MINUTE ITEM

11/79
Smith

23. APPLICATIONS FOR PERMITS TO PROSPECT FOR MINERALS OTHER THAN OIL, GAS AND GEOTHERMAL RESOURCES W 6842 W 6843 W 6844 W 6845 W 6846 W 7260 W 7262

Calendar Item 23 attached, was pulled from the agenda prior to the meeting.

Attachment: Calendar Item 23. (51 pages)

CALENDAR ITEM

23.

11/79

W 6842 W 6843
W 6844 W 6845
W 6846 W 7260
W 7262

Smith

APPLICATIONS FOR PERMITS TO PROSPECT FOR MINERALS OTHER THAN OIL, GAS AND GEOTHERMAL RESOURCES

APPLICANT: Federal Resources Corporation
Robert Schick, Agent
P. O. Box 806
Salt Lake City, Utah 84110

AREA, TYPE LAND AND LOCATION: Approximately 3,727 acres vacant, non-contiguous school land situated in the Coso Range between Owens Lake and the Haiwee Reservoir, Inyo County, more particularly described in Exhibit "A".

MINERALS: Primarily uranium, as well as, all other materials other than oil, gas and geothermal resources.

PROPOSAL: To evaluate the potential for mineral values other than oil, gas and geothermal resources. The primary exploratory objective is to determine if uranium exists in commercial quantities, and if so to then propose a plan for its extraction. The Coso area is one of only 3 areas recognized by the Division of Mines and Geology as potential uranium areas in the State of California.

METHOD OF EXPLORATION: Twenty-one drillholes are tentatively scheduled, varying the depth from 200 to 1,500 feet. Thirteen of these holes will be drilled with a clay base mud (bentonite), the remainder will be drilled with a combination of air and water. All material produced from drilling, which will include cutting, drilling mud and water, will be contained in evaporation ponds. All evaporation ponds that are closer than 5 miles to the Haiwee Reservoir will be lined with plastic. After

A 34
S 16

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allowing the liquids to evaporate, the ponds will be backfilled, and the area restored to its original condition. If this program is successful, additional holes may be drilled. Drillhole information is tabulated on Table I, attached hereto as Exhibit "D" and by this reference expressly made a part hereof. Holes will be drilled with a portable rig.

PREREQUISITE TERMS:

1. Required statutory filing fee, permit fee and expense deposit have been submitted by the applicant.

2. The area is not known to contain commercially valuable deposits of minerals.

APPROVALS OBTAINED:

1. The subject permit applications have been approved by the Office of the Attorney General as to compliance with applicable provisions of the law pursuant to Section 6890 of the P.R.C.

2. The Commission staff, in accordance with Article 10, Section 2906(b), has conducted an initial study and has determined that the project will not have a significant effect on the environment. Therefore, in compliance with subsection (c) of Section 2905, a Negative Declaration No. 252 has been prepared and filed with the State Clearinghouse.

OTHER PERTINENT INFORMATION:

This project is situated on State land which has not been classified as possessing significant environmental values, but a portion of the area is within a BLM Wilderness Study Area.

EXHIBITS:

A. Project Description. B. Location Map.
C. Royalty Schedule, Table I.
D. Negative Declaration No. 252.

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CALENDAR ITEM NO. 23.(CONTD)

IT IS RECOMMENDED THAT THE COMMISSION:

1. DETERMINE THAT AN EIR HAS NOT BEEN PREPARED FOR THIS PROJECT BUT THAT A NEGATIVE DECLARATION HAS BEEN PREPARED BY THE COMMISSION'S STAFF.

2. CERTIFY THAT A NEGATIVE DECLARATION NO. 252 HAS BEEN COMPLETED IN COMPLIANCE WITH CEQA OF 1970, AS AMENDED, AND THE STATE GUIDELINES; AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN.

3. DETERMINE THAT THE PROPOSED PROJECT WILL NOT HAVE A SIGNIFICANT EFFECT UPON THE ENVIRONMENT.

4. DETERMINE THAT THE LANDS DESCRIBED IN THE PERMIT ARE NOT KNOW TO CONTAIN COMMERCIALLY VALUABLE DEPOSITS OF MINERALS.

5. AUTHORIZE THE ISSUANCE OF 7 PROSPECTING PERMITS TO FEDERAL RESOURCES CORPORATION FOR A TERM OF 2 YEARS EACH, FOR ALL MINERALS OTHER THAN OIL, GAS AND GEOTHERMAL RESOURCES ON APPROXIMATELY 3,727 ACRES SITUATED IN 8 SECTIONS, SBM, INYO COUNTY, MORE PARTICULARLY DESCRIBED IN EXHIBIT "A" ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF; IN ACCORDANCE WITH THE STANDARD FORM OF PERMIT, ROYALTY PAYABLE UNDER ANY PREFERENTIAL LEASE ISSUED UPON DISCOVERY OF COMMERCIALLY VALUABLE DEPOSITS FOR ANY AND ALL MATERIALS EXTRACTED OR REMOVED FROM SAID PREMISES FOR SALE OR STOCKPILING ARE TO BE DETERMINED AS SET FORTH IN EXHIBIT "C" ATTACHED HERETO AND BY REFERENCE MADE A PART HEREOF. ANNUAL MINIMUM ROYALTY SHALL BE $15 per acre.

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MINERAL PROSPECTING PERMIT

W 6842-46, W 7260 and W 7262

INYO COUNTY

EXHIBIT "A"

W 6842 Section 36, T. 18 S., R. 37 E., M.D.M.

W 6843 Section 16, T. 18 S., R. 38 E., M.D.M.

W 6844 Section 36, T. 19 S., R 37 E., M.D.M.

W 6845 W½ of Section 16, T. 19 S., R. 38 E., M.D.M.

W 6846 SW¼ of Section 13, T. 20 S., R. 37 E., M.D.M.

N½ and SE¼ of Section 23, T 20 S., R. 37 E., M.D.M.

W½ of Section 24, T. 20 S., R. 37 E., M.D.M.

W 7260 SW¼ of SW¼ of Section 23, T. 20 S., R. 37 E., M.D.M.

W½ of SE¼ and Lots 3 and 4 of Section 36, T. 20 S.,

R. 37 E., M.D.M.

W 7262 W½ of E½, E½ of SW¼, and E½ of NW¼ of Section 36, T. 20 S., R 37½ E., M.D.M.

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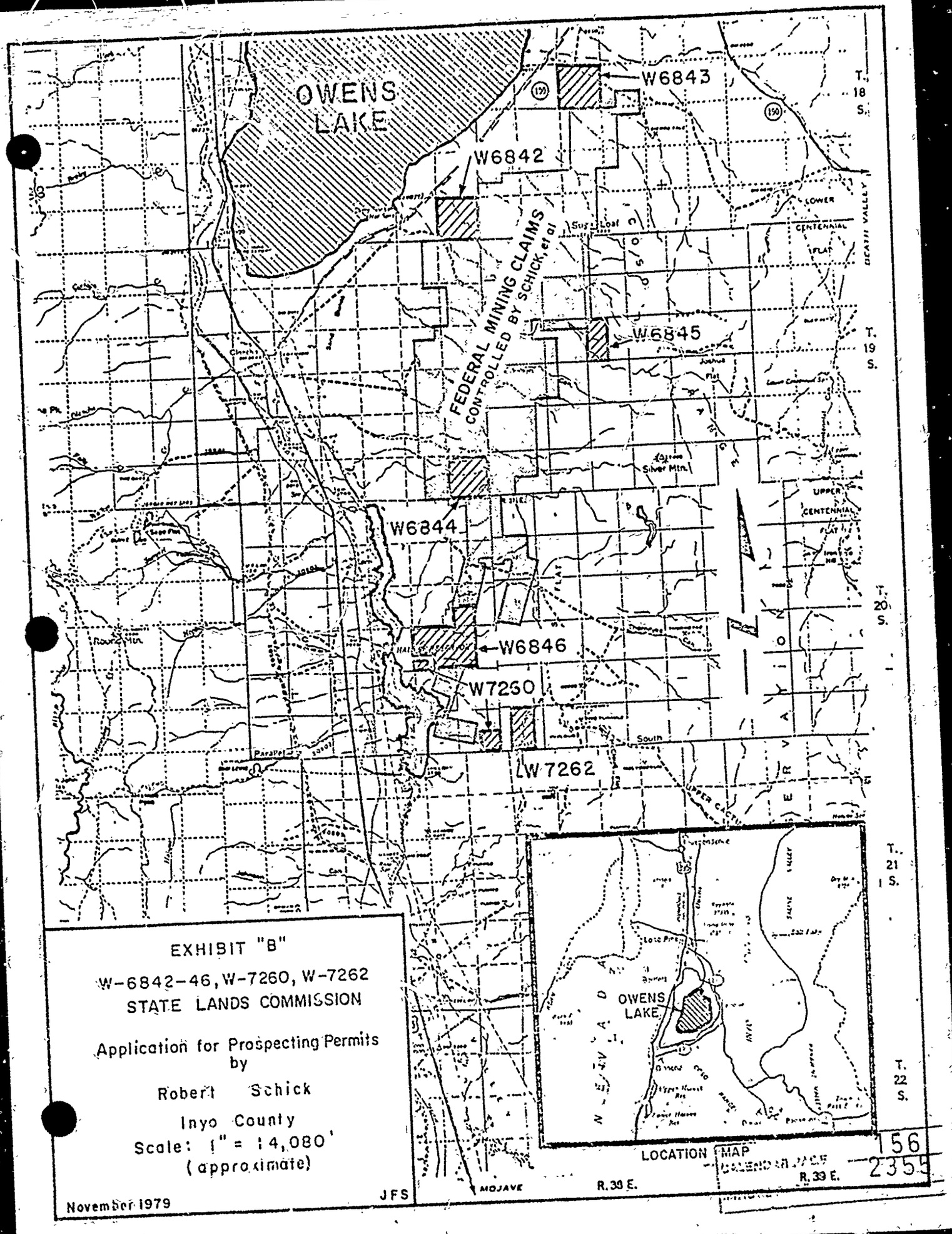

EXHIBIT "B"

W-6842-46, W-7260, W-7262
STATE LANDS COMMISSION

Application for Prospecting Permits
by

Robert Schick

Inyo County
Scale: 1" = 14,080'
(approximate)

November 1979 JFS

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2359

W 6842, W 6843, W 6844,
W 6845, W 6846, W 7260
W 7262

EXHIBIT "C"

Lessee shall pay to the State a royalty upon any and all minerals produced thereunder and extracted from said leased premises to be determined as follows:

For all uranium - bearing ores (i.e., mineral bearing materials that are mined primarily for their uranium content) which are mined and saved from the premises by Lessee hereunder for sale, processing, or stockpiling, the royalty reserved shall be eleven (11%) percent of the mine value of such ores in raw, crude form.

