



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

January 24, 2011

Mr. Dick Haener
302 Park Street
Grangeville, ID 83530

Subject: Abbreviated Preliminary Assessment Report for Crooks Corral
Elevated Placer

Dear Dick:

The Idaho Department of Environmental Quality (DEQ) has completed an abbreviated preliminary assessment report of your property. Thank you for allowing us access to your property to do our mine site assessment. It is a very unique place and we definitely enjoyed it.

The following is a summary of what we found during the site assessment. We found no contaminants, equipment or mining related articles that would present a threat to human health or the environment.

Soil testing for metals revealed elevated metals concentrations from the waste dump sites. The waste dump sites were well vegetated and stable. The mine site is dry and no drinking water sources were identified for miles in any direction.

DEQ offers the following health and safety recommendations relative to the waste dumps. Although there are no permanent residents on or immediately adjacent to the mine site, it would be best to prevent or minimize human exposures to the waste dump site soils. A further restriction such as fencing off the waste dump site would be appropriate to minimize human contact with the dump soils. It is our recommendation you do not allow visitors or children to play around the waste dumps, thereby preventing them from ingesting any heavy metals.

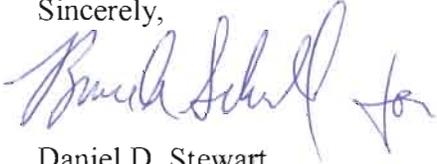
Another potential risk may be to livestock (cows) as the area is grazed during the summer. If the livestock producer had any significant concerns, the waste dump area could be fenced off to keep the cows out.

As a result of our observations, DEQ is recommending this site be designated as "No Remedial Action Planned" (NRAP). This means, although DEQ offered some health and safety

recommendations, the site does not contain sufficient hazards to warrant any further action by DEQ.

Once again, thank you for allowing us access and please call me if you have any questions about the report or the site visit.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bruce Schuld for", written over the typed name "Daniel D. Stewart".

Daniel D. Stewart

cc: Bruce Schuld
Ken Marcy, EPA Region X
File

ABBREVIATED PRELIMINARY ASSESSMENT CHECKLIST

This checklist is used to help site investigators determine if an Abbreviated Preliminary Assessment (APA) is warranted. This checklist should document the rationale for the decision on whether further steps in the site investigation process are required under CERCLA.

Checklist Preparer: Daniel D. Stewart **Date:** 01/13/2011
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706
(208) 983-0808
daniel.stewart@deq.idaho.gov

Site Name: Crooks Corral Elevated Placer

Previous Names (if any): AKA: Harden Mill, Elmer, Pennsylvania, Ideal, Highland Chief on Gold Nugget, Ottawa Goldstone, Number 2 on Gold Nugget, and Number 3 on Gold Nugget Placer Claims.

Site Owner: Dick Haener

Address: 824 Lincoln
Grangeville, ID 83530

Site Location: Approximately eight miles northwest of Lucille, ID 83542.
Accessed via the Cow Creek Saddle Road.

Township 26 North, **Range** 1 West, **Sections** 23/24

Latitude: 45.57264° N **Longitude:** 16.41329° W

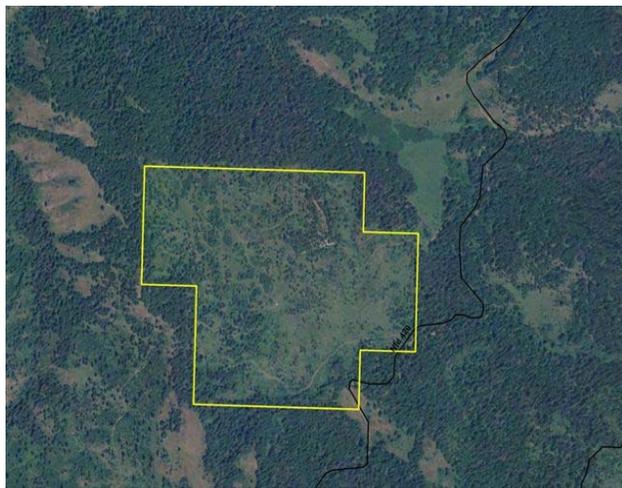


Photo showing private property boundary of Crooks Corral Placer.
Area outside the yellow borders is USFS land.

Describe the release (or potential release) and its probable nature:

This site was investigated for potential releases of heavy metals and sediment from mine waste dumps, and potential discharges of other deleterious materials, such as petroleum products and ore processing chemicals. Although a potential source of heavy metals was located, there were no indications of a complete pathway to surface or ground waters, nor is any leaching of heavy metals from the waste dump occurring at the source.

Part 1 - Superfund Eligibility Evaluation

If all answers are “no” go on to Part 2, otherwise proceed to Part 3.

	YES	NO
1. Is the site currently in CERCLIS or an “alias” of another site?		x
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?		x
3. Are the hazardous substances that may be released from the site regulated under a statutory exclusion (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?		x
4. Are the hazardous substances that may be released from the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?		x
5. Is there sufficient documentation to demonstrate that there is no potential for a release that constitutes risk to human or ecological receptors? <i>(e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, or an EPA approved risk assessment completed)?</i>	x	

Please explain all “yes” answer(s).

