



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, ALASKA  
REGULATORY DIVISION  
P.O. BOX 6898  
JBER, ALASKA 99506-0898

MAY 30 2013

Regulatory Division  
POA-2004-684

Mystery Creek Resources Inc.  
Attention: Mr. Patrick Benson  
2331 Merrill Field Drive  
Anchorage, Alaska 99501

Dear Mr. Benson:

This is in response to your May 2013, application for a Department of the Army (DA) permit to conduct mining exploration activities at the Nixon Fork Mine. Your project was assigned file number POA-2004-684, Mystery Creek, which you should use in correspondence with this office. The project site is located 35 miles northeast of McGrath, Alaska near coordinates 63.23° N., Longitude -154.77° W.; and which can be noted on USGS quad map Medfra B-4.

Based upon the information and plans you provided, we hereby verify that the work described above, which would be performed in accordance with the enclosed plan (sheets 1-10), dated May 2013, is authorized by Nationwide Permit (NWP) No. 6, Survey Activities. NWP No. 6 and its associated Regional and General Conditions can be accessed at our website at: [www.poa.usace.army.mil/Missions/Regulatory/Permits.aspx](http://www.poa.usace.army.mil/Missions/Regulatory/Permits.aspx). Regional Conditions **D, E, and F** apply to your project. You must comply with all terms and conditions associated with NWP No. 6.

General Condition 30 requires that you submit the enclosed signed certification to us once any work and required mitigation are completed.

This verification is valid until March 18, 2017, unless the NWP is modified, reissued, or revoked. It is your responsibility to remain informed of changes to the NWPs. Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

Please contact me via email at [mary.f.leykom@usace.army.mil](mailto:mary.f.leykom@usace.army.mil), by mail at the address above, by phone at (907) 753-2711, or toll free from within Alaska at (800) 478-2712, if you have questions or to request paper copies of the jurisdictional determination, regional and/or general conditions.

Sincerely,

A handwritten signature in black ink that reads "Mary Leykom". The signature is fluid and cursive.

Mary Leykom  
Project Manager



US Army Corps of Engineers  
Alaska District

Permit Number: POA-2004-684

Name of Permittee: Mystery Creek Resources (Patrick Benson)

Date of Issuance: MAY 30 2013

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to Mr. William Keller at the following address:

U.S. Army Corps of Engineers  
Alaska District  
Regulatory Division  
Post Office Box 6898  
JBER, Alaska 99506-0898

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date

## I. INTRODUCTION

Nixon Fork's 2013 summer exploration program is designed to expand the ore zone near the Mystery Mine and to discover and explore other potential targets for future development.

## II. SCOPE OF WORK

The surface exploration program will be targeting the area adjacent to current developments and areas within easy access of those developments (Figure 1). The program is divided into 3 categories, none having priority over the others. Manpower and funds will be the key factors determine the extent of their use.

A. Drilling – Similar to 2012, drilling will be a key component to the exploration program. Seven drill sites (Figure 2) have been selected based upon pre-determined targets or zones of interest.

B. Trenching – Targeting areas to the east of the Mystery and Crystal Mines (Figure 3), trenching's primary use is to explore zones of anomalous gold in soil samples from sampling programs conducted by previous operators.

C. Geophysics – A geophysical survey, (geophysical method to be determined) is to be conducted north and east of the Crystal and Mystery mines within the claim blocks and would encompass the area outlined as Exploration Zone of Figure 1. An independent contractor will be hired to conduct the survey, analyze the data, report the results in a report, and provide digital data in usable format for existing 3D modeling program on site.

## III. DETAILED DESCRIPTION OF WORK

### A. Drilling

#### 1. Equipment

Drill – Hagby model, electric driven underground drill modified for surface operation, NQ2 core size (4 inch diameter).

Pump – Hagby Bean Pump Model AL1122BCD, electric or diesel driven, 47 gpm capacity @ 1000 psi.

Generator – Cummins Onan Genset, Diesel Powered, 3 Phase, 480 volt, 80 KW.