For the purpose of computing such royalty to be paid for uranium bearing ores, the mine value thereof shall be determined according to the following:

(a) The mine value of uranium bearing ores sold by the Lessee in raw, crude form shall be actual proceeds received for such ores by Lessee after deducting the cost to Lessee, if any, of transporting such ore from the mine to the mill or point of sale (where the crude ore is sold other than F.O.B. mine).

(b) The mine value of uranium bearing ores which are not sold in their raw form but which are processed in a mill owned or controlled, wholly or partly, by the Lessee, or which are processed in a custom mill for Lessee, shall be determined from the following price schedule with the applicable adjustments provided hereunder:

Grade of Ore Uranium U_3O_8 Assay	Ore Value Per Dry Ton
0.10%	$ 3.00
0.15%	7.00
0.20%	14.00
0.30%	21.00
0.40%	28.00
0.50%	35.00
0.60%	42.00
0.70%	49.00
0.80%	56.00
0.90%	63.00
1.00%	70.00

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Over 1.00% add $8.00 for each 0.10% U_3O_8 in excess of 1.00%. Ores of grades intermediate to those sepcified above will be valued on a pro-rata basis. With respect to mine water or solutions (whether natural or introduced) or ores assaying less than 0.10% U_3O_8 that are processed by Lessee for recovery of uranium therefrom, the ore value shall be $1.50 per pound of U_3O_8 recovered.

In the event the price received by Lessee for U_3O_8 sales from said mill is either more or less than $8.00 per pound for the average of all sales made during the calendar month in which said uranium-bearing ores, mine waters or solutions are processed (or for the last previous month in which U_3O_8 sales were made if none were made in said month) then the ore value will be adjusted in the proportion that said average U_3O_8 sales price bears to $8.00 per pound, (i.e. $\frac{x}{8}$ x ore value per ton as listed in tables and where x = average sales price). In the event that no sales of U_3O_8 produced in said mill by or for Lessee are had for a period of one year prior to the month in which such ores are processed, then the U_3O_8 sale price shall be the published or fair market price of U_3O_8 in the area of the leased premises, but, however, not less than $8.00 per pound, for purposes of making this adjustment.

The adjusted ore value so determined shall be converted to mine value by deducting therefrom the actual cost of transporting such ore from the mine to the mill.

In the event the Lessee recovers and markets valuable constituents other than uranium from said uranium bearing ores as by-products during the processing of such ores, then royalty reserved shall be eleven (11%) percent of the proceeds received by the Lessee from the sale of such by-products.

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EXHIBIT "C" (CONT'D.)

For all ore other than uranium-bearing ore (i.e., mineral bearing materials that are mined by Lessee from the premises hereunder primarily for recovery of valuable constituents other than uranium) the royalty reserved shall be eleven (11%) percent of the market value of such ore in raw, crude form before any processing or benefication, less any cost incurred by Lessee in transporting such ore to the point of sale or processing.

Lessee shall pay to the State an annual minimum royalty of $15.00 per acre for each acre under lease. Such minimum royalty shall be credited to royalties paid during the year for which such minimum royalty is paid.

Lessee shall pay annually in advance a rental of $1.00 per acre.

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TABLE I

DRILL HOLE INFORMATION

Drill Hole #	Location	Drill Depth	Depth to Water Table	Drilling Medium	Distance from Haiwee Reservoir	Pit Size	Lining
T18S, R37E, 36-1	SW¼ SW¼	400	200	Mud	5.0 mi	50'x50'x3'	No
T18S, R38E, 16-1	NW¼ NE¼	1500	250	Mud	5.0 mi	50'x50'x3'	No
T19S, R37E, 36-1	NW¼ SW¼	1200	700	Mud	2.0 mi	50'x50'x3'	Yes
T19S, R38E, 16-1	SW¼ SW¼	200	NA	Air	5.0 mi	15'x15'x5'	No
T20S, R37E, 13-1	NE¼ SW¼	1000	450	Mud	1.2 mi	50'x50'x3'	Yes
-2	NE¼ SW¼	1000	450	Mud	1.2 mi	50'x50'x3'	Yes
-3	NE¼ SW¼	1000	450	Mud	1.2 mi	50'x50'x3'	Yes
-4	NE¼ SW¼	1000	450	Mud	1.2 mi	50'x50'x3'	Yes
-5	NE¼ SW¼	1000	450	Mud	1.2 mi	50'x50'x3'	Yes
T20S, R37E, 23-1	NW¼ NW¼	1500	150	Mud	0.2 mi	50'x50'x3'	Yes
-2	NW¼ NE¼	1500	200	Mud	0.5 mi	50'x50'x3'	Yes
T20S, R37E, 24-1	NW¼ NW¼	1300	300	Mud	1.3 mi	50'x50'x3'	Yes
T20S, R37E, 36-1	NW¼ SE¼	50	NA	Air	1.2 mi	15'x5'x5'	Yes
-2	NW¼ SE¼	400	NA	Air	1.2 mi	15'x5'x5'	Yes
-3	NW¼ SE¼	500	NA	Air	1.2 mi	15'x5'x5'	Yes
-4	NW¼ SE¼	400	NA	Air	1.2 mi	15'x5'x5'	Yes
-5	SW¼ SE¼	500	NA	Air	1.2 mi	15'x5'x5'	Yes
-6	SW¼ SE¼	400	NA	Air	1.2 mi	15'x5'x5'	Yes
T20S, R37½, 36-1	NE¼ SW¼	300	NA	Air	2.0 mi	15'x5'x5'	No
T20S, R37E, 23-3	SW¼ SW¼	1000	225	Mud	0.75 mi	50'x50'x3	Yes
T20S, R37E, 35-1	NE¼ SW¼	1000	200	Mud	0.30 mi	50'x50'x3	Yes

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Hole Locations: 11-1-78

R. 37 E.

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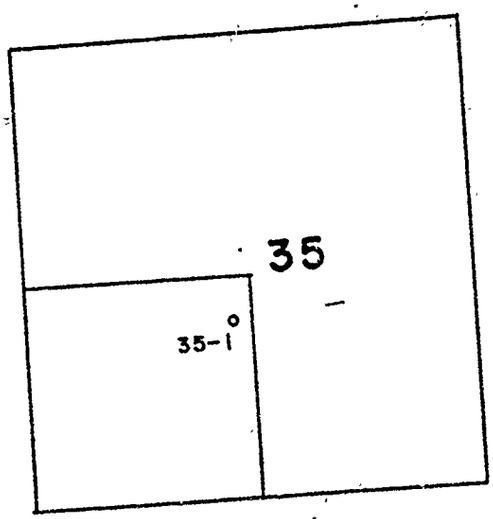

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R. 38 E.

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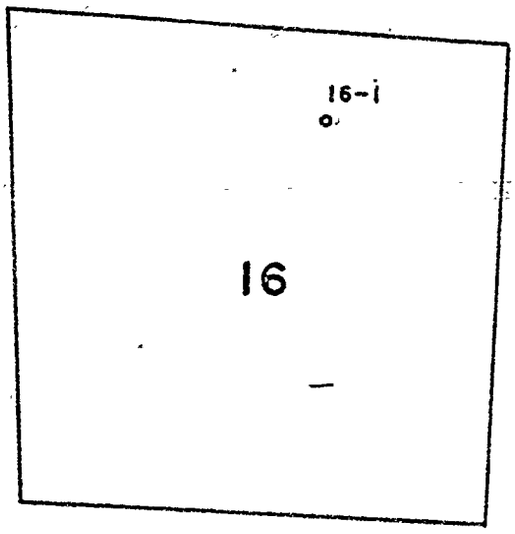

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R. 37 E.

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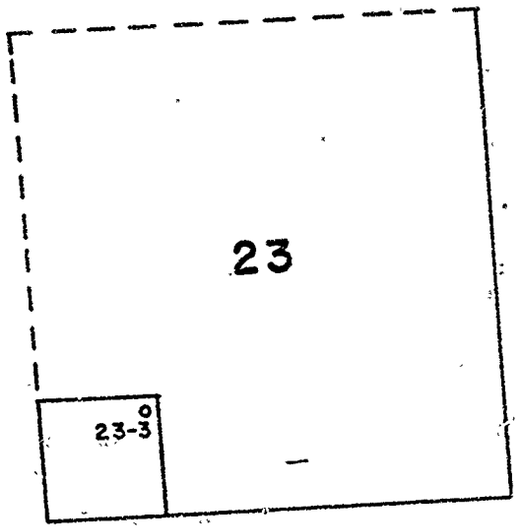

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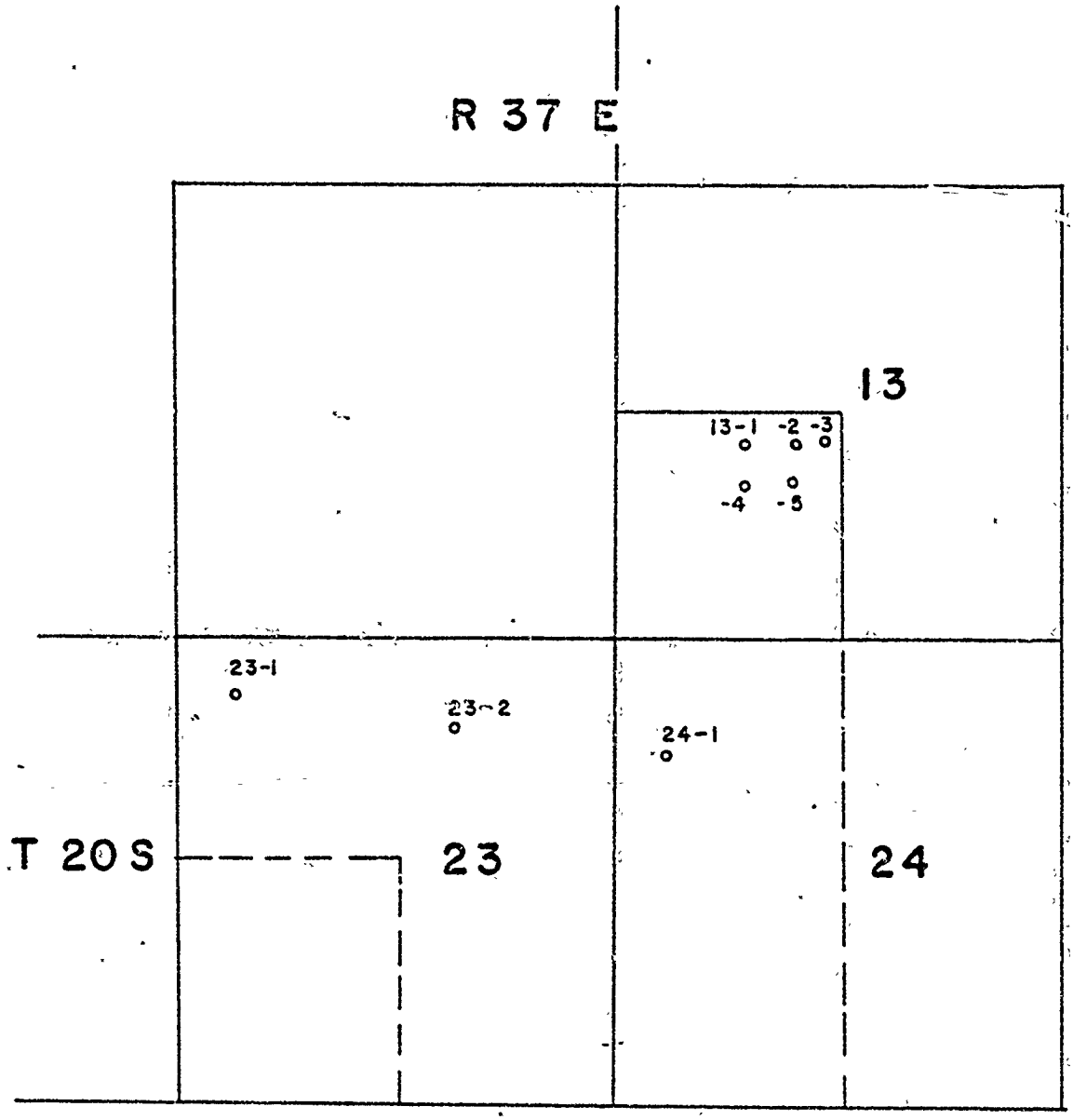

