Form DOGM - E (Last Revised 6/93) EXPLORATION / NOT IN PERMIT File Folder # 3

1 Hole

PERMIT CHANGE TRACKING FORM

FEE

DATE RECEIVED	6/14/94	PERMIT NUMBER	CEP/007/038
Title of Proposal: Minor Coal Exploration		PERMIT CHANGE #	CEP/007/038-94A
Description: Permit, Panther Canyon Site - FEE Surface		PERMITTEE	Cyprus Plateau Mining Corp
		MINE NAME	"Willow Creek" PROPOSED

DIVISION - lead agency

	DATE DUE	DATE DONE	RESULT	
☐ 15 DAY INITIAL RESPONSE TO PERMIT CHANGE APPLICATION	N/A		☐ ACCEPTED	☐ REJECTED
☐ Notice of Review Status of proposed permit change sent to the Permittee.			Permit Change Classification	
☐ Request additional review copies prior to Division/Other Agency review.			☐ Significant Permit Revision	
☐ Notice of Approval of Publication. (If change is a Significant Revision.)			☐ Permit Amendment	
☐ Notice of request to modify proposed permit change prior to approval.			☐ Incidental Boundary Change	

REVIEW TRACKING		INITIAL REVIEW		MODIFIED REVIEW		FINAL REVIEW AND FINDINGS	
DOGM REVIEWER		DUE	DONE	DUE	DONE	DUE	DONE
☑ Administrative	Paul	7/14					
☑ Biology	Paul	7/14					
☐ Engineering		consult w/ Henry					
☐ Geology							
☑ Soils	Paul	7/14					
☑ Hydrology	Jim	7/14					
☐ Bonding							
☐ AVS Check							

COORDINATED REVIEWS	DUE	DONE	DUE	DONE	DUE	DONE
☐ OSMRE						
☐ US Forest Service						
☐ Bureau of Land Management						
☐ US Fish and Wildlife Service						
☐ US National Parks Service						
☒ UT Environmental Quality						
☐ UT Water Resources						
☑ UT Water Rights Sent 6/17						
☑ UT Wildlife Resources Sent 6/17						
☑ UT State History Sent 6/17 need sign off						
☐ Other						

☐ Public Notice/Comment/Hearing Complete (If the permit change is a Significant Revision)		☐ Permit Change Approval Form signed and approved effective as of this date. ☐ Permit Change Denied.	
☐ Copies of permit change marked and ready for MRP.		☐ Notice of ☐ Approval ☐ Denial to Permittee.	
☐ Special Conditions/Stipulations written for approval.		☐ Copy of Approved Permit Change to File.	
☐ TA and CHIA modified as required.		☐ Copy of Approved Permit Change to Permittee.	
☐ Permit Change Approval Form ready for approval.		☐ Copies to Other Agencies and Price Field Office.	

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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801-538-5319 (TDD)

Aug 4, 1994

TO: Daron Haddock, Permit Supervisor

FROM: James D. Smith, Reclamation Specialist JDS

RE: Willow Creek Mine Exploration, Cyprus Plateau Mining Corp., CEP/007/038-94A and -94B, Amendment File, Carbon County, Utah

SYNOPSIS

Cyprus Plateau Mining has submitted permit applications for coal exploration at three sites in Carbon County. Exploration is to be done by drilling. The bore holes are to be left open and used as piezometers. Drill sites in Dry and Alrad Canyons are on federal land administered by the BLM and the coal is federally owned. The site in Panther Canyon is located on fee land owned by Cyprus Western Coal Company, an affiliate of Cyprus Plateau Mining, but the coal is owned by Carbon County. DOGM is the lead agency for the site in Panther Canyon. The BLM is the lead agency in permitting the two sites on federal property, with DOGM providing comments.

Steve Johnson has reviewed these permit applications and has provided written comments concerning hydrology and related issues. I have also reviewed the applications and, at Paul Baker's suggestion, have added one comment on the Dry Canyon phase of the project.

ANALYSIS

Rule Citation

43CFR-3482.1(a)(3)(iv) **A narrative description of the methods to be used to conduct coal exploration, reclamation, and abandonment...**

Discussion

"Access to the Dry Canyon Site will be via an existing dirt road up Dry Canyon. The road will be rehabilitated and a new crossing of Willow Creek will be

permitted through the U. S. Corps of Engineers and the Utah State Engineer and constructed." (page 6 of Dry/Alrad Canyons Exploration Plan)

The narrative does not indicate if the new crossing is being designed, permitted, and built as a permanent structure or if the area will be reclaimed after the exploration work is completed. If it is to be reclaimed, there is no reclamation plan described.

FINDING/RECOMMENDATION

It is recommended that the BLM receive clarification from Cyprus Plateau Mining as to whether the Willow Creek crossing is to be permanent or to be reclaimed, and if it is to be reclaimed what reclamation plan will be followed.

cprsexpl.mjs

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

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July 18, 1994

TO: Daron Haddock, Permit Supervisor

FROM: Steven M. Johnson, Reclamation Hydrologist SMJ

RE: Draft Review, Minor Coal Explorations, Proposed Willow Creek Mine, Cyprus Plateau Mining, CEP/007/038-94A and 94B, Working File, Carbon County, Utah

SYNOPSIS

Two minor coal exploration proposals were made by Cyprus Plateau Mining to establish three water monitoring wells. Two of the wells are to be drilled in an area of land controlled by the Bureau of Land Management (BLM), and one well will be drilled in the area of Fee coal. The activities necessary for the drilling of the single well are included in permit change number 94A, and the activities associated with the BLM coal are included in number 94B.

ANALYSIS

R645-301-731.100. Hydrologic-Balance Protection.

An open pit will be used to collect water and earth material from the drilling activities to allow evaporation and reduce infiltration. This will minimize the amount of acidic, toxic and other harmful substances from reaching the ground-water and surface-water systems.

R645-301-731.200. Water Monitoring.

The purpose of this exploration program is to construct ground-water monitoring equipment for the collection of baseline data for a mine permit application. The monitoring wells will be installed by a licensed Utah water well driller and in conformity with the State Engineer's guidelines.

R645-301-742.100. Appropriate sediment control measures will be designed, constructed and maintained using the best technology currently available.

Cyprus Plateau has not proposed to construct any siltation structures at any of the drilling sites. Both proposals say that alternate sediment control measures would be used,

consisting of straw bales and silt fences at the fee coal site, and straw bales, silt fences and berms at the BLM sites. Cyprus Plateau did not propose any typical or specific designs for these measures and did not describe where these measures would be used on the respective sites. The alternate sediment control measures are only to be used "if needed." Cyprus Plateau should explain what types of sediment control would be used other than the previously stated measures. If the operator intends to request small area exemptions for these areas, special considerations outlined in R645-301-742.240 and the Division directive on Alternate Sediment Controls and SAE's must be met.

FINDINGS/RECOMMENDATION

These proposals for minor coal explorations may be approved after sediment control measures are addressed satisfactorily with respect to R645-301-742.100. Cyprus Plateau has met other the other regulation requirements pertaining to this project. One recommendation for sediment control is to place the mud pits at the lowest possible point in the work site. The mud pits would then trap much of the runoff created on site.

EXPLORE.MEM

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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July 27, 1994

TO: Daron Haddock, Permit Supervisor

FROM: Paul Baker, Reclamation Biologist

RE: Draft Review, Panther Canyon Exploration, Cyprus Plateau Mining Corporation, CEP/007/038, Working File, Carbon County, Utah

SYNOPSIS

Cyprus Plateau Mining Corporation is proposing to drill an exploration hole in Panther Canyon. The exploration would be on fee land controlled by Cyprus Western Coal Company and accessed by a road on fee, County, and Bureau of Land Management lands. Less than 250 tons of coal would be removed.

The exploration regulations do not address identification and protection of cultural resources; however, other laws require that significant cultural resources be protected. Cyprus submitted a cultural resources survey of the area. It mentions one site in the area, the Milburn Mine, that is apparently in the general area and that has been recommended as eligible for the National Register of Historic Places. The report does not show where this site is, but it recommended a cultural resources clearance for the area. The State Historic Preservation Officer concurred in this determination.

ANALYSIS

R645-201-200 Minor Coal Exploration Permits

Cyprus Plateau Mining Corporation proposes to drill an exploration hole in Panther Canyon. Less than 250 tons of coal will be removed. The application shows Cyprus' address and telephone number and the names of representatives who will be present at and responsible for conducting the exploration operations. The site is not near a currently-permitted area.

Exploration will begin in late July or as soon as it is approved and proceed for about three weeks. Reclamation may extend beyond the three week period.

The application gives a description of drilling methods and equipment that will be used. The existing roadway will be widened as little as possible to provide enough space for the operations. A mud pit about fifteen feet square by four feet deep will contain the drilling

medium and effluent drilling materials.

R645-202-231 Habitats of Unusually High Value

Exploration will be completed within about three weeks after commencement. Commencement is anticipated to be near the end of July. The proposed period of exploration is within a time period that is not crucial for area wildlife. No adverse effects are anticipated by the Division of Wildlife Resources.

About 10,000 gallons of water will be pumped from the Price River using screened suction type pumps from the bank. According to the application, the methods used to remove the water will ensure that fish and other river inhabitants will not be harmed.

An ecological evaluation report of the proposed well site by Steve Viert of Cedar Creek Associates says that no sensitive flora were observed on the well site. The only sensitive, threatened or endangered plant species likely to be present is canyon sweetvetch (*Hedysarum occidentale* var. *canone*). Mr. Viert mentioned in a telephone conversation that he is familiar with this plant and its habitat requirements and that he did not see it. He felt that the drill site will be far enough away from drainages that it is probably not present.

R645-202-233 Topsoil

The exploration application says that topsoil will be separately removed and stored then redistributed on the small drill pad when use of the pad is no longer required.

The application does not say how much topsoil is present or how much will be removed and stored. Without this information, the operator would not know how much soil to save. There are different ways this problem could be addressed. Cyprus could commit to have either a Division soils specialist, a soil scientist, or another qualified person present when the soil is being removed. This person could identify the horizons and determine at that time how much soil needs to be saved. Another option would be to characterize the soil, at least the depth of topsoil, prior to any disturbance.

R645-202-242 Revegetation

When exploration is completed, trash and other debris will be removed, the mud pit will be backfilled, and topsoil will be distributed. The drill pad will be returned to the approximate original contour, scarified, and seeded. This will be done in the first season following completion of the exploration program.

The seed mixture is composed of four grasses, two broadleaf forbs, and one shrub that are well-adapted to the area. Although they would not provide a diversity of species, they are the most important reclamation species for controlling erosion and providing forage for livestock and wildlife.

The reestablished vegetation is required to be capable of stabilizing the soil surface from erosion. The application does not contain a standard by which erosion control could be judged.

FINDINGS

The application needs to identify how much topsoil will be salvaged and stored. Alternatively, the applicant may commit to have a qualified person present when the topsoil is being salvaged to determine how much needs to be saved.

The application needs to include a standard by which erosion control, and thus revegetation success, can be judged.

State of Utah

Department of Community & Economic Development
Division of State History
Utah State Historical Society

Michael O. Leavitt
Governor
Max J. Evans
Director

300 Rio Grande
Salt Lake City, Utah 84101-1182
(801) 533-3500
FAX: (801) 533-3503

July 8, 1994

RECEIVED
JUL 13 1994
DIV. OF OIL, GAS & MINING

Amendment file

Pamela Grubaugh-Littig
Permit Supervisor
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Sutie 350
Salt Lake City, Utah 84180-1203

RE: Minor Coal Exploration, Panther Canyon Site and Dry Canyon and Alrad Canyon Site, Cyprus Plateau Mining Corporation, CEP/007/038-94A, and CEP/007/038-94B, Folder #2, Carbon County, Utah

Copy PAM

In Reply Please Refer to Case No. 94-0836

Dear Ms. Grubaugh-Littig:

The Utah State Historical Preservation Office received the above referenced project. After review of the material provided, the Utah Preservation Office recommends that there would be **No Effect** upon cultural resources by the project.

This information is provided on request to assist the Division of Oil, Gas and Mining with its Section 106 responsibilities as specified in 36CFR800. If you have questions, please contact me at (801) 533-3555.

Sincerely,

Janice Reed Campbell
for James L. Dykmann
Compliance Archaeologist

JLD:94-0836 DOGM/NP/NE

Board of State History: Marilyn C. Barker • Dale L. Berge • Boyd A. Blackner • Peter L. Goss
David D. Hansen • Carol C. Madsen • Dean L. May • Christie Needham • Thomas E. Sawyer • Penny Sampinos • Jerry Wylie

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
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August 15, 1994

Mr. Ben Grimes
Cyprus Plateau Mining Corporation
P. O. Drawer PMC
Price, Utah 84501

Re: Panther Canyon Exploration, Cyprus Plateau Mining Corporation, CEP/007/038-94A, Folder #3, Carbon County, Utah

Dear Mr. Grimes:

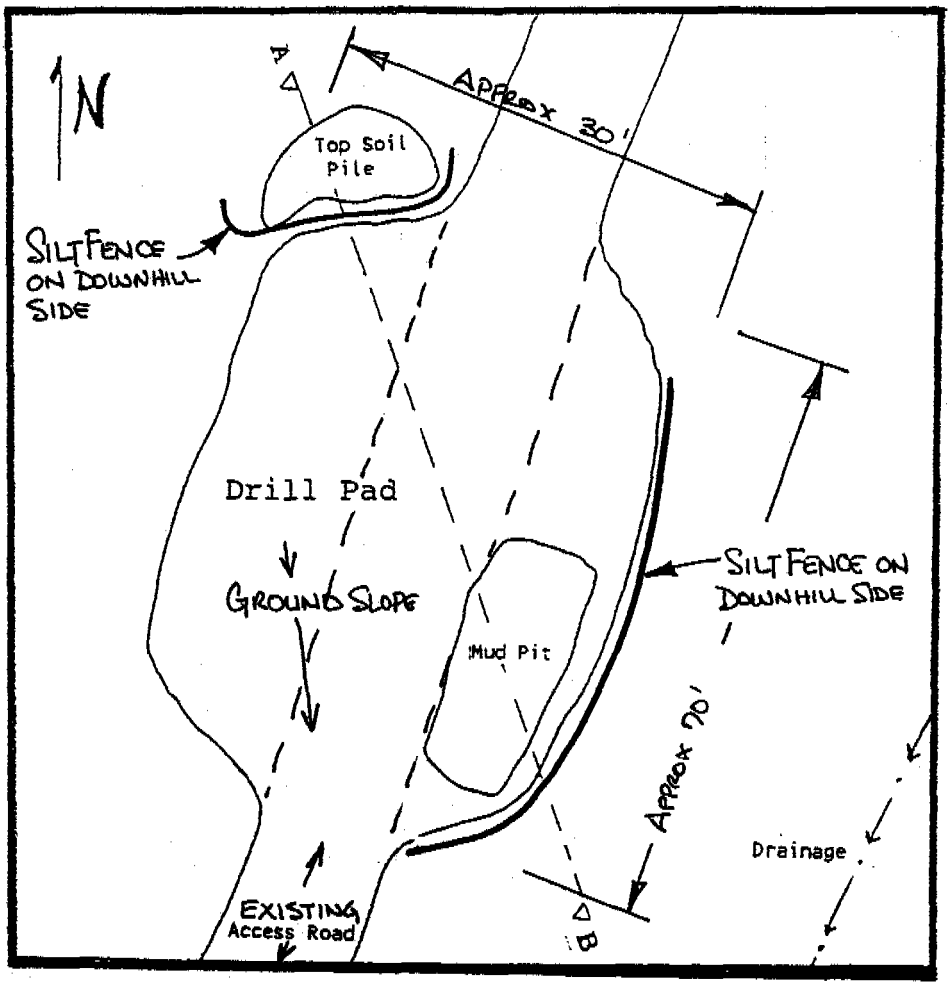
Final approval of this minor exploration project is issued, effective August 15, 1994. The three conditions outlined in the August 7, 1994 letter have been adequately addressed.

