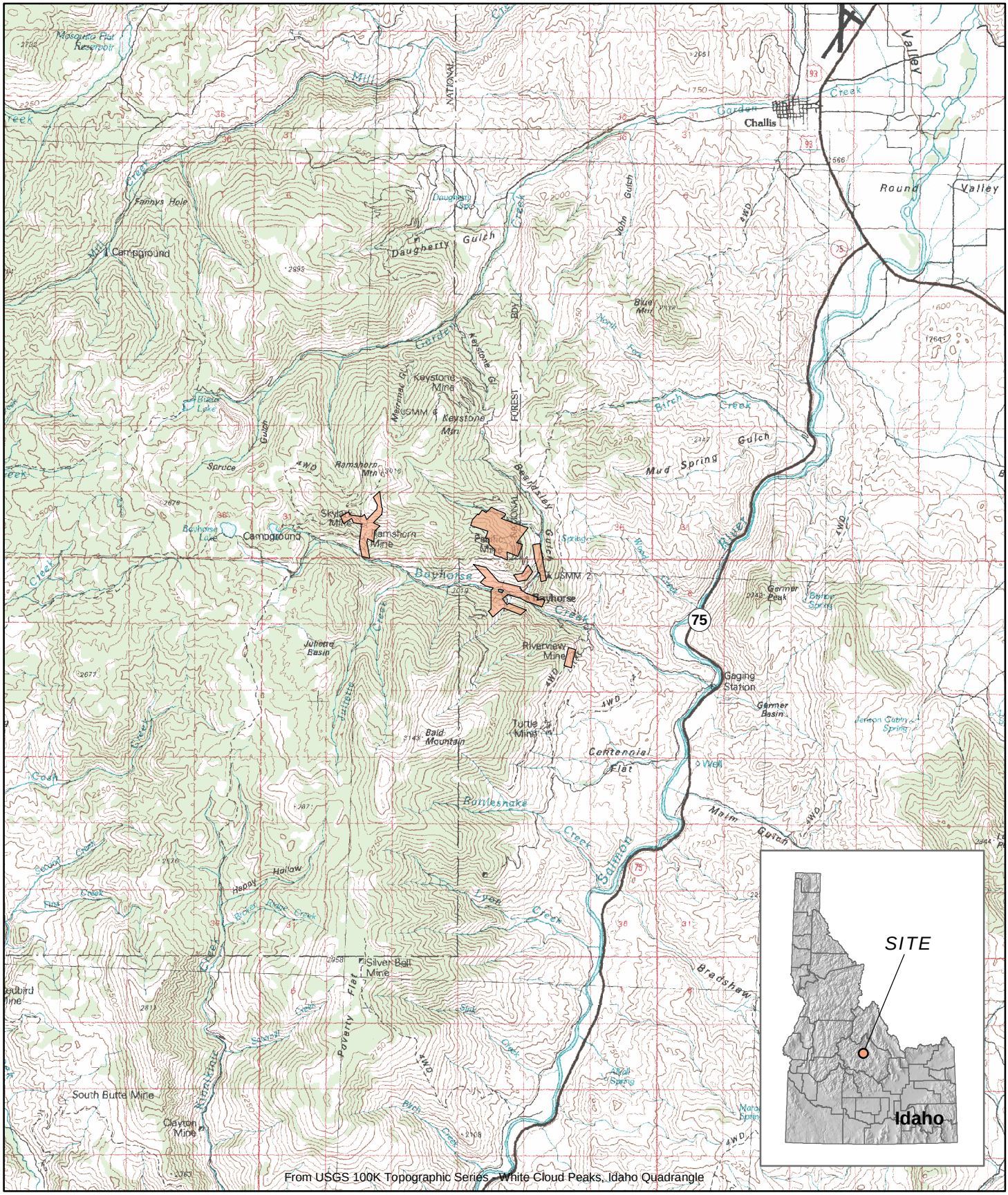
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From USGS 100K Topographic Series - White Cloud Peaks, Idaho Quadrangle

September, 2004

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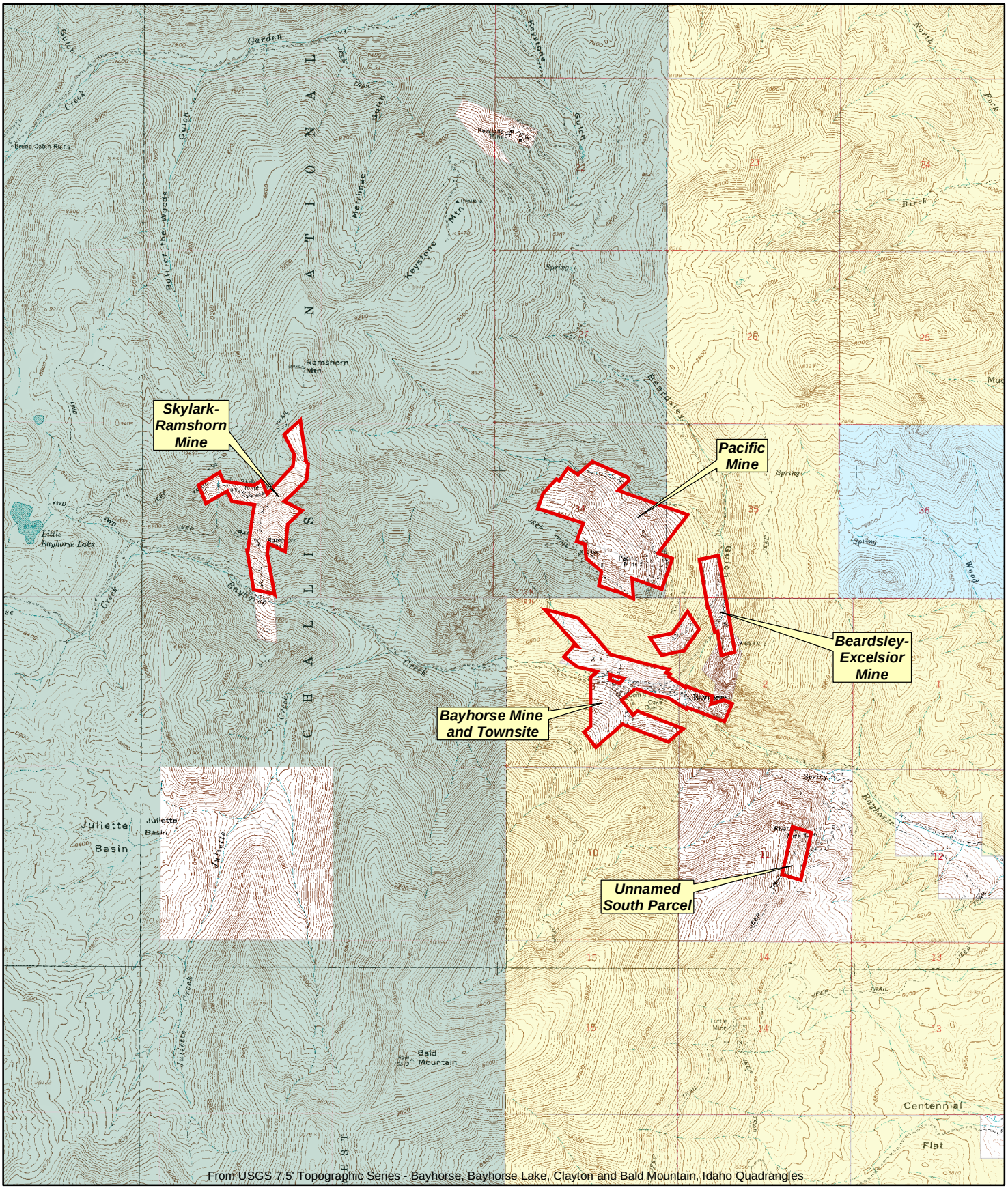
Mile

