Placer County Water Agency

Power System: 24625 Harrison St. • Mail: P.O. Box 667 • Foresthill, California 95631 (530) 367-2291 (530) 885-6917 FAX (530) 367-4440



PCWA-L-228
A Public Agency

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September 27, 2005

Mr. Takeshi Yamashita, Regional Engineer FEDERAL ENERGY REGULATORY COMMISSION 901 Market Street, Suite 350 San Francisco, CA 94103

Re: FERC Project 2079-CA

Middle Fork Tunnel Spoil Pile Stability Investigation

Dear Mr. Yamashita:

We have applied for a Special Use Permit from the Eldorado National Forest to perform a geotechnical investigation and stability analysis of the tunnel spoil pile near the downstream portal of the Middle Fork Tunnel. This pile has exhibited some indications of movement, and has been noted as a possible hazard to the Middle Fork penstock, as documented in reports by Alpha Geotechical Consultants, Inc. (1985) and Cotton, Shires & Associates, Inc./Piedmont Geosciences, Inc. (2000). We have contracted with William Lettis and Associates, Inc. (WLA) of Walnut Creek to perform the investigation and stability analysis.

Three copies of the Special Use Permit application, which includes WLA's Work Plan and the locations of bore holes and test pits, is attached. The spoil pile is outside the FERC project boundary.

We request your approval by October 24, 2005 to proceed with this investigation, pending authorization of the Special Use Permit by the Eldorado National Forest. If you have any questions, please call Jon Mattson or me at (530) 885-6917.

Sincerely,

PLACER COUNTY WATER AGENCY

Stephen J. Jones

Power System Manager

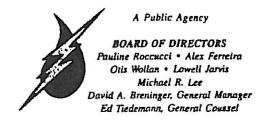
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COMMISSION

Enclosure

Placer County Water Agency

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September 14, 2005

Mr. Timothy A. Dabney, District Ranger Eldorado National Forest 7600 Wentworth Springs Road Georgetown, CA 95634

Attention: Mr. Jon Jue

Subject: Special Use Permit Application - Middle Fork Tunnel Spoil Pile Geotechnical Investigation

Dear Mr. Dabney,

We have contracted with William Lettis and Associates, Inc. (WLA) to assess the stability of a spoil pile that was constructed with tailings from the Middle Fork tunnel during the original construction of the Middle Fork project. WLA has notified us that two or three boreholes up to 65 feet deep will need to be drilled in the spoil pile as part of their assessment. This work is more fully described in the attached Special Use Permit (SUP) application and attachments. The job is expected to take less than two weeks, and should have minimal environmental impacts, as described in the application.

If approvals can be secured in time from FERC and the Eldorado National Forest, we would like to have WLA perform this work in late October or November of this year. If weather conditions do not permit, the field work will need to be postponed until next spring or summer.

Please review the attached SUP application and supporting documents, and let us know if more information is required, and whether we can get approval to proceed by mid-October of this year. If you have any questions, please call Jon Mattson or me at (530) 885-6917.