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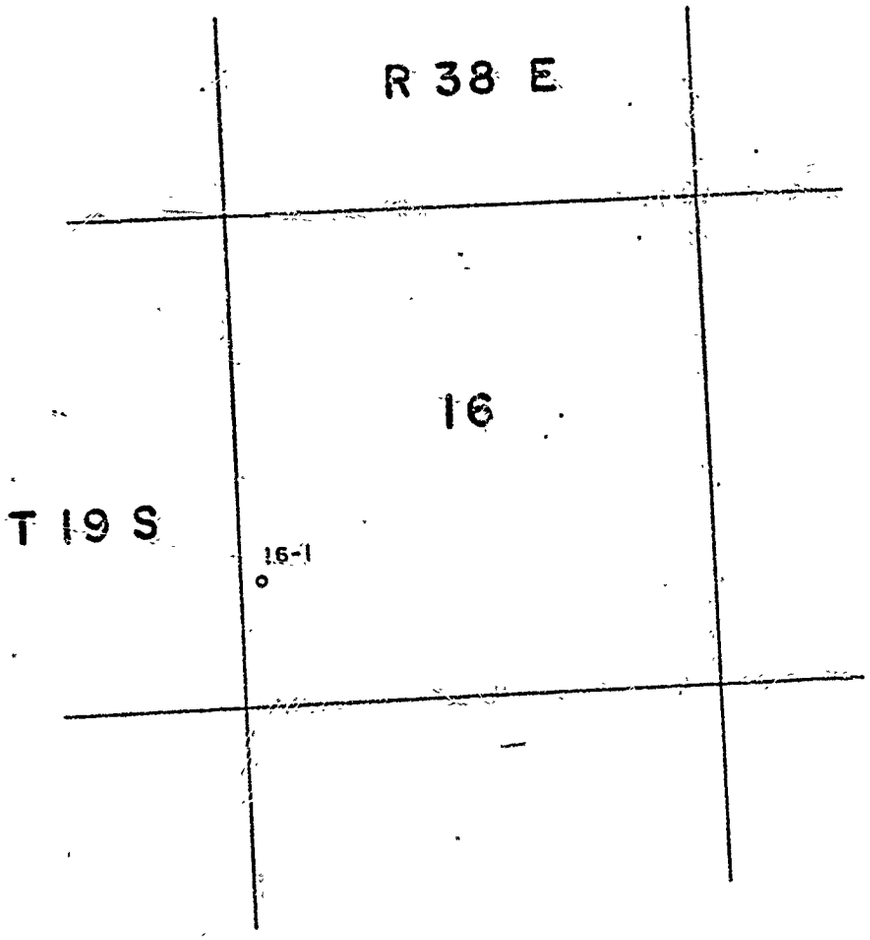

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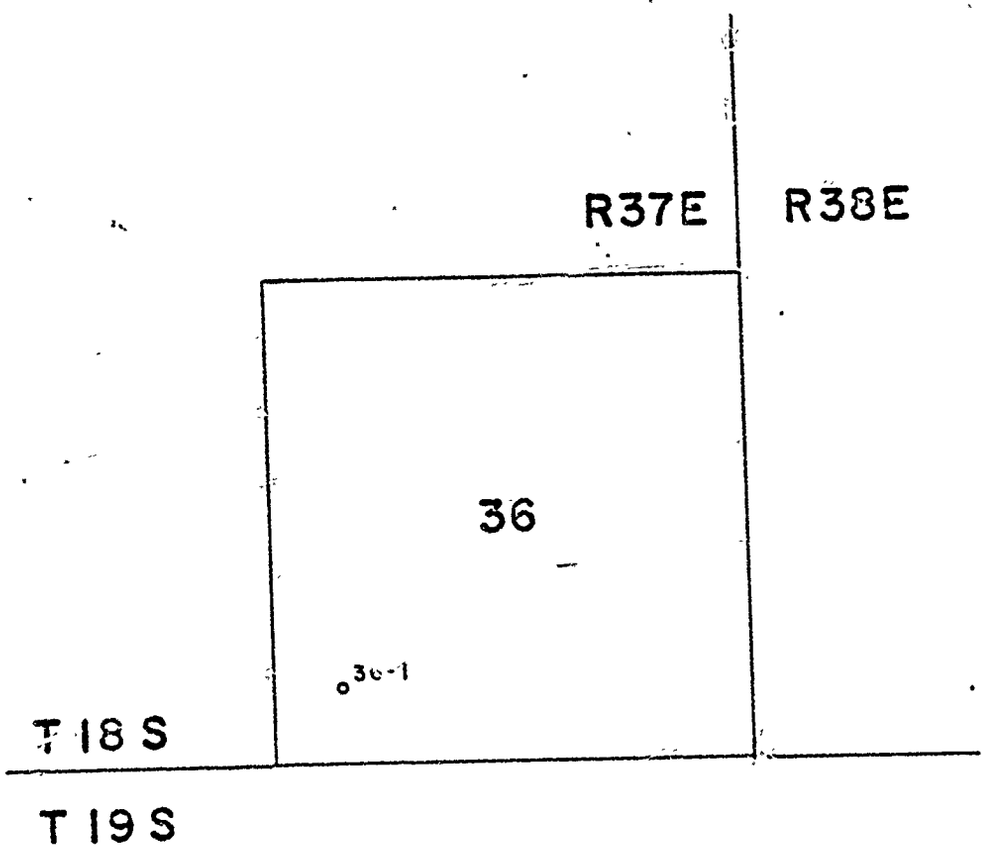

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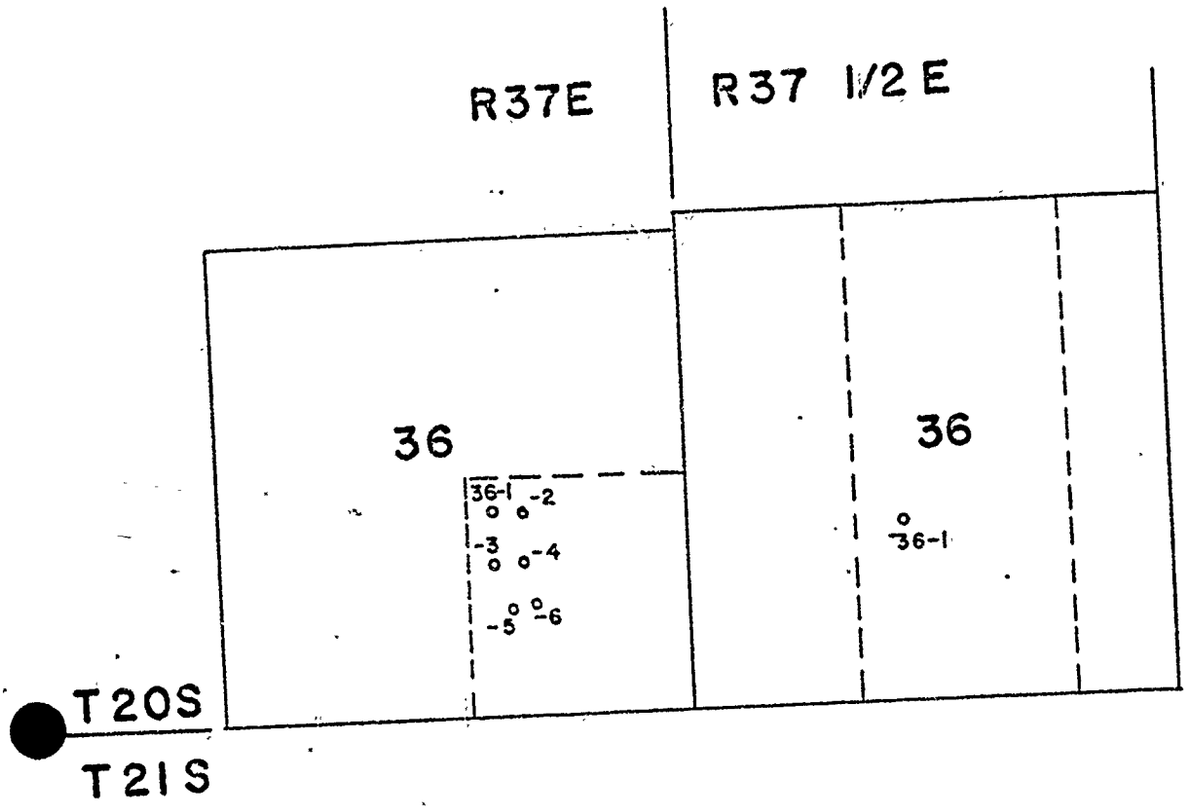