Umont Parcel Boundary

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Vicinity Map
Bayhorse Mining District
Custer County, Idaho
FIGURE 1



September, 2004

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Feet

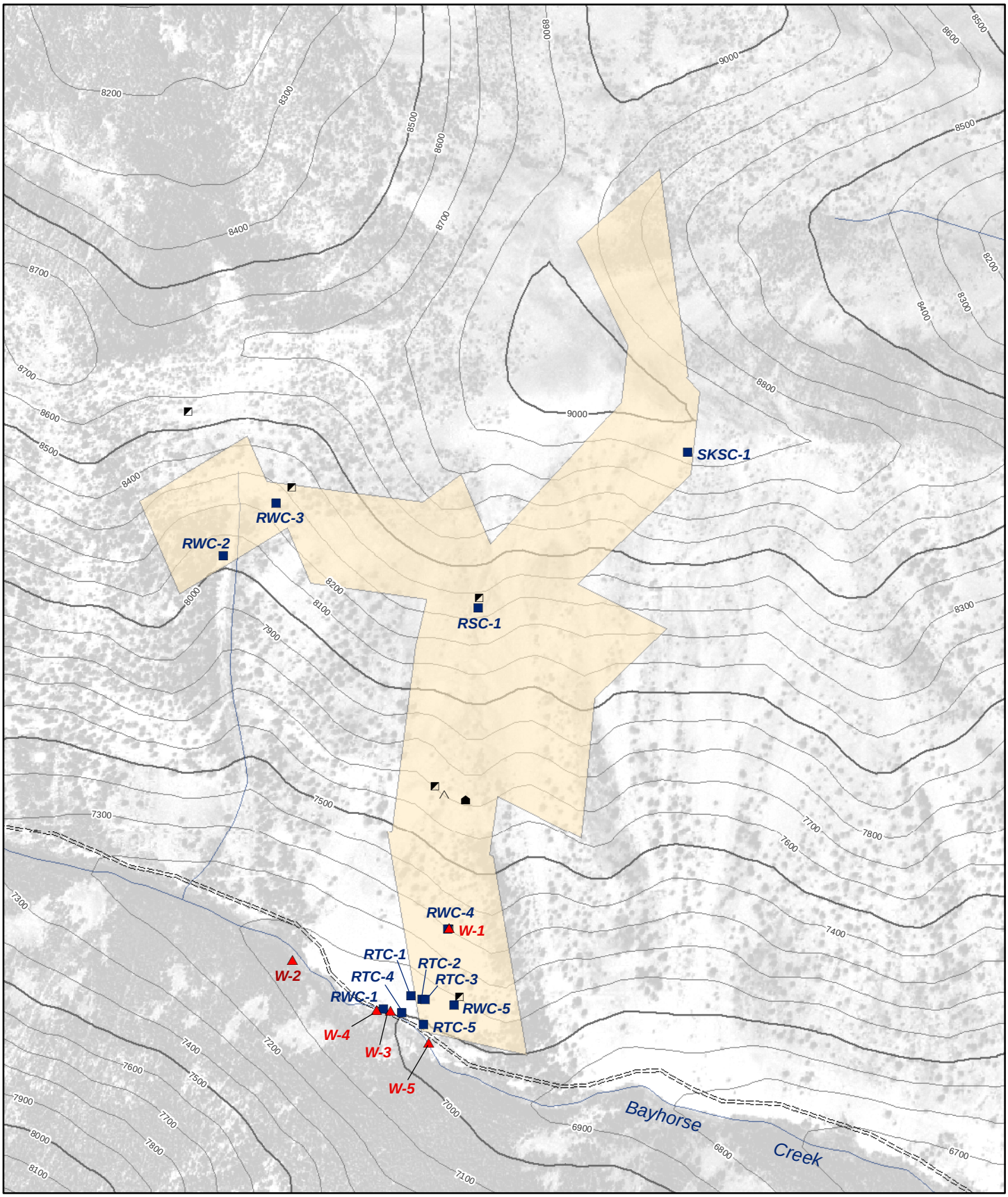
Property Ownership

- Umont Parcel Boundary
- State of Idaho
- Bureau of Land Management
- United States Forest Service
- Private

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Property Ownership Map
Bayhorse Mining District
Custer County, Idaho
FIGURE 2