Sincerely,

PLACER COUNTY WATER AGENCY

Stephen & Jones

Stephen J. Jones

Power System Manager

Attachment

Jnofficial FERC-Generated PDF of 20051003-0032 Received by FERC OSEC 09/29/2005 in Docket#: P-2079-000 Page 1 of 4 STANDARD FORM 299 (6/99) Prescribed by DOI/USDA/DOT FORM APPROVED APPLICATION FOR TRANSPORTATION AND OMB NO. 0598-0082 P.L. 96-487 and Federal UTILITY SYSTEMS AND FACILITIES Register Notice 5-22-95 ON FEDERAL LANDS FOR AGENCY USE ONLY NOTE: Before completing and filing the application, the applicant should completely review this package Application Number and schedule a preapplication meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, Date Filed the application can be completed at the preapplication meeting. Name, title, and address of authorized agent if 3. Telephone (area code) Name and address of applicant (include zip code) different from Item 1 (include zip code) (530)885-6917 Placer County Water Agency Apolicant P.O. Box 667 Stephen J. Jones Foresthill, CA 95631 Authorized Agent 5. Specify what application is for: (check one) 4. As applicant are you? (check one) New authorization a. 🗋 Individual 8. Renewing existing authorization No. Corporation* b. b. 🗖 Amend existing authorization No. c. 🔲 C. Partnership/Association* Assign existing authorization No. State Government/State Agency d. Existing use for which no authorization has been received * Local Government e. e. 🔯 f. Other* Federal Agency * If checked, provide details under item 7 * If checked, complete supplemental page ☐ No 6. If an individual, or partnership are you a citizen(s) of the United States? 7. Project description (describe in detail): (a) Type of system or facility, (e.g., canal, pipeline, road); (b) related structures and facilities; (c) physical specifications (Length, width, grading, etc.); (d) term of years needed: (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction (Attach additional sheets, if additional space (a)(b) The Middle Fork Tunnel, constructed in about 1965, connects Hell Hole Reservoir with the Middle Fork powerhouse. A spoil pile consisting of rock materials excavated during construction of the tunnel is located near the downstream end of the tunnel. See attached S&E drawing labeled 4 of 5, attached general vicinity map, anda photo of the area. The size of the pile is estimated at about 75,000 cubic yards. Access to the pile is made from the access road to the Middle Fork penstock valvehouse. Engineers have discovered that this spoil pile has shown evidence of some deepseated slippage during very wet years. If the spoil pile was to slide catastrophically, the topography of the ground downhill of the pile could direct the slide material toward the Middle Fork penstock, which is a critical facility that carries flows of almost 1,000 cubic feet per second at very high pressures. (c) The work consists of drilling 2 to 3 borings to depths of 45 to 65 feet in depth, and performing sampling and testing in the boreholes. The holes will be grouted closed when complete. See attached Geotechnical Work Plan dated September 7, 2005. (d) The construction period is planned for October or November, 2005, weather permitting, and should take no more than 2 weeks. (e) it is anticipated that the bore holes will be grouted upon completion, and that ongoing water level monitoring will not be performed. (f) The only material and equipment to be transported are the drill rig itself, most likely truck-mounted, and miscellaneous materials used for drilling and refilling the holes, such as inert drilling mud, and small quantities of cement and bentonite, if needed. Transportation to and from the site will be made in pickup trucks, either from the Brushy Springs road side, or the Middle Fork Powerhouse side. The drillers may also request to have someone on site during off-hours for security and lodging purposes. Drilling water will be obtained from the penstock valvehouse using a hose or water trailer / truck. (g) Drilling and sampling of the spoil pile is planned to be completed prior to December 1, 2005, and is expected to take approximately two weeks. The work will be performed on day shift only, possibly 6 or 7 days per week. (h) Existing cleared areas in the project vicinity, both within and without the FERC project boundaries, will be used for equipment parking and staging. No clearing and brush removal will be necessary. All drilling will be done on the existing spoil plie. 8. Attach a map covering area and show location of project proposal - see "Technical Scope of Work" Applied for 9. State or Local government approval: Not Required Attached Not required 10. Nonreturnable application fee: Attached 11. Does project cross international boundary or affect international waterways? No (If "yes," Indicate on map) Yes X 12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being This work is funded by PG&E through a Power Purchase Contract with the Placer County Water Agency.

13a. Describe other reasonable alternative routes and modes considered.

Placer County Water Agency.

The proposed work is the outcome of geological and geotechnical evaluation by Placer County Water Agency and Pacific Gas and Electric Company. Access to the site is by existing roads. This investigation is intended to determine what alternatives, if any, are necessary to improve the stability of the spoil pile.

PG&E has successfully emerged from Chapter 11 bankruptcy, and they are able to meet their financial obligations to

b. Why were these alternatives not selected?

See previous statement.

c. Give explanation as to why it is necessary to cross Federal Lands.