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Excavator – Hitachi X150, for preparing access to and construction of drill pad, and transporting drill to site.

Transportation – Ford F350 pick-up trucks, ATV, and/or RTV900 Kubotas.

Consumables (see attached MSDS)

Torqueless (Ligliquid) – Drilling Lubricant

Matex Linseed Soap

DD 2000 – Drilling Mud

Chevron Hydraulic Oil AW ISO 32

Pride GL-1 Gear Lube 90W

EZ-MUD PLUS

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2. Drill Sites (Figure 2 and Table 1)

The number, direction, and dip of the drill holes at each site have yet to be determined, are not expected to exceed 1000 feet, and are subject to change dependent upon the results from drilling and trenching.

NOTE:

Drill sites are numbered for clarity and does not constitute the order in which work is to be accomplished.

Table 1. Drill site locations, claim number, and access trail lengths to be constructed. (See Figure 2)

Drill Site #	Latitude (ddd.mmmm)	Longitude (-ddd.mmmm)	Datum	Mining Claim BLM #	Trails Length (feet)
1	63.2472	-154.7502	NAD 83	033652	425 <sup>1</sup>
2	63.2455	-154.7504	NAD 83	033653	1100
3	63.2422	-154.7549	NAD 83	033651	0
4	63.2409	-154.7568	NAD 83	033667	0
5	63.2405	-154.7576	NAD 83	033667	0
6	63.2394	-154.7634	NAD 83	033648	25
7	63.2334	-154.7516	NAD 83	033688	1090 <sup>2</sup>

<sup>1</sup> From drill site 2.

<sup>2</sup> Includes footage to access trench T13-25, 205 feet of new trail.

NOTE: All drill sites are located on historical drill pads with the exception of drill site 7, and will use previous constructed trails.

Access – Drill sites 3 through 6 will be accessed using existing roads and trails. Trails, 7 feet wide (see table 1 for length), will be constructed to access drill sites 1, 2, and 7, with every attempt to use historical trails. See Figure 2 for location of access roads and trails. Access to drill sites 1 and 2 will require crossing Mystery Creek below the Nixon Fork Mine’s water intake facility which is permitted under TWP A2011-07. Total anticipated ground disturbance for access trails is approximately 2640 yd<sup>2</sup> or 0.6 acres.

Preparation – All sites and access routes will be constructed using the Hitachi X150 excavator. Each drill pad is anticipated to be approximately 15 yards by 15 yards (225 yd<sup>2</sup>), or approximately 1/20 of an acre. Organic material will be removed and set aside for reclamation. Sufficient overburden will be removed to level the trails/pads and stockpiled separately from organic material. A sump, approximately 5 feet square and 5 feet deep, will be constructed to collect drilling fluids and a small trench will be dug to direct the drilling fluids into the sump. A wooden drilling platform will then be constructed to support the drill and all ancillary equipment.

Water will be provided from Mystery Creek through the mine site, for drill sites 3 through 7, IAW TWP A2011-07. For drill sites 1 and 2, water will be provided directly from Mystery Creek, drawn by an electrically driven Hagby Bean pump. Take up point will be downstream, within 25 feet, of Nixon Fork Mine’s drawn point (Figure 2). Water consumption is not expected to exceed 7200 gallons per day. Measures to prevent fish entrapment are not required. A 2005 Environmental Impact Statement revealed that coho salmon were found four miles down-stream of the Nixon Fork Mine Project, but none were found in the vicinity of the water take up point as the creek is discontinuous between the Nixon Fork River and the Nixon Fork Mine. Drill water discharged from drilling operation will be collected in a nearby sump to allow for settling of drill cuttings and then recycled.

Drilling – Power for the electrically driven Hagby drill and Bean pump will be provided by either tapping into the Nixon Fork Mine’s power grid or

from a Diesel powered Cummins Onan Genset. If used, the Genset will be located on the drill pad, adjacent to the drill, except for drill sites 1 and 2. For sites 1 and 2 the Genset will be located on the southeast side of Mystery Creek, adjacent to the creek crossing, where it will be easily accessible for refueling using a F350 pick-up equipped with a storage tank and pump located in the bed of the pick-up. The Genset contains a base pan for collection of fluids. Fuel will be provided from Nixon Fork Mine and will be handled in accordance the mine's fuel handling requirements.