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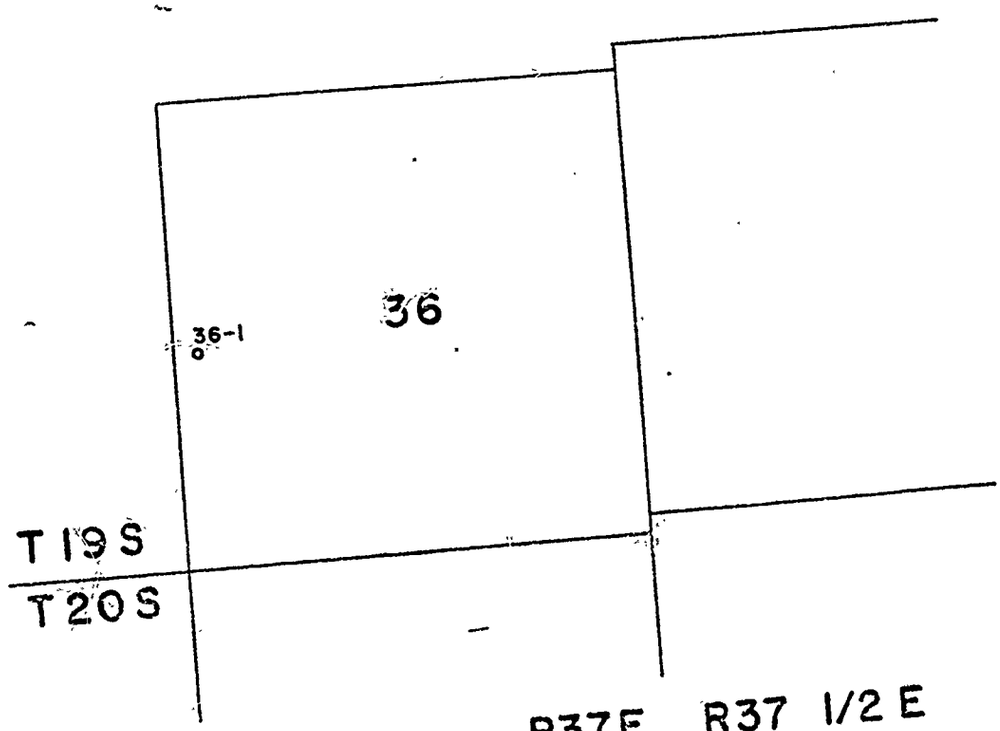

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STATE OF CALIFORNIA

STATE LANDS COMMISSION

EXHIBIT "D"

EDMUND G. BROWN JR., Governor

KENNETH CORY, Controller
MIKE CURB, Lieutenant Governor
XXXXXXXXXXXXXXX, Director of Finance
MARY ANN GRAVES

EXECUTIVE OFFICE
1807 - 13th Street
Sacramento, California 95814

WILLIAM F. NORTHROP
Executive Officer

EIR ND 252

File Ref.: W 6642-46

W 7260 & 7262

NEGATIVE DECLARATION

Project Applicant: Robert B. Schick

Project Location: Coso Range, Inyo County

Project Description: To evaluate the mineral potential for other than oil, gas, and geothermal resources on approximately 3,727 acres of non-contiguous State lands situated in Inyo County, between Owens Lake and the Haiwee Reservoir. The prime target is uranium ore, by coring 21 holes.

This NEGATIVE DECLARATION is prepared pursuant to the requirements of the California Environmental Quality Act (Section 21000 et. seq. of the Public Resources Code), the State EIR Guidelines (Section 15000 et. seq., Title 14, of the California Administrative Code), and the State Lands Commission regulations (Section 2901 et. seq. of California Administrative Code).

Based upon the attached Initial Study, it has been found that:

☐ the project will not have a significant effect on the environment.

☒ the attached mitigation measures will avoid potentially significant effects.

Contact Person: Ted T. Fukushima
State Lands Commission
1807-13th Street
Sacrament , CA 95814
(916) 322-7013

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File Ref.: W 6842-46
W 7260,62

July 13, 1979

Addendum to the Initial Study

The attached Initial Study was originally circulated as a draft E.I.R. in 1974 under SCH #73111902 and the comments from the responses to that document have been made a part of this report.

The subsequent processing of the permits was never completed, however they have now been reactivated.

The scope and intent of the project remains the same. A cultural resource study conducted recently is attached to the updated initial study.

EXHIBIT B PAGE 170
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STATE OF CALIFORNIA

STATE LANDS COMMISSION

INITIAL STUDY

(California Environmental Quality Act of 1970)

MINERAL PROSPECTING PERMIT

W 6842-46, W 7260 and W 7262

INYO COUNTY

1. Project & Its Location

Mr. Robert B. Schick on behalf of Federal Resources Corporation has submitted an application for Mineral Prospecting Permits on approximately 3717 acres of noncontiguous State lands situated in Inyo County between Owens Lake and the Haiwee Reservoir on the east side of the Owens Valley, in the Coso Range. Parcels are more fully described on attached Exhibit A, and geographically located on the attached map. In addition to the State acreage, some 21,239 acres of Federal mining claims contiguous to the State parcels are controlled by Schick, et al. Joining in the exploration of these areas are Southern California Edison Company, Pioneer Nuclear, Inc., and Rocky Mountain Energy Company. Pioneer Nuclear has contributed additional Federal acreage of unknown amount at this time and therefore it is not included in the above figures.

2. Statement of the Objectives Sought by the Proposed Project

The exploration program will be directed to the discovery and evaluation of potential uranium minerals anticipated to be found mainly within the Coso formation. If commercial quantity of uranium deposits are discovered the applicant intends to mine the deposits by such methods as may be appropriate, with a secondary purpose being to produce any other minerals which may be discovered incidental to the uranium operations.

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2370

3. General Description of the Project

Exploration procedures will possibly include a geophysical program to delineate the configuration of the granitic complex which lies beneath the Coso formation. However, the main efforts of the exploration program will be concentrated on surface mapping, followed by the drilling of test and core holes. Plans call for the use of a truck-mounted Denver-Gardener type rotary percussion rig to drill 4-3/4" holes to the depths of 100 to 1,500 feet. The number, spacing, and location of such holes will be partly contingent upon the data of the core hole program as it progresses and partly upon the resultant data compiled from the exploration of the adjacent Federal land. All core holes will be plugged and abandoned in accordance with State regulations.

In the event the exploration program proves the existence of commercially valuable minerals and a lease is requested, the production operation could possibly include mining of the uranium and associated ores by both open pit and underground methods. Irrespective of the method employed in the mining operation, only the minimum amount of surface area will be utilized. In addition, such related installations as spoil pits, stockpiles, roadways, living quarters and related structures would be carefully located to blend with the topography. The overall planning will be geared to theidea that at the termination of such lease the land would be returned as nearly as possible to the condition that existed before the lease. Details for the production phase will be covered in a separate environmental impact report.

The Prospecting Permit will give the Permittee an exclusive right to prospect for minerals other than oil and gas for a period not exceeding two years. The Commission may, at its discretion, extend the term of the Permit for a period not exceeding one year, but the term of any such Permit, including extensions, shall be limited to a total of three years. If minerals are discovered in commercial quantities, the Permit will provide that no lease will be issued pursuant to the terms of this Permit, and that the Permittee agrees that no lease will be issued pursuant to the terms of the Permit until the State Lands Commission acts favorably upon an application for such lease by approving its issuance, having reviewed and considered information contained in an Environmental Impact Report in regard to the production phase prepared in compliance with Public Resources Code Section 6371 (as that section may be amended or modified by other law at the time an application for such lease is made).

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In addition to conducting all phases of the drilling operations in a proper and workmanlike manner in accordance with accepted good rotary drilling practice, the Permittee will comply with all valid rules and regulations of the State of California as well as with all valid ordinances of cities and counties applicable to the Permittee's operations.

4. Description of Environmental Setting

The area under application is semi-arid to arid undeveloped desert land, lying on the west flank of the Coso range. Water is non-existent, and vegetation is very limited, ranging in the northern area from sparse desert grasses to the desert shrub shadscale, spiny hopsage, and creosote bushes with yucca becoming quite common as you travel south through the proposed permit area.

Wildlife is scarce and rerely seen within the prospect area, however, the desert fox, coyote, ground squirrel, desert woodrat, jackrabbit and desert cottontail have been known to inhabit the area. Common to Owens Valley are the sparrow-hawk, quail, meadow lark, magpie, night hawks and ravens, while many migrant birds and ducks are found sasonally along the Haiwee Reservoir.

The surface of the seven State parcels varies from area to area exhibiting one or a combination of alluvium, metamorphics, volcanics, and sedimentary rocks. Of prime interest is the Coso formation, composed principally of arkosic sandstone and tuffaceous and bentonitic lake beds of varying undetermined thicknesses. These sedimentary rocks overlie a Jurassic granitic complex and are in many places capped by volcanic flows. The sedimentary formations strike approximately north, dip gently to the west, and are locally warped in broad shallow flows. The 3,717 acres of State lands range in elevation from 3,800 feet to 6,200 feet and drainage is predominantly to the west or northwest.

Tourism and recreational attractions of the Sierras are the key factors of the economy of Inyo County; however, there are no known recreational uses in the immediate area of the pending permits. The Coso Range area has had a long history of intermittent mining activity dating back to 1860, when Dr. Darwin French discovered the silver ledges of Coso Mountains. The only other known use of the pending permit area other than mining is one of very limited grazing. The closest area of limited recreational use if Dirty Socks Hot Springs on the south shore of Owens Lake, some 4½ miles from Olancha. To the south and

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HEARING DATE 2372

east of Olancha are the sand dunes, which occasionally have been used in the past as a movie location and seasonally when the weather permits, as a picnic area. Directly south of Olancha is the Haiwee Reservoir paralleling approximately the lower 1/4 of the pending permit area. Once known as Haiwee Meadows, it supported a large goat ranch, and is now a part of the Los Angeles - Owens River Aquaduct System.

Evidences of early Indian cultures exist in the Owens Valley in the form of petroglyphs and obsidian chips. In 1951, a Piute Basin village deposit was excavated just north of Little Lake indicating habitation dating 3,000 to 4,000 years ago. Since archeological and historical values are little known within the prospecting area, the applicant will conduct, or cause to be conducted, an archaeological survey, in a manner acceptable to the Resources Agency, of the lands in the immediate vicinity of any activity that will involve disturbance of the land surface. Applicant has been supplied with a list of organizations qualified to preform archaeological investigations to fulfill the requirements of the State Environmental Quality Act. In addition, all excavations will be investigated for archaeological and historical values not reflected on the surface of the land. Should the presence of such values be determined, the specific project location will be altered to protect them from damage or will be rescheduled to permit the salvage of these values.

Climate

The average rainfall in the area is approximately 4 inches, the majority of which falls during the winter months. The temperatures range from a mean average annual temperature of approximately 60 degrees F to a maximum summer temperature of 120 degrees F.

5. Environmental Impact

The Environmental Impact of the Proposed Action

During the drilling of the exploratory core holes, certain noises, dust and exhaust fumes will be emitted by the mobile drilling unit. Due to the remote location such objectionables will be insignificant, and the operation will rarely be visible from Highway 395. Wherever possible, existing roads and trails will be used. Because of the type of rig, little or no site location work will be needed. In some areas, excessive sand may necessitate the use of a bulldozer to aid in the moving of equipment, however, such work in these areas will be held to a minimum.

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The permit will stipulate that any road construction by or for the permittee across national resources lands for the purpose of providing access to State lands will require prior premission from the Bureau of Land Management.