From USGS 7.5' Digital Orthophoto Series - Bayhorse, Idaho Quadrangle

September, 2004

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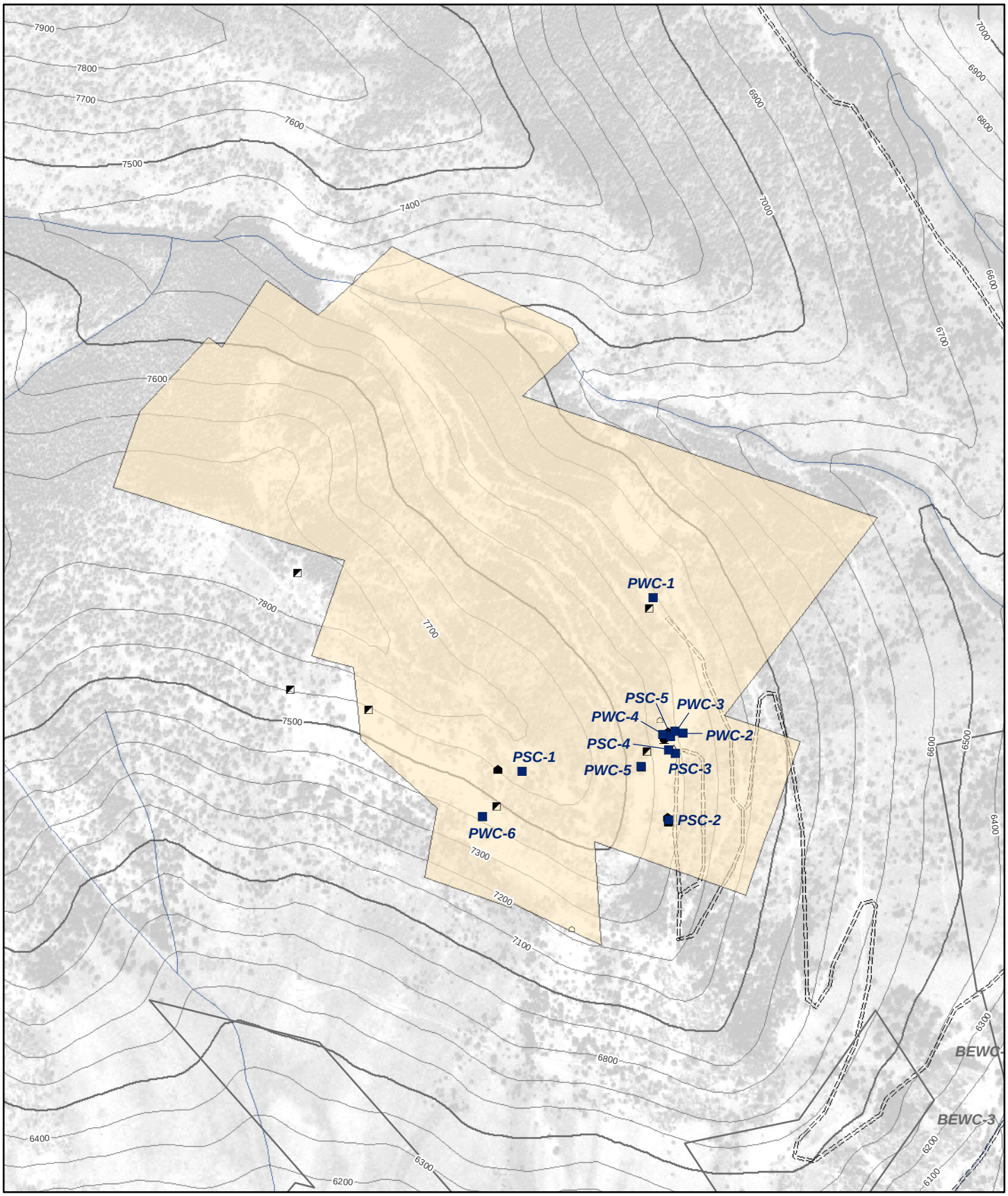
Feet

- Adit/Shaft
- Mine Structure
- Large Building
- Small Building
- Water Sample Point
- Soil Sample Point
- Umont Parcel Boundary

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Skylark-Ramshorn Site Map
Bayhorse Mining District
Custer County, Idaho
FIGURE 3



From USGS 7.5' Digital Orthophoto Series - Bayhorse, Idaho Quadrangle

September, 2004

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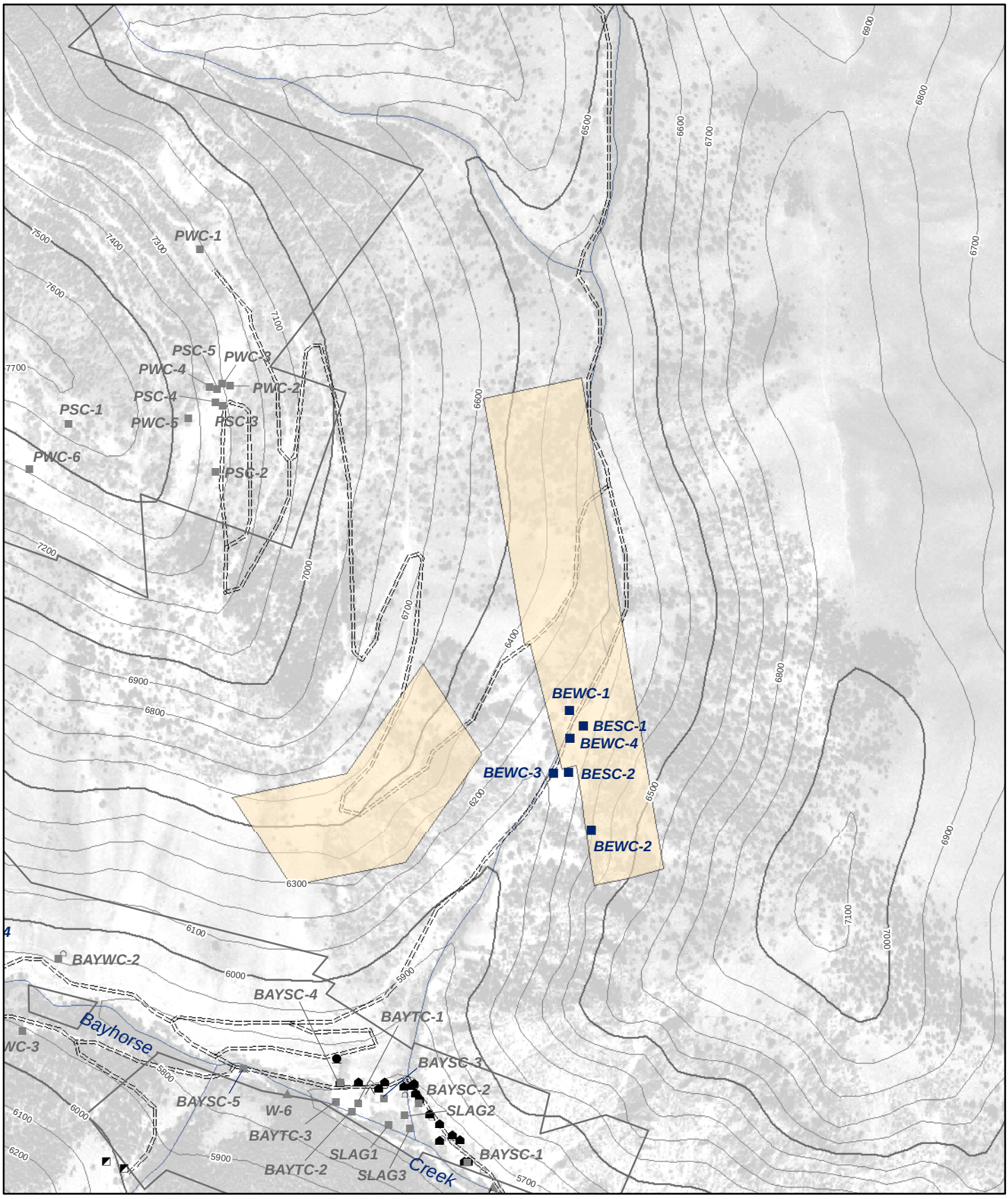
Feet

