

G102392

JUL 9 1979



UNITED STATES  
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Area Geothermal Supervisor's Office  
Conservation Division, MS-92  
345 Middlefield Road  
Menlo Park, CA 94025

UNIVERSITY OF UTAH  
RESEARCH INSTITUTE  
EARTH SCIENCE LAB.

JUL 2 1979

Memorandum

To: INTERESTED PARTIES

From: Area Geothermal Supervisor

Subject: Plan of Operation, Sunoco Energy Development Company  
(Sunedco), Dixie Valley KGRA, Churchill County, Nevada  
Ref: 2403-01 POO for EA #135-9

Sunoco Energy Development Company has submitted a Plan of Operation in accordance with 30 CFR 270.34 to drill one (1) geothermal well on Federal Lease N-12393 in Dixie Valley KGRA, Churchill County, Nevada. A copy of the Plan of Operation is attached for your review and files.

An Environmental Checklist Analysis (EA #135-9) will be prepared by the Office of the Area Geothermal Supervisor for the proposed action. A field inspection was held on the subject lease on May 2, 1979; no additional field inspection is considered necessary at this time. You are encouraged to visit the site at your own convenience. Any inquiries should be directed to Mr. Bernie Moroz, District Geothermal Supervisor, Kietzke Plaza, Building D, Suite 137, Reno, Nevada (Telephone: (702) 784-5676; FTS 470-4676).

We urge you to send written commentary and will appreciate hearing from you even if you are of the opinion that the existing regulations, lease terms and operational orders provide adequate environmental protection.

All comments concerning the proposed actions should be received no later than July 18, 1979:

Area Geothermal Supervisor  
U.S. Geological Survey  
Conservation Division  
345 Middlefield Road, MS-92  
Menlo Park, CA 94025  
(415) 323-8111 X2845; (FTS) 467-2841

All comments will be given serious consideration in the preparation of the Environmental Analysis and any subsequent conditions of

approval. The Area Geothermal Supervisor's Office will not send a draft Environmental Analysis to interested parties for review for the proposed action. Certain parties, however, such as the surface managing agency, the lessee, the Geothermal Environmental Advisory Panel and the U.S. Fish and Wildlife Service will receive a copy of the completed EA. Other interested parties will not receive a copy of the final EA unless such parties comment on the proposed action in writing or request a copy of the particular EA pursuant to the Freedom of Information Act. Copies of Environmental Analyses are available for inspection during normal business hours at the Area Geothermal Supervisor's Office, and the Carson City Bureau of Land Management District Manager's Office.

*Kirk Conzill*

FOR Reid T. Stone

Attachment

INTERESTED PARTIES EA #135-9

Sunoco Energy Development Co  
Plan for Exploration/Drilling

N-12393  
Dixie Valley

\* \* \* \* \*

District Geothermal Supervisor  
USGS, Conservation Division  
Kietzke Plaza, Bldg. O, Suite 137  
4600 Kietzke  
Reno, Nevada 89502  
\*FTS: 470-5676 Comm: 704-784-5676

Conservation Manager, Western Region  
ATTN: Environmental Staff  
USGS, Conservation Division  
345 Middlefield Rd., MS 80  
Menlo Park, California 94025  
\*FTS: 467-2108 Comm: 415-323-8111

Mr. Henry Cullins  
Area Geologist, Pacific Area  
USGS-Conservation Division  
345 Middlefield Road, MS 80  
Menlo Park, California 94025  
\*FTS: 467-2053 Comm: 415-323-8111

Dr. G. D. Robinson, Chairman  
Geothermal Environmental Advisory  
Panel  
345 Middlefield Road, MS 19  
Menlo Park, California 94025  
\*FTS 467-2871 415-323-8111 X2871

U.S. Bureau of Land Management  
Geothermal Specialist  
ATTN: Theodore W. Holland  
Denver Fed. Center, B. 50 (D-310)  
Denver, Colorado 80225  
\*FTS: 234-5098 Comm: 303-234-5098