Any aesthetic or wildlife disruption will be minimal and short-lived. No permanent structures are contemplated and all drilling equipment will be removed upon completion of the exploratory program. An average of four persons and not more than six will make up the work party of the exploration program. This party, transient in nature, will have little or no economic effect on the neighboring communities.

The compactness and the mobility of the portable drilling rig will result in a minimal amount of disturbance to the surrounding area. This will affect only a small amount of the native vegetation. Upon leaving the area, every attempt shall be employed to return the area, as nearly as practicable, to its condition prior to drilling.

6. Any Adverse Environmental Effects Which Cannot Be Avoided if the Proposal is Implemented

Noise, dust and fumes may result from the exploratory phase, and while unavoidable, will be of short duration. All equipment will be removed from the area upon completion of the program and all traces of the exploratory program will eventually be erased.

The very operational nature of exploratory rotary drilling of shallow core holes will result in certain unavoidable adverse environmental effects. Among these would be the temporary loss of the habitats of certain desert wildlife, and the damaging of some native vegetation within and surrounding the well sites. The increased noise level brought about by the drilling operation and by the movement of vehicles and personnel could possibly disturb the birds flying over the area. The appearance of a drilling rig silhouetted upon the horizon could be considered aesthetically distasteful by some, and therefore could be considered as adversely affecting the environment.

During the drilling phase the noise level in the drillsite area will be temporarily increased. Due to the remote location of the test holes, only the living habits of the wildlife inhabiting the area will be temporarily disrupted. However, once the area is returned to its former condition, the wildlife should quickly revert back to prior living habits.

CASE FILE NO. 175
SERIAL NO. 2374

The total unavoidable adverse effects on the environment resulting from the exploratory drilling program should be minimal and not of a permanent nature. Upon cessation of the drilling activities, the environment will revert to its natural pre-drilling condition, at a rate consistent with the growth-rate of the native vegetation.

7. Mitigation Measures Proposed to Minimize the Impact:

The applicant will be required to adhere to all rules and regulations as set forth by the State of California, as well as with all valid ordinances of cities and counties applicable to the Permittees. Additionally, all rules, regulations, and specific requirements, as well as all mitigation measures discussed in this EIR, are to be included as terms and conditions of the proposed Prospecting Permit. Further regulatory measures also will be contained in the prospecting permit.

The applicant will use the existing network of roads as much as possible, and thereby avoid unnecessary damage to the native vegetation. Drillsites will be located in areas of minimum vegetation. All core holes will be cement filled from the bottom to the surface, with the drillsite area to be left as nearly as possible in its condition prior to drilling. In the event that the drill cuttings are compatible with the surface soil, the applicant will evenly distribute these cuttings in a uniform pattern over the drill site area; however, if the cuttings are incompatible with the surface soil, the applicant will remove them and dispose of them on the applicant's property outside of the project area. When necessary, the permittee shall reseed and replant drill sites, and remove all debris, trash and other items foreign to the environment.

8. Alternatives to the Proposed Action

In the event that the proposed porject is not approved, the resulting alternatives are: (1) the applicant will seek other areas for exploratory work, and (2) the project area will either maintain its status quo or else continue its slow normal rate of growth. The full development of valuable mineral resources, if present in the project area, would never be realized if the applicant is denied a prospecting permit. This could result in these minerals being sought at other locations, or the discontinuance of any future exploratory work for those valuable natural resources. If the permit is denied, the immediate

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effect on the project area would be nothing more than to remain at its current status quo condition.

9. The Relationship Between Local Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity

The prospecting phase of the operations will be of short duration. The short term exploratory program could stand to benefit man in the long term by the discovery and utilization of a much needed mineral resource. The development of a viable uranium industry will result in long-term effects upon the environment. Population may be increased, and services and facilities attendant to such an increase may be established. The county's employment base could become diversified by introduction to the area of skilled technicians and scientists.

The discovery of valuable minerals in commercial quantities could result in a long-term use of the environment. Such operations would be in full compliance with all Federal, State, County, and City restrictions and regulations. No production lease would be issued until a favorable environmental impact report has been prepared and accepted in regard to the production phase.

10. Any Irreversible Environmental Changes that Would be Involved in the Proposed Action Should it be Implemented

During the exploratory drilling phase, certain areas in and around the drill sites will be altered and a minimum amount of native vegetation will be destroyed. Upon termination of the drilling phase, the drillsite areas are to be restored as nearly as possible to their natural condition. The change upon the environment imposed by a short-term exploratory corehole drilling program will be minimal.

11. The Growth-Inducing Impact of the Proposed Action

The exploratory phase itself would have a negligible effect on economic or population growth; however, if commercial production of the minerals is attained the environmental picture could change significantly. In such event, the proposed production operation would be subject to review and acceptance of a separate Environmental Impact Report. The magnitude of such an operation would require full compliance with all Federal, State, County, and City rules and regulations, among which are the various anti-pollution measures (noise, air, water, etc.). Additional requirements would require conformance with any waste-discharge standards.

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12. Organizations and Persons Consulted

a. State Clearinghouse
b. Resources Agency
c. Office of the Attorney General, Land Law Section
d. United States Department of Interior

13. Comments Received Through the Consultation Process

a. Prior to any future mining activities, an EIR for the mining operation should be prepared and should indicate all of the operational procedures.

b. The subject areas should be inspected for archaeological and historical values.

c. Prior to any road construction across national resources lands, the applicant must obtain permission from the Bureau of Land Management.

Responses to the above comments have been made a part of this report.

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MINERAL PROSPECTING PERMIT

W 6842-46, W 7260 and W 7262

INYO COUNTY

EXHIBIT "A"

W 6842	Section 36, T. 18 S., R. 37 E., M.D.M.
W 6843	Section 16, T. 18 S., R. 38 E., M.D.M.
W 6844	Section 36, T. 19 S., R 37 E., M.D.M.
W 6845	W½ of Section 16, T. 19 S., R. 38 E., M.D.M.
W 6846	SW¼ of Section 13, T. 20 S., R. 37 E., M.D.M.
	N½ and SE¼ of Section 23, T 20 S., R. 37 E., M.D.M.
	W½ of Section 24, T. 20 S., R. 37 E., M.D.M.
W 7260	SW¼ of SW¼ of Section 23, T. 20 S., R. 37 E., M.D.M.
	W½ of SE¼ and Lots 3 and 4 of Section 36, T. 20 S.,
	R. 37 E., M.D.M.
W 7262	W½ of E½, E½ of SW¼, and E½ of NW¼ of Section 36, T. 20 S., R 37½ E., M.D.M.

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File Ref.: W 6842-46
W 7260 and W 7262

COMMENTS AND RESPONSES

Comment:

University of California Riverside

In our opinion all of the sites shown on Exhibit "D" of your initial study stand a good chance of containing archaeological resources. We would never know if they did or did not if the work described in your Initial Study were carried out prior to a systematic study of the subject areas. We recommend that studies be made of these sites, including proposed access roads for equipment, before the prospecting permits are approved. The Garfinkel and Schiffman study of June 1979 is appropriate for W 6843, and the methods employed in that study could be used to study W 6842, W 6844-46, W 7260 and W 7262.

Response:

Granted the entire Coso Range may contain many such sites such as catalogued in W 6843, and perhaps the area as a whole should be surveyed and will possibly be surveyed at some future date, provided the financing is available to conduct such studies. The area under State application contains some 3,727± acres. The cost of the survey in W 6843 was $700, not a substantial amount but if applied to the total acreage the cost on the same basis would be $16,305. This makes the procurement of a State permit prohibitive.

However, more important is the consideration of the scope of these potential permits. These are potential exploration or geological data gathering permits of very limited scope. It is anticipated that little or no road work will have to be done under these permits. The main source of possible damage to any cultural resources, should any exist, will be to the surface areas of the portable drill rig sites. The applicant is cognizant of the importance of protecting such cultural resources and has agreed to flag all drillsites in advance of drilling to allow time for an inspection of the surface for its archaeological potential and presence of possible rare or endangered plants. If any road work is required the applicant will, by the terms of the permit, secure approval for such action from the State Lands Commission.

If as a result of the exploration processes a lease is requested, a full study of the potential lease area for cultural resources will be made a part of the E.I.R. prior to any approval. These factors have been discussed with the University of Riverside and were considered acceptable.

Comment:

California Division of Mines and Geology

Disposal of cuttings should be carried out so as not to contribute excess sediment to the ephemeral drainages. Particular care should be taken not to increase ephemeral sediment loads in areas draining toward the Haiwee Reservoir.

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Response:

Drill cuttings will be confined to evaporation ponds of sufficient size to accommodate the waste which will include cuttings, drilling mud (bentonite) and water. A certain amount of water will be used with the air drilling as a dust suppressant. Care will be taken not to increase ephemeral sediment loads in areas draining toward the Haiwee Reservoir. Location of evaporation ponds will be carefully selected.

Comment:

B.L.M.

Inyo County, to our knowledge, has not been consulted, nor has the State Geologist Office (re: SMARA implications).

Response:

Section 2714(b) of SMARA specifically provides that the act does not apply to prospecting activities or extraction operations where the total material removed is less than 1000 cubic yards in any one location of one acre or less.

Inyo County has been consulted and agrees with the above. We have also consulted with the State Geologist as well as other interested agencies and no agency has suggested that this exploratory project should be subject to SMARA.

To try to design a reclamation plan before the results of the exploration program are evaluated and a mining feasibility study made would be premature and impractical.

Comment:

Most of the area is within a B.L.M. Wilderness Study Area. While exploration would probably not impact the wilderness potential if properly conducted, mineral production would have an adverse impact.

Response:

It should also be noted that the Coso Range Area has long been recognized as one of three potential source areas within the State of California for uranium ore. The subject permits were applied for long before the B.L.M. designated this area as a Wilderness Study Area and, while production would have certain adverse impacts, if programmed properly it could also be compatible.

Comment:

The Coso Range is very rich in paleontological resources which should be protected as they are important for scientific and recreational values.

Response:

Paleontological resources should be protected; however, they are probably very limited on the State areas, which are made up primarily of granitics and volcanics with some lake bed sediments. Scientifically they are important, but recreationally they bear little value other than a look-see basis, if they can be seen, for they cannot be collected.

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Comment:

There are known populations of California Native Plant Society listed plants in the area.

1. Cymopterus ripleye: It was located at Sec. 23 (?), T. 19 S., R. 37 E., at 43:50 on April 15, 1978 by Mary Ann Henry of Clear Lake, California.

2. Penstemon moroensis was found in Sec. 25, T. 19 S., R. 37 E., at 4000-4350' elevation by Mary Ann Henry on April 15, 1978.

Response:

These spot sightings were discussed with Mary Ann Henry. She has agreed (schedule permitting) to inspect the flagged drillsites.

Comment:

If the drill cuttings contain higher than background levels of radiation, they should be disposed of in probably a Class 1 site, rather than scattered on the site. If levels are not higher than background, the cuttings should be spread along the edge of the nearest maintained road rather than spreading them evenly over the drillsite.