- Adit/Shaft
- Mine Structure
- Large Building
- Small Building
- Water Sample Point
- Soil Sample Point
- Umont Parcel Boundary

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4540065.100

Pacific Site Map
Bayhorse Mining District
Custer County, Idaho
FIGURE 4



From USGS 7.5' Digital Orthophoto Series - Bayhorse, Idaho Quadrangle

September, 2004

N

0 800

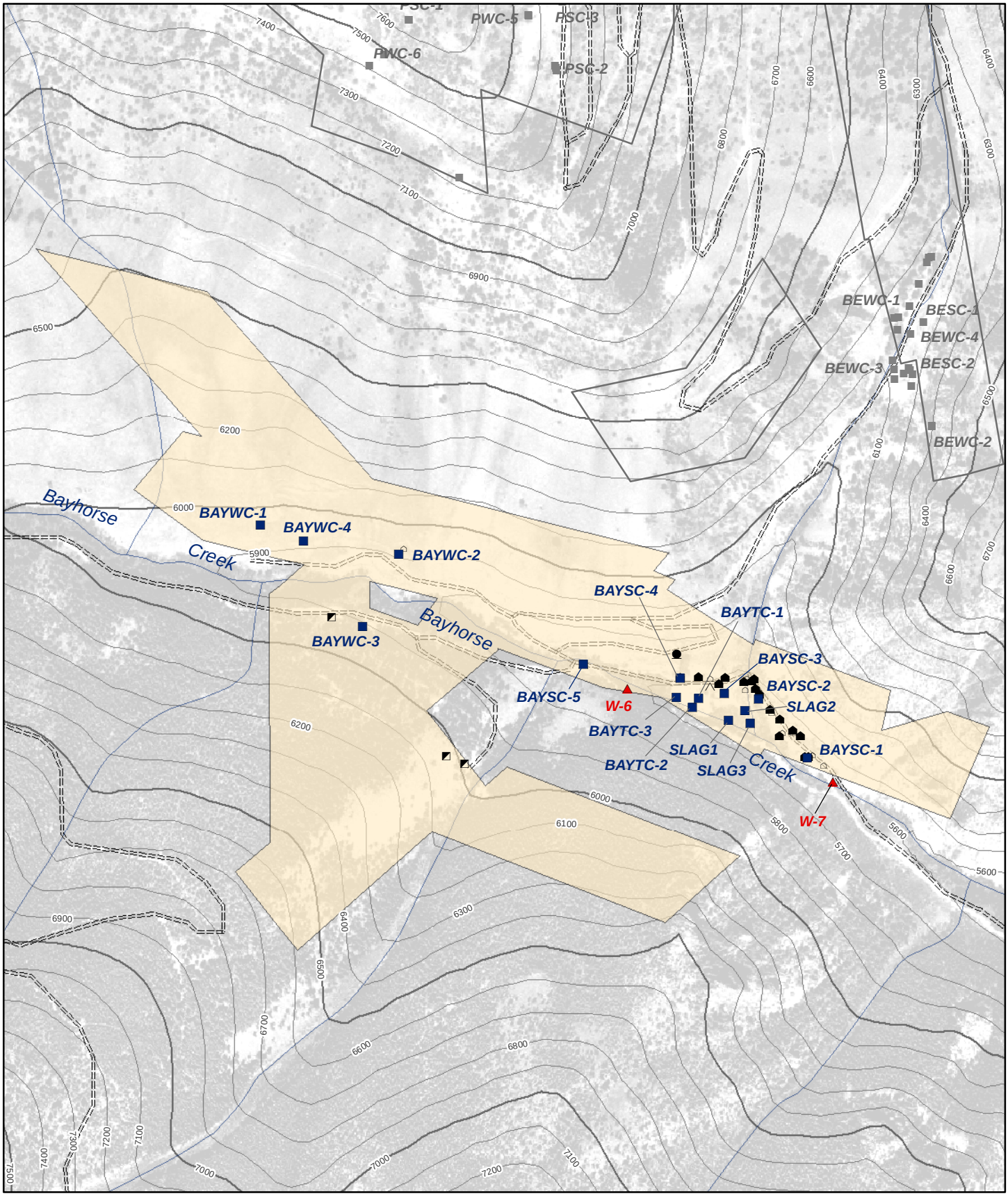
Feet

MAXIM TECHNOLOGIES

4540065.100

- Adit/Shaft
- Mine Structure
- Large Building
- Small Building
- Water Sample Point
- Soil Sample Point
- Umont Parcel Boundary

Beardsley/Excelsior Site Map
Bayhorse Mining District
Custer County, Idaho
FIGURE 5