Sincerely,

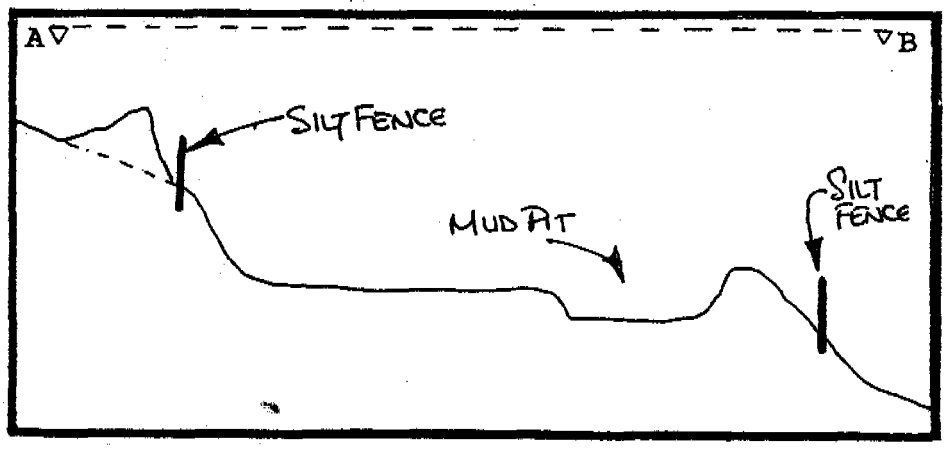
Pamela Grubaugh-Littig
Permit Supervisor

cc: Daron Haddock

PLAN VIEW



X-SECTION



RECEIVED
AUG 1 5
DIV. OF OIL, GAS & MINING

PROPOSED DRILL PAD LAYOUT

Not To Scale

Panther Canyon Site

Figure 2

Revised 8/12/94

construction is required.

-534.140. Have a schedule and plan to remove and reclaim each road that would not be retained under an approved postmining land use.

Not Applicable because this road will be retained for the continued use of private property owners in the area.

-534.150. Control or prevent erosion, siltation and the air pollution attendant to erosion by vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices.

Erosion control measures will be taken, including protecting top soil piles, diverting overland flows around the drill pad, and other measures as required.

-534.200. To ensure environmental protection and safety appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and reconstruction of roads will incorporate appropriate limits for grade, width, surface materials, and any necessary design criteria established by the Division.

The road is a primitive type drill road which will be accessed by 4X4 vehicles and crawler caterpillar tractor and will maintain a grade appropriate for it's use.

233. Topsoil will be separately removed, stored, and redistributed on areas disturbed by coal exploration activities as necessary to assure successful revegetation or as required by the Division.

Topsoil will be separately removed and stored **(Figure 2)** then redistributed on the small drill pad when use of the pad is no longer required. *The topsoil stockpile will be protected with a silt fence on the downhill side as shown on Figure 2. A qualified person will be on site during topsoil removal to insure all available useable material is removed for reclamation purposes.*

234. Diversions of overland flows and ephemeral, perennial, or intermittent streams will be made in accordance with

constructed as designed and as approved in the reclamation plan.

742.213. Any siltation structures which impounds water will be designed, constructed and maintained in accordance with R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743.

742.214. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, any point-source discharge of water from underground workings to surface waters which does not meet the effluent limitations of R645-301-751 will be passed through a siltation structure before leaving the permit area.

Construction of siltation structures is not a part of this project. ~~If needed, however,~~ ~~a~~Alternate sediment control measures will be taken which include temporary siltation structures constructed of ~~straw bails or~~ silt fences. *Silt fences will be placed on the downgradient sides of the pad area and the topsoil pile as shown on Figure 2. The pad will be constructed to drain to the mud pit to prevent runoff from leaving the site.*

742.220. Sedimentation Ponds.

742.221. Sedimentation ponds, when used, will:

742.221.1. Be used individually or in series;

742.221.2. Be located as near as possible to the disturbed area and out of perennial streams unless approved by the Division; and

742.221.3. Be designed, constructed, and maintained to:

742.221.31. Provide adequate sediment storage volume;

742.221.32. Provide adequate detention time to allow the effluent from the ponds to meet Utah and federal effluent limitations;

742.221.33. Contain or treat the 10-year, 24-hour precipitation event ("design event") unless a lesser design event is approved by the Division based on terrain, climate, or other site-specific conditions and on a demonstration by the operator that the effluent limitations of R645-301-751 will be met;

742.221.34. Provide a nonclogging dewatering device adequate to maintain the detention time required under R645-301-742.221.32.

742.221.35. Minimize, to the extent possible, short circuiting;

742.221.36. Provide periodic sediment removal sufficient to maintain adequate volume for the design event;

silt fences as temporary siltation structures.

236. Acid- or toxic-forming materials will be handled and disposed of in accordance with R645-301-731.110, R645-301-731.300, and R645-301-553.260. The Division may specify additional measures which will be adopted by the person engaged in coal exploration.

Acid-forming or toxic-forming materials will not be used on this project. Drill cuttings will be contained and buried in the mud pit. Core of coal and surrounding strata will be taken off site. Also see response to 731.110 above.

240. Reclamation Standards.

241. If excavations, artificially flat areas, or embankments are created during exploration, these areas will be returned to the approximate original contour promptly after such features are no longer needed for coal exploration.

242. All areas disturbed by coal exploration activities will be revegetated in a manner that encourages prompt revegetation and recovery of a diverse, effective, and permanent vegetative cover. Revegetation will be accomplished in accordance with the following:

242.100. All areas disturbed by coal exploration activities will be seeded or planted to the same seasonal variety native to the areas disturbed. If the land use of the exploration area is intensive agriculture, planting of the crops normally grown will meet the requirements of R645-202-242.100; and

242.200. The vegetative cover will be capable of stabilizing the soil surface from erosion.

The exploration site will have trash and debris removed, mud pit backfilled, and topsoil distributed upon completion of exploration activity. The drill pad will be returned to the approximate original contour, scarified, and re-seeded with the seed mix shown on **Table 1**. Existing roads will be returned to a condition equal to or better than their condition prior to commencement of the exploration activities. Seeding of the rehabilitated drill pad and access road will be accomplished in the first season following completion of the exploration program. *Erosion will be evaluated by taking photographs of the downgradient side of the site just below the silt fencing and comparing potential erosion with the pre-existing erosion. A map will be made of existing erosion at the site to be disturbed documenting erosion rills. Measurements will*

be made of the depths of the rills. Any rills below the pad site deeper than 4 inches will have a wooden stake driven in the flowline at the beginning of the project; a mark will be placed on the stake/s and a measurement will be made to the flowline of the rill which can be measured periodically for additional erosion. Documentation of the measurements will be maintained on file at CPMC for reference.

Vegetation success on the reclaimed area will be judged based on the above erosion documentation in light of this regulation.

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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August 7, 1994

Mr. Ben Grimes
Cyprus Plateau Mining Corporation
P. O. Drawer PMC
Price, Utah 84501

Re: Panther Canyon Exploration, Cyprus Plateau Mining Corporation, CEP/007/038-94A, Folder #3, Carbon County, Utah

Dear Mr. Grimes:

The above-noted minor coal exploration application has been reviewed. This application for exploration of the Panther Canyon drill site is approvable conditioned upon the applicant adequately addressing the following issues prior to initiating construction activities:

1. The application needs to identify how much topsoil will be salvaged and stored. (Alternatively, the applicant may commit to have a qualified person present when the topsoil is being salvaged to determine how much topsoil needs to be saved.)

2. The application must include a standard by which erosion control, and thus revegetation success, can be judged.

3. Sediment control measures must be addressed satisfactorily pursuant to R645-301-742.100.

Please submit the above-noted conditions to the Division for review and final approval. If you have any questions, please call me.

Sincerely,

Pamela Grubaugh-Littig
Permit Supervisor

cc: Daron Haddock

TECHNICAL ANALYSIS

Cyprus Plateau Mining Corporation
Panther Canyon Exploration
CEP/007/038-94A

August 4, 1994

ANALYSIS

R645-201-200 Minor Coal Exploration Permits

Cyprus Plateau Mining Corporation proposes to drill an exploration hole in Panther Canyon. Less than 250 tons of coal will be removed. The application shows Cyprus' address and telephone number and the names of representatives who will be present at and responsible for conducting the exploration operations. The site is not near a currently-permitted area.

Exploration will begin in late July or as soon as it is approved and proceed for about three weeks. Reclamation may extend beyond the three week period.

The application gives a description of drilling methods and equipment that will be used. The existing roadway will be widened as little as possible to provide enough space for the operations. A mud pit about fifteen feet square by four feet deep will contain the drilling medium and effluent drilling materials.

R645-202-231 Habitats of Unusually High Value

Exploration will be completed within about three weeks after commencement. Commencement is anticipated to be near the end of July. The proposed period of exploration is within a time period that is not crucial for area wildlife. No adverse effects are anticipated by the Division of Wildlife Resources.

About 10,000 gallons of water will be pumped from the Price River using screened suction type pumps from the bank. According to the application, the methods used to remove the water will ensure that fish and other river inhabitants will not be harmed.

An ecological evaluation report of the proposed well site by Steve Viert of Cedar Creek Associates says that no sensitive flora were observed on the well site. The only sensitive, threatened or endangered plant species likely to be present is canyon sweetvetch (*Hedysarum occidentale* var. *canone*). Mr. Viert mentioned in a telephone conversation that he is familiar with this plant and its habitat requirements and that he did not see it. He felt that the drill site will be far enough away from drainages that it is probably not present.

R645-202-233 **Topsoil**

The exploration application says that topsoil will be separately removed and stored then redistributed on the small drill pad when use of the pad is no longer required.

The application does not say how much topsoil is present or how much will be removed and stored. Without this information, the operator would not know how much soil to save. There are different ways this problem could be addressed. Cyprus could commit to have either a Division soils specialist, a soil scientist, or another qualified person present when the soil is being removed. This person could identify the horizons and determine at that time how much soil needs to be saved. Another option would be to characterize the soil, at least the depth of topsoil, prior to any disturbance.

R645-202-242 **Revegetation**

When exploration is completed, trash and other debris will be removed, the mud pit will be backfilled, and topsoil will be distributed. The drill pad will be returned to the approximate original contour, scarified, and seeded. This will be done in the first season following completion of the exploration program.

The seed mixture is composed of four grasses, two broadleaf forbs, and one shrub that are well-adapted to the area. Although they would not provide a diversity of species, they are the most important reclamation species for controlling erosion and providing forage for livestock and wildlife.

The reestablished vegetation is required to be capable of stabilizing the soil surface from erosion. The application does not contain a standard by which erosion control could be judged.

R645-301-731.100 **Hydrologic-Balance Protection**

An open pit will be used to collect water and earth material from the drilling activities to allow evaporation and reduce infiltration. This will minimize the amount of acidic, toxic and other harmful substances from reaching the ground-water and surface-water systems.

R645-301-731.200 Water Monitoring

The purpose of this exploration program is to construct ground-water monitoring equipment for the collection of baseline data for a mine permit application. The monitoring wells will be installed by a licensed Utah water well driller and in conformity with the State Engineer's guidelines.

R645-301-742.100 Appropriate sediment control measures will be designed, constructed and maintained using the best technology currently available.

Cyprus Plateau has not proposed to construct any siltation structures at any of the drilling sites. Both proposals say that alternate sediment control measures would be used, consisting of straw bales and silt fences at the fee coal site, and straw bales, silt fences and berms at the BLM sites. Cyprus Plateau did not propose any typical or specific designs for these measures and did not describe where these measures would be used on the respective sites. The alternate sediment control measures are only to be used "if needed." Cyprus Plateau should explain what types of sediment control would be used other than the previously stated measures. If the operator intends to request small area exemptions for these areas, special considerations outlined in R645-301-742.240 and the Division directive on Alternate Sediment Controls and SAE's must be met.

FINDINGS

The application for exploration of the Panther Canyon drill site is approvable conditioned upon the Applicant addressing the following issues prior to initiating construction activities.

1. The application needs to identify how much topsoil will be salvaged and stored. Alternatively, the Applicant may commit to have a qualified person present when the topsoil is being salvaged to determine how much needs to be saved.

2. The application needs to include a standard by which erosion control, and thus revegetation success, can be judged.

3. These proposals for minor coal explorations may be approved after sediment control measures are addressed satisfactorily with respect to R645-301-742.100.

Form DOGM - E (Last Revised 6/93) EXPLORATION / NOT IN PERMIT File Folder # 3

1 Hour

PERMIT CHANGE TRACKING FORM

FEE

DATE RECEIVED	6/14/94	PERMIT NUMBER	CEP/007/038
Title of Proposal: Minor Coal Exploration		PERMIT CHANGE #	CEP/007/038-94A
Description: Permit, Panther Canyon Site - FEE Surface		PERMITTEE	Olympus Platinum Mining Co
		MINE NAME	"Willow Creek" PROPOSED

DIVISION - lead agency

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☐ Bonding ___						
☐ AVS Check ___						

COORDINATED REVIEWS	DUE	DONE	DUE	DONE	DUE	DONE
☐ OSMRE						
☐ US Forest Service						
☐ Bureau of Land Management						
☐ US Fish and Wildlife Service						
☐ US National Parks Service						
☑ UT Environmental Quality ?						
☐ UT Water Resources						
☐ UT Water Rights						
☑ UT Wildlife Resources ?						
☑ UT State History need sign off						
☐ Other						

☐ Public Notice/Comment/Hearing Complete (If the permit change is a Significant Revision)		☐ Permit Change Approval Form signed and approved effective as of this date. ☐ Permit Change Denied.	
☐ Copies of permit change marked and ready for MRP.		☐ Notice of ☐ Approval ☐ Denial to Permittee.	
☐ Special Conditions/Stipulations written for approval.		☐ Copy of Approved Permit Change to File.	
☐ TA and CHIA modified as required.		☐ Copy of Approved Permit Change to Permittee.	

MINOR COAL EXPLORATION PLAN

Panther Canyon Site

Carbon County Coal Lease

FEE Surface

CARBON COUNTY, UTAH

Cyprus Plateau Mining Corporation

For

CYPRUS WESTERN COAL COMPANY

JUNE 1994

This exploration plan has been prepared by Cyprus Plateau Mining Corporation for Cyprus Western Coal Company (a Delaware corporation) and submitted to gain approval of a Minor Coal Exploration Permit to explore for Fee Coal on Fee Surface Land and to install a ground-water monitoring well.

Format of this application is:

Each regulation for which there is a response has been underlined.

Each regulation which apparently does not apply to coal exploration is presented in smaller type, is not followed by a response and is not underlined.

Each referenced regulation brought into the stream of R645-200-203 is identified by an arrow (→).

Each response is left justified.

R645-200. Coal Exploration: Introduction.

R645-200-100. Scope.

122. <u>Minor Coal Exploration. Coal exploration that occurs outside an approved permit area during which 250 tons or less of coal will be removed will require Division approval and issuance of a Minor Coal Exploration Permit under the requirements of R645-201-200.</u>

This application qualifies as minor coal exploration because less than 250 tons of coal will be removed and it is occurring outside of a permit area. A permit will be applied for following baseline data gathering.

R645-200-200. Responsibilities.

210. <u>This is the responsibility of any person seeking to conduct coal exploration under the State Program to comply with the requirements of R645-200 through R645-203</u>.

Cyprus Plateau Mining Corporation herein demonstrates willingness to comply with the requirements of R645-200 through R645-203.

R645-201-200. Minor Coal Exploration Permits.

R645-201-210. Applications for Minor Coal Exploration Permits when 250 tons or less of coal will be removed will require written Division approval prior to conducting exploration.

Cyprus Plateau Mining Corp. and it's agents will not proceed without receiving written approval of this permit application.