Response:

Based on previous exploration work in the Coso Range area, it is anticipated that any ore zone encountered will be of very low grade. "Ore" intercepts will be sufficiently diluted by material from nonmineralized zones and drilling medium as not to exceed the 200 percent of surface radiometrics, as specified by the California Regional Water Quality Control Board, Lahontan District, in a directive (Board Order No. 6-79-17) to Bendix Field Engineering Corporation and United States Department of Energy for their recent uranium exploratory wells program near Owens Lake, Inyo County. Should the specified radioactive limits be exceeded, the material will be contained and transported to an approved disposal site for radioactive materials. All wastes produced from drilling will be contained in evaporation ponds.

Comment:

Finally, I support and agree with the letter of July 31, 1975, on cultural resources from Philip Welke of the Office of Historic Preservation to the State Lands Commission.

Response:

See response to Mr. Wilke's comments.

Comment:

California Regional Water Quality Control Board, Lahonton District

The total number of wells to be drilled on each of the seven parcels.

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Response:

The exploration target includes a proposed total of 21 holes. The breakdown per hole per section is shown in Table I, attached. Any exploration drilling program must be flexible. If the proposed program is successful, additional drill holes at other sites may be necessary. Any such additional holes would be handled under the same procedures.

Comment:

The quantities and type of drilling mud that will be used for drilling. What chemicals will be added to the drilling mud, if any?

Response:

Thirteen of the total holes are programmed for a clay mud (bentonite); the remaining eight holes are programmed to be drilled with air (with some water to be used as a dust suppressant). Table I attached gives the breakdown on each hole. The size of the evaporation pond will vary according to the volume of material produced while drilling each hole. (See Table I.)

Comment:

Information on how the drilling mud and cuttings will be contained during drilling operations.

Response:

All waste produced from drilling will be contained in evaporation ponds. This waste shall include cuttings, drilling mud (bentonite) and water. All evaporation ponds that are closer than five miles to the Haiwee Reservoir will be lined by plastic. After allowing the liquids to evaporate, the ponds will be back-filled and reclaimed by normal procedures.

Comment:

Information on the radiation leaks expected and the mitigation measures that will be initiated if excessive amounts of radioactive materials are brought to the surface.

Response:

Only low radiation is expected. "Ore" intercepts will be sufficiently diluted by material from nonmineralized zones and the drilling medium as not to exceed 200 percent of the surface radiometrics. Should the specified radioactive limits be exceeded, the material will be contained and transported to an approved disposal site for radioactive materials.

Comment:

The depth to ground water in the exploratory drilling area and the distance to the Haiwee Reservoir.

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Response:

See Table I (attached).

Comment:

County of Inyo Planning Department.

It would be appropriate that our two agencies eventually enter into a memo of understanding in order to coordinate mining activities on State-owned lands.

Response:

State Lands Commission concurs with this suggestion.

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Cultural Resources Survey Report for Exploratory Drilling Operations Near Owens Lake, Inyo County, California

(T.18S., R.38E., SW 1/4, Sec. 16)

Prepared for State Lands Commission,
Long Beach File Research: W6843

by

Alan P. Garfinkel and
Robert A. Schiffman

June 1979

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DATE JUL 9 1979
DJE
CFH
ADM
RGP
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Enc. 2
FILE: W 6843

SUMMARY

Archaeological survey conducted for proposed exploratory drilling operations near Owens Lake identified a large prehistoric quarry workshop area confined principally to the disected terraces found in the subject parcel. It is recommended that work be confined to those areas virtually devoid of these remains, in the washes between these ridges or the northwestern corner of the parcel.

INTRODUCTION

On June 16, 1979 an archaeological survey was conducted for a proposed exploratory drilling operation near Owens Lake, Inyo County, California.

The field reconnaissance was performed by:

Robert Schiffman, M.A. Anthropology; ofessor of Anthropology at Bakersfield College. A variety of archaeological experience in California.

Lorna Rocha, archaeologist, B.A. in anthropology with 3 1/2 years of archaeological field experience.

Steven Andrews, archaeologist, B.A. in anthropology with 7 years of archaeological field experience.

Jim Uli, student in anthropology with 2 years archaeological field experience.

PROJECT DESCRIPTION

The proposed project involves an exploratory effort armed at delineating commercially valuable minerals. This effort will include surface mapping followed by the drilling of test and core holes. A truck-mounted

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Denver-Gardner type rotary percussion rig will be used to drill 4 - 3/4" holes to depths of 100 to 1500 feet.

Only minor disturbance to the drill site areas will take place mostly effected by the grading of an area for the drill pad.

SOURCES CONSULTED

The archaeological site files of the University of California, Riverside clearinghouse for archaeological sites within Inyo County, were consulted for information on sites located in the project area. Five archaeological sites are recorded within a two mile radius of the project. One site (CA-Iny-2311) is located within the proposed project area. These sites will not be affected by the proposed action.

The California Inventory of Historic Resources (1978), the National Register of Historic Places (1978), and the California Landmarks Listing (1978) were consulted for information concerning this project. No historic or prehistoric resources are listed within the project area.

BACKGROUND

Environmental Setting

The project area is located in the Owens Valley a down-faulted trough east of the Sierra Nevada and on the western edge of the Great Basin.

The site area is adjacent to Owens Lake a large saline basin which during the Pleistocene was a vast inland sea part of a chain of freshwater lakes found throughout the Great Basin.

Presently, the lake is almost completely dry and for the most part barren of vegetation. Salt grass and greasewood bushes are the only

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plants which can tolerate the highly alkaline soils of the lake basin.

Ethnography

The proposed drill site is located within an area used prior to Euro-American presence by two groups of aboriginal peoples: the Owens Valley Paiute and Panamint Shoshone (Kroeber 1925; Steward 1938; Grosscup 1977). These people were speakers of the Shoshonean or Numic language, the former belonging to the subgroup of central Numic and the latter to the southern Numic subgroup.

The Owens Valley Paiutes numbered some 2000 individuals and inhabited sedentary villages along streams which descended the eastern escarpment of the Sierra Nevada (Steward 1933; Wilke and Lawton 1976). These hunter-gatherers were unusual for Great Basin peoples in possessing a fairly high population density, sedentary villages, a patrilineally-inherited headmen status, irrigated food crops, substantial ceremonial collectivities ("fandangos"), and large-scale trade (trans-Sierran exchange) (Steward 1933; Bettinger 1977a).

The Panamint Shoshone were more typical of Great Basin peoples (Steward 1938, Grosscup 1977). There were no sedentary villages within Panamint territory and a marked pattern of seasonality existed. Population movements were timed to the differential availability of particular animal and plant resources. Social organization was based at the family level with larger aggregates only coalescing for special communal activities involving the hunting of rabbits or antelope for certain ceremonial occasions.

The area of the study surrounding Owens Lake was most likely used

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by both ethnolinguistic groups. Owens Lake was the site for hunting of waterfowl, collection of larvae and grubs, and the hunting of rabbits and deer. Nearby communal rabbit and antelope hunts were conducted by the Shoshoni and Paiute.

Archaeology

Owens Valley is an area which has received substantial archaeological study. Major published studies include those of Riddell (1951), Harrington (1957), Lanning (1963), Von Werlhof (1965), Borden (1971), and Bettinger (1975, 1976, 1977a, 1977b).

Regional syntheses are also available (Riddell and Riddell 1956; Riddell 1958; Bettinger 1973; Cowan and Walloff 1974).

Of interest to this study is the site of Rose Spring which is in the general vicinity of the project area. This site was of major significance to the development of a temporal framework for the Owens Valley and eastern California. The site is well-dated, stratified, and contained an abundant artifactual assemblage dating from ca. 3000 B.C. to the protohistoric period (Lanning 1963).

Also of pertinence to the general study area are the early finds associated with the pluvial stands of Owens Lake. Artifacts found near the ancient shoreline of Owens Lake have been inferred to date to the period between 6,000 and 10,000 years ago (Antevs 1952; Campbell 1949).

History

The general history of Owens Valley is reported in Chalfant (1933) and Nadeau (1948, 1950) and in popular verse in the anthology edited by Genny Smith (1978).

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As far as it is known, Joseph Walker was the first American to enter the Owens Valley, but the first substantial influx of Euro-Americans in the 1860's following the discovery by Darwin French of silver ledges in the Coso Range southeast of Owens Lake (Smith 1978:175, 177).

Haiwee Reservoir is a catchment basin for the Owens River and a part of the Los Angeles Aqueduct which supplies this city with a substantial amount of its water. The seamy sometimes violent story of Owens Valley and the Los Angeles aqueduct is told in Wood (1973) and Nadeau (1950).

FIELD METHODS

The proposed project area (T.18S., R.38E., SW 1/4, Sec. 16) was intensively examined on foot for signs of historic or prehistoric remains. The entire quarter section was examined by the survey party of four walking in a northwest-southeast direction spaced approximately 30 m apart.

Note was taken of all artifactual remains, their character, and concentration. Several items were sketched and a field map made.

STUDY FINDINGS

One large prehistoric quarry/workshop site is located in the area of the proposed project (CA-Iny-2311). Recommendations for the avoidance of this cultural resource can be offered.

Site Location

The site is located in T.18S., R.38E., SW 1/4, Sec. 16. The heaviest

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concentrations of flaked stone material are located in the eastern half of this quarter section (see Site Record Addendum).

Description and Interpretation

An extensive area of cryptocrystalline (jasper, chalcedony, opalite) and rhyolite cobbles found on dissected terraces having desert pavement surfaces was used prehistorically as a quarry and work shop area for the manufacture of chipped stone tools. The site area contains concentrated and dispersed scatters of chipped stone. These artifacts include: unmodified flakes, cores, roughout tool preforms, and modified flakes. Distinct chipping circles were also noted (areas where a knapper had produced an artifact for transport). The heaviest concentration of unmodified flakes was noted on two ridges in the northeast portion of the site. On these ridges an almost continuous concentration of chipped stone material is seen. It is difficult to estimate the quantity of material in the general area but a previous record (archaeological site record filed by Clough 1974) suggested that there existed 1000's of items and this figure is confirmed by the present study.

In addition to the flaked stone items noted 12 rock cairns were observed. The locations of these cairns are identified in the site recorded addendum appended. Six cairns consisted of single rocks stacked one on top of another averaging in height about 95 cms and in diameter approximated 65 cms. The remaining cairns were layers of rocks piled up to dimensions approximating 70 cm by 70 cm.

These cairns may be aboriginal in origin or more likely are the remains of mining claim markers. Areas near these cairns evidenced fairly

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recent bulldozing operations and mounding of dirt.