The Middle Fork Project was built in the 1960's, and licensed by FERC of Federal Lands. The spoil pile is located primarily on Federal Lands, and is mostly outside the FERC project boundary. Project roads in the vicinity are located on Placer County Water Agency, Lone Star Timber II, and Federal lands.

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (Specify number, date, code, or name) Geotechnical exploratory work in other areas near the Middle Fork tunnel was performed previously under Eldorado National Forest SUP #GTN-45.

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best atternative; and (c) expected public benefits.

The Middle Fork Tunnel and penstock are critical links in the generation of over an average of one billion kilowatt-hours of energy each year. Due to conditions noted previously, it is imperative that this facility be maintained and protected. Failure to address potential instability of the spoil pile could endanger the penstock, which would have an effect on all other project facilities. This could result in at least temporary loss of most of the generation from the project, which could deprive the state of enough power to supply up to about 200,000 customers. Cost of the project is anticipated to be less than \$50,000.

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.
There will be no apparent effect on the population, since there are no residences or recreation activities in the immediate area. The project will have no effect on social or economic aspects.

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.

(a) There will be no significant impacts to air quality. Some dust will be generated on unpaved roads, though traffic will be minimal. (b) Visual impact will be negligible. (c) The project will have no significant effect on surface or ground water quality, since all work will be conducted on permeable, rocky surfaces. Any water used for drilling is anticipated to leach into the spoil pile. No additional erosion control measures are anticipated. (d) No control or structural change of any stream or water body is planned. (e) The work may periodically have locally moderate noise levels, but due to the remote location, the public will not be affected. (f) No vegetation removal or disturbance is planned for the project.

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plantiffe, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals. There is anticipated to be no significant impact on wildlife, other than minor disturbance caused by noise of the construction equipment. It is also noted that this is not a fledging period for owls. The project is on a man-made gravel and rock spoil pile, with a minimal amount of vegetation. There is no anticipated effect on any marine animals.

19. State whether any hazardous material, as defined in this paragraph, will be used, produced, transported or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance or termination of the right-of-way or any of its facilities. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous materials also includes any nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCIA Section 101(14), 42 U.S.C. 9801(14), nor does the term include natural gas. The use of a pickup-mounted diesel fuel tank is anticipated. Small quantities of hydraulic and lubricating oils will also be on site. Spill containment and cleanup materials will be available on site. If a spill does occur, all contaminated soils and materials will be placed in approved containers, and disposed of at approved disposal sites. Cement and cement additives will be used. It is not anticipated that any of these meets the hazardous material definition given above.

20. Name all the Department(s)/Agency(ies) where this application is being filed.

El Dorado National Forest, Georgetown Ranger District

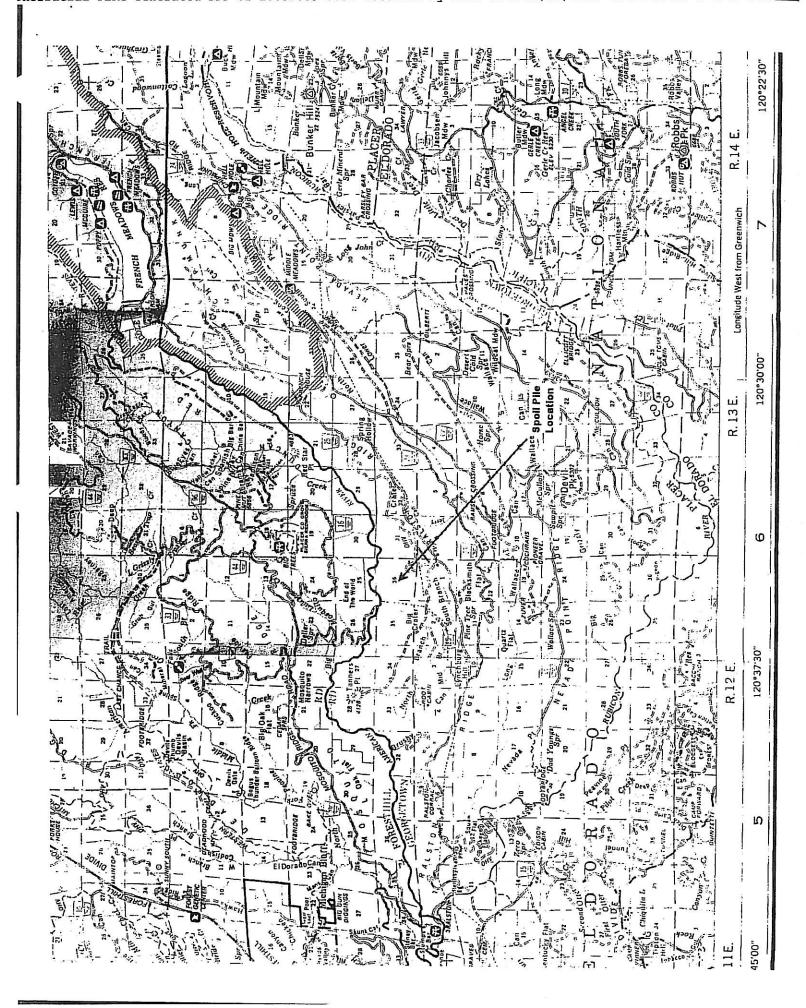
The application will also be forwarded to FERC, San Francisco.