R645-201-220 Applications for Minor Coal Exploration Permits will include:

221. The name, address and telephone number of the applicant seeking to explore;

Cyprus Plateau Mining Corporation
P.O. Drawer PMC
Price, Utah 84501
(801)637-2875

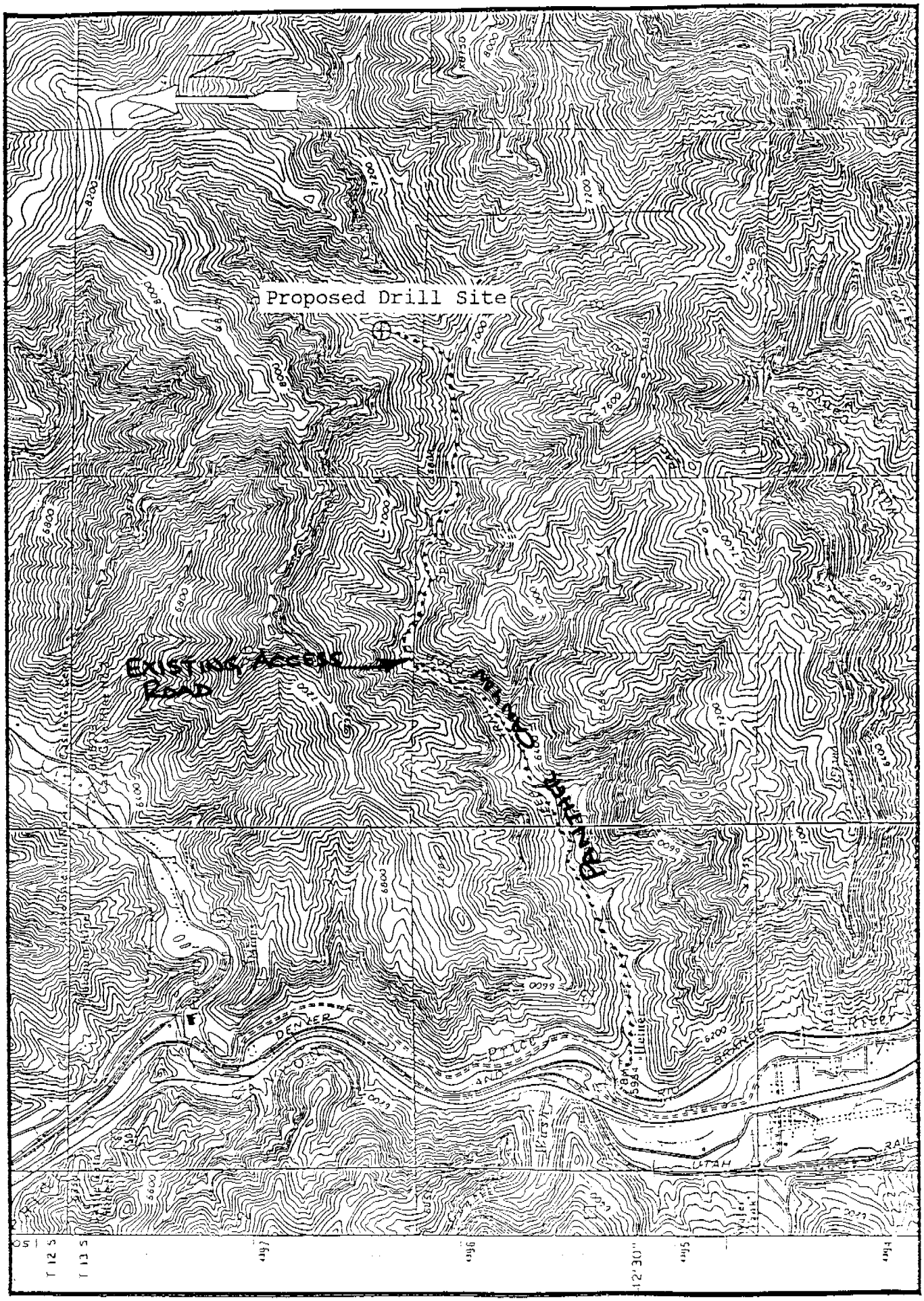
222. The name, address and telephone number of the applicant's representative who will be present at, and responsible for conducting the exploration operations;

Gregory L. Hunt
449 Gordon Drive
CastleRock, Colo. 80104
(303) 660-9368

John Mercier & Ben Grimes
Cyprus Plateau Mining Corp.
P.O. Drawer PMC
Price, Utah 84501 (801) 637-2875

223. A narrative and map describing the exploration area and indicating where exploration will occur in relation to an approved permit area;

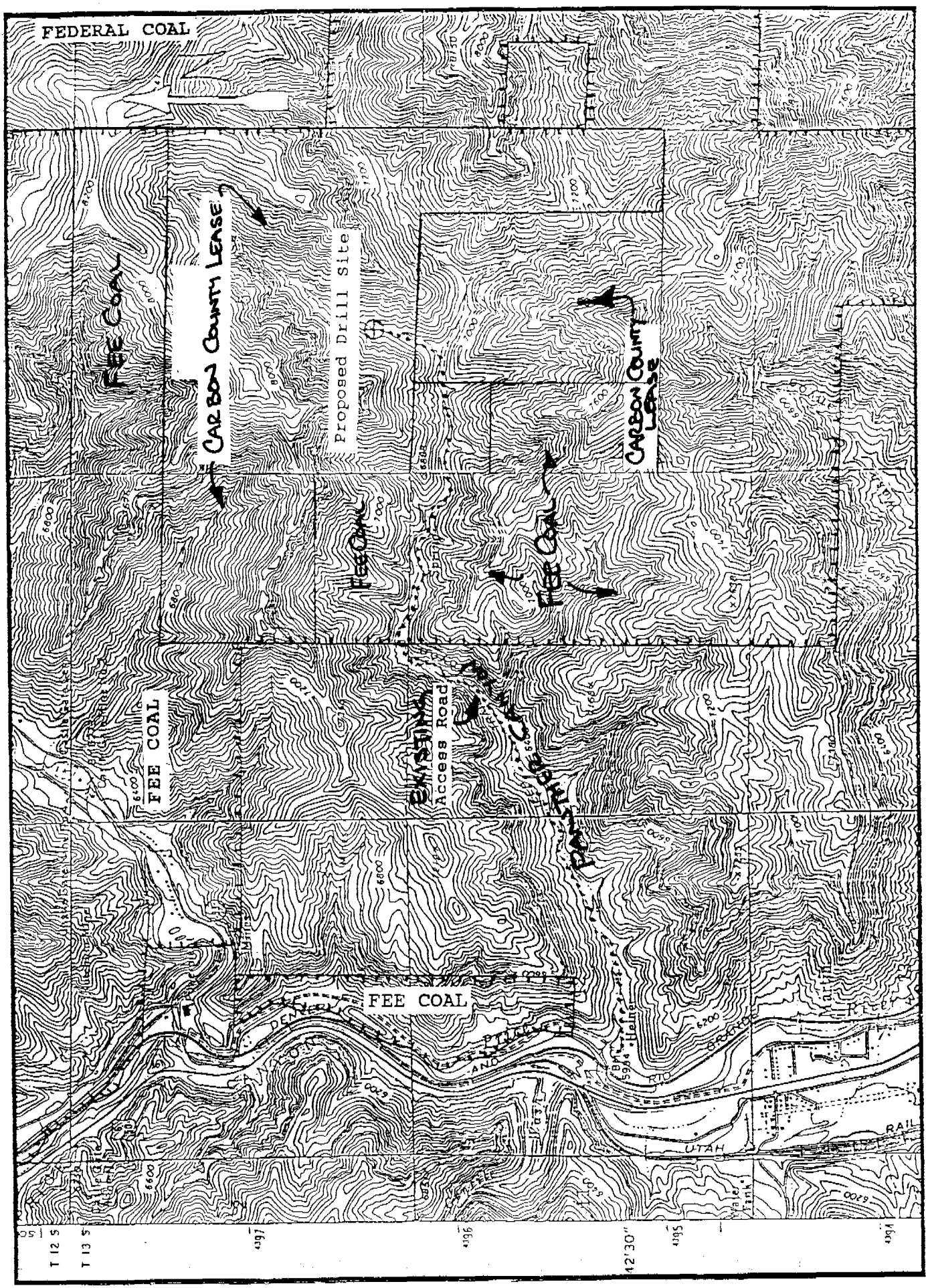
The Panther Canyon Drill Site is located in the SE1/4 SW1/4 of Sec. 5, T 13S, R 10E SLM which is accessed via private and fee property through Panther Canyon. The site is not located near a current permit area as shown on Figure 1 (Proposed Panther Canyon Drill Site & Access), and Maps 1 & 2 (Coal Ownership Map & Surface Control Map).



PROPOSED PANTHER CANYON DRILL SITE and ACCESS

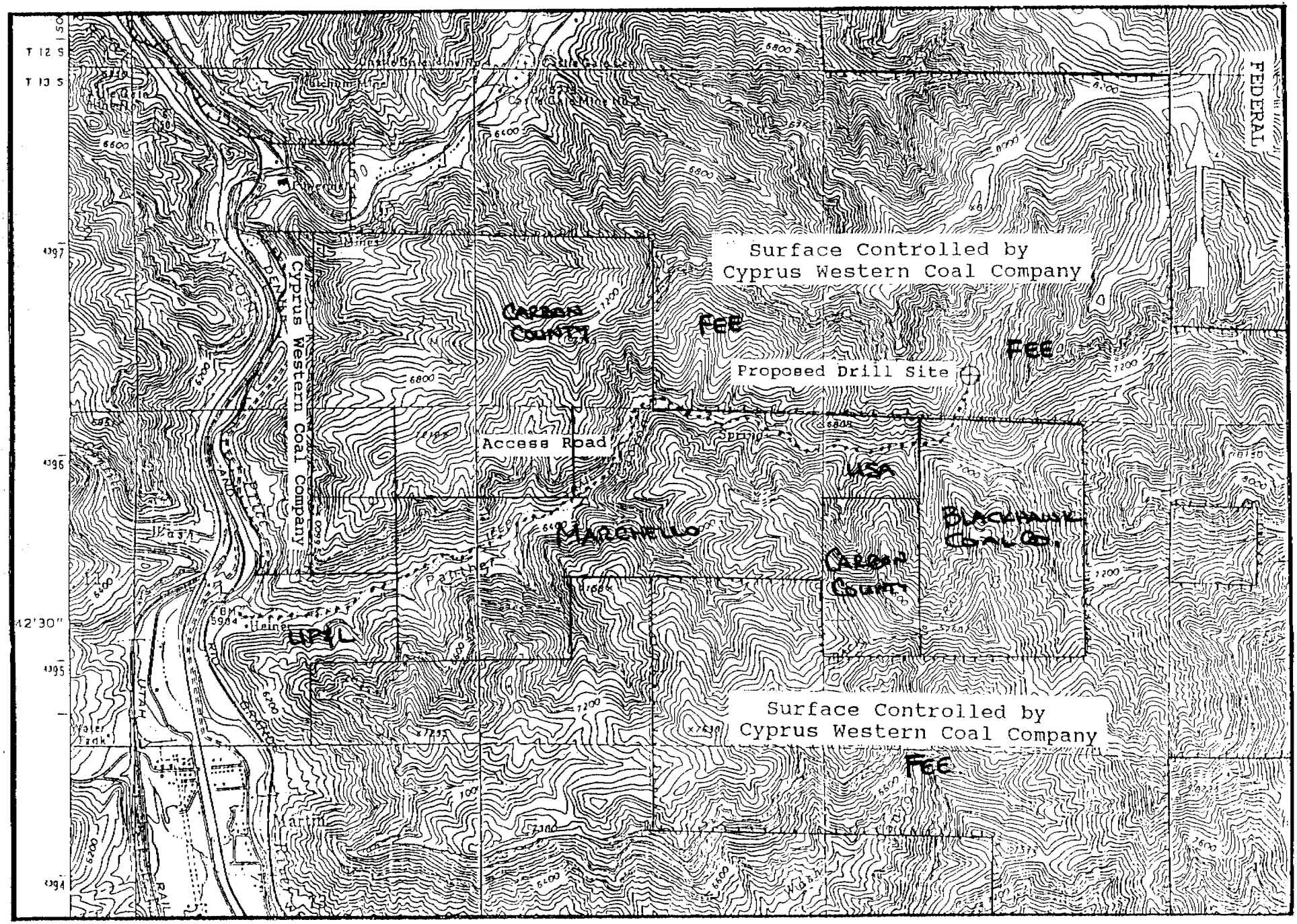
USGS Helper, Utah Quadrangle, 1972

Figure 1



COAL OWNERSHIP MAP
Proposed Panther Canyon Drill Site & Access
USGS Helper, Utah Quadrangle, 1972

MAP 1



SURFACE CONTROL MAP
Proposed Panther Canyon Drill Site & Access
USGS Helper, Utah Quadrangle, 1972

MAP 2

224. A statement of the period of intended exploration; and

Exploration will commence in late July or as soon as written approval of this application is received by Cyprus Plateau Mining Corp., and proceed for approximately three weeks after commencement. Reclamation activities may extend beyond the three week active exploration (drilling) phase.

225. A description of the method of exploration to be used, the amount of coal to be removed and the practices that will be followed to protect the area from adverse impacts of the exploration activities and to reclaim the area in accordance with the applicable requirements of R645-202.

Method of Exploration

Exploration data collection will involve rotary drilling and core sampling. Only the coal seams and immediate roof and floor will be core drilled. The overlying strata will be plug drilled (open-hole drilled) to a predetermined core point. The primary equipment for the drilling phase will be a truck-mounted, or skid-mounted rotary drilling rig. Backup and auxiliary equipment may include but not be limited to a water truck, a D-8 or similar track-type dozer, a rubber-tired backhoe, an electric generator, electric and mechanical geophysical logging equipment. Access by personnel to drilling site will be by four-wheel drive pick-up truck or similar vehicle.

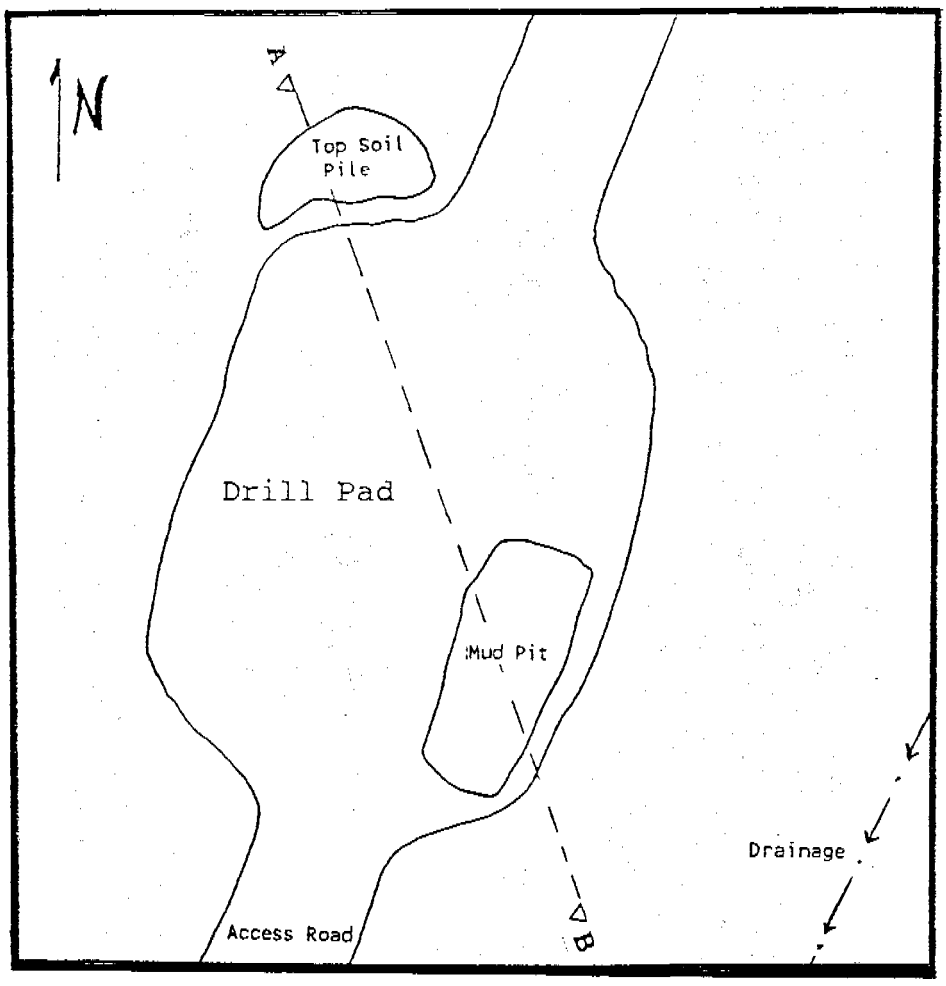
Amount of Coal to be removed

One NX size core cylinder (approximately 2" diameter) with length equal to the thickness of each seam will be removed from each seam for chemical analysis. The amount of coal removed will be less than 250 tons.