The quarry site may relate to an early usage of the lakeshore environment during wetter pluvial periods. Artifacts previously noted near the ancient shoreline of Owens Lake have been inferred to date to the period between 6,000 and 10,000 years ago (Antevs 1952; Campbell 1949). Personal communication with Emma Lou Davis indicates that quarries such as the one described here may indeed date to paleo-Indian times. The absence of milling equipment and obsidian artifacts is suggestive of such an early dating and of an affiliation with what has been termed the Western Pluvial Lakes Tradition (Bedwell 1970).

The site is significant in that it may be used to reconstruct the technology of tool manufacture and the selection of quarry material during this most ancient period of prehistory.

RECOMMENDATIONS

From the previous discussion it is apparent that a significant cultural resource exists within the general area of the proposed project. Mitigative measures to protect this resource from adverse effects can be recommended.

It is suggested that any coring activity should be conducted either free from archaeological remains or having very sparse concentrations of such resources (Figure 1).

If coring can be conducted in those drainage areas free from artifactual remains, it would be of benefit to the preservation of these remains. It is recommended that coring operations take place in either the northwestern-most or southeastern-most washes. Another possible

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alternative is to conduct the proposed project in the northwest corner of the parcel which is virtually devoid of artifactual remains. Those areas which contain flaked stone resources should be avoided.

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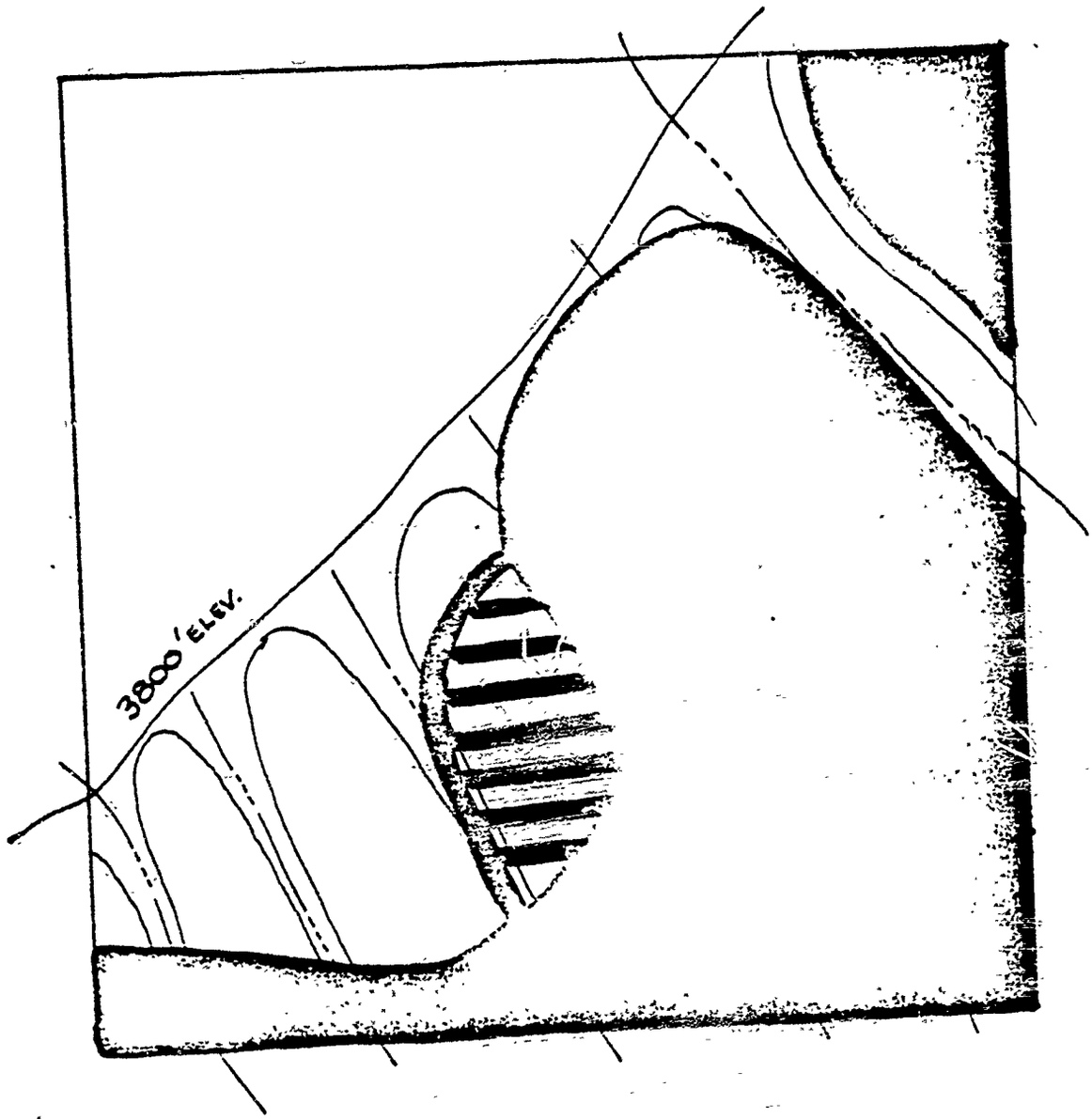
Figure 1: Survey Area

SW 1/4 of Section 16



AVOID IF POSSIBLE

HIGHLY SENSITIVE
AVOID AREA

REMAINING AREAS ACCEPTABLE
FOR CORING

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DEPARTMENT OF TRANSPORTATION
ARCHEOLOGICAL SITE SURVEY RECORD

Addendum

Site CA-Iny-2311	Map Keeler 15'		County Inyo
Township 18S	Range 38E	NE 1/4 of Sec. 20; SW 1/4 of Sec. 16; NW 1/4 of Sec. 21; SE 1/4 of Sec. 17	
UTM Reference	Zone	Easting	Northing

Location: On disected ridges of desert pavement one mile southeast of Highway 190 and 4 miles northwest of Dirty Socks Hot Springs

Description of Site: Extensive scatter of cryptocrystalline and rhyolite cobbles used as quarry material. Possible hammerstones of basalt. Chipping circles and rock cairns. Scatters range from highly concentrated to widely dispersed. See sketch map and report (below) for further details.

Area > 20,000 sq. m.	Depth none apparent		Contour Elevation 3820 - 3870
Vegetation salt grass, greasewood		Nearest Water Dirty Socks Hot Spring	
Soil of Site Desert pavement		Surrounding Soil Type Desert pavement, Quaternary alluvium	

Disturbance: Mining prospects

Possibility of Destruction: Slight

House Pits: None

Other Features: None

Burials: None

Artifacts: Percussion-flaked modified flakes, roughouts (Preforms), cores, debitage.

Remarks: Site previously recorded by Helen Clough 9-74.

Published References: See "Cultural Resources Survey Report for Exploratory Drilling Operations near Owens Lake" by A. Garfinkel and R. Schiffman on file at clearinghouse.

Accession Number

Sketch Map: Yes

Photos: Yes

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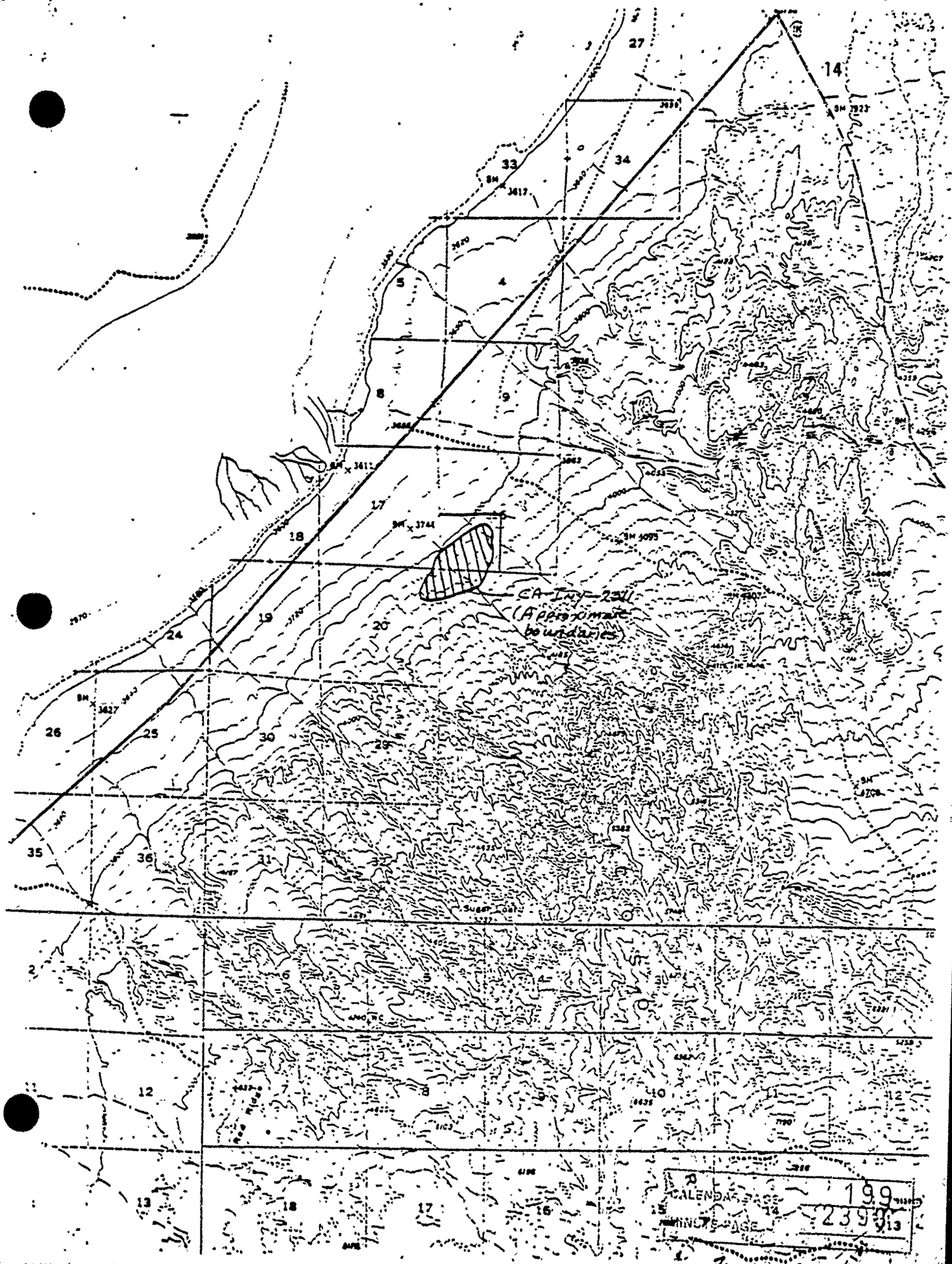
Date: 6/16/79