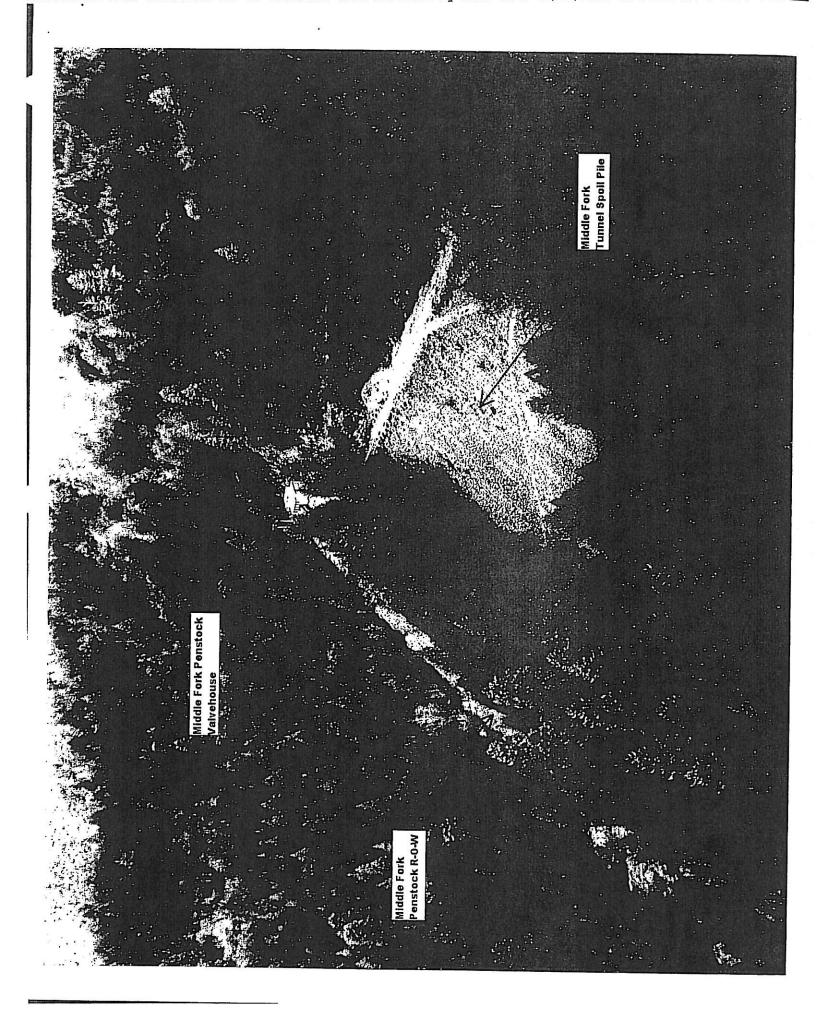
I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

Signature of Applicant

Date

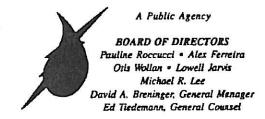
Title 18, U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.