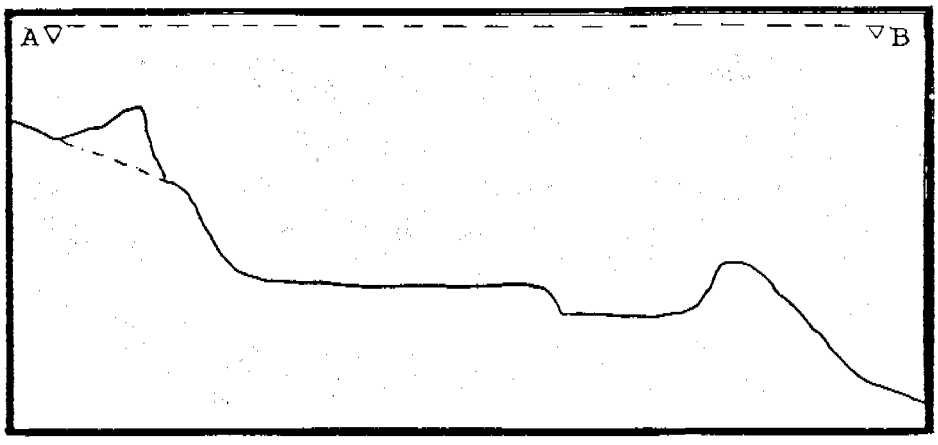
Practices that will be followed to protect the area from adverse impacts

The drill site is located as near as possible to the existing road minimizing the need for construction. The drill pad will be constructed by widening the existing roadway to provide enough space for drilling operations. The drill pad will be made as small as is practical to accommodate the drill rig. A mud pit, approximately 15 feet square by four feet deep, will contain the drilling medium and all effluent drilling materials preventing them from contaminating the surrounding environment shown on **Figure 2 (Proposed Drill Pad Layout)**.

PLAN VIEW



X-SECTION



PROPOSED DRILL PAD LAYOUT

Not To Scale

Panther Canyon Site

Figure

2

Reclamation practices outlined in following section

R645-202. Coal Exploration: Compliance Duties.

R645-202-100. Required Documents.

Each person who conducts coal exploration which substantially disturbs the natural land surface will, while in the exploration area, have available a copy of the approved Minor Coal Exploration Permit or Major Coal Exploration Permit or have available a copy of the Division approval for exploration within the permit area for review by the authorized representative of the Division upon request.

Copies of the approved Minor Coal Exploration Permit will be available on-site to every person working on this project.

R645-202-200. Performance Standards.

210. All coal exploration and reclamation operations which substantially disturb the natural land surface or which remove more than 250 tons of coal will be conducted in accordance with the coal exploration requirements of the State Program, and any conditions on approval for exploration and reclamation imposed by the Division.

Less than 250 tons of coal will be removed during this exploration program and the exploration activities will not substantially disturb the natural land surface. However Cyprus Plateau Mining Corp. will reclaim the disturbed area in accordance with the State Program and in accordance with the conditions on approval of the Minor Coal Exploration Permit.

220. Any person who conducts any coal exploration in violation of the State Program will be subject to the provisions of 40-10-20 of the Act and the applicable inspection and enforcement provisions of the R645 Rules.

Cyprus Plateau Mining Corp. will not conduct coal exploration in violation of the State Program.

230. Operational Standards.

231. Habitats of unique or unusually high value for fish, wildlife, and other related environmental values and critical habitats of threatened or endangered species identified pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) will not be disturbed during coal exploration.

The Price River is the only perennial stream or body of water capable of supporting fish within or near the exploration area. Drilling water will be pumped from the Price River using screened suction type pumps from the bank. Cyprus Plateau Mining Corp. has water rights from the Price River. The volume removed (approximately 10,000 gallons) and the methods used to remove the water from the Price river insures that fish and other inhabitants will not be harmed.

Survey's for threatened and endangered species (T&E) and Raptors are now being completed, the results of each will be forwarded as soon as is possible.

232. All roads or other transportation facilities used for coal exploration will comply with the applicable provisions of R645-301-358, R645-301-512.250, R645-301-526.200, R645-301-527.100, R645-301-527.230, R645-301-534.100 through R645-301-534.300, R645-301-542.600, R645-301-742.410 through R645-301-742.420, R645-301-752.200, and R645-301-762.

→ R645-301-358. Protection of Fish, Wildlife, and Related Environmental Values. The operator will, to the extent possible using the best technology currently available, minimize disturbances and adverse impacts on fish, wildlife,m and related environmental values and will achieve enhancement of such resources where practicable.

Addressed under response to R645-202-231. above.

→ R645-301-512.250 Primary Roads. The professional engineer will certify the design and construction or reconstruction of primary roads as meeting the requirements of R645-301-534.200 and R645-301-742.420.

No primary roads will be constructed in this project per definition in R645-301-527.120-123.

→ R645-301-526.200. Utility Installation and Support Facilities.

Not Applicable

→R645-301-527.100. The plan must classify each road.

The access road in Panther Canyon is an ancillary road (per 527.120-130) to be used for a short period during the coal exploration program. This road has existed for many years and is used by private property owners in the area.

→R645-301-527.230. A maintenance plan describing how roads will be maintained throughout their life to meet the design standards throughout their use.

The road will be graded prior to and during the exploration activities as needed.

→R645-301-534.100. Roads will be located, designed, constructed, reconstructed, used, maintained, and reclaimed so as to:

→534.110. Prevent or control damage to public or private property;

The maintenance work required to access the drill site will enhance the value of the road for private property owners in the area.

→534.120. Use non-acid-forming or nontoxic-forming substances in road surfacing; and

The road will not be surfaced.

→534.130 Have, at a minimum, a static safety factor of 1.3 for all embankments.

The existing road has been in place for many years and no new

construction is required.

→534.140. Have a schedule and plan to remove and reclaim each road that would not be retained under an approved postmining land use.

Not Applicable because this road will be retained for the continued use of private property owners in the area.

→534.150. Control or prevent erosion, siltation and the air pollution attendant to erosion by vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices.

Erosion control measures will be taken, including protecting top soil piles, diverting overland flows around the drill pad, and other measures as required.

→534.200. To ensure environmental protection and safety appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and reconstruction of roads will incorporate appropriate limits for grade, width, surface materials, and any necessary design criteria established by the Division.

The road is a primitive type drill road which will be accessed by 4X4 vehicles and crawler caterpillar tractor and will maintain a grade appropriate for it's use.

233. Topsoil will be separately removed, stored, and redistributed on areas disturbed by coal exploration activities as necessary to assure successful revegetation or as required by the Division.

Topsoil will be separately removed and stored (Figure 2) then redistributed on the small drill pad when use of the pad is no longer required.

234. Diversions of overland flows and ephemeral, perennial, or intermittent streams will be made in accordance with

R645-301-742.300.

It is anticipate that no diversions will be necessary for the duration of this project. If it becomes necessary, diversions of overland flows will be made in accordance with R645-301-742.300

Water bars, ditches and/or culverts will be used if needed to control overland flow.

235. Coal exploration will be conducted in a manner which minimizes disturbance of the prevailing hydrologic balance in accordance with R645-301-356.300 through R645-301-356.400, R645-301-512.240, R645-301-513.200, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-731.100 through R645-301-731.522, R645-301-731.800, R645-301-733.220 through R645-301-733.240, R645-301-742.200 through R645-301-742.300, R645-301-743, and R645-301-763. The Division may specify additional measures which will be adopted by the person engaged in coal exploration.

→ 356.300. Siltation structures will be maintained until removal is authorized by the Division and the disturbed area has been stabilized and revegetated. In no case will the structure be removed sooner than two years after the last augmented seeding.

→ 356.400. When a siltation structure is removed, the land on which the siltation structure was located will be revegetated in accordance with the reclamation plan and R645-301-353 through R645-301-357.

Siltation structures will be used to control erosion after drilling and well construction is completed if reclamation is delayed beyond the period immediately after drilling and well construction.

→ 512.240. Impoundments. The professional engineer will use current, prudent, engineering practices and will be experienced in the design and construction of impoundments and certify the design of the impoundment according to R645-301-743.

→ 513.200. Impoundments and sedimentation ponds meeting the size or other qualifying criteria of MSHA, 30 CFR 77.216(a) will comply with the requirements of

MSHA, 30 CFR 77.216 (see R645-301-533.600, R645-301-742.222, and R645-301-742.223).

→ 514.300. Impoundments.

→ 515.200. Impoundment Hazards. The permit application will incorporate a description of notification when potential impoundment hazards exist. The requirements for the description are: If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment will promptly inform the Division of the finding and of the emergency procedures formulated for public protection and remedial action. If adequate procedures cannot be formulated or implemented, the Division will be notified immediately. The Division will then notify the appropriate agencies that other emergency procedures are required to protect the public.

→ 533.100. An impoundment meeting the size or other criteria of 30 CFR 77.216(a) or located where failure would be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.5 for a normal pool with steady state seepage saturation conditions, and a seismic safety factor of at least 1.2. Impoundments not meeting the size or other criteria of 30 CFR 77.216(a), except for coal mine waste impounding structure, and located where failure would not be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.3 for normal pool with steady state seepage saturation conditions or meet the requirements of R645-301-733.210.

→ 533.200. Foundation for temporary and permanent impoundments must be designed so that:

→ 533.210. Foundation and abutments for the impounding structure will be stable under all conditions of construction and operation of the impoundment. Sufficient foundation investigations and laboratory testing will be performed in order to determine the design requirements for foundation stability; and

→ 533.220. All vegetative and organic materials will be removed and foundations excavated and prepared to resist failure. Cutoff trenches will be installed if necessary to ensure stability.

→ 533.300. Slope protection will be provided to protect against surface erosion at the site and protect against sudden drawdown.

→ 533.400. Faces of embankments and surrounding areas will be vegetated except that faces where water is impounded may be riprapped or otherwise stabilized in accordance with accepted design practices.

→ 533.500. The vertical portion of any remaining highwall will be located far enough below the low-water line along the full extent of highwall to provide adequate safety and access for the proposed water users.

→ 533.600. Impoundments meeting the criteria of MSHA, 30 CFR 77.216(a) will comply with the requirements of MSHA, 30 CFR 77.216 and R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743. The plan required to be submitted to the District Manager of MSHA under 30 CFR 77.216 will also be submitted to the Division as part of the permit application.

Not applicable because impoundments, as managed under these regulations, will not be constructed for this exploration project.

→ 731.100. Hydrologic-Balance Protection.

→ 731.110. Ground-Water Protection. In order to protect the hydrologic balance, coal mining and reclamation operations will be conducted according to the plan approved under R645-301-731 and the following:

→ 731.111. Ground-water quality will be protected by handling earth materials and runoff in a manner that minimizes acidic, toxic or other harmful infiltration to ground-water systems and by managing excavations and other disturbances to prevent or control the discharge of pollutants into the ground water; and

Ground-water quality will be protected by handling earth materials and runoff from the drilling activities in a manner that minimizes acidic, toxic and other harmful infiltration by impounding the drill water in open air pit allowing maximum evaporation and thus diminishing the chance of infiltration into ground-water system.

→ 731.112. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES ground-water quantity will be protected by handling earth materials and runoff in a manner that will restore approximate premining recharge capacity of the reclaimed area as a whole, excluding coal mine waste disposal areas and fills, so as to allow the movement of water to the ground-water system.

Not applicable because this exploration project will not include surface coal mining.

→ 731.120. Surface-Water Protection. In order to protect the hydrologic balance, coal mining and reclamation operations will be conducted according to the plan approved under R645-301-731 and the following:

→ 731.121. Surface-water quality will be protected by handling earth materials, ground-water discharges and runoff in a manner that minimizes the formation of acidic or toxic drainage; prevents, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow outside the permit area; and, otherwise prevent water pollution. If drainage control, restabilization and revegetation of disturbed areas, diversion of runoff, mulching or other reclamation and remedial practices are not adequate to meet the requirements of R645-301-731.100 through R645-301-731.522, R645-301-731.800 and R645-301-751, the operator will use and maintain the necessary water treatment facilities or water quality controls; and

→ 731.122. Surface-water quantity and flow rates will be protected by handling earth materials and runoff in accordance with the steps outlined in the plan approved under R645-301-731.

Surface water quality will be protected from acid forming runoff and surface flow rates will be protected by capturing all drilling fluids in a mud-pit where evaporation will decrease the volume of fluids and the balance will be contained in the pit and the very near surface strata.

→ 731.200. Water Monitoring.

→ 731.210. Ground-Water Monitoring. Ground-water monitoring will be conducted according to the plan approved under R645-301-731.200 and the following:

This exploration program is primarily designed to emplace ground-water monitoring equipment in order to collect baseline data in advance of applying for a mining permit.

Monitor well installations will be performed by a currently licensed Utah Water Well Driller. Installation and materials will conform to the guidelines set fourth by the State Engineer in the ADMINISTRATIVE RULES FOR WATER WELL DRILLERS , Adopted July 15, 1987.

The monitor well will be completed as shown on **Figures 3 & 4 (Ground Water Monitor Well Detail & Suggested Locking Cap Detail For Monitor Wells)**, with two inch steel well pipe and a ten foot section of approved two inch well screen, near but not at the bottom of the hole. It is anticipated that the screen will be placed near the base of the Aberdeen Sandstone which immediately underlies the lowest minable coal seam.

The hole will be fitted with 1/4 inch nylon tubing as a permanent water level monitoring device. Sand or gravel will be used as filter pack and emplaced in the annular space between the borehole and well screen, extending at least two feet above the top on the well screen. A bentonite seal at, least two feet thick, will be emplaced on top of the filter pack. The annular space between the well pipe and bore hole will be grouted with a bentonite and cement mix or straight cement grout. Both methods are approved by the State Engineer.