A summary of the drilling sequence is as follows:

1. Align the drill on desired azimuth.
2. Drill a dead leg to bedrock to anchor the drill.
3. Set the dip of the rig and if required drive a casing of HQ rods to bedrock.
4. Drill the core to the required depth (not to exceed 1000 feet).
5. When complete, trip the rods and survey the hole.
6. Remove the casing and plug the hole using cement or bentonite for a minimum of 10 feet, within 20 feet of the surface and then backfilled with drill cuttings to the surface.

Post drilling – Upon the completion of all drill holes from a particular location, the anchor will be removed or cut off at the surface, the drill and equipment will be removed, the platform will be disassembled and removed, and the site will be reclaimed as discussed below.

### 3. Reclamation

Once drilling is complete the drill pads and sump will be filled in and contoured using the stockpiled overburden material. Next the stockpiled organic material will be spread over the area to promote natural growth. As a final step, the trail that was constructed to reach the pad location will be reclaimed in the same way. Total disturbance from drill pads and trails are not anticipated to exceed 1 acre. Upon completion of reclamation, BLM authorizing officer will be notified.

B. TRENCHING

1. Equipment

Excavator – Hitachi X150, for preparing access to and excavating a trench.

2. Location

Proposed locations of trenches are shown in Figure 3 and listed in Table 2. The number of trenches and their locations are subject to change dependent upon a number of factors but are not to be outside the boundaries noted on Figure 3. On average trenches are expect to be between 100 and 200 feet in length and 10 feet in width.

Table 2. Trench locations, dimensions, and access trail length to be constructed. (Figure 3).

Trench	Latitude (ddd.mmmm)	Longitude (- ddd.mmmm)	Datum	Mining Claim BLM #	Dimensions (feet) (l/w/d)	Trail Access (feet)
T13-01	63.2402	-154.7526	NAD 83	033661	165x10x10	595
T13-02	63.2396	-154.7511	NAD 83	033661	165x10x10	195
T13-03	63.2394	-154.7540	NAD 83	033661	165x10x10	235
T13-04	63.2391	-154.7523	NAD 83	033661	165x10x10	230
T13-05	63.2390	-154.7552	NAD 83	033661	165x10x10	1270
T13-06	63.2385	-154.7534	NAD 83	033661	165x10x10	195
T13-07	63.2382	-154.7572	NAD 83	033661	165x10x10	250
T13-08	63.2378	-154.7546	NAD 83	033661	165x10x10	225
T13-09	63.2375	-154.7585	NAD 83	033733	165x10x10	555
T13-10	63.2369	-154.7558	NAD 83	033661	165x10x10	205
T13-11	63.2370	-154.7594	NAD 83	033733	165x10x10	430
T13-12	63.2366	-154.7574	NAD 83	033660	165x10x10	185
T13-13	63.2358	-154.7558	NAD 83	033656	165x10x10	990
T13-14	63.2357	-154.7528	NAD 83	033655	165x10x10	425
T13-15	63.2350	-154.7542	NAD 83	033655	165x10x10	205
T13-16	63.2339	-154.7561	NAD 83	033655	165x10x10	305
T13-17	63.2353	-154.7495	NAD 83	033688	165x10x10	0
T13-18	63.2352	-154.7490	NAD 83	033688	PCA-2004-684    Mystery Creek Mystery Creek Resources Inc. Survey Activities Sheet 5 of 10                      May 2013	
T13-19	63.2347	-154.7510	NAD 83	033688		
T13-20	63.2344	-154.7501	NAD 83	033688		
T13-21	63.2352	-154.7453	NAD 83	033687		

T13-22	63.2343	-154.7479	NAD 83	033688	165x10x10	240
T13-23	63.2342	-154.7454	NAD 83	033687	165x10x10	245
T13-24	63.2366	-154.7481	NAD 83	033687	165x10x10	345
T13-25	63.2330	-154.7491	NAD 83	033688	165x10x10	720
Totals						9065 ft
					41250 ft <sup>2</sup>	63455 ft <sup>2</sup>
					4585 yd <sup>2</sup>	7050 yd <sup>2</sup>
Total Disturbance					1 acre	1.5 acres

NOTE: Trenches are numbered for clarity and does not constitute the order in which work is to be accomplished.