From USGS 7.5' Digital Orthophoto Series - Bayhorse, Idaho Quadrangle

September, 2004

N

0 800

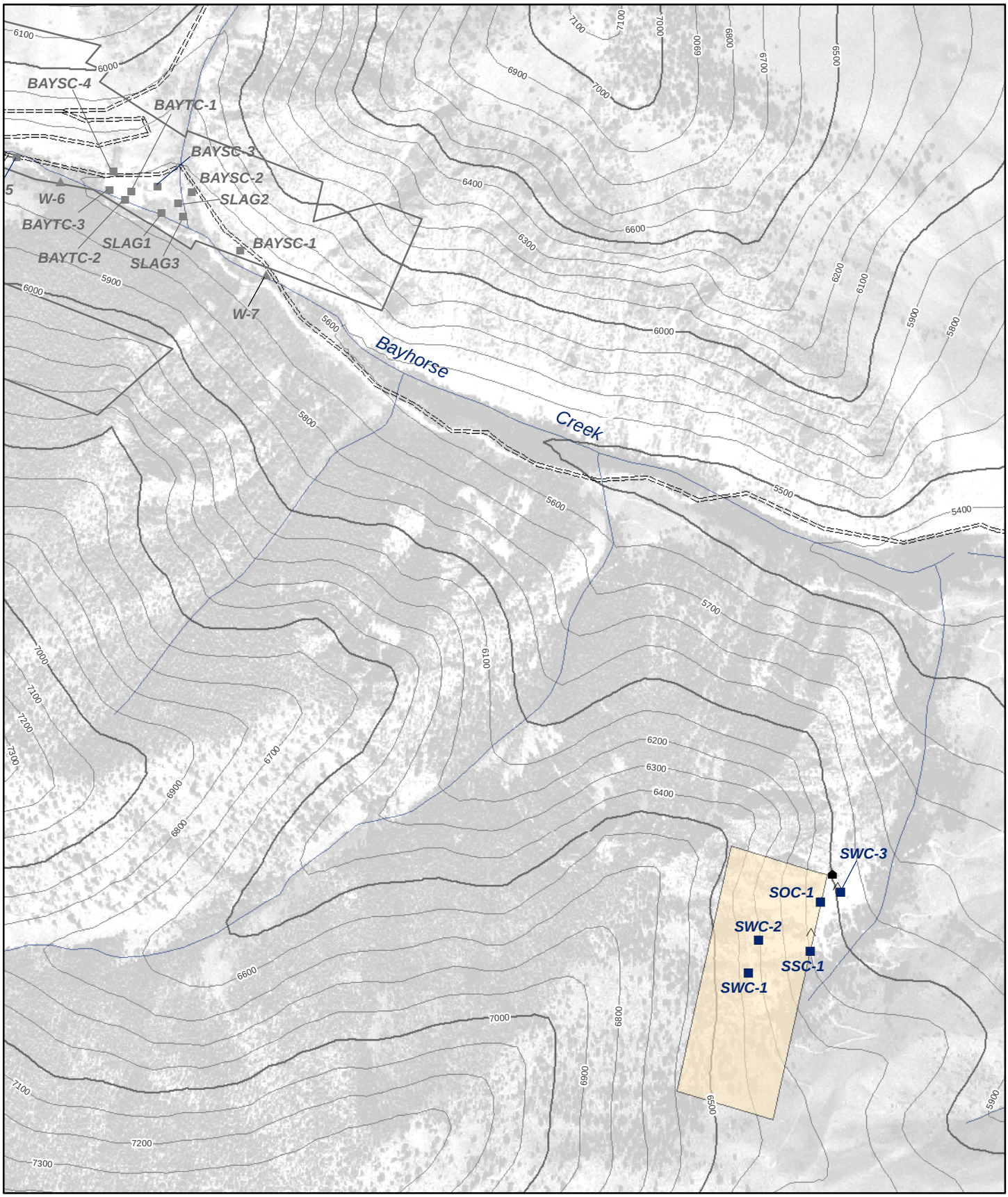
Feet

MAXIM TECHNOLOGIES
A DIVISION OF TETRA TECH, INC.

4540065.100

- Adit/Shaft
- Mine Structure
- Large Building
- Small Building
- Water Sample Point
- Soil Sample Point
- Umont Parcel Boundary

Bayhorse Site Map
Bayhorse Mining District
Custer County, Idaho
FIGURE 6



From USGS 7.5' Digital Orthophoto Series - Bayhorse, Idaho Quadrangle

September, 2004

N

0 800

Feet

MAXIM TECHNOLOGIES

4540065.100

- Adit/Shaft
- Mine Structure
- Large Building
- Small Building
- Water Sample Point
- Soil Sample Point
- Umont Parcel Boundary

Unnamed South Property Site Map
Bayhorse Mining District
Custer County, Idaho
FIGURE 7

Table 1

Analysis for Metals in Soil
Bayhorse Mining District
Custer County, Idaho

Skylark-Ramshorn Mine

Metals - Dry Basis (mg/kg)

Sample ID		Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	pH	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
RSC-1	N	8/14/2004	5,140	656	1,950	85	<2	<10	1,380B	16	29	549	95,200	3,480	1,200	4,880	1.8	73	5.4	1,160	<50	138	250	<5	17	251
RTC-1	N	8/14/2004	4,610	389	3,500	43	<2	6	1,600B	26	28	967	71,100	3,780	10,100	3,810	2.7	80	8.6	1,550	<10	102	330	<5	19	1,150
RTC-2	N	8/14/2004	5,070	376	3,580		<2	6	2,010B	25	26	964	63,300	4,410	8,280	2,400	2.3	77	8.4	1,730	<10	105	360	<5	18	1,120
RTC-3	N	8/14/2004	4,920	345	3,700	53	<2	6	1,060B	23	26	924	55,900	4,940	4,400	2,180	3.2	78	8.3	1,610	<10	90	280	<5	17	1,080
RTC-4	N	8/14/2004	3,890	451	2,970	30	<2	<10	1,120B	23	20	1,050	107,000	1,520	5,700	5,430	0.9	67	7.7	1,210	<50	91	480	<5	17	763
RTC-5	N	8/14/2004	4,050	304	2,180	29	<2	<10	1,420B	23	18	743	86,900	1,070	8,700	5,020	<0.5	62	7.7	1,420	<50	43	290	<5	16	1,000
RTC-5	D	8/14/2004	4,160	279	2,080	28	<2	<10	1,420B	23	18	714	83,400	1,020	8,700	5,000	<0.5	61	7.7	1,530	<50	39	310	<5	16	1,020
RWC-1	N	8/14/2004	2,820	925	5,550	22	<2	<10	3,280	12	22	1,440	85,800	1,950	4,940	5,020	4.6	61	7.9	1,030	<50	247	230	<5	10	592
RWC-1	D	8/14/2004	2,600	1,010	5,310	22	<2	<10	3,170	12	21	1,360	85,700	1,700	4,900	4,770	4.4	58	NA	990	<50	237	210	<5	10	597
RWC-2	N	8/14/2004	2,750	32	194	79	<2	2	1,290	14	14	58	65,500	50	1,400	899	1	33	5	960	<10	<5	180	<5	27	108
RWC-3	N	8/14/2004	7,420	840	3,270	101	<2	<10	490B	18	17	966	93,800	219	1,800	1,210	6.9	48	4.2	2,130	<50	108	240	<5	22	211
RWC-4	N	8/14/2004	2,140	282	3,540	26	<2	<2	990B	8	16	720	66,000	1,530	4,780	4,120	1.4	42	6.9	1,400	<10	63	180	<5	7	505
RWC-5	N	8/16/2004	14,500	5,210	1,040	317	4	<10	6,000	153	29	9,420	123,000	799	22,100	5,310	6.4	134	7.8	3,730	<50	800	340	<5	74	672
SKSC-1	N	8/14/2004	6,000	15	33	50	<2	<2	1,080B	21	27	72	60,500	46	1,920	1,210	<0.5	72	6.1	950	<10	<5	220	<5	20	128
Avg. Conc.	--		NR	819	2,359	81.6	1.3	4.3	NR	30.2	NR	1,489	NR	2,370	NR	3,041	2.6	68.9		NR		149	NR		NR	734
RATL-2	--		NR	58.1	35.8	10,200	290	80.5	NR	218,000	NR	5,370	NR	ND	NR	3,470	43.6	2,910		NR		726	NR		NR	43,600

Metals - SPLP (mg/kg)