→ 731.211. The permit application will include a ground-water monitoring plan based upon the PHC determination required under R645-301-728 and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan will provide for the monitoring of

Ground Water Monitor Well Detail

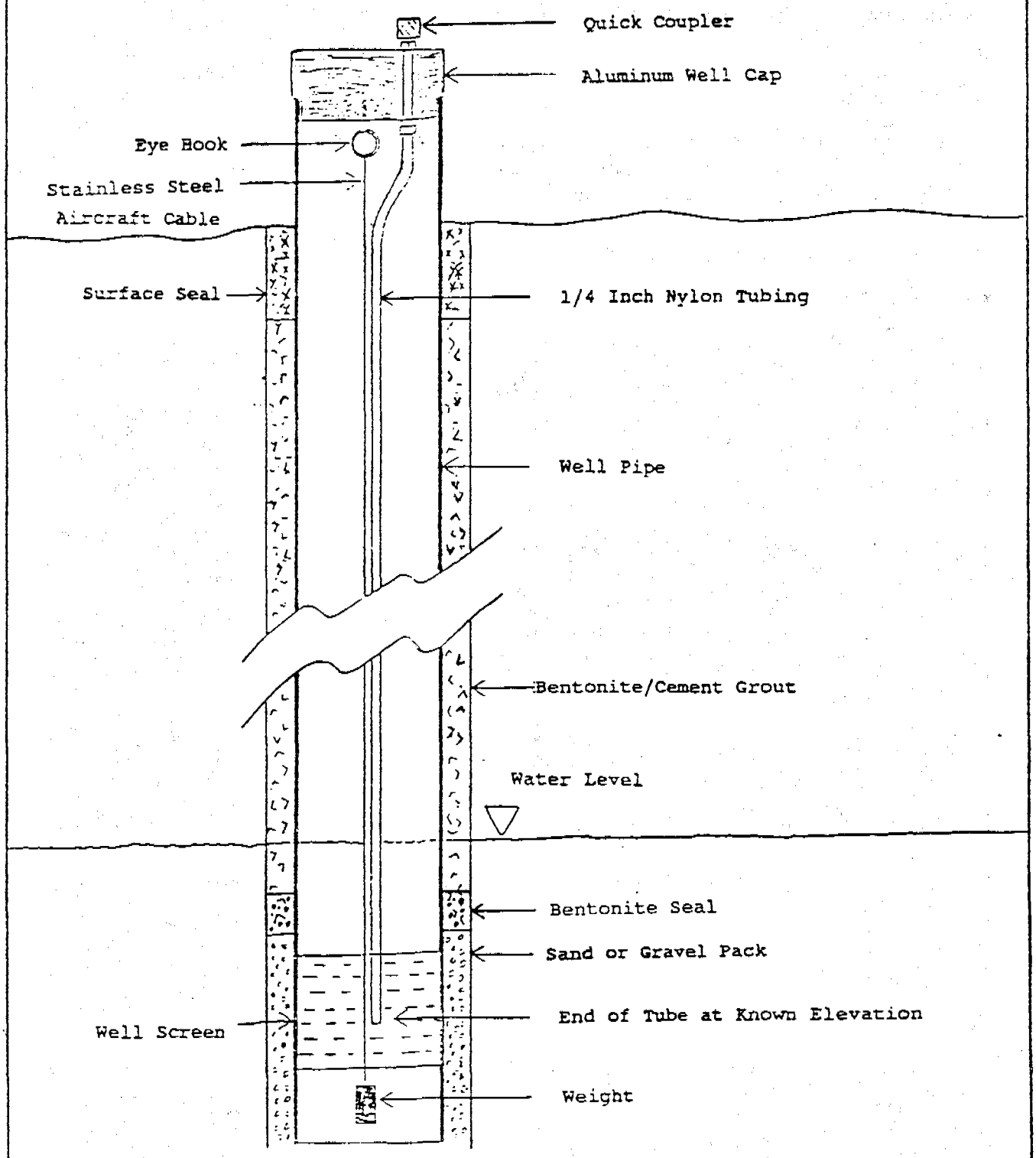


FIGURE 3

Not To Scale

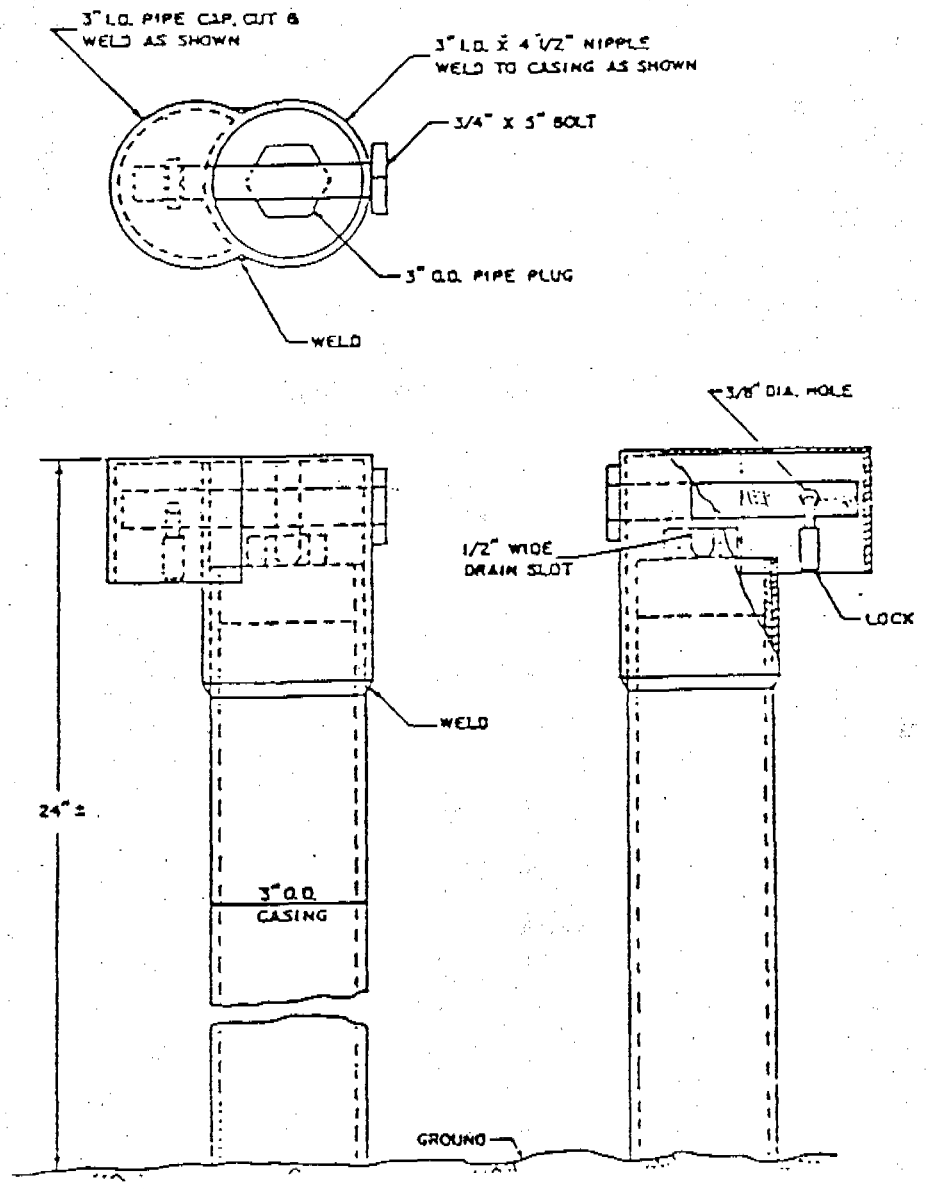


Figure 4
Suggested Locking Cap Detail For Monitoring Wells

parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in R645-301-731. It will identify the quantity and quality parameters to be monitored, sampling frequency and site locations. It will describe how these data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25 degrees C, PH, total iron, total manganese and water levels will be monitored;

→ 731.212. Ground-water will be monitored and data will be submitted at least every three months for each monitoring location. Monitoring submittals will include analytical results from each sample taken during the approved reporting period. When the analysis of any ground-water sample indicates noncompliance with the permit conditions, then the operator will promptly notify the Division and immediately take the actions provided for in R645-300-145 and R645-301-731;

→ 731.213. If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water-bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the cumulative impact area, then monitoring of that stratum may be waived by the Division;

→ 731.214. Ground-water monitoring will proceed through mining and continue during reclamation until bond release. Consistent with the procedures of R645-303-220 through R645-303-228, the Division may modify the monitoring requirements including the parameters covered and the sampling frequency if the operator demonstrates, using the monitoring data obtained under R645-301-731.214 that:

→ 731.214.1. The coal mining and reclamation operation has minimized disturbance to the prevailing hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved postmining land uses and the SURFACE COAL MINING AND RECLAMATION ACTIVITY has protected or replaced the water rights of other users; or

→ 731.214.2. Monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under R645-301-731.211.

→ 731.215. Equipment, structures and other devices used in conjunction with monitoring the quality and quantity of ground water on-site and off-site will be properly installed, maintained and operated and will be removed by the operator when no longer needed.

→ 731.220. Surface-Water Monitoring. Surface-water monitoring will be conducted according to the plan approved under R645-301-731.220 and the following:

→ 731.221. The permit application will include a surface-water monitoring plan based upon the PHC determination required

under R645-301-728 and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan will provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance as set forth in R645-301-731 as well as the effluent limitations found in R645-301-751;

→ 731.222. The plan will identify the surface water quantity and quality parameters to be monitored, sampling frequency and site locations. It will describe how these data may be used to determine the impacts of the operation upon the hydrologic balance:

Regulations 731.210 through 731.222 are inappropriately referenced and not applicable to coal exploration.

→ 731.800. Water Rights and Replacement. Any person who conducts SURFACE COAL MINING AND RECLAMATION ACTIVITIES will replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source, where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from the surface mining activities. Baseline hydrologic information required in R645-301-624.100 through R645-301-624.200, R645-301-625, R645-301-626, R645-301-723 through R645-301-724.300, R645-301-724.500, R645-301-725 through R645-301-731, and R645-301-731.210 through R645-301-731.223 will be used to determine the extent of the impact of mining upon ground water and surface water.

Regulation 731.800 is an inappropriate reference and not applicable to coal exploration.

→ 742.200. <u>Siltation Structures.</u>

→ 742.210. <u>General Requirements.</u>

→ 742.211. <u>Additional contributions of suspended solids and sediment to streamflow or runoff outside the permit area will be prevented to the extent possible using the best technology currently available.</u>

→ 742.212. <u>Siltation structures for an area will be constructed before beginning any coal mining and reclamation operations in that area and, upon construction, will be certified by a qualified registered professional engineer to be</u>

constructed as designed and as approved in the reclamation plan.

→ 742.213. Any siltation structures which impounds water will be designed, constructed and maintained in accordance with R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743.

→ 742.214. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, any point-source discharge of water from underground workings to surface waters which does not meet the effluent limitations of R645-301-751 will be passed through a siltation structure before leaving the permit area.

Construction of siltation structures is not a part of this project. If needed, however, alternate sediment control measures will be taken which include temporary siltation structures constructed of straw bails or silt fences.

→ 742.220. Sedimentation Ponds.

→ 742.221. Sedimentation ponds, when used, will:

→ 742.221.1. Be used individually or in series;

→ 742.221.2. Be located as near as possible to the disturbed area and out of perennial streams unless approved by the Division; and

→ 742.221.3. Be designed, constructed, and maintained to:

→ 742.221.31. Provide adequate sediment storage volume;

→ 742.221.32. Provide adequate detention time to allow the effluent from the ponds to meet Utah and federal effluent limitations;

→ 742.221.33. Contain or treat the 10-year, 24-hour precipitation event ("design event") unless a lesser design event is approved by the Division based on terrain, climate, or other site-specific conditions and on a demonstration by the operator that the effluent limitations of R645-301-751 will be met;

→ 742.221.34. Provide a nonclogging dewatering device adequate to maintain the detention time required under R645-301-742.221.32.

→ 742.221.35. Minimize, to the extent possible, short circuiting;

→ 742.221.36. Provide periodic sediment removal sufficient to maintain adequate volume for the design event;

→ 742.221.37. Ensure against excessive settlement;

→ 742.221.38. Be free of sod, large roots, frozen soil, and acid- or toxic forming coal-processing waste; and

→ 742.221.39. Be compacted properly.

→ 742.222. Sedimentation ponds meeting the size or other qualifying criteria of the MSHA, 30 CFR 77.216(a) will comply with all the requirements of that section, and will have a single spillway or principal and emergency spillways that in combination will safely pass a 100-year, 6-hour precipitation event or greater event as demonstrated to be necessary by the Division.

→ 742.223. Sedimentation ponds not meeting the size or other qualifying criteria of the MSHA, 30 CFR 77.216(a) will provide a combination of principal and emergency spillways that will safely discharge a 25-year, 6-hour precipitation event or greater event as demonstrated to be needed by the Division. Such ponds may use a single open channel spillway if the spillway is:

→ 742.223.1. Of nonerodible construction and designed to carry sustained flows; or

→ 742.223.2. Earth- or grass-lined and designed to carry short-term infrequent flows at non-erosive velocities where sustained flows are not expected.

→ 742.224. In lieu of meeting the requirements of R645-301-742.223.1 and 742.223.2 the Division may approve a sedimentation pond that relies primarily on storage to control the runoff from the design precipitation event when it is demonstrated by the operator and certified by a qualified registered professional engineer in accordance with R645-301-512.200 that the sedimentation pond will safely control the design precipitation event. The water will be removed from the pond in accordance with current, prudent, engineering practices and any sediment pond so used will not be located where failure would be expected to cause loss of life or serious property damage.

→ 742.225. An exception to the sediment pond location guidance in R645-301-742.224 may be allowed:

→ 742.225.1. In the case of a sedimentation pond meeting the size or other criteria of 30 CFR 77.216(a), if the pond is designed to control the precipitation of the probable maximum precipitation of a 6 hour event or greater event if specified by the Division; or (30 CFR 816.46(c)(2)(ii)(A))

→ 742.225.2. In the case of a sedimentation pond not meeting the size or other criteria of 30 CFR 77.216(a), if the pond is designed to control the precipitation of a 100 year 6 hour event or greater event if demonstrated to be needed by the Division.

→ 742.230. Other Treatment Facilities.

→ 742.231. Other treatment facilities will be designed to treat the 10-year, 24-hour precipitation event unless a lesser design

event is approved by the Division based on terrain, climate, other site-specific conditions and a demonstration by the operator that the effluent limitations of R645-301-751 will be met.

→ 742.232. Other treatment facilities will be designed in accordance with the applicable requirements of R645-301-742.220.

→ 742.240. Exemptions. Exemptions to the requirements of R645-301-742.200 and R645-301-763 may be granted if the disturbed drainage area within the total disturbed area is small and the operator demonstrates that siltation structures and alternate sediment control measures are not necessary for drainage from the disturbed areas to meet the effluent limitations under R645-301-751 or the applicable Utah and federal water quality standards for the receiving waters.

Regulations 742.220 through 742.240 inappropriately referenced, not applicable to coal exploration.

→ 742.300. Diversions.

Addressed under response to 234. above.

→ 763. Siltation Structures.

→ 763.100. Siltation structures will be maintained until removal is authorized by the Division and the disturbed area has been stabilized and revegetated. In no case will the structure be removed sooner than two years after the last augmented seeding.

→ 763.200. When the siltation structure is removed, the land on which the siltation structure was located will be regraded and revegetated in accordance with the reclamation plan and R645-301-358, R645-301-356, and R645-301-357. Sedimentation ponds approved by the Division for retention as permanent impoundments may be exempted from this requirement.

As stated in the response to 742.214, siltation structures will not be constructed during this project, however, alternate sediment control measures would consist of using straw bails and

silt fences as temporary siltation structures.

236. Acid- or toxic-forming materials will be handled and disposed of in accordance with R645-301-731.110, R645-301-731.300, and R645-301-553.260. The Division may specify additional measures which will be adopted by the person engaged in coal exploration.

Acid-forming or toxic-forming materials will not be used on this project. Drill cuttings will be contained and buried in the mud pit. Core of coal and surrounding strata will be taken off site. Also see response to 731.110 above.

240. Reclamation Standards.

241. If excavations, artificially flat areas, or embankments are created during exploration, these areas will be returned to the approximate original contour promptly after such features are no longer needed for coal exploration.

242. All areas disturbed by coal exploration activities will be revegetated in a manner that encourages prompt revegetation and recovery of a diverse, effective, and permanent vegetative cover. Revegetation will be accomplished in accordance with the following:

242.100. All areas disturbed by coal exploration activities will be seeded or planted to the same seasonal variety native to the areas disturbed. If the land use of the exploration area is intensive agriculture, planting of the crops normally grown will meet the requirements of R645-202-242.100; and

242.200. The vegetative cover will be capable of stabilizing the soil surface from erosion.

The exploration site will have trash and debris removed, mud pit backfilled, and topsoil distributed upon completion of exploration activity. The drill pad will be returned to the approximate original contour, scarified, and re-seeded with the seed mix shown on **Table 1**. Existing roads will be returned to a condition equal to or better than their condition prior to commencement of the exploration activities. Seeding of the rehabilitated drill pad and access road will be accomplished in the first season following completion of the exploration program.

Table 1

Seed Mix

Common and Scientific Names	Pounds Pure Live Seed per Acre
Western Wheatgrass Elymus smithii	5
Fourwing Saltbush Atriplex canescens	3
Basin Wild Rye Elymus cinereus	3
Lewis Flax Lintum lewisii	1
Yellow Sweet Clover Melilotus officinalis	2
Indian Ricegrass Stipa hymenoides	3
Russian Wild Rye Elymus junceus	3
Total	**20 lbs PLS**

243. Each exploration hole, borehole, well, or other exposed underground opening created during exploration will be reclaimed in accordance with R645-301-529, R645-301-551, R645-301-631, R645-301-738, and R645-301-765.