A site inspection involving direct observations confirmed contaminants of concern do not exist in concentrations that present a threat to human health or the environment. No contaminants, equipment, or mining related articles are on the site. Soil testing for metals revealed elevated metals concentrations from the dump site (see Tables 1 and 2). No direct pathways exist to surface water or ground water. No air borne pathways exist to any water bodies or residences. The mine site is dry, with the closest water source approximately 0.4 mile away. In addition there are no public water systems, day cares, or schools within the 15 TDL (see Figure 1). The site is wholly contained on private property with one owner (Dick Haener) who is developing a recreational home site more than 0.5 mile away from the waste dumps and up gradient of the site. Mr. Haener does not have a well; he brings potable water to the site.

Crooks Corral Waste Sample (CCWD1SS1). The sample was collected from the waste dumps found at the site. Numerous samples were collected then composited.

Sample CCWD1SS1 exceeded the IDTLs for arsenic, copper, lead, manganese, silver and mercury by 199, 1.4, 36.6, 2.4, 100, and 170 times, respectively. The sample exceeded the HHSLs for arsenic by 3.38 times. Although there are no permanent residents on or immediately adjacent to the site, a mine site safety and health plan would address how to prevent or minimize human exposures to the dump site. A further restriction such as fencing off the dump site is recommended. The photographs at the end of this report show the whole area is well vegetated and stabilized. DEQ will contact Mr. Haener and discuss the chemistry results and impress upon him that any visitors (i.e., his grandchildren) should minimize exposure and contact at the waste dump site.

Table 1. Crooks Corral Mine Site Soil and Waste Sample Analysis

(Concentrations expressed in mg/kg unless otherwise noted.)

Metals	IDTLs	HHSLs	Soil Sample CCWD1SS1 IDTL Exceedence	Soil Sample CCWD1SS1 HHSL Exceedence	Exceeded IDTL Levels by:	Exceeded HHSL Levels by:
Antimony	4.77	31	2.1	2.1		
Arsenic	0.391	23	77.9	77.9	199 times	3.38 times
Barium	896	1600	26.7	26.7		
Cadmium	1.35	39	0.3	0.3		
Chromium	7.9	210	2.35	2.35		
Copper	921	2900	1300	1300	1.4 times	
Iron		55000	13500	13500		
Lead	39.6		1820	1820	36.6 times	
Manganese	223	3600	529	529	2.4 times	
Selenium	2.03	23	<4.0	<4.0		
Silver	0.189	390	18.9	18.9	100 times	
Zinc	886	390	26.9	26.9		
Mercury	0.00509	23	0.87	0.87	170 times	

IDTLs = Initial Default Target Levels.

HHSLs = Human Health Screening Levels.

Orange = exceeds IDTLs.

Yellow = exceeds HHSLs.

Sample CCWD1SS1 exceeded the BLM ecological risk median benchmark for arsenic relative to geese and robins. Water fowl would not be expected on the site, and the exposure to robins would be minimal at best. The sample exceeded the risk bench mark for lead for all animal indicators. The only potential risk may be to livestock (cows) as the area is grazed during the summer. If the livestock producer had any significant concerns, the waste area could be fenced off.

Table 2. Wildlife and Livestock Risk Management Criteria for Metals in Soils (mg/kg)

BLM Technical Note 390 Rev. "Risk Management Criteria for Metals at BLM Mining Site"

Crooks Corral Soil Sample

Metals	Elk	Mule Deer	Big Horn Sheep	Deer Mice	Cottontail Rabbits	Canada Goose	Mallard	Robin	Cattle	Sheep	Median Values	Soil Sample CCWD1SS1
Antimony												2.1
Arsenic	328	200	387	230	438	61	116	4	419	275	275	77.9
Barium												26.7
Cadmium	3	3	9	7	6	2	1	0.3	15	12	8	0.3
Chromium												2.35
Copper	131	102	64	640	358	161	141	7	413	136	136	1300
Iron												13500
Lead	127	106	152	142	172	34	59	6	244	125	125	1820
Manganese												529
Selenium												<4.0
Silver												18.9
Zinc	275	222	369	419	373	271	196	43	1082	545	307	26.9
Mercury	11	11	6	2	15	6	4	1	45	8	8	0.87

Pink = Metal concentrations in soils exceed the BLM Ecological Risk Benchmarks.