Access – Trails to the trench sites are located in Figure 3. In most cases the tails to the trench sites are used to access multiple trench sites. Trails, 7 feet wide (see table 2 for length), will be constructed to access the trenches with every attempt to use historical trails.

Trenching – To construct a trench, the organic cover will be removed and stockpiled. Next the overburden will be removed and set aside for future use, and the trench will be dug to bedrock, if possible.

As soon as possible after constructing the trench, the geology department will map, sample and photograph the trenches.

NOTE

The duration the trenches will remain open is to be kept to a minimum and should not exceed 1 week.

3. Reclamation

Once the geology department has completed mapping, sampling, and photographing the trench, the trench will be filled-in using the overburden that was stockpiled from the trench, the surface will be smoothed and contoured to match the local terrain, and the organic material will be spread over the disturbed area to promote natural growth of native vegetation. Upon completion of reclamation, BLM authorizing officer will be notified.

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### C. GEOPHYSICS

The exact geophysical survey method to be employed is dependent upon the exploration budget and that recommended by a geophysicist. Geophysical surveys will not require the construction of roads or trails and access to locations will be either by existing trails or on foot. Figure 1, Exploration Zone, is the area chosen for the geophysical survey.

Dependent on the method chosen, vegetation may be required to be trimmed and minor ground disturbance (digging a hole by hand) performed. Hole dimensions are not expected to exceed 3 square feet or 2 feet deep. Any ground disturbance will be filled in and organic material will be spread over the disturbed area at the completion of the survey.

If the ground disturbance is expected to exceed that listed above, an addendum to the exploration permit will be submitted and approved by the permitting agencies before proceeding with the survey.

### IV. RECLAMATION AND REPORTING OF HISTORICAL DISTURBANCES

In addition to the reclamation that will be concurrently with the exploration program, Nixon Fork Mine intends to do additional reclamation of previous work done on the property. In the Whalen and North Star area, at the south end of the runway (see Figure 2), exist 4 trenches that were excavated in 2012 and were filled in but not reclaimed in anticipation of returning to the site this year. Since this year's exploration program will not affect that area, Nixon Fork will reclaim the sites.

This area contains 4 trenches and one drill pad from previous drilling in the area. The trenches will be reclaimed by contouring and spreading available organic material above the filled in trench to promote natural growth. The drill pad will require adding overburden material to re-contour the site and then organic material will be spread over the drill pad to promote natural growth. Total combined trench length is 640 yards and 3 yard wide, for a total of 1920 yd<sup>2</sup> or approximately 4/10<sup>th</sup> of an acre. The drill pad is approximately 15 x 15 yd<sup>2</sup> or less than 1/20<sup>th</sup> of an acre. Additionally the trail to the site, 3 yards wide by 90 yards in length, which is approximately 265 yd<sup>2</sup> or 1/20<sup>th</sup> of an acre. This results in an additional ½ acre to be reclaimed.

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## V. SUMMARY

Nixon Fork's summer 2013 exploration program will consist of drilling from a possible 7 drill pads, (Figure 2) with the number of drill holes yet to be determined. Additionally up to 30 trenches (25 planned as shown in Figure 2) will be dug in the area to the east of the Crystal and Mystery Mines. If funding and time permits, a geophysical survey will also be conducted having a negligible foot print on the mine site. Concurrently, reclamation will be ongoing to restore the drill pads, trenches, and trails to pre-exploration conditions.