When the well is no longer needed for ground-water monitoring, it will cemented from the total depth of the hole to the surface.

244. All facilities and equipment will be promptly removed from the exploration area when they are no longer needed for exploration, except for those facilities and equipment that the Division determines may remain to:

244.100. Provide additional environmental data;

244.200. Reduce or control the on-site and off-site effects of the exploration activities; or

244.200. Reduce or control the on-site and off-site effects of the exploration activities; or

244.300. Facilitate future coal mining and reclamation operations by the person conducting the exploration.

All equipment will be promptly removed from the exploration area upon completion of the well and reclamation will be conducted as described in response to 240.-242.200 above. Because the hole will be completed as a monitor well, approximately three feet of well casing covered by a locking cap, shown on **Figure 4 (Suggested Locking Cap Detail For Monitor Wells)**, will remain at the site for continued ground-water monitoring.

A raptor survey has been conducted in the area of the exploration/ground water monitoring well. A copy of the results will also be forwarded as soon as it is available.

A CULTURAL RESOURCES SURVEY OF THREE DRILL SITES AND TWO ACCESS ROADS IN CARBON COUNTY, UTAH

by

Heather M. Weymouth
Archaeologist

Prepared for:

TerraMatrix/ACZ Inc.
Engineering and Environmental Services
1475 Pine Grove Road, Suite 109
Steamboat Springs, Colorado 80477

Prepared by:

Sagebrush Archaeological Consultants, L.L.C.
3670 Quincy Avenue, Suite 203
Ogden, Utah 84403

Under Authority of Cultural Resources Use Permit No. 93-UT-54630

and

Utah State Antiquities Permit No. U-94-SJ-303b,p

Archaeological Report No. 670

June 9, 1994

A CULTURAL RESOURCES SURVEY OF THREE DRILL SITES AND TWO ACCESS ROADS IN CARBON COUNTY, UTAH

by

Heather M. Weymouth
Archaeologist

RECEIVED
JUL 29 1994
DIV. OF OIL, GAS & MINING

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Archaeological Report No. 670

June 9, 1994

INTRODUCTION

In April 1994, TerraMatrix/ACZ, Inc. of Steamboat Springs, Colorado requested that Sagebrush Archaeological Consultants, L.L.C. (Sagebrush) of Ogden, Utah conduct a cultural resource inventory of three drill site locations and two access roads for the Cyprus Plateau Mining Corporations Willow Creek Project in Carbon County, Utah. The project area is located on the western Colorado Plateau, in the northern Book Cliffs region of Carbon County near Castle Gate in T. 12S., R. 10E., S. 33; T. 13S., R. 10E., S. 5 and S. 12. The project area lies on the USGS 7.5' Helper, Utah Quadrangle (1972)(Figures 1 and 2).

The project area consists of three separate proposed drill sites and two access roads located on lands controlled by the Bureau of Land Management (BLM) and private land holders in Dry, Panther and Alrad Canyons. A total of 25.3 acres (10.25 hectares) were surveyed during this project. Of the total acreage surveyed 9.35 acres (3.8 hectares) lie on BLM land associated with the Alrad Canyon drill site and the Dry Canyon drill site and access road. The remaining 15.95 acres (6.45 hectares) are located on private lands associated with the Panther and Dry Canyon drill sites and access roads. Fieldwork for this project was conducted by the author on June 6 and 7, 1994. This project was conducted under authority of Cultural Resources Use Permit No. 93-UT-54630 and Utah Antiquities Permit No. U-94-SJ-303b,p.

Prior to conducting the field inventory the author carried out a file search at the Division of State History, Utah State Historical Society, Salt Lake City on June 3, 1994. In addition, Archaeologist Blaine Miller of the Price River Resource Area, BLM, was consulted in regard to cultural resources which have been previously recorded on BLM lands in the vicinity of the current project area. The National Register of Historic Places (NRHP) was also consulted prior to the commencement of fieldwork for the present project. No National Register sites were located in the vicinity of the current project area.

A total of four cultural resources projects have been previously undertaken in the area. In 1984, Richard Talbot of Cultural Resource Management Services, Brigham Young University, conducted a linear survey of three seismic lines (Talbot 1985a) in the area of the current project. No cultural resource sites nor paleontological localities were located in the vicinity of the current project area during this survey. In 1985, Talbot surveyed six additional seismic lines in the area (Talbot 1985b). One site, 42Cb520, was located during this survey. Site 42CB520, the historic Milburn Mine, is a historic coal mining site consisting of one standing building, the remnants of ten additional buildings and two mine portals. This site was recommended eligible to the NRHP.

In 1986, Senco-Phenix conducted a cultural resources inventory for the Dead Man Canyon Coal Mine (Senulis 1986). No cultural resource sites and no paleontological localities were located in the vicinity of the current project area during this survey.

In 1987, Nielson Consulting conducted an archaeological inventory of the Utah Power and Light Fly Ash Disposal Area (Nielson and Southworth 1987). No cultural resource sites and no paleontological localities were located in or near the current project area during this survey.

In addition, a total of ten individual cultural resource sites have been previously recorded in the vicinity of the current project area. At least seven of these sites were recorded under the Utah Abandoned Mine Reclamation Program (AMR). Since the AMR does not maintain personnel qualified to conduct NRHP evaluations, these sites were not evaluated for eligibility to the NRHP at the time of recordation. Site forms are not available for three of these sites. The remaining seven sites are related to coal mining facilities in the vicinity of the Castle Gate Mines. They include five coal refuse piles, a fan house facility and mine portal and the Panther Canyon Mine site.

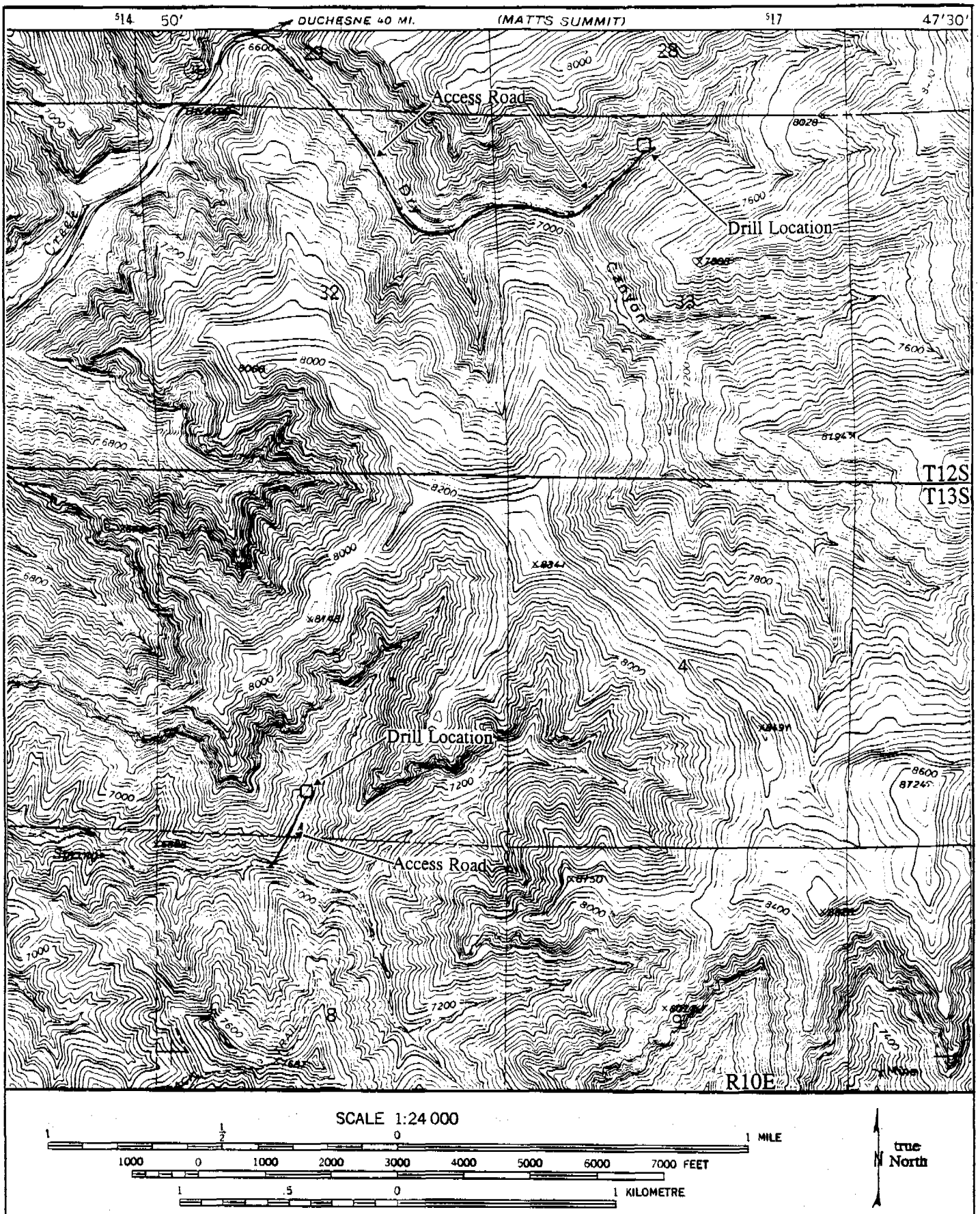

Figure 1. Location of areas surveyed for two Cyprus Plateau drill sites in Dry and Panther Canyons. Taken from: USGS Helper, Utah 7.5' Quadrangle (1972).

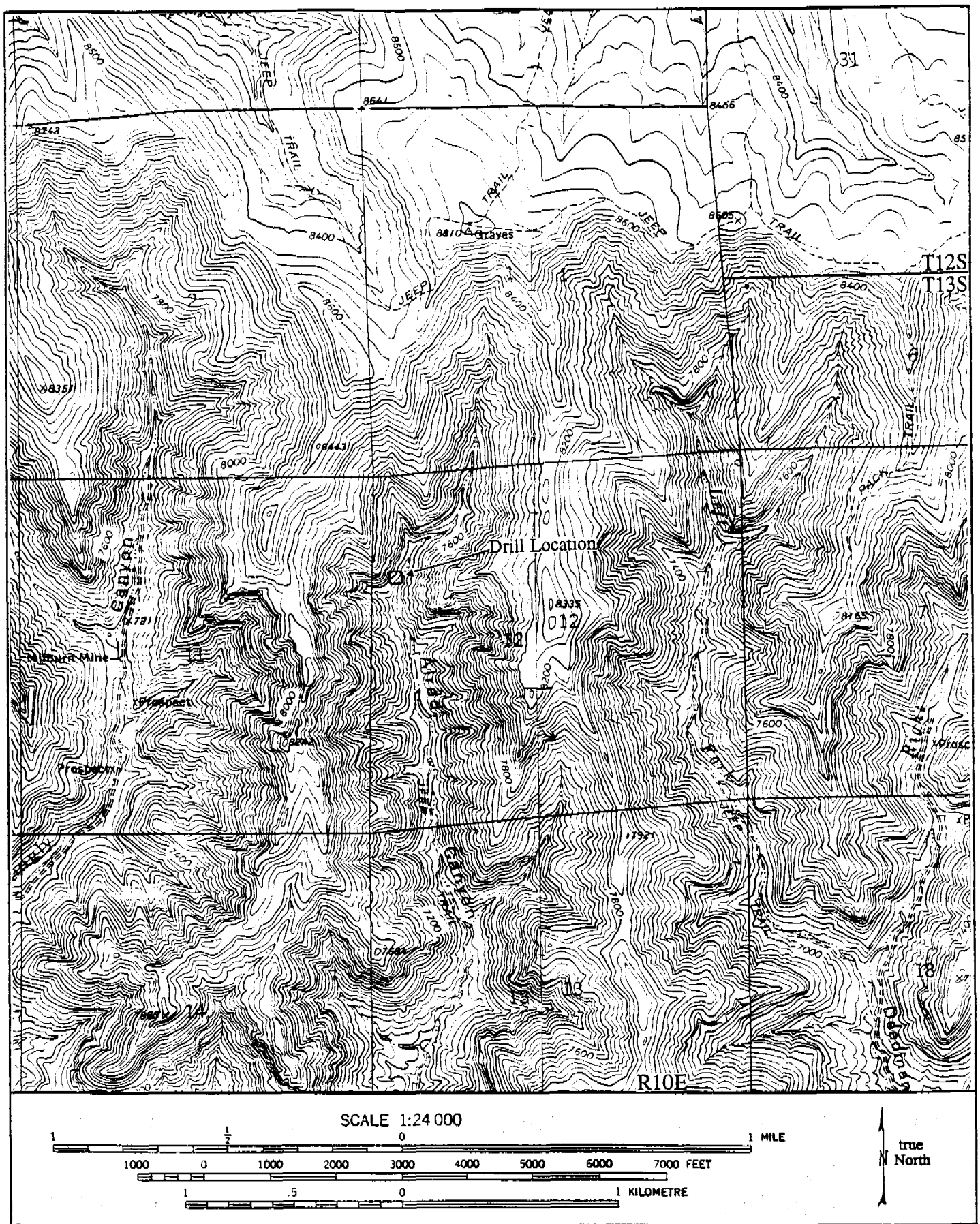

Figure 2. Location of area surveyed for one Cyprus Plateau drill site in Alrad Canyon. Taken from: USGS Helper and Deadman Canyon, Utah 7.5' Quadrangles (1972).

ENVIRONMENT

The project area is located on the western Colorado Plateau, in the northern Book Cliffs region of Carbon County near Castle Gate in Willow Creek Canyon. The elevation of the areas surveyed ranges between 6920 feet a.s.l. and 7320 feet a.s.l. Topographically, the areas surveyed lie in three relatively narrow canyon bottoms with steeply sloping to vertical canyon walls on either side. In many areas seasonal drainages have carved through the steep rocky ridges of the main canyon walls creating small side canyons or draws. Soils in these areas are poorly developed, sandy residual sediments and colluvial deposits are prevalent throughout the area. Vegetation in the area is dominated by pinyon-juniper montane species including juniper, pinyon pine, penstemon, Oregon grape, wild rose, buckwheat, sagebrush, Gambel oak and snowberry. The vegetation density in the areas surveyed is approximately 40 to 50 percent cover. There are no permanent water sources in or near the immediate survey area, though there are a few intermittent drainages and springs nearby. Natural disturbance in the area is dominated by mechanical weathering processes including colluvial movement and frost wedging of rock on the steep canyon slopes. Cultural disturbance in the area consists of dirt roads in the bottoms of each of the three canyons and use of the area as summer range for livestock.

METHODOLOGY

The areas surveyed for the proposed drill sites included three separate drill locations located in Dry, Panther and Alrad Canyons, and two access roads. The areas surveyed for the three drill locations consisted of small block areas of approximately one acre (4047 sq. meters) which were centered on proposed center stakes at each location. The area surveyed for each of these block areas measured 200 feet (65.6 meters) long by 200 feet (65.6 meters) wide. The corridor surveyed for the Dry Canyon drill site access road measured 1.6 miles (2.57 kilometers) long by 100 feet (32.8 meters) wide. The corridor surveyed for the Panther Canyon drill site access road measured 0.25 miles (0.4 kilometers) long by 100 feet (32.8 meters) wide. Cyprus Plateau has applied for a BLM right-of-way permit for access to the Alrad Canyon drill location using existing roads, therefore no cultural resource survey was conducted with regard to proposed access for that location. The drill sites were located and surveyed using prominent topographic features and center stakes as points of reference. These areas were surveyed walking parallel transects spaced no more than 15 meters apart. The proposed access roads were surveyed by walking parallel transects along the existing two-track road surfaces to be affected. A total of 25.3 acres (10.25 hectares) were surveyed during this project.

RESULTS

No cultural resource sites and no paleontological localities were found during the survey of the three proposed drill site locations and the Dry and Panther Canyon access roads. These areas, having no outlet, would not be considered likely corridors for use in travel or trade by either historic or prehistoric peoples. The absence of a permanent water source in these high mountain canyon locations and the general lack of other resources favored by prehistoric peoples would suggest that significant sites of this nature would not be found in the project area.