Recorded By: A. Garfinkel


CA-Inyo-2211
(Approximate boundaries)
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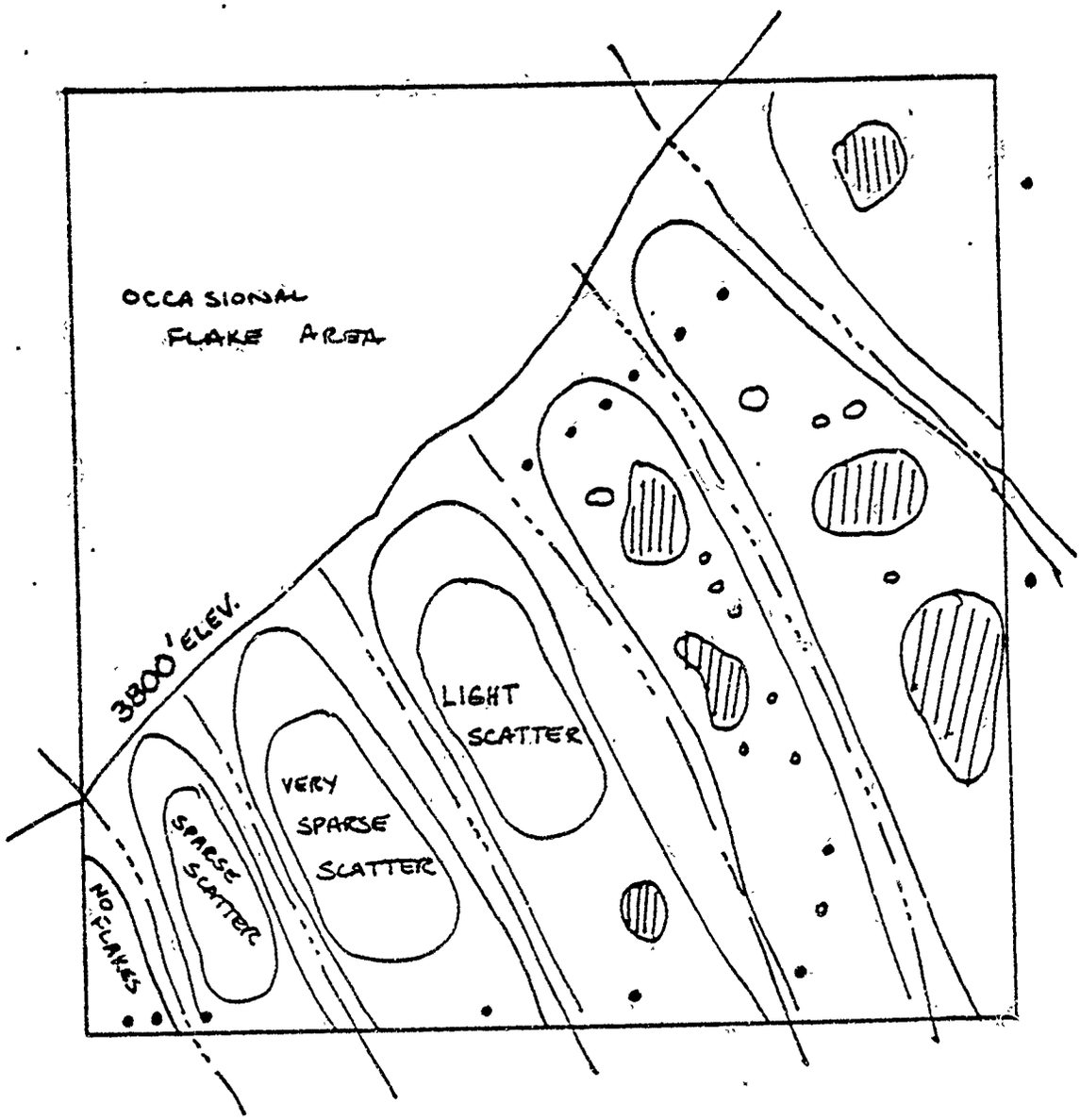
SW 1/4 OF SECTION 16



• CAIRN

O CHIPPING CIRCLE

MODERATE TO DENSE CONCENTRATIONS

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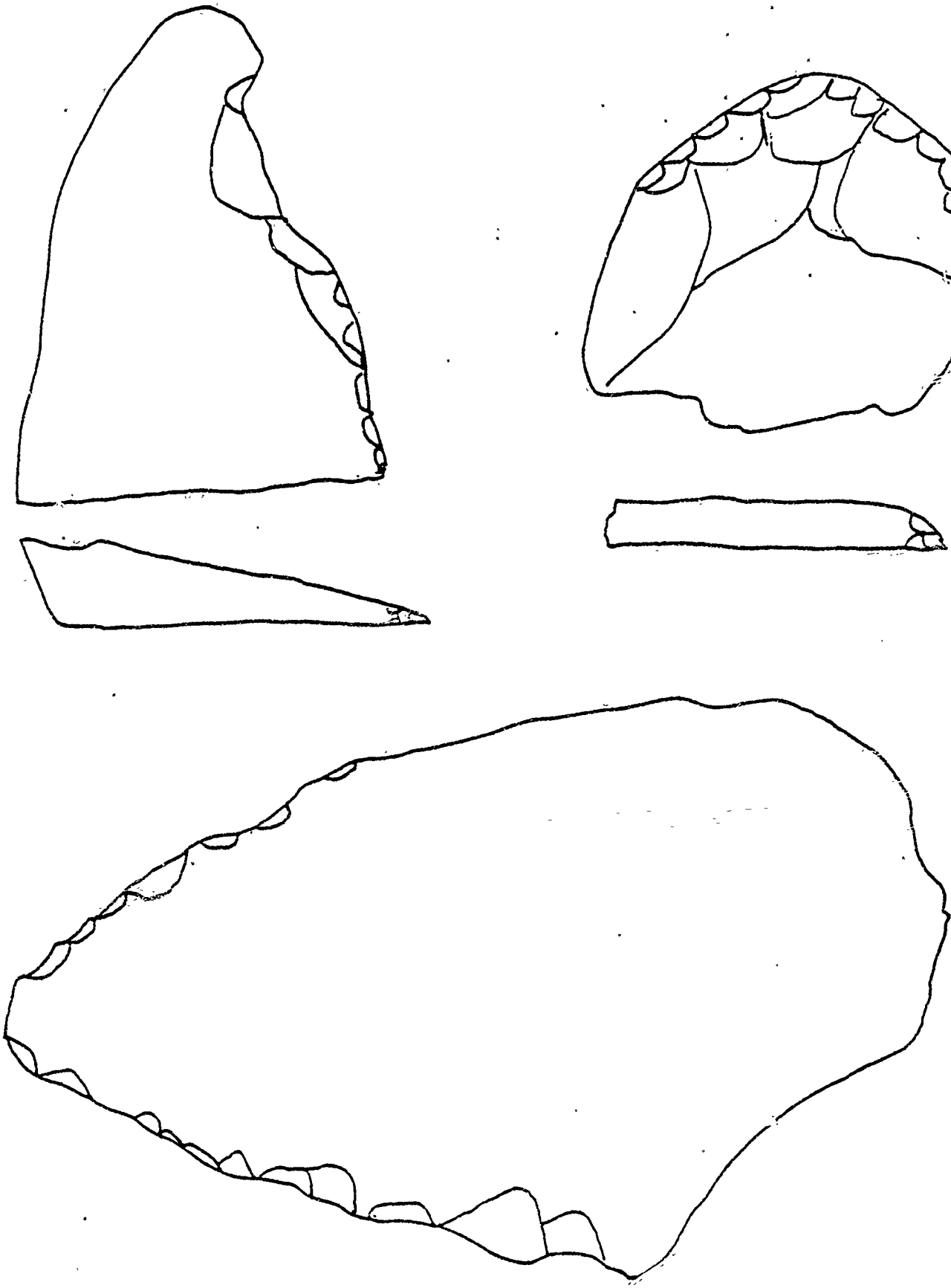
Percussion-flaked stone items. Scale 1:1



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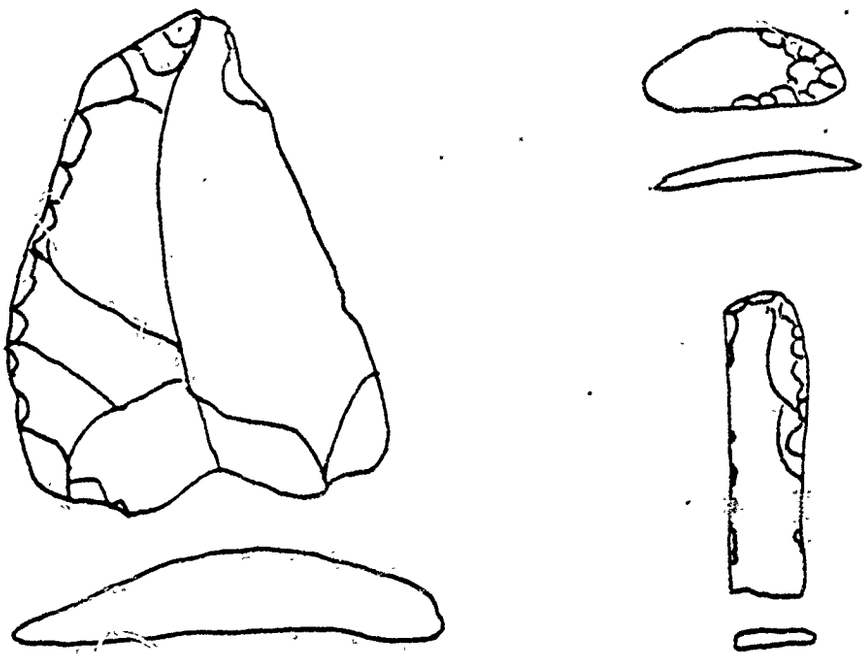
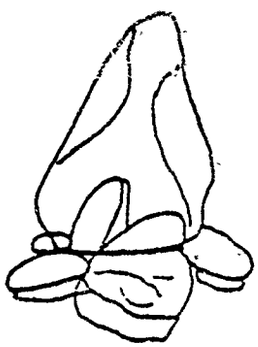
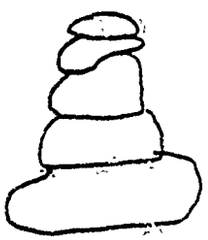
MINUTE PAGE 2400



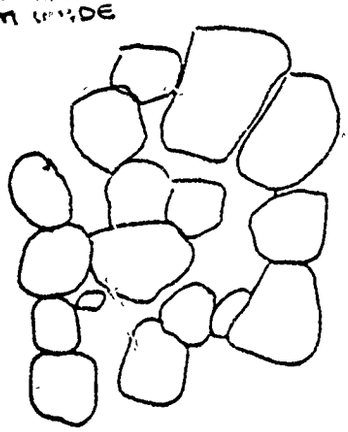
WORKED FLAKES : TO SCALE



80 CM HIGH
1 M. WIDE



90 CM HIGH
65 CM WIDE



4 X 3.5 METERS

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