Placer County Water Agency

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September 27, 2005

Mr. Timothy A. Dabney, District Ranger Eldorado National Forest 7600 Wentworth Springs Road Georgetown, CA 95634

Attention: Mr. Jon Jue

Subject: Special Use Permit Application - Middle Fork Tunnel Spoil Pile Geotechnical Investigation - Additional Information

Dear Mr. Dabney,

On September 14, 2005, we submitted an application for a Special Use Permit for the subject project. Our consultant, William Lettis and Associates, Inc. (WLA), has submitted additional information to us concerning the borings, test pits, and their locations. They have revised their work plan which is entitled "Work Plan for Geotechnical Excavation" (attached), which includes two additional photos. This replaces their work plan dated September 7, 2005. There are no substantial changes to the September 14, 2005 application, except for the two items below.

- WLA plans to excavate up to six shallow test pits three to five feet deep to sample the
 tunnel spoil material, using a backhoe or small excavator. The pits will be refilled and
 compacted after a geologist inspects the material. Their locations are shown on the
 photos, and will be excavated within the spoil pile.
- WLA may install and grout in either a piezometer or an inclinometer in the vertical boreholes. If installed, the piezometer will be read over the winter, then capped off. If installed, the inclinometer will be capped off, and checked later if any surface movement of the pile is noted.

As indicated in our previous letter, we appreciate anything you can do to expedite our request. We would like to start the field mapping and test pit excavation by October 24, 2005. If you have any questions, please call Jon Mattson or me at (530) 885-6917.

Sincerely,

PLACER COUNTY WATER AGENCY

Stephen J. Jones

Power System Manager

Attachment

WORK PLAN FOR GEOTECHNICAL EXPLORATION PLACER COUNTY WATER AGENCY MIDDLE FORK TUNNEL MUCK PILE

This Work Plan addresses the proposed geotechnical subsurface investigation for the Placer County Water Agency Middle Fork Tunnel disposal (muck) pile. The subsurface exploration will consist of three to five shallow backhoe test pits (maximum depth of 5-feet), and one to three borings (maximum depths of about 65 feet) made in, and at the toe of, the muck pile. The attached photographs show tentative locations for two borings and five test pits, but these locations require confirmation by a field visit. A third boring may be placed in the muck pile at a currently undertermined location, and based on the results from the field visit.

The exploration is a part of a geotechnical evaluation to assess the stability of the muck pile. Borings and test pits will be used to observe the properties of the muck pile fill, obtain laboratory test specimens, and to assess the compaction, drainage, and foundation conditions. Test pits will be used to directly observe the composition and quality of the muck pile fill. Borings will be extended through the base of the muck pile and into underlying soil and rock to assess the foundation conditions and groundwater conditions. This information will be used to develop a geotechnical model of the muck pile for computer slope stability analysis, evaluation of and development of any required stabilization measures

All field operations will be directed by a qualified WLA geologist who has considerable experience performing similar projects on USFS property. The geologist will serve as the on-site point of contact and responsible party for the site exploration work, and will oversee the safety and environmental precautions through completion of the program.

Test Pits

Test pits will be excavated to a maximum depth of 5 feet along the uphill and side margins of the muck pile, and at the toe of the pile. The test pits will be 2- to 3- feet wide, and cut vertically into the muck pile fill. The length of the test pits will vary between about 15 and 25 feet, and the ends of the pits will be stepped to allow easy entry. Test pit side walls will be cleaned by a hand pick, and photographed and logged by the WLA geologist. Disturbed bag samples will be collected from the test pit sidewalls for laboratory testing.

Excavated spoils will be temporarily stockpiled about 3 feet back from the top of the test pits. Tests pit will be backfilled with the spoil upon completion of logging and sampling. Backfill soils will be tamped in 1 to 2 foot thick layers by the backhoe bucket, and the surface will be smoothed after completion of backfilling.