RECOMMENDATIONS

There were no cultural resources sites nor paleontological localities found during the field inventory, therefore cultural resources clearance is recommended for these areas.

This investigation was conducted with techniques which are considered to be adequate for evaluating cultural resources which could be adversely affected by the project. However, should cultural resources be discovered during construction on private lands a report should be made immediately to the State Archaeologist, Utah Historical Society, Salt Lake City. If such resources are found on BLM lands, a report should be made to the Price River Resource Area Archaeologist in Price, Utah.

REFERENCES CITED

Talbot, Richard K.

1985a *A Cultural Resource Survey of Three Seismic Lines in the Book Cliffs Area Near Price, Carbon County, Utah.* Cultural Resource Management Services, Brigham Young University, Technical Series No. 85-78, Provo, Utah.

1985b *A Cultural Resource inventory of Six Seismic Lines in Southeastern Utah and Western Carbon Counties.* Cultural Resource Management Services, Brigham Young University, Technical Series No. 85-81, Provo, Utah.

Nielson, Asa S. and Don Southworth

1987 *An Archaeological Inventory of the Proposed Utah Power and Light Fly Ash Disposal Area Reclamation Project, Carbon County, Utah.* Nielson Consulting Group, Report No. U87-13, Orem, Utah.

Senulis, John A.

1986 *Intensive Cultural Resource Survey and Inventory of the Left Hand Fork of Dead Man Canyon Coal Mine.* Senco-Phenix, SP-UT-97, Salt Lake City.

State of Utah

Department of Community & Economic Development
Division of State History
Utah State Historical Society

Michael O. Leavitt
Governor
Max J. Evans
Director

300 Rio Grande
Salt Lake City, Utah 84101-1182
(801) 533-3500
FAX: (801) 533-3503

July 8, 1994

RECEIVED
JUL 13 1994
DIV. OF OIL, GAS & MINING

Pamela Grubaugh-Littig
Permit Supervisor
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Sutie 350
Salt Lake City, Utah 84180-1203

RE: Minor Coal Exploration, Panther Canyon Site and Dry Canyon and Alrad Canyon Site, Cyprus Plateau Mining Corporation, SEP/007/038-94A, and CEP/007/038-94B, Folder #2, Carbon County, Utah

Copy PAM

In Reply Please Refer to Case No. 94-0836

Dear Ms. Grubaugh-Littig:

The Utah State Historical Preservation Office received the above referenced project. After review of the material provided, the Utah Preservation Office recommends that there would be **No Effect** upon cultural resources by the project.

This information is provided on request to assist the Division of Oil, Gas and Mining with its Section 106 responsibilities as specified in 36CFR800. If you have questions, please contact me at (801) 533-3555.

Sincerely,

Janice Reed Campbell

James L. Dykmann
for Compliance Archaeologist

JLD:94-0836 DOGM/NP/NE

Board of State History: Marilyn C. Barker • Dale L. Berge • Boyd A. Blackner • Peter L. Goss
David D. Hansen • Carol C. Madsen • Dean L. May • Christie Needham • Thomas E. Sawyer • Penny Sampinos • Jerry Wylie

CYPRUS
Plateau Mining

Cyprus Plateau Mining Corporation
P.O. Drawer PMC
Price, Utah 84501
(801) 637-2875
Fax: (801) 637-2247

June 27, 1994

Utah Coal Regulatory Program
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

RECEIVED
JUN 29 1994
DIV. OF OIL, GAS & MINING

Dear Ms. Littig,

For CEP/007/038-94A
CEP/007/038-94B
Copy PAM(2) (OLM)

RE: WILLOW CREEK MINE COAL EXPLORATION/ GROUND WATER MONITORING WELL PERMIT APPLICATION - THREATENED AND ENDANGERED SPECIES INVESTIGATIONS

Enclosed please find the following:

Raptor survey report from DWR dated June 17, 1994.

Ecological Evaluation of Proposed Monitoring Well Sites from Cedar Creek Associates, Inc. dated June 14, 1994

A Cultural Resources Survey of Three Drill Sites and TWo Access Roads in Carbon County, Utah

These reports should be added as attachments to the exploration permit application sent to your office dated June 13, 1994.

If you have questions, please contact me at 636-2227.

Respectfully,

Ben Grimes
Project Manager

File: WCENV 2.5.2.9
Chron: BG940613

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

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Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

June 16, 1994

Mr. Max J. Evans, Director
Utah Division of State History
300 Rio Grande
Salt Lake City, UT 84101

Re: Minor Coal Exploration, Panther Canyon Site and Dry Canyon and Alrad Canyon Site, Cyprus Plateau Mining Corporation, CEP/007/038-94A (Fee) and CEP/007/038-94B (Federal), Folder #2, Carbon County, Utah

Dear Mr. Evans:

Enclosed please find the site locations for two proposals for "Minor Coal Exploration" for the Panther Canyon site on fee land and Dry Canyon (Federal Coal Lease U-0146345 - BLM Surface) and Alrad Canyon (Federal Coal Lease (SL-048442-05115 - BLM Surface). Please notify the Division with your comments by July 18, 1994.

If you have any questions, please call me. Thank you.

Sincerely,

Pamela Grubaugh-Littig
Permit Supervisor

Enclosure

R645-201-200. Minor Coal Exploration Permits.

R645-201-210. Applications for Minor Coal Exploration Permits when 250 tons or less of coal will be removed will require written Division approval prior to conducting exploration.

Cyprus Plateau Mining Corp. and it's agents will not proceed without receiving written approval of this permit application.

R645-201-220 Applications for Minor Coal Exploration Permits will include:

221. The name, address and telephone number of the applicant seeking to explore;

Cyprus Plateau Mining Corporation
P.O. Drawer PMC
Price, Utah 84501
(801)637-2875

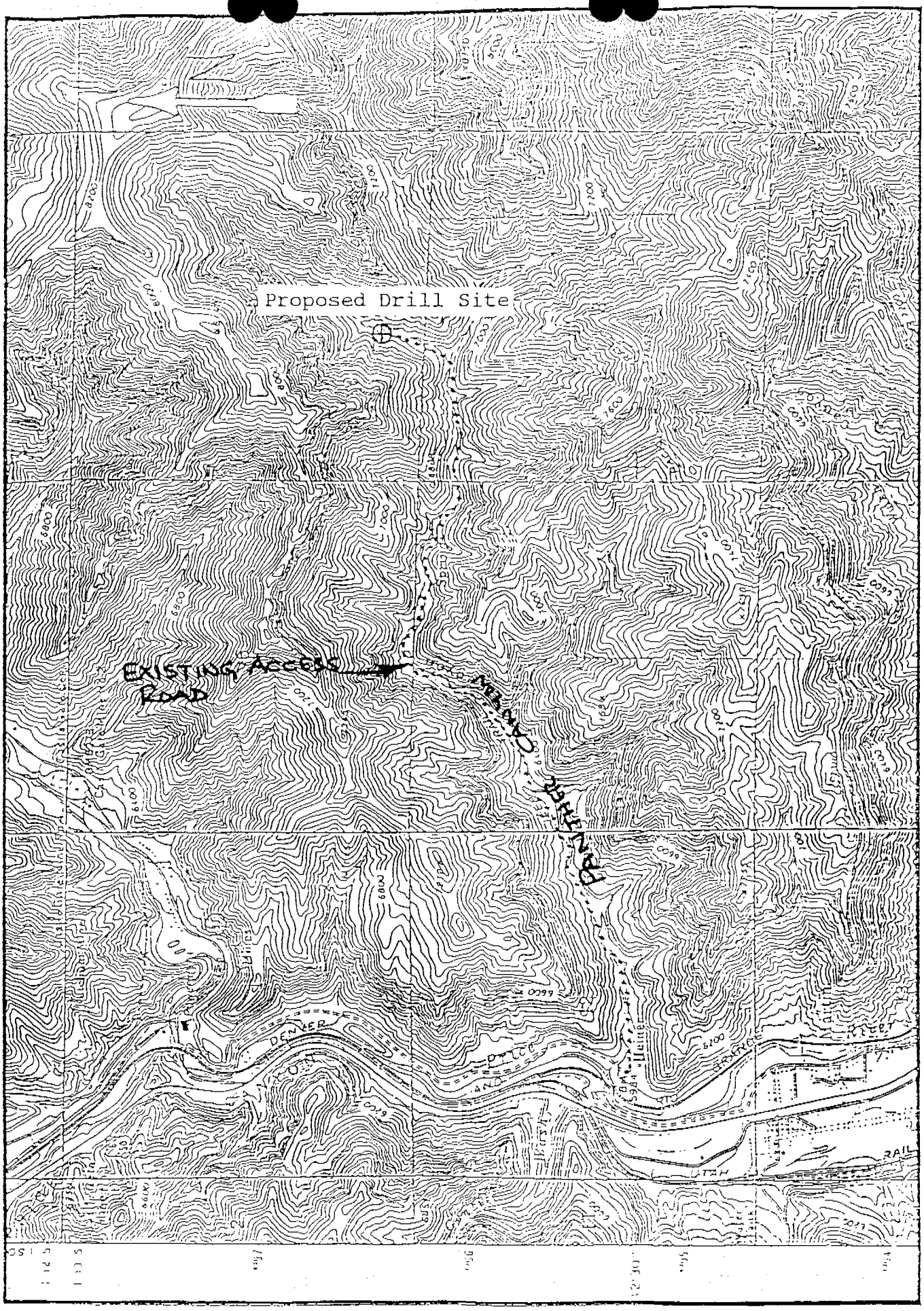
222. The name, address and telephone number of the applicant's representative who will be present at, and responsible for conducting the exploration operations;

Gregory L. Hunt
449 Gordon Drive
CastleRock, Colo. 80104
(303) 660-9368

John Mercier & Ben Grimes
Cyprus Plateau Mining Corp.
P.O. Drawer PMC
Price, Utah 84501 (801) 637-2875

223. A narrative and map describing the exploration area and indicating where exploration will occur in relation to an approved permit area;

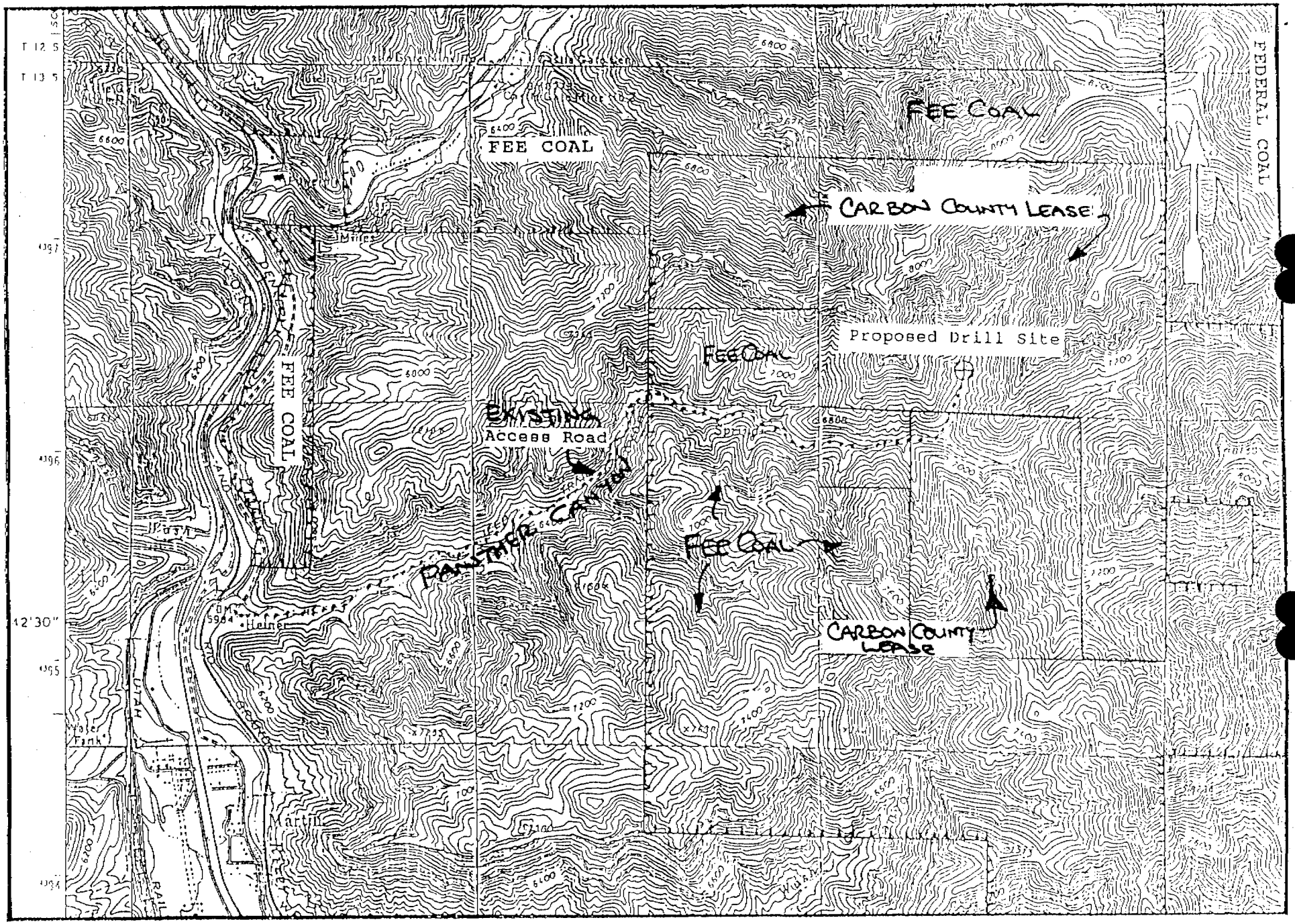
The Panther Canyon Drill Site is located in the SE1/4 SW1/4 of Sec. 5, T 13S, R 10E SLM which is accessed via private and fee property through Panther Canyon. The site is not located near a current permit area as shown on Figure 1 (Proposed Panther Canyon Drill Site & Access), and Maps 1 & 2 (Coal Ownership Map & Surface Control Map).