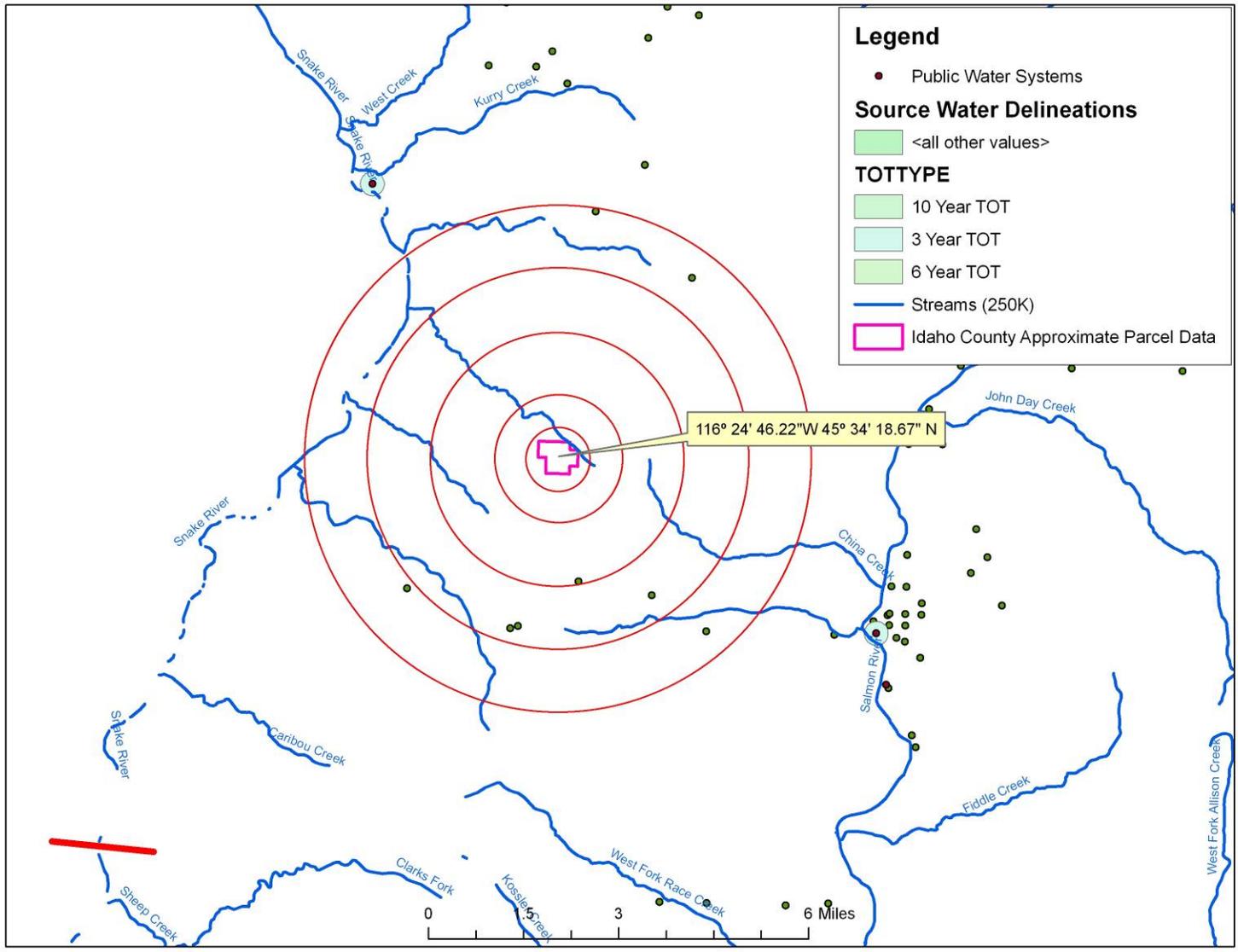


Figure 1. Time of Travel (TOT) Source Water Delineations

Part 2 - Initial Site Evaluation

For Part 2, if information is not available to make a “yes” or “no” response, further investigation may be needed. In these cases, determine whether an APA is appropriate. Exhibit 1 parallels the questions in Part 2. Use Exhibit 1 to make decisions in Part 3.

If the answer is “no” to any of questions 1, 2, or 3, proceed directly to Part 3.	YES	NO
1. Does the site have a release or a potential to release?		X
2. Does the site have uncontained sources containing CERCLA eligible substances?		X
3. Does the site have documented on-site, adjacent, or nearby targets?		X

If the answers to questions 1, 2, and 3 above were all “yes” then answer the questions below before proceeding to Part 3.	YES	NO
4. Does documentation indicate that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?		
5. Is there an apparent release at the site with no documentation of exposed targets, but there are targets on site or immediately adjacent to the site?		
6. Is there an apparent release and no documented on-site targets or targets immediately adjacent to the site, but there are nearby targets (e.g., targets within 1 mile)?		
7. Is there no indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on site or in proximity to the site?		

NOTES:

Mr. Haener constructed a cabin/home during the summer of 2010. His cabin will be used seasonally and is located 0.2 mile up gradient from the mine site. As previously mentioned, he does not have a well or potable water source on the property. He presently hauls potable water to the site.

All the property down gradient of the site is U.S. Forest Service and part of the Hells Canyon Recreation Area and is uninhabited.

EXHIBIT 1 - SITE ASSESSMENT DECISION GUIDELINES FOR A SITE

Exhibit 1 identifies different types of site information and provides some possible recommendations for further site assessment activities based on that information. The assessor should use Exhibit 1 in determining the need for further action at the site, based on the answers to the questions in Part 2. Please use your professional judgment when evaluating a site. Your judgment may be different from the general recommendations for a site given below. **(Circle or highlight responses)**

Suspected/Documented Site Conditions		APA	Full PA	PA/SI	SI
1. Releases or potential to release are not documented at the site.		Yes			
2. Uncontained sources with CERCLA-eligible substances have not been documented as being present on the site. (i.e. they do exist at site)		Yes			
3. On-site, adjacent, or nearby receptors are not present.		Yes			
4. There is no documentation or observations made leading to the conclusion that a sensitive receptor is present or may have been exposed (e.g., drinking water system user inside 4 mile TDL) 5. There is documentation that a sensitive receptor has been exposed to a hazardous substance released from the site.	Option 1: APA	Yes			
	Option 2: Full PA or PA/SI	No			
6. There is an apparent release at the site with no documentation of targets, but there are targets on site or immediately adjacent to the site.	Option 1: APA SI	No			
	Option 2: PA/SI	No			
7. There is an apparent release and no documented on-site targets and no documented targets immediately adjacent to the site, but there are nearby targets. Nearby targets are those targets that are located within 1 mile of the site and have a relatively high likelihood of exposure to a hazardous substance migration from the site.		No			
8. There are: no indications of a hazardous substance release; uncontained sources containing CERCLA hazardous substances; but there is a potential to release with targets present on site or in proximity to the site.		No			

Part 3 - EPA Site Assessment Decision

When completing Part 3, use Part 2 and Exhibit 1 to select the appropriate decision. For example, if the answer to question 1 in Part 2 was “no,” then an APA may be performed and the “NFRAP” box below should be checked. Additionally, if the answer to question 4 in Part 2 is “yes,” then you have two options (as indicated in Exhibit 1): Option 1 -- conduct an APA and check the “Lower Priority SI” or “Higher Priority SI” box below; or Option 2 -- proceed with a combined PA/SI assessment.