Sample ID		Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium		Chromium	Cobalt	Copper	Iron	Lead		Manganese	Mercury	Nickel			Selenium	Silver		Thallium	Vanadium	Zinc
RTC-2	N	8/14/2004	0.39	0.064	0.17	0.38	<0.002	0.0002		0.004	<0.002	0.003	0.05	<0.003		<0.005	<0.0002	<0.02			<0.001	<0.0005		<0.001	<0.05	0.66
RTC-5	N	8/14/2004	0.54	0.035	0.012	0.31	<0.002	0.0003		0.001	<0.002	0.002	<0.01	0.005		<0.005	<0.0002	<0.02			<0.001	<0.0005		<0.001	<0.05	0.87
RTC-5	D	8/14/2004															<0.0002									
Acute Tox.[1]	--		NR	NR	0.360	NR	NR	3,700		0.550	NR	0.017	NR	0.065		NR	0.002	1.4			0.018	0.0034		NR	NR	0.114

Notes:

<	Indicates analyte not detected above laboratory practical quantitation limit (PQL)
NA	Not Sampled or Analyzed
N	Natural Sample
D	Duplicate Sample
RATL-2	Risk Assessment Target Level (Recreational-Child)
NR	Not Regulated
[1]	Acute Toxicity for Aquatic Organisms

Table 2

Analysis for Metals in Soil
Bayhorse Mining District
Custer County, Idaho

Pacific Mine

Metals - Dry Basis (mg/kg)

Sample ID		Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	pH	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
PSC-1	N	8/15/2004	19,500	14	<10	191	<2	<2	3,900	19	19	60	76,200	270	5,300	1,030	0.6	36	6.7	2,550	<10	<5	260	<5	26	348
PSC-2	N	8/15/2004	18,400	73	12	145	<2	8	126,000	15	8	102	19,400	1,230	31,500	594	1.6	17	7.8	5,010	<10	5	2,320	<5	20	1,960
PSC-3	N	8/15/2004	11,100	658	<10	83	3	126	114,000	8	5	776	15,800	20,400	36,100	1,330	53	12	7.9	2,530	<10	113	960BJ	<5	12	36,100
PSC-4	N	8/15/2004	5,650	1,340	<10	50	4	232	111,000	5	<5	1,360	13,600	42,300	28,600	2,280	78	7	7.9	1,580	<10	200	460B	<5	7	59,800
PSC-5	N	8/15/2004	11,800	168	38	129	3	39	188,000	11	<5	259	16,600	4,520	33,000	951	8	13	7.6	4,070	<10	32	4,530B	<5	13	9,220
PWC-1	N	8/15/2004	2,250	628	61	13	13	172	245,000	2	<5	902	44,300	17,400	25,400	645	42	11	7.9	550	<10	102	1,150	<5	<5	29,100
PWC-2	N	8/15/2004	16,800	49	21	131	2	16	154,000	15	8	73	14,400	1,150	27,500	579	3.7	19	7.8	6,000	<10	6	1,040	<5	15	3,440
PWC-3	N	8/15/2004	8,190	29	<10	78	2	8	21,900	7	<5	39	9,960	629	33,100	712	1.1	7	7.9	3,380	<10	<5	2,540	<5	7	1,960
PWC-4	N	8/15/2004	3,680	721	<10	53	<2	126	183,000	3	<5	832	8,110	22,800	39,700	1,760	45	<5	8	1,010	<10	115	520B	<5	5	32,600
PWC-5	N	8/15/2004	8,240	387	47	37	<2	54	116,000	8	6	672	14,900	11,000	59,200	589	13	15	8.1	1,280	<10	96	380B	<5	13	8,650
PWC-6	N	8/15/2004	1,740	488	96	37	<2	62	152,000	<2	<5	1,660	6,970	15,500	78,300	669	20	<5	8	370	<10	149	330B	<5	<5	33,800
PWC-6	D	8/15/2004	1,630	459	95	35	<2	60	141,000	<2	<5	1,590	6,860	14,300	76,700	644	19	<5	8.1	350	<10	138	300B	<5	<5	32,600
Avg. Conc.	--		NR	414	35.1	93.4	2.9	76.7	NR	8.5	NR	612	NR	12,473	NR	1,013	24.2	12.9		NR		74.8	NR		NR	19,725
RATL-2	--		NR	3.01	1.86	527	15.1	4.17	NR	11,300	NR	279	NR	ND	NR	180	2.26	151		NR		37.7	NR		NR	2,260

Notes:

<	Indicates analyte not detected above laboratory practical quantitation limit (PQL)
NA	Not Sampled or Analyzed
N	Natural Sample
D	Duplicate Sample
RATL-2	Risk Assessment Target Level (Recreational-Child)
NR	Not Regulated
[1]	Acute Toxicity for Aquatic Organisms

Table 3

Analysis for Metals in Soil
Bayhorse Mining District
Custer County, Idaho

Beardsley-Excelsior Mine

Metals - Dry Basis (mg/kg)

Sample ID		Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	pH	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
BESC-1	N	8/16/2004	10,800	26	<10	48	<2	3	3,740	24	18	108	40,700	1,400	6,100	672	3.9	49	7.8	1,150	<10	5	240B	<5	16	772
BESC-2	N	8/16/2004	12,300	19	<10	91	<2	3	6,960	23	16	76	42,400	559	7,900	724	1.4	40	7.9	1,270	<10	<5	240B	<5	15	651
BEWC-1	N	8/16/2004	660	941	<10	137	3	156	136,000	<2	<5	962	10,400	17,100	69,500	750	41	<5	7.7	230	<10	134	530B	<5	13	26,400
BEWC-2	N	8/16/2004	5,700	728	<10	1,040	14	119	116,000	7	22	2,600	38,500	45,200	43,100	10,400	101	14	8	1,110	<10	371	340B	<5	9	17,000
BEWC-3	N	8/16/2004	130	21	<10	34	<2	3	167,000	<2	<5	16	13,100	576	75,700	1,860	0.7	<5	7.9	<100UJ	<10	<5	280B	<5	<5	598
BEWC-4	N	8/16/2004	6,080	45	12	114	4	20	65,100	15	18	106	34,000	1,460	34,600	663	3.9	38	8	1,180	<10	9	410B	<5	11	3,080
Avg. Conc.	--		NR	297	6.2	274	4	50.7	NR	11.8	NR	645	NR	11,049	NR	2512	25.3	24.3		NR		87.3	NR		NR	8,084
RATL-2	--		NR	3.01	1.86	527	15.1	4.17	NR	11,300	NR	279	NR	ND	NR	180	2.26	151		NR		37.7	NR		NR	2,260

Notes:

<	Indicates analyte not detected above laboratory practical quantitation limit (PQL)
NA	Not Sampled or Analyzed
N	Natural Sample
D	Duplicate Sample
RATL-2	Risk Assessment Target Level (Recreational-Child)
NR	Not Regulated
[1]	Acute Toxicity for Aquatic Organisms

Table 4

Analysis for Metals in Soil
Bayhorse Mining District
Custer County, Idaho

Bayhorse Mine

Metals - Dry Basis (mg/kg)