Nevada State Director  
Bureau of Land Management  
Federal Building, Room 3008  
300 Booth Street  
Reno, Nevada 89509  
\*FTS 470-5451 Comm: 702-784-5451

Carson City District Manager  
Bureau of Land Management  
1050 E. Williams Street, Suite 335  
Carson City, Nevada 89701  
\*FTS 470-5612 Comm: 702-882-1631

Winnemucca District Manager  
Bureau of Land Management  
P.O. Box 71  
Winnemucca, Nevada 89445  
\*FTS: 470-5423 Comm: 702-623-3676

U.S. Bureau of Reclamation  
ATTN: Lloyd Osbourne  
Post Office Box 640  
Carson City, Nevada 89701  
\*Tel: (702) 882-3436

U.S. Fish and Wildlife Service  
ATTN: Field Superv Ecological Serv  
2800 Cottage Way  
Sacramento, California 95825  
\*FTS: 468-4516 Comm: 916-484-4516

U. S. Fish and Wildlife Service  
ATTN: Gail Kobeditich  
Endangered Species Office  
2800 Cottage Way, Room E-2720  
Sacramento, California 95825  
\*FTS: 468-4516 Comm: 916-484-4516

U.S. Environmental Protection Agcy.  
Environmental Monitoring &  
Support Laboratory  
ATTN: Michael O'Connell  
P.O. Box 15027 Las Vegas, Nv 89114  
\*FTS: 595-2969 Comm: 702-736-2969

Department of Energy, Geothermal  
ATTN: Bennie DiBona  
20 Massachusetts Avenue, NW  
Washington, D.C. 20545  
\*FTS 376-1690 Comm: 202-376-1690

U.S. Department of Energy, Nevada  
Operations Office  
ATTN: John Cummings  
Post Office Box 14100  
Las Vegas, Nevada 89114  
\*FTS: 598-3591 Comm: 702-734-3591

Ms. Mary Rusco, Archaeologist  
Nevada State Museum  
600 N. Carson Street  
Carson City, Nevada 89701  
\*Tel: (702) 885-4810

Nevada Bureau of Mines and Geology  
ATTN: Larry Garside - Geoth Spect  
University of Nevada  
Reno, Nevada 89507  
\*Comm: 702-784-6691

INTERESTED PARTIES for EA #135-9

State Of Nevada  
Department of Energy  
1050 E. William, Suite 405  
Carson City, Nevada 89701  
\*Tel: (702) 885-5157

Mr. Ray Corlett, Regional Manager  
Nevada Dept. of Fish and Game  
380 West B Street  
Fallon, Nevada 89406  
\*Tel: (702) 423-3171

State of Nevada, Div of Historic  
Preservation and Archaeology  
ATTN: Kimberly Wood,, SHPD  
201 South Fall St. Capitol Complex  
Carson City, Nevada 89710  
\*Tel: (702) 885-5138

State of Nevada, Planning Coordinator  
ATTN: Bob Hill  
1050 E. Williams, Suite 402  
Capitol Plaza  
Carson City, Nevada 89701  
\*Tel: (702) 885-4865

State of Nevada, Pershing County  
ATTN: E.L. Spencer  
Pershing County Planning Director  
Route 1, Box 71-D  
Lovelock, Nevada 89419  
\*Tel: (702) 273-2636

Office of Review and Compliance  
Advisory Council on Historic  
Preservation  
ATTN: Michael H. Bureman  
P.O. Box 25085  
Denver, Colorado 80225

Lawrence Livermore Laboratory  
Box 5507, Mail Code L-523  
Livermore, California 94550  
\*FIS 532-1100 Comm: 415-422-1100

Exploration Geologists of Nevada  
ATTN: Ralph D. Mulhollen  
P.O. Box 3043  
Reno, Nevada 89505