Check the box that applies based on the conclusions of the APA:

<input checked="" type="checkbox"/>	NFRAP	Refer to Removal Program – further site assessment needed
<input type="checkbox"/>	Higher Priority SI	Refer to Removal Program - NFRAP
<input type="checkbox"/>	Lower Priority SI	Site is being addressed as part of another CERCLIS site
<input type="checkbox"/>	Defer to RCRA Subtitle C	Other: _____
<input type="checkbox"/>	Defer to NRC	

Regional EPA Reviewer:

Bruce A. Schyld
Bruce A. Schyld

1/25/11

Print Name/Signature

Date:

PLEASE EXPLAIN THE RATIONALE FOR YOUR DECISION:

There are no air borne, surface or ground water pathways to any water sources or residences. The on site cabin is up gradient from the waste dumps and potable water is hauled to the site. Although elevated metal concentrations exist at the waste dumps, the area is well vegetated and stable. Human exposure to the waste would be minimal to none. The waste dump could be fenced off to prevent any livestock access if deemed necessary.

As a result of our observations, DEQ is recommending this site be designated as No Remedial Action Planned (NRAP).

NOTES:

Historical information:

Limited historical information is available for this site. The following information was taken from “Mineral Resources of the Hells Canyon Study Area, Wallowa County, Oregon, and Idaho and Adams Counties, Idaho” Scientific Investigations Report 2007-5046 U.S. Department of the Interior, U.S. Geological Survey.

About 265 troy oz (8.2 kg) gold were produced from placer deposits near Kirkwood Creek on the Snake River. An estimated 270 troy oz (8.4 kg) gold were produced from the elevated placer at Crooks Corral.

The principal lode deposits are northeast-trending, volcanogenic lenses and veins. Veins are as thick as 70 ft (21 m) and can be traced for as much as 4,500 ft (1,370 m) along strike and 500 ft (150 m) down dip. The mineralized wall rock contains limonite, malachite, azurite, quartz, barite, native copper, chalcocite, chalcopyrite, pyrite, and sphalerite. Gold- and copper-bearing

resources totaling 149,750 tons (135,850 t). Additional resources may exist; however, they are probably small and scattered.

Elevated placer deposits were worked at Crooks Corral and Dry Diggins. These are small and far from adequate water supplies. The placer at Crooks Corral is nearly mined out; the remaining gravel averages 9 cents gold per cubic yard (12 cents/m³).

Mr. Haener provided information indicating on Sept. 8, 1897 the claims were incorporated as Crooks Corral Mines Limited. No water was available on site, thus a water conveyance system started past Iron Phone Junction, with 4,000 feet of pipeline laid at a grade of seven feet per mile to the mine site to facilitate water delivery to the placer operation.

PHOTOGRAPHS:



Photo of the well vegetated and stable waste dump.



Photo of the down gradient waste dump.



Photo of another well vegetated and stable waste dump.



Photo of the Hardin Mill site. The mill site is on USFS property, east of the patented ground. It is assumed this site was utilized to process some of the Crooks Corral material and other mines in the general area.