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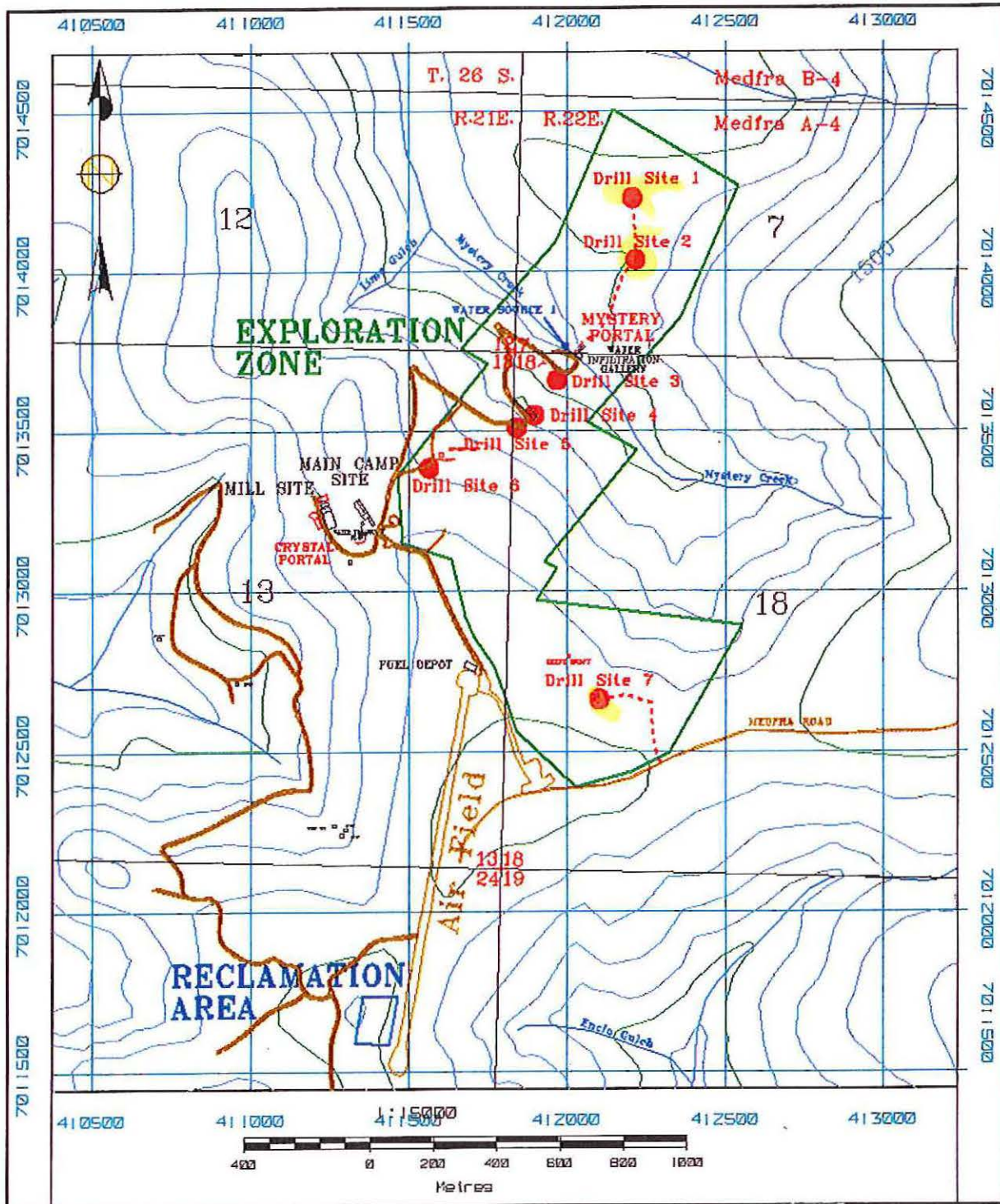


Figure 2. Map of the exploration area showing the location of the drill pads, trails, and water source. Also shown is the location where additional reclamation will be done.