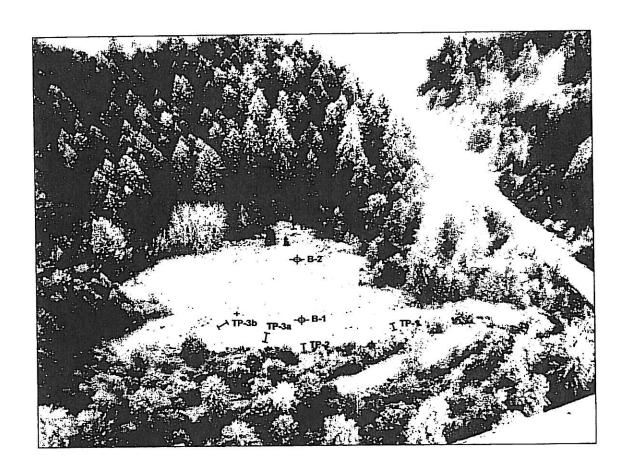
Borings

Exploratory borings will be performed with a track-mounted drilling rig mobilized by truck along the access road that leads to the penstock valvehouse/tunnel portal, and ends at the flat pad formed by the top of the muck pile. The drilling rig will be equipped to perform borings to depths of between about 50 and 75 feet below ground surface using hollow stem augers (dry

drilling), mud rotary (wet drilling), or diamond core (wet drilling) equipment. The method(s) for drilling will be determined after performing the site visit and test pits. Borings will be 4 to 8 inches in diameter, and sampled with a combination of split spoon drive samplers, and core barrels. Water and biodegradable polymer (drilling "mud") will be used for mud rotary and diamond core drilling. The drilling mud will be recirculated in the hole by drilling through a baffled mud tank that catches return water emanating from the hole. Periodically make-up water will be pumped into the mud tank to refill it as some water is lost into the formation/muck pile during drilling.

Drilling equipment and materials will be temporarily stockpiled on the flat area at the top of the muck pile. Drilling rigs and support trucks will be inspected at the site prior to initiation of work to make sure that fuel and hydraulic oil hoses and fittings are in good condition without leaks. Fuel, oil, and cement bags (for borehole backfilling) will be stored on visqueen sheets provided with a catchment berm. A spill cleanup kit will also be stored adjacent to the fuel storage area for emergency containment and cleanup of any possible minor releases. A fire control kit consisting of a shovel, rake, "Indian" backpack water pump, and dry fire extinguisher (for petroleum fuel fires) will be kept near the work site.

All borings will be backfilled to the surface with neat cement grout upon completion of drilling, or fitted with piezometers/inclinometers that will have a surface grout seal to prevent surface water flow into the lower parts of the borings.



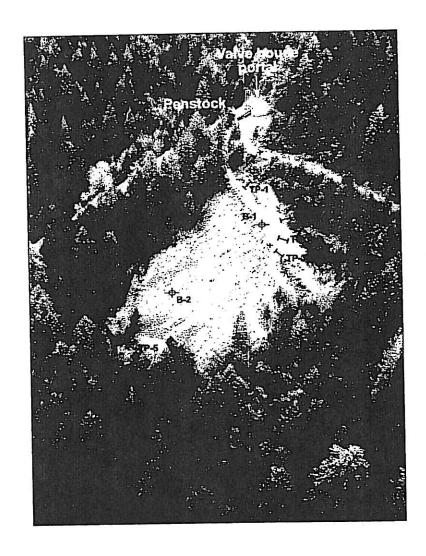
Explanation

-ф- В-1 Proposed boring location

I TP-2 Proposed boring test pit location

+ Proposed survey control point

Photo 1. Oblique photo of Middle fork tunnel.



Explanation

- + В-1 Proposed boring location
- I TP-2 Proposed boring test pit location
 - + Proposed survey control point

Photo 2. Near-vertical photo of exploration locations.