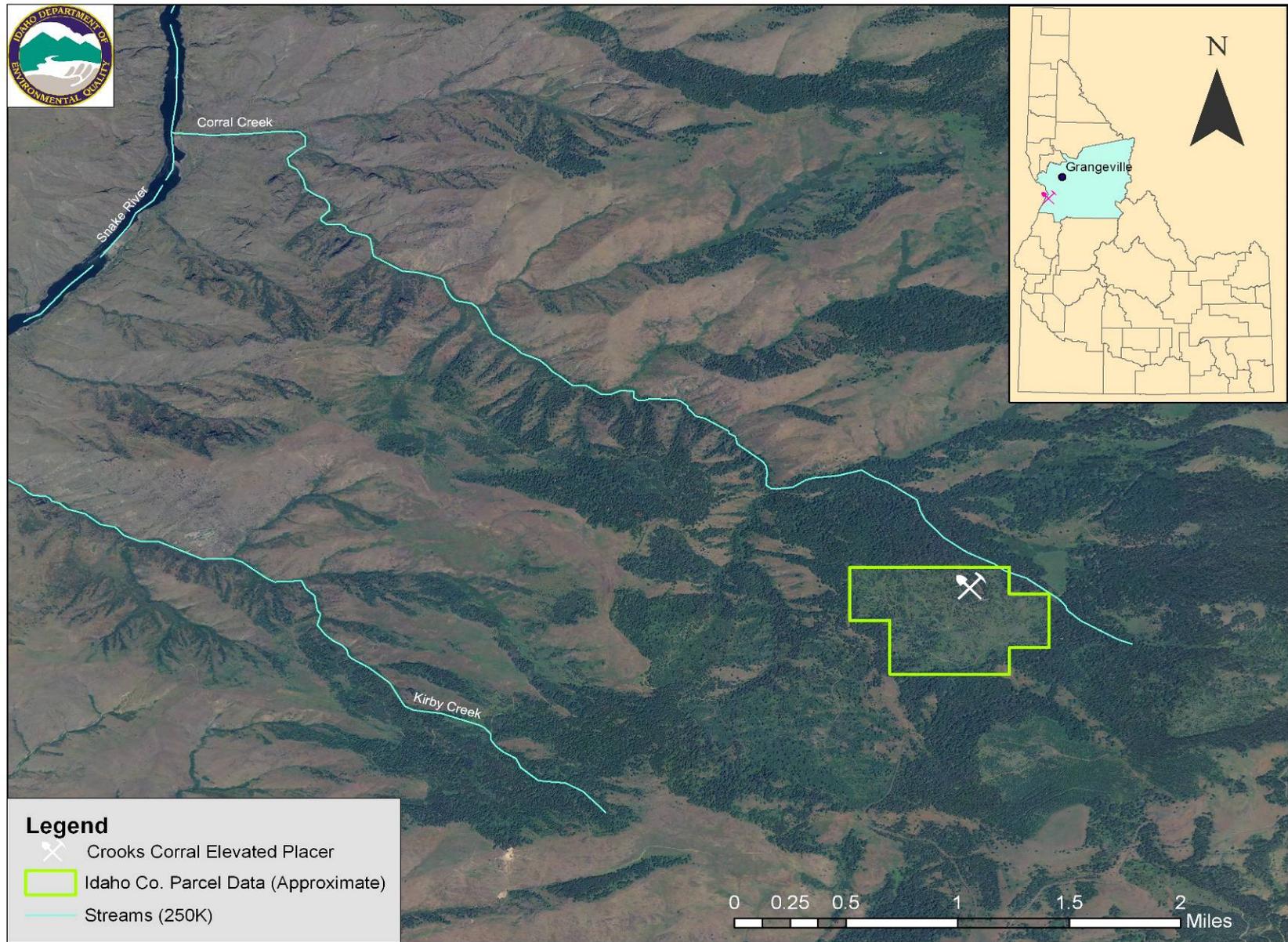


Figure 2. Location of the Crooks Corral Elevated Placer with Idaho County 2010 Parcel Data Overlay. (Map Source: 2004 National Agriculture Imagery Program (NAIP))



Figure 3. Major Lithology of the Crooks Corral Elevated Placer
 (Map Source: SDE Feature Class, USGS 1995. Idaho DEQ GIS ArcSDE 9.2 Geodatabase)