Sample ID		Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	pH	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
BAYSC-1	N	8/16/2004	8,400	53	115	194	<2	10	58,600	17	8	185	26,900	1,360	19,200	642	6.4	19	7.1	2,250	<10	12	730B	<5	15	842
BAYSC-2	N	8/16/2004	9,330	60	119	206	<2	11	50,000	20	11	145	29,800	1,660	16,700	638	6.2	31	7.4	2,930	<10	12	520B	<5	18	869
BAYSC-3	N	8/16/2004	6,430	139	210	85	<2	6	162,000	10	<5	235	12,600	1,780	71,600	569	2.5	11	7.8	2,400	<10	40	640	<5	10	710
BAYSC-4	N	8/16/2004	8,710	2,060	4,690	127	<2	56	24,700	20	12	4,060	90,800	23,800	10,000	5,570	31	26	7.5	2,050	<50	626	490	<5	28	7,630
BAYSC-5	N	8/16/2004	9,250	49	69	164	<2	4	21,600	16	10	156	24,900	977	5,000	622	1.9	24	7	4,080	<10	12	410	<5	17	860
BAYTC-1	N	8/16/2004	8,050	27	<50	873	6	<10	20,400	10	<5	281	80,300	260	2,800	3,320	0.8	<5	6.3	1,530	<50	<25	240	<5	53	1,240
BAYTC-2	N	8/16/2004	7,400	1,230	3,260	90	3	126	34,000	13	6	3,920	154,000	11,600	18,100	12,300	14	30	8.1	2,340	<50	157	310	<5	16	17,900
BAYTC-3	N	8/16/2004	2,220	448	430	16	<2	192	88,300	3	<5	996	32,000	5,060	39,500	2,590	32	5	8.1	960	11	68	310	<5	<5	45,900
BAYTC-3	D	8/16/2004	2,400	484	434	17	<2	194	87,900	3	<5	1,010	33,400	5,280	40,500	2,630	32	6	8.1	1,050	12	73	370	<5	<5	45,800
BAYWC-1	N	8/16/2004	2,340	302	173	120	<2	6	31,900	2	17	1,240	41,700	433	8,700	994	1.9	40	7.8	1,710	<10	48	150B	<5	<5	1,290
BAYWC-2	N	8/16/2004	12,000	<5	<10	14	<2	<2	30,300	15	13	50	36,100	24	10,200	392	1.4	34	7.5	1,040	<10	<5	160B	<5	10	83
BAYWC-2	D	8/16/2004	11,400	<5	<10	13	<2	<2	30,100	14	13	46	34,900	23	10,000	376	26	33	7.5	980	<10	<5	160B	<5	9	73
BAYWC-3	N	8/16/2004	2,060	8,730	5,780	119	<2	13	6,060	5	<5	2,250	95,300	2,630	400	242	26	12	3.6	4,160	<50	589	280B	<5	7	1,480
BAYWC-4	N	8/16/2004	5,910	396	242	104	<2	50	27,400	7	24	3,830	46,800	18,800	4,600	1,670	17	34	7.4	2,840	<10	90	180B	<5	9	15,200
SLAG-1	N	8/16/2004	9,040	4,140	15,600	252	<2	124	38,500	16	12	22,200	164,000	54,300	6,000	11,300	5.7	50	7.8	3,700	<50	992	740	<5	15	7,000
SLAG-2	N	8/16/2004	17,200	1,680	2,580	2,260	<2	<10	49,600	29	<5	6,910	269,000	21,100	3,700	18,600	<0.5	15	8	6,980	<50	154	1,710	<5	25	8,100
SLAG-3	N	8/16/2004	8,910	1,820	5,180	394	<2	99	23,500	13	11	7,170	106,000	27,100	4,800	6,150	9.5	31	7.7	3,360	<50	458	630	<5	15	7,080
Avg. Conc.	--		NR	1,130	1,260	176	1.6	40	NR	11.5	NR	1,450	NR	5,700	NR	17,200	11.8	22.4		NR	12.2	139	NR		NR	7,830
RATL-2			NR	2.78	1.71	486	13.9	3.85	NR	10,400	NR	257	NR	ND	NR	166	2.09	139		NR	34.8	34.8	NR		NR	2,090

Metals - SPLP (mg/kg)

Sample ID		Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium		Chromium	Cobalt	Copper	Iron	Lead		Manganese	Mercury	Nickel			Selenium	Silver		Thallium	Vanadium	Zinc
BAYTC-2	N	8/16/2004	0.82	0.007	0.003	1.21	<0.002	0.0004		<0.001	<0.002	0.007	0.09	0.018		<0.005	<0.0002	<0.02			<0.001	<0.0005		<0.001	<0.05	1.19
SLAG-1	N	8/16/2004	1.03	1.01	0.13	0.92	<0.002	0.0007		0.001	<0.002	0.031	0.04	0.2		<0.005	<0.0002	<0.02			0.002	0.0015		<0.001	<0.05	1.65
Acute Tox.[1]	--		NR	NR	0.360	NR	NR	3,700		0.550	NR	0.017	NR	0.065		NR	0.002	1.4			0.018	0.0034		NR	NR	0.114

Notes:

<	Indicates analyte not detected above laboratory practical quantitation limit (PQL)
NA	Not Sampled or Analyzed
N	Natural Sample
D	Duplicate Sample
RATL-2	Risk Assessment Target Level (Recreational-Child)
NR	Not Regulated
[1]	Acute Toxicity for Aquatic Organisms

Table 5

Analysis for Metals in Soil
Bayhorse Mining District
Custer County, Idaho

Unnamed South Property

Metals - Dry Basis (mg/kg)

Sample ID		Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	pH	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
SOC-1	N	8/13/2004	5,080	1,970	174	72	<2	367	107,000	6	7	3,030	19,000	61,400	48,200	1,480	42	12	8.1	800	<10	301	400	<5	14	67,300
SSC-1	N	8/13/2004	15,500	116	<10	216	<2	6	23,000	36	17	158	28,900	2,740	17,100	975	0.5	51	7.4	4,550	<10	15	300	<5	39	1,430
SWC-1	N	8/13/2004	1,270	1,280	101	1,180	<2	81	331,000	3	<5	1,260	7,020	38,300	80,100	546	16	<5	7.7	300J	<10	239	380J	<5	11	22,700
SWC-2	N	8/13/2004	3,180	1,170	78	148	<2	66	321,000	6	<5	1,410	12,400	21,700	79,000	1,150	10	8	8	630	<10	178	330	<5	40	15,500
SWC-3	N	8/13/2004	5,720	466	42	52	<2	180	151,000	7	6	822	17,100	27,500	63,700	1,170	15	12	8	660	<10	100	350	<5	9	36,800
Avg. Conc.	--		NR	1,000	80	334		140	NR	11.6	NR	1,336	NR	30,328	NR	1,064	16.7	17.1		NR		167	NR		NR	28,746
RATL-2	--		NR	3.29	2.03	575		4.55	NR	12,300	NR	304	NR	ND	NR	197	2.47	164		NR		41.1	NR		NR	2,470