PROPOSED PANTHER CANYON DRILL SITE and ACCESS

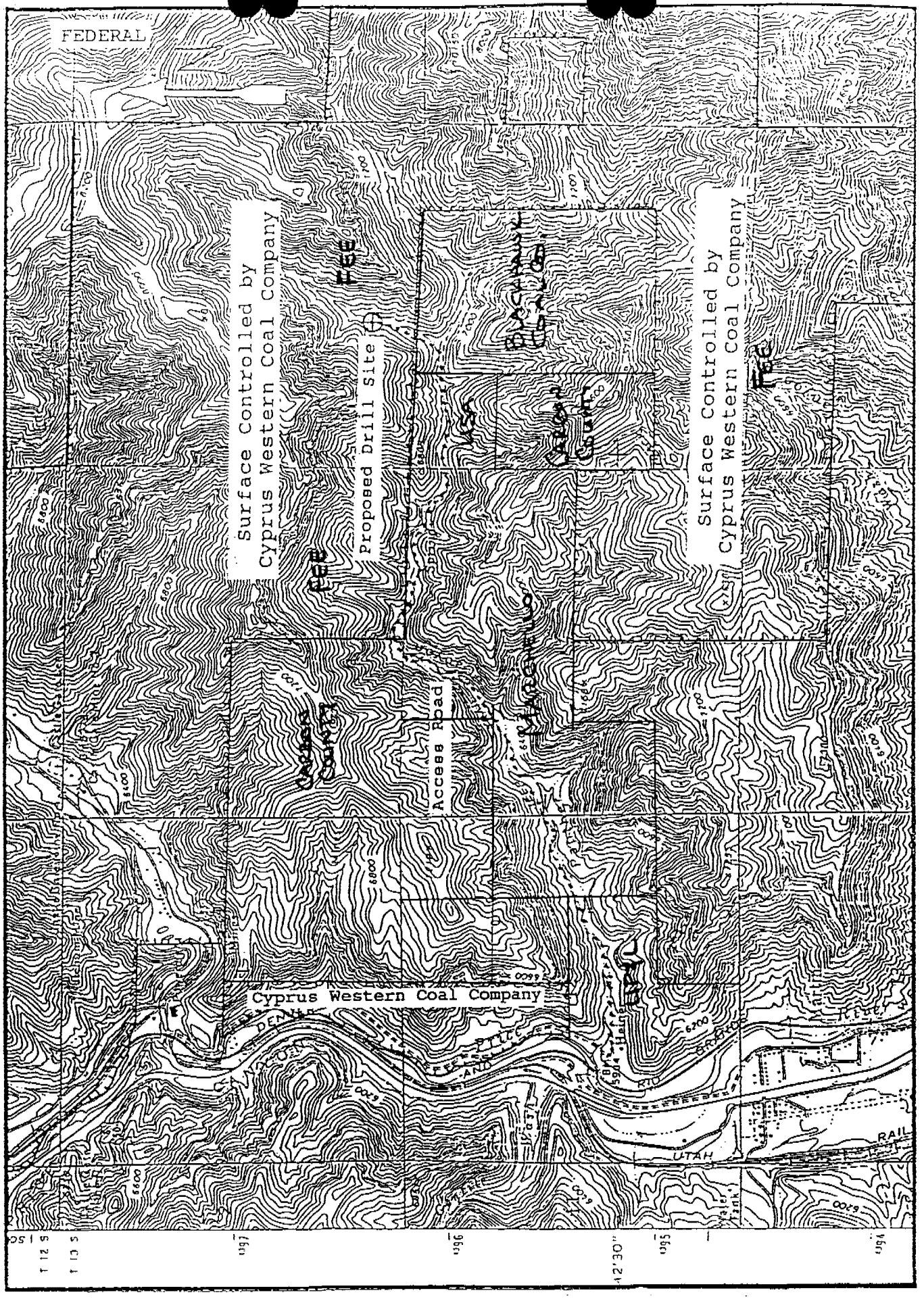
USGS Helper, Utah Quadrangle. 1972

Figure 1



COAL OWNERSHIP MAP
Proposed Panther Canyon Drill Site & Access
USGS Helper, Utah Quadrangle, 1972

MAP 1



SURFACE CONTROL MAP
Proposed Panther Canyon Drill Site & Access
USGS Helper, Utah Quadrangle, 1972

MAP 2

3482.1(a)(3)(ii) The name, address, and telephone number of the applicant who will be representation and be responsible for conducting the exploration.

Gregory L. Hunt
449 Gordon Drive
Castle Rock, Colo. 80104
Telephone: (303) 660-9368

3482.1(a)(3)(iii) A narrative description of the proposed exploration area, cross-referenced to the map required under paragraph (a)(3)(viii)of this section, including applicable federal lease and license serial numbers; surface topography; geologic, surface water, and other physical features; vegetative cover; endangered or threatened species listed pursuant to the endangered Species Act of 1973 (16 U.S.C. 1531, et seq.); districts, sites, buildings, structures, or objects listed on, or eligible for listing on, the National Register of Historic Places; and known cultural or archeological resources located within the proposed exploration area.

Legal description of Entire Lease to be Explored:

Dry Canyon Hole

Serial Number: **U-0146345**

T. 12 S., R. 10 E., SLM, Utah
Sec. 33, N 1/2;
Sec. 34, NW 1/4 NE 1/4, S 1/2 NE 1/4, NW 1/4;
Sec. 35, NE 1/4, S 1/2 NW 1/4, S 1/2.

Containing 1,160 acres, more or less.

Alrad Canyon Site

Serial Number: **SL-048442-050115**

T. 13 S., R. 10 E., SLM, Utah
Sec 1, Sw 1/4;
Sec 3, S 1/2 N 1/2, S 1/2;
Sec 4, lots 1-4, S 1/2 N 1/2, N 1/2 S 1/2;
Sec 10, N 1/2, NW 1/4, SW 1/4;
Sec 11, E 1/2, NW 1/4;
Sec 12, NW 1/4 NE 1/4, S 1/2 NE 1/4, W 1/2, SE 1/4

Containing 2,562.88 acres, more or less.

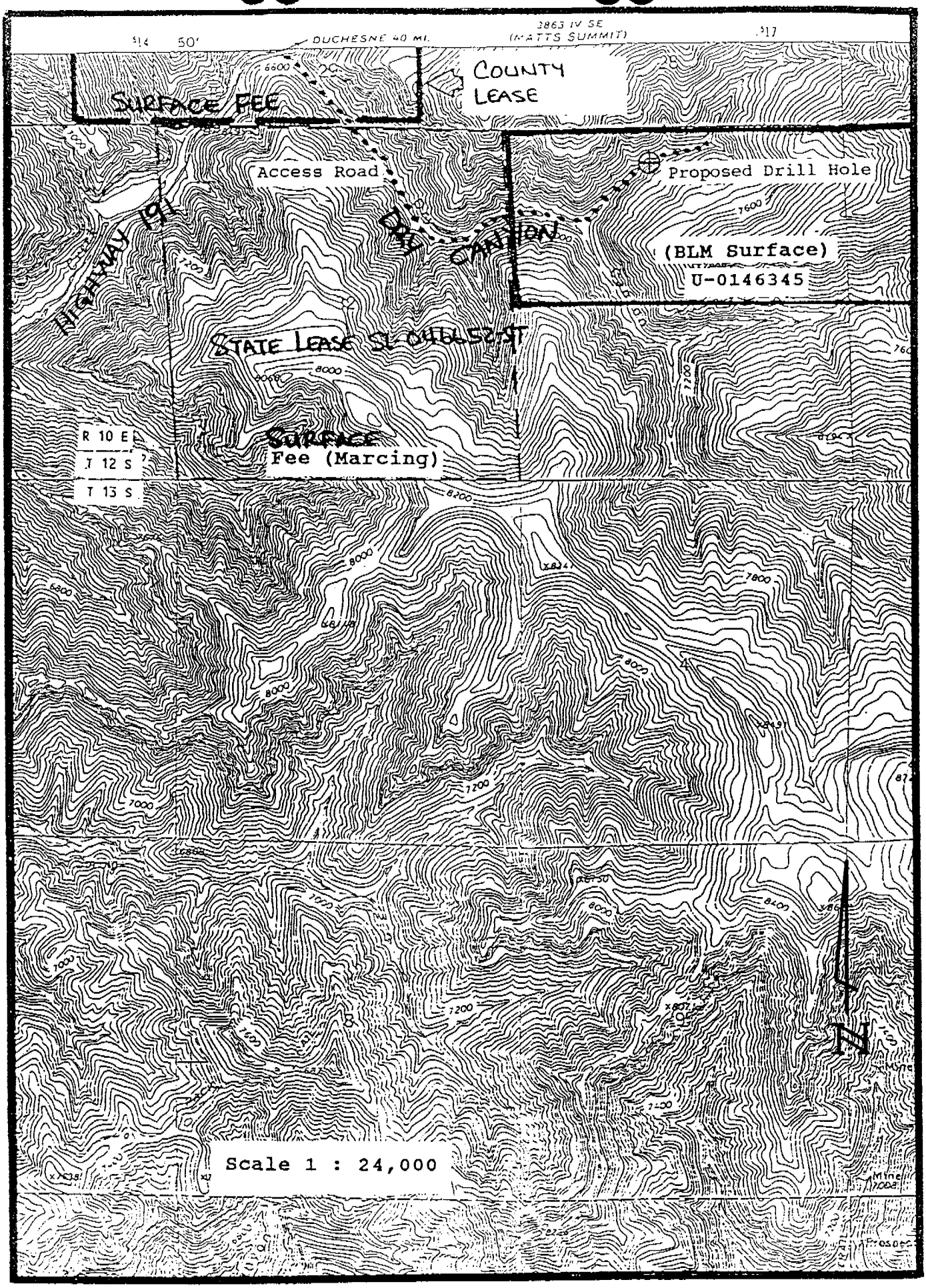
Proposed Site Locations
Site designation nomenclature is "PWC" for "Proposed Willow Creek " hole, "Number (ie. 33)" referring to the Section Number in which the site is located followed by the sequential drill hole number in that section. Locations are described on the following *Table 1* and are plotted on the attached maps *(map 1 and map 2)*.

TABLE 1

Proposed Drill Site Locations

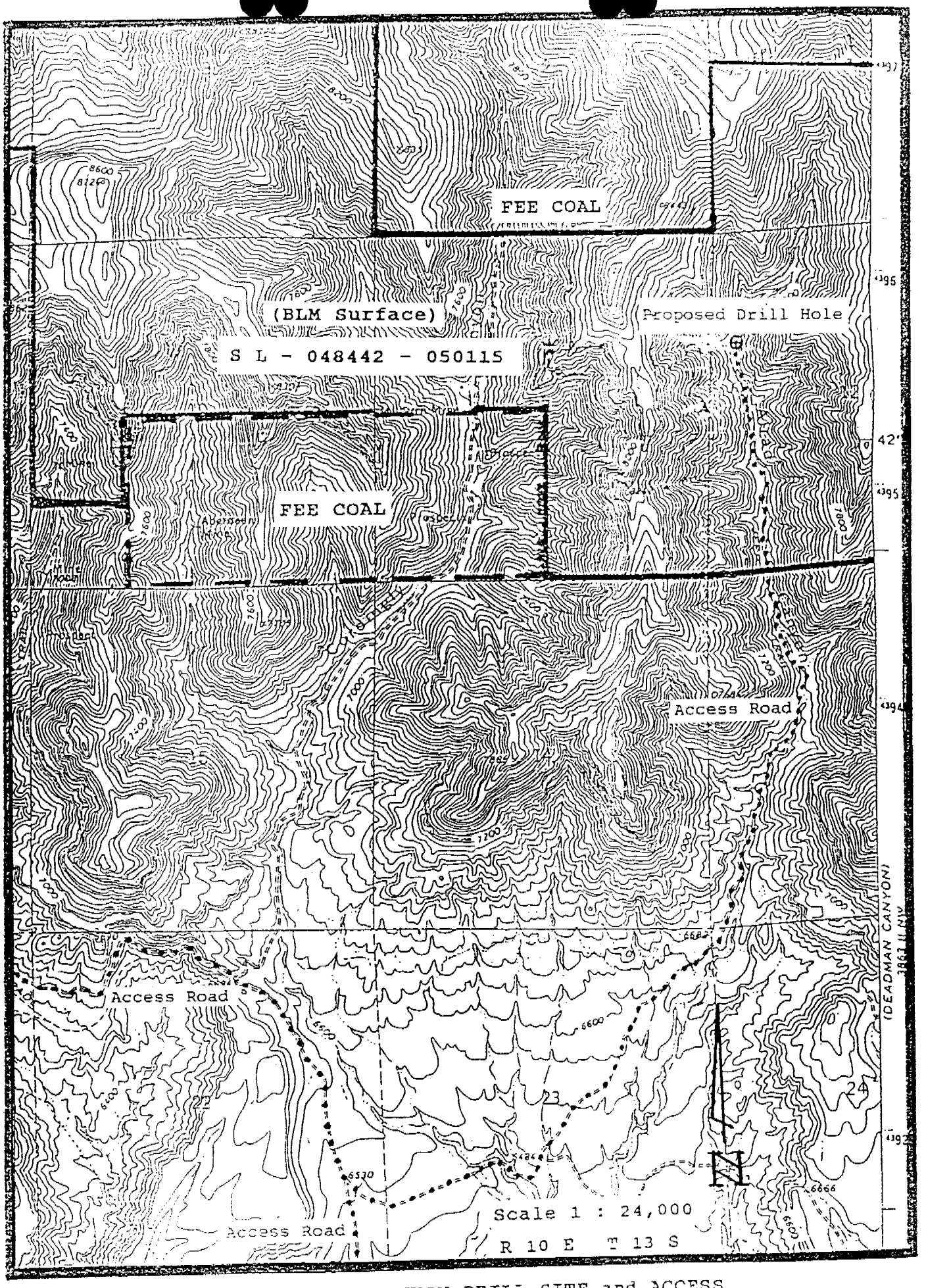
Site Designation	Legal Description
PWC 33-6 (Dry Canyon Site)	NE 1/4, NW 1/4 Sec 33, T12S, R10E
PWC 12-2 (Alrad Canyon Site)	SW 1/4, NW 1/4 Sec 12, T13S, R10E

Surface Topography Features
The area is characterized as a deeply incised "plateau" topography, existing as flat-topped ridges elevated above the adjacent desert lands. This topography is the result of advanced erosion carving up a flat top "plateau" forming steep-walled canyons cutting into the lease tracts from the west, north and south. Elevations range from over 8,000 feet above sea level on the tops of the flat topped ridges to 6,000 feet above sea level in the bottom of the deepest canyon.



PROPOSED DRY CANYON DRILL SITE and ACCESS MAP 1

USGS Helper, Utah Quadrangle, 1972



PROPOSED ALRAD CANYON DRILL SITE and ACCESS

MAP 2

USGS Helper, Utah Quadrangle, 1972

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
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355 West North Temple
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801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

June 16, 1994

Mr. Robert Valentine
Interim Director
Utah Division of Wildlife Resources
1596 West North Temple
Salt Lake City, UT 84116

Re: Minor Coal Exploration, Panther Canyon Site and Dry Canyon and Alrad Canyon Site, Cyprus Plateau Mining Corporation, CEP/007/038-94A (Fee) and CEP/007/038-94B (Federal), Folder #2, Carbon County, Utah

Dear Mr. Valentine:

Enclosed please find two proposals for "Minor Coal Exploration" for the Panther Canyon site on fee land and Dry Canyon (Federal Coal Lease U-0146345 - BLM Surface) and Alrad Canyon (Federal Coal Lease (SL-048442-05115 - BLM Surface). A threatened and endangered species investigation and a raptor investigation have been done. The reports on these investigations will be forwarded to your office as soon as the reports are available, sometime during the week of June 20, 1994.

If you have any questions, please call me.

Sincerely,

Pamela Grubaugh-Littig
Permit Supervisor

Enclosure

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

June 16, 1994

Mr. Robert Morgan, State Engineer
Utah Division of Water Rights
Department of Natural Resources
1636 North 1950 West
P.O. Box 144810
Salt Lake City, UT 84114-4810

Re: Minor Coal Exploration, Panther Canyon Site and Dry Canyon and Alrad Canyon Site, Cyprus Plateau Mining Corporation, CEP/007/038-94A (Fee) and CEP/007/038-94B (Federal), Folder #2, Carbon County, Utah

Dear Mr. Morgan:

Enclosed please find two proposals for "Minor Coal Exploration" for the Panther Canyon site on fee land and Dry Canyon (Federal Coal Lease U-0146345 - BLM Surface) and Alrad Canyon (Federal Coal Lease (SL-048442-05115 - BLM Surface). Please review these proposals by July 18, 1994 and notify the Division of your findings at that time. Thank you.

If you have any questions, please call me.

Sincerely,

Pamela Grubaugh-Littig
Permit Supervisor

Enclosure

94A

Cyprus Plateau Mining Corporation
P.O. Drawer PMC
Price, Utah 84501
(801) 637-2875
Fax: (801) 637-2247

CYPRUS
Plateau Mining

June 13, 1994

Utah Coal Regulatory Program
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

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JUN 14 1994
DIV. OF OIL, GAS & MINING

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CEP/007/038-94A & 94B

Dear Ms. Littig,

RE: WILLOW CREEK MINE COAL EXPLORATION/GROUND WATER MONITORING WELL PERMIT APPLICATION

Enclosed please find three copies of an application for a permit to explore for coal at the proposed Willow Mine. The exploration hole will be converted into a ground water monitoring well to comply with the Utah/SMCRA regulations. This location is on fee land.

A threatened and Endangered species investigation, and a raptor investigation have been done; reports on these investigations will be forwarded as soon as the reports are available. } 94A

A copy of an application for two exploration/ground water monitoring wells has been submitted to the BLM for lands under their control, a copy of this application is enclosed for your information. } 94B

Please contact me at 636-2227 with any questions.

Respectfully,

Ben Grimes
Project Manager

Enclosures
File: WCENV 2.5.2.9
Chron: BG940607