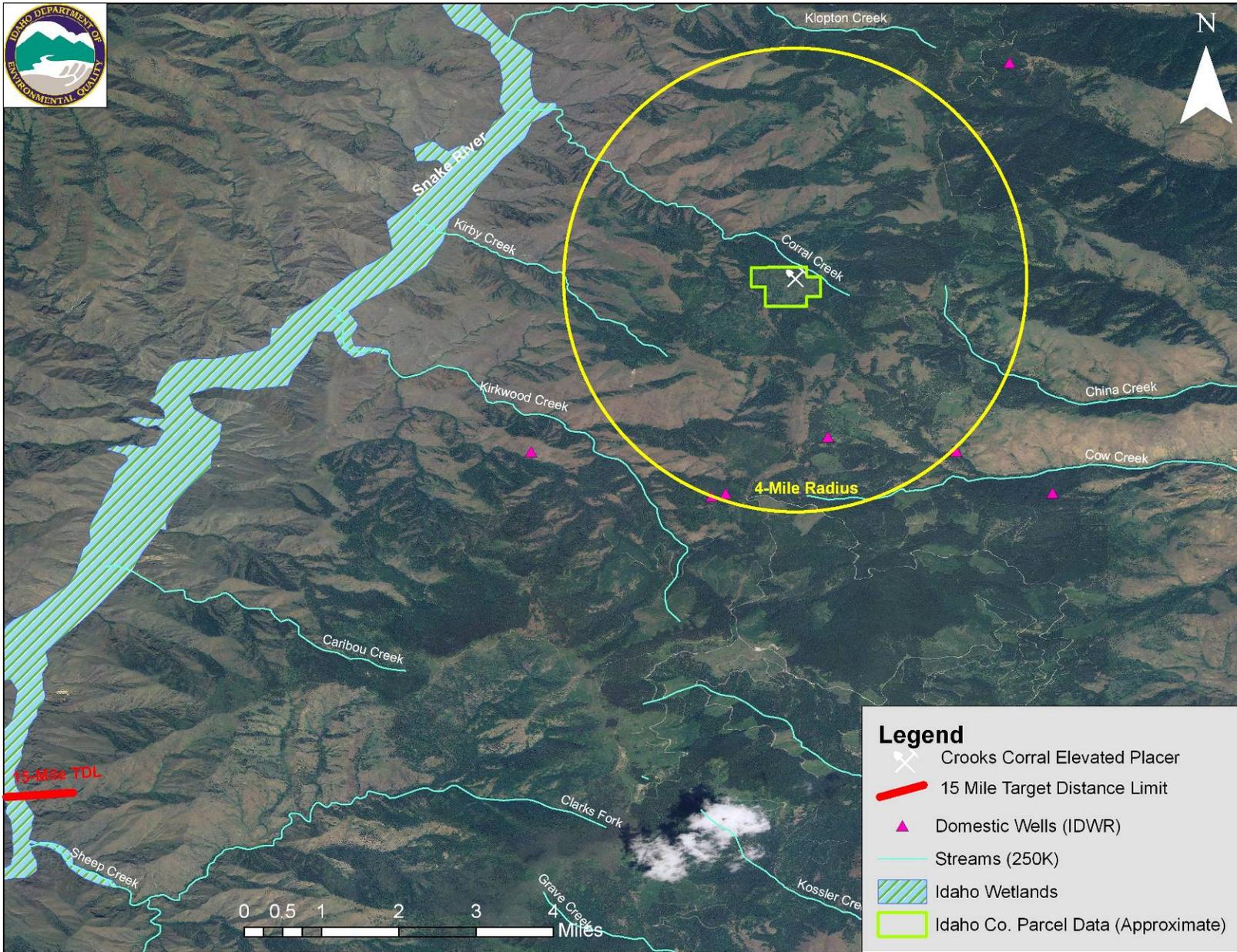


Figure 4. Domestic Well Locations. There are no public water systems in the area's 15 Mile Target Distance Limit (TDL). Wetlands run along the Snake River. (Map Source: 2004 National Agriculture Imagery Program (NAIP)).

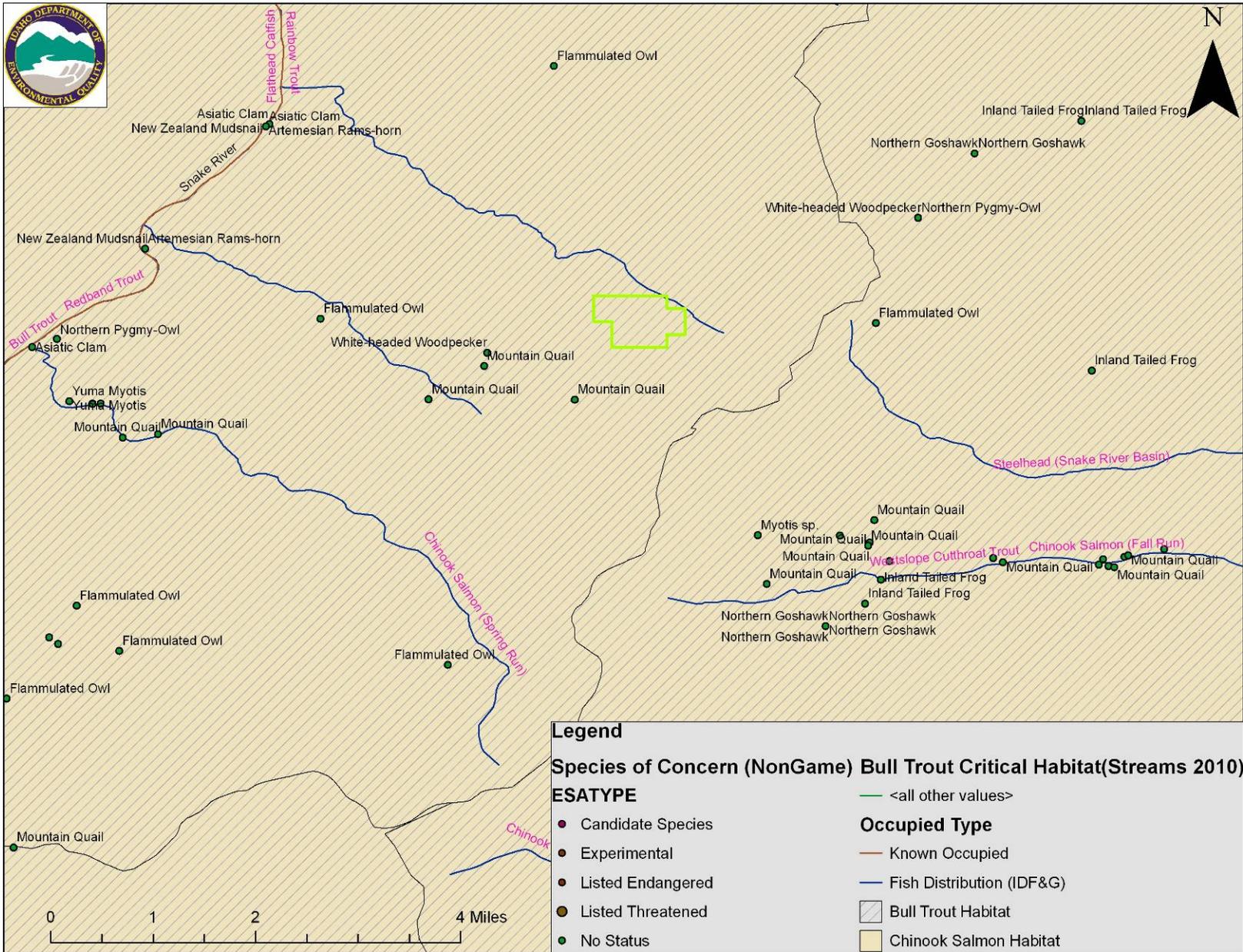


Figure 5. Sensitive Species Near Crooks Corral Elevated Placer. Species of Concern (Animals) and Fisheries.
 (Map Source: SDE Feature Dataset, Animal Conservation Database. Idaho DEQ GIS ArcSDE 9.2 Geodatabase)