Notes:

<	Indicates analyte not detected above laboratory practical quantitation limit (PQL)
NA	Not Sampled or Analyzed
N	Natural Sample
D	Duplicate Sample
RATL-2	Risk Assessment Target Level (Recreational-Child)
NR	Not Regulated
[1]	Acute Toxicity for Aquatic Organisms

Table 6

Analysis for Metals in Water
Bayhorse Mining District
Custer County, Idaho

Water - (mg/l)

Sample ID		Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
W-1	N	8/16/2004	<0.05	0.005	0.005	<0.005	<0.001	<0.0001	7	<0.001	<0.002	0.001	0.01	<0.003	34	<0.005	<0.0002	<0.02	<1	<0.001	<0.0005	<1	<0.001	<0.05	<0.01
W-1	D	8/16/2004	<0.05	0.005	0.004	<0.005	<0.001	<0.0001	8	<0.001	<0.002	<0.001	0.01	<0.003	36	<0.005	<0.0002	<0.02	<1	<0.001	<0.0005	<1	<0.001	<0.05	<0.01
W-2	N	8/16/2004	0.26	<0.003	<0.003	0.042	<0.001	<0.0001	14	<0.001	<0.002	<0.001	0.29	<0.003	8	0.013	<0.0002	<0.02	1	<0.001	<0.0005	5	<0.001	<0.05	<0.01
W-3	N	8/16/2004	<0.05	<0.003	<0.003	0.039	<0.001	<0.0001	14	<0.001	<0.002	<0.001	0.07	<0.003	8	<0.005	<0.0002	<0.02	1	<0.001	<0.0005	5	<0.001	<0.05	<0.01
W-4	N	8/16/2004	0.08	0.003	0.016	<0.005	<0.001	<0.0001	11	<0.001	<0.002	0.002	0.06	<0.003	15	0.014	<0.0002	<0.02	1	<0.001	<0.0005	2	<0.001	<0.05	<0.01
W-5	N	8/16/2004	<0.05	0.004	0.011	<0.005	<0.001	<0.0001	9	<0.001	<0.002	0.003	0.02	<0.003	37	<0.005	<0.0002	<0.02	<1	<0.001	<0.0005	<1	<0.001	<0.05	<0.01
W-6	N	8/16/2004	0.11	<0.003	0.004	0.022	<0.001	<0.0001	19	<0.001	<0.002	<0.001	0.08	<0.003	14	<0.005	<0.0002	<0.02	1	<0.001	<0.0005	8	<0.001	<0.05	<0.01
W-7	N	8/16/2004	0.1	<0.003	0.004	0.023	<0.001	0.0003	20	<0.001	<0.002	0.005	0.09	<0.003	14	0.005	<0.0002	<0.02	1	<0.001	<0.0005	9	<0.001	<0.05	<0.01
IDAPA Standards	--		NR	0.014[2]	0.050[2]	NR		0.001[1]	NR			0.011[1]	NR		NR				NR			NR			

Notes:

<	Indicates analyte not detected above laboratory practical quantitation limit (PQL)
N	Natural Sample
D	Duplicate Sample

IDAPA Standards for Surface Water

[1]	Aquatic Life
[2]	Human Health Consumption of Water and/or Organisms

Table 7 Potentially Hazardous Materials			
Property	Location on Property	Type of Material	*Comments*
Skylark-Ramshorn	Upper adit level-near slate excavation	Motor Oil, Lubricants	Several buckets, approx. 5 gallon capacity, various smaller containers
Pacific	Bunkhouse	Roofing tar	Several cans
		Lead acid battery	Small, damaged
Beardsley-Excelsior	Upper level - Beardsley Mine	Lead acid battery	Large, damaged
Bayhorse Townsite	Mill – ground floor	Motor Oil, Lubricants	6-55 gallon drums (unknown if full) 1-30 gal, drum (full) 2-~20 gal drums (unknown if full) ~15-5 gal. buckets (most full)
		Paint	~30-1 qt. to 1 gallon cans
		Gasoline	1-4 gallon can
	Mill – middle level	Diesel Tank	Approximately 1,000 gallons, contains product
		GE Transformers	3-~30 gal., 25 kV capacity, old vintage ("Type H, Form K, Cycles 60 (?), all have fallen off platform but appear to be intact
		Hydraulic Fluid	Several containers, mostly empty, small residual quantities
	Slag Area	Diesel Tank?	Large above-ground storage tank, contents unverified.
	Townsite	Lead Acid Batteries	~ 4 small, modern (vehicle type), damaged
Unnamed South Parcel	None noted		

APPENDIX I
SITE PHOTOGRAPHS



Photo 1. View of Skylark-Ramshorn Mine from road.



Photo 2. Ramshorn Mine ore loading shed on upper adit level.



Photo 3. Ramshorn Mine, view of tram from upper adit level.



Photo 4. Ramshorn Mine, slate excavation operations on upper adit level.



Photo 5. Ramshorn Mine, excavation operation materials on upper adit level.



Photo 6. Ramshorn Mine, tailings pond (dry).



Photo 7. Adit at Skylark Mine



Photo 8. Skylark Mine, upper unworked portion of property.



Photo 9. Pacific Mine, adit and structures on eastern side of property.



Photo 10. Pacific Mine, mill and concentrator in main workings area.



Photo 11. Upper portion of Beardsley/Excelsior Mine area, view from Pacific Mine.



Photo 12. Lower portion of Beardsley/Excelsior Mine area, tailings and structures.



Photo 13. Beardsley Mine area, adit and maintenance area.



Photo 14. View of Bayhorse townsite from the west.



Photo 15. Slag pile at Bayhorse Townsite.



Photo 16. Tailings pile and pond (dry) at Bayhorse Townsite.



Photo 17. Mill at Bayhorse Townsite.



Photo 18. Materials in ground floor of mill at Bayhorse Townsite.



Photo 19. Transformers in middle level of mill at Bayhorse Townsite.



Photo 20. Charcoal kilns along road near Bayhorse Townsite.



Photo 21. View of Unnamed South Parcel.



Photo 22. Waste Piles on Unnamed South Parcel.



Photo 23. Structures on Unnamed South Parcel.



Photo 24. Structures and waste piles on Unnamed South Parcel.

APPENDIX 2

SOIL ANALYTICAL REPORTS

APPENDIX 3

SURFACE WATER ANALYTICAL REPORTS

APPENDIX 4
RISK ASSESSMENT CALCULATIONS