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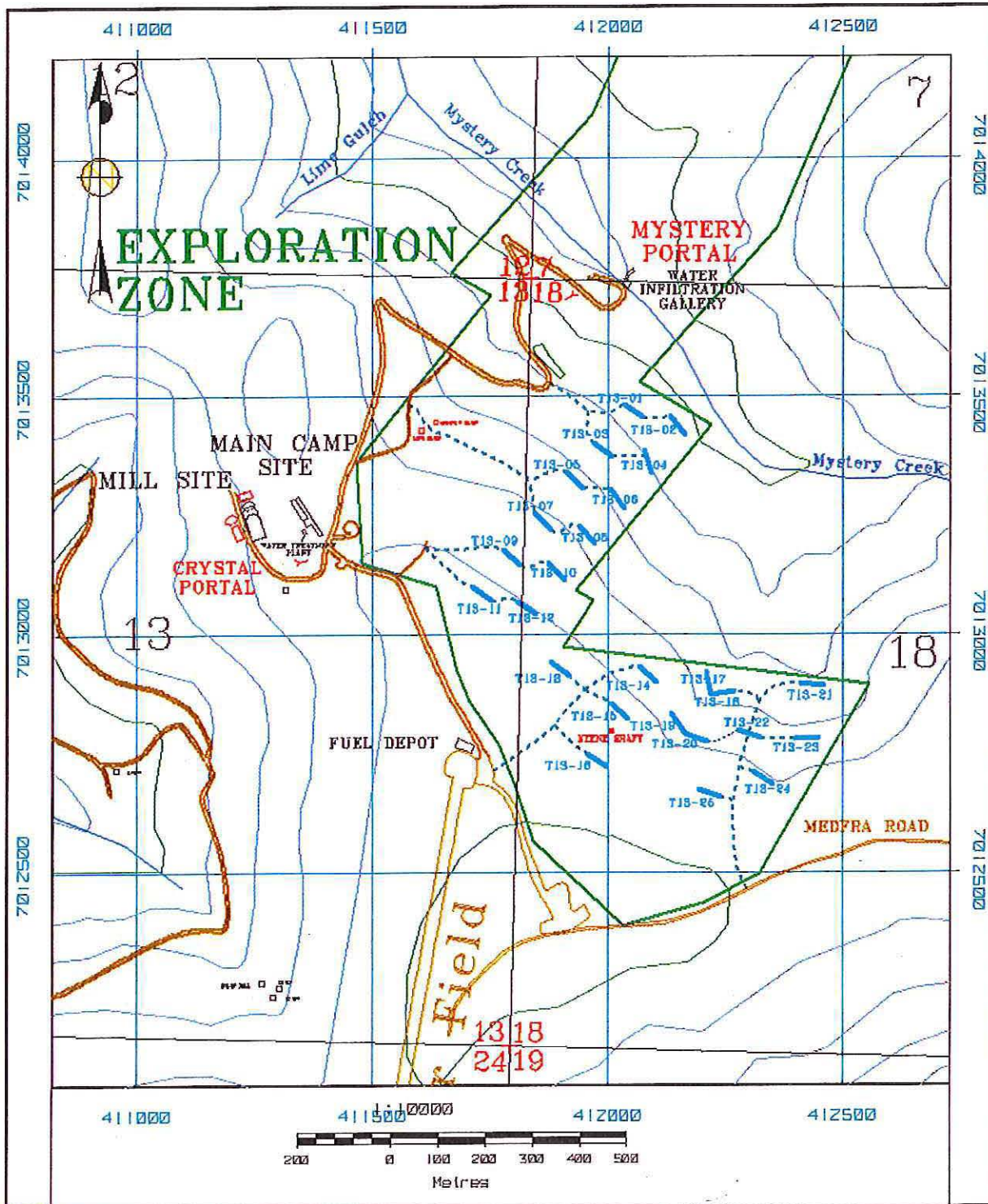


Figure 3. Map showing trench locations and the access trails to be constructed to access the sites.

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