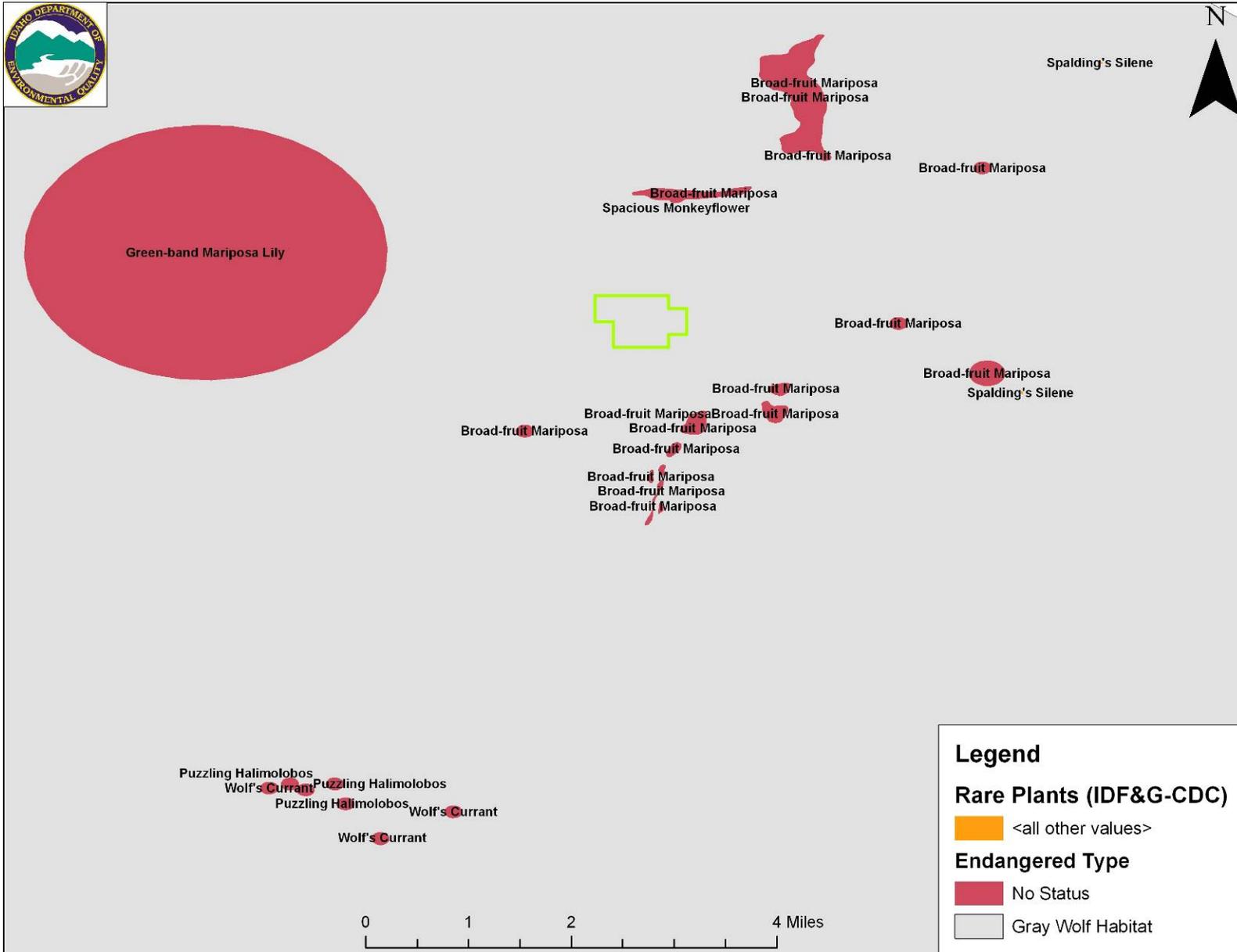


Figure 6. Sensitive Species Near Crooks Corral Elevated Placer. Species of Concern (Plants) and Gray Wolf Habitat. (Map Source: SDE Feature Dataset, Animal Conservation Database. Idaho DEQ GIS ArcSDE 9.2 Geodatabase)



CHAIN OF CUSTODY RECORD

SVL Analytical, Inc. • One Government Gulch • Kellogg ID 83837 • (208) 784-1258 • FAX (208) 783-0891

WOG 0216

FOR SVL USE ONLY

SVL JOB #

Report to Company: <u>Tina Elaefer (DEG)</u>	Invoice Sent To: <u>same as company</u>
Contact: _____	Contact: _____
Address: <u>1410 N. Hilton</u>	Address: _____
<u>Boise, ID 83706</u>	Address: _____
Phone Number: <u>(208) 373-0563</u>	Phone Number: _____
FAX Number: <u>(208) 373-0154</u>	FAX Number: _____
E-mail: <u>tina.elaefer@deg-idaho.gov</u>	PO#: _____

TEMP on Receipt: 3.8°C

Table 1. -- Matrix Type
 1 = Surface Water, 2 = Ground Water
 3 = Soil/Sediment, 4 = Rinseate, 5 = Oil
 6 = Waste, 7 = Other

Project Name: Orogrande District

Sampler's Signature: Tina Elaefer / [Signature]

Indicate State of sample origination: ID USACE? Yes No

Sample ID	Collection		Misc.	Preservative(s)							Analyses Required	Rush Instructions (Days)	Comments		
	Date	Time		Collected by: (Init.)	Matrix Type (From Table 1)	No. of Containers	Unpreserved	HNO ₃ Filtered	HNO ₃ Unfiltered	HCl				H ₂ SO ₄	NaOH
1 ICSD 2	4/29/10	8:30 BS	3	1	X										All soil & sed samples sieved w/ 9 mesh (2mm)
2 ICSD 3	4/29/10	9:00 BS	3	1	X										
3 CRSD 1	4/29/10	8:00 BS	3	1	X										
4 ICSP 4	4/29/10	9:35 BS	3	1	X										
5 ICSD 1	4/29/10	10:00 BS	3	1	X										
6 CRSD 2	4/29/10	10:20 BS	3	1	X										
7 CCWDISS-1	4/30/10	15:00 TE	3	1	X										
8 FSXWDISS 1	4/29/10	13:00 TE	3	1	X										
9 ICSD 1	4/29/10	10:05 BS	1	1		X									
10 CRSD 1	4/29/10	8:05 BS	1	1		X									

Relinquished by: Tina Elaefer Date: 4/29/10 Time: 10:00 Received by: [Signature] Date: 7/9/10 Time: 11:50

* Sample Reject: Return Dispose Store (30 Days)

White: LAB COPY Yellow: CUSTOMER COPY



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W060216

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SVL JOB #

TEMP on Receipt 3.8°C

Table 1. - Matrix Type
1 = Surface Water, 2 = Ground Water
3 = Soil/Sediment, 4 = Rinseate, 5 = Oil
6 = Waste, 7 = Other

Report to Company: <u>DEG</u>	Invoice Sent To: <u>Sumas Company</u>
Contact: <u>Tina Elayer</u>	Contact: _____
Address: <u>1410 N. Hilton</u>	Address: _____
<u>Boise, ID 83706</u>	Address: _____
Phone Number: <u>(208) 373-0563</u>	Phone Number: _____
FAX Number: <u>(208) 373-0154</u>	FAX Number: _____
E-mail: <u>tina.elayer@deg-idaho.gov</u>	PO#: _____

Project Name: Crazygarden District
Sampler's Signature: Tina Elayer / Tina Elayer

Indicate State of sample origination: <u>ID</u> USACE? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Analyses Required		Rush Instructions (Days)	Comments
Sample ID	Collection	Misc.	Preservative(s)				
Please take care to distinguish between: 1 and I 2 and Z 5 and S 0 and O							
Thanks!							
	Date Time	Collected by: (Init.)	Matrix Type (From Table 1)	No. of Containers	Unpreserved HNO ₃ Filtered HNO ₃ Unfiltered HCl H ₂ SO ₄ NaOH Other (Specify)		
1	4/29/10 8:35 BS		1	1	X	X X X X X X	total metals
2	4/29/10 10:35 BS		1	1	X		
3	4/29/10 9:05 BS		1	1	X		
4	4/29/10 9:40 BS		1	1	X		
5							
6							
7							
8							
9							
10							
Relinquished by: <u>Tina Elayer</u>		Date: <u>7/2/10</u>	Time: <u>10:00</u>	Received by: <u>[Signature]</u>		Date: <u>7/9/10</u>	Time: <u>11:50</u>

* Sample Reject: Return Dispose Store (30 Days) White: LAB COPY Yellow: CUSTOMER COPY



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

IDEQ (Boise)
1410 N. Hilton
Boise, ID 83706

Project Name: Boise
Work Order: **W0G0216**
Reported: 27-Jul-10 09:49

Client Sample ID: **CCWD1SS-1**

SVL Sample ID: **W0G0216-07 (Soil)**

Sample Report Page 1 of 1

Sampled: 29-Jun-10 15:00
Received: 09-Jul-10
Sampled By: BS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Total) by EPA 6000/7000 Methods										
EPA 6010B	Antimony	2.1	mg/kg	2.0	0.3		W029026	DG	07/23/10 16:52	
EPA 6010B	Arsenic	77.9	mg/kg	2.5	0.5		W029026	DG	07/23/10 16:52	
EPA 6010B	Barium	26.7	mg/kg	0.20	0.02		W029026	DG	07/23/10 16:51	
EPA 6010B	Cadmium	0.30	mg/kg	0.20	0.03		W029026	DG	07/23/10 16:51	
EPA 6010B	Chromium	2.35	mg/kg	0.60	0.07		W030408	AS	07/26/10 16:27	
EPA 6010B	Copper	1300	mg/kg	1.00	0.21		W029026	DG	07/23/10 16:51	
EPA 6010B	Iron	13500	mg/kg	6.0	1.0		W029026	DG	07/23/10 16:50	
EPA 6010B	Lead	1820	mg/kg	0.75	0.36		W029026	DG	07/23/10 16:51	
EPA 6010B	Manganese	529	mg/kg	0.40	0.06		W029026	DG	07/23/10 16:50	
EPA 6010B	Selenium	< 4.0	mg/kg	4.0	1.4		W029026	DG	07/23/10 16:52	
EPA 6010B	Silver	18.9	mg/kg	0.50	0.04		W029026	DG	07/23/10 16:51	
EPA 6010B	Zinc	26.9	mg/kg	1.00	0.22		W029026	DG	07/23/10 16:51	
EPA 7471A	Mercury	0.870	mg/kg	0.033	0.010		W028187	JAA	07/12/10 13:48	
Percent Solids										
Percent Solids	% Solids	95.2	%	0.1			W029029	DP	07/13/10 10:08	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director