State of Nevada, Environ Protection  
Agency Svcs, Dept of Cons & Res  
ATTN: Wendell McCurry, Vern Ross  
201 Fall Street  
Capitol Complex, Nevada 89710  
\*Tel: (702) 885-4670

State of Nevada  
Department of Fish and Game  
ATTN: Mr. Dale V. Lockhard  
Post Office Box 10678  
Reno, Nevada 89510  
\*Tel: (702) 784-6214

State of Nevada, Div of State Lands  
ATTN: Mary Lee Chronberg  
201 S. Fall Street  
Capitol Complex, Rm. 339  
Carson City, Nevada 89710  
\*Tel: (702) 885-4363

State of Nevada  
Division of Water Resources  
C/O State Engineer  
201 South Fall Street  
Carson City, Nevada 89710  
\*Tel: (702) 885-4380

Churchill County, Board of  
Commissioners  
10 West Williams Street  
Fallon, NV 89406  
\*Tel: (702) 423-4092

Earth Science Laboratory  
Univ of Utah Research Institute  
ATTN: Phillip M. Wright  
420 Chipeta Way, Suite 120  
Salt Lake City, Utah 84108  
\*Tel (801) 581-5283

Mrs. Margaret Williams  
Director, Northern Nevada Native  
Plant Society  
P.O. Box 8965  
Reno, Nevada 89507

Amex Exploration, Incorporated  
ATTN: Mr. Larry Hall  
4704 Harlan Street  
Denver, Colorado 80212  
\*FTS 234-3131 (303-433-6151)

INTERESTED PARTIES for EA #135-9

Chevron USA, Inc.  
ATTN: J.G. Turner and Pat Smith  
Post Office Box 3722  
San Francisco, California 94119  
\*Tel: (415) 894-2726

GeothermEx, Inc  
Attn: James B. Koenig  
901 Mendocino Avenue  
Berkeley, California 94707  
\*Comm: 415-524-9242

Geothermal Power Corporation  
ATTN: Mr. Frank Metcalfe  
1127 Grant Avenue, Suite 6  
P.O. Box 1186  
Novato, California 94947  
\*Comm: 415-897-7833

Geothermal Resources Council  
Attn: Mr. David Anderson  
P.O. Box 98  
Davis, CA 95616  
\*Comm: 916-758-2360

Getty Oil Company  
ATTN: Mr. Dan W. Sparks  
Post Office Box 5237  
Bakersfield, California 93308  
\*Tel: (805) 399-2961

Gulf Mineral Resources Company  
Exploration Department  
ATTN: Mr. Glen Campbell  
1720 South Belaire Street  
Denver, Colorado 80222  
\*FTS Ope: 327-0111 303-758-1700

Hunt Energy Corporation  
Attn: Geothermal Department  
2500 First National Bank Building  
Dallas, Texas 75202  
\*FTS 749-1011 748-1300

Magma Power Company  
ATTN: Mr. Richard Foss  
631 S. Witmer Street  
Los Angeles, California 90017  
\*Tel: (213) 483-2285

Occidental Geothermal, Inc.  
ATTN: B.J. Wyant  
5000 Stockdale Highway  
Bakersfield, California 93309  
\*Tel: (805) 327-7351

Phillips Petroleum Company  
ATTN: R.T. Forest  
Energy Minerals Division  
Post Office Box 6256  
Reno, Nevada 89513  
\*Tel: (702) 786-2273

Republic Geothermal, Incorporated  
ATTN: Mr. Dwight Carey, and  
Ms. Tawna Nichols  
Post Office Box 3388  
Santa Fe Springs, California 90607  
\*Tel: (213) 945-3661

SAYWRIGHT Corporation  
ATTN: Mr. Wayne L. Sayer  
Post Office Box 229  
Fairfield, California 94533  
\*Tel: 707-429-5777

Shell Oil Company  
ATTN: Mr. F.W. Nantker  
Post Office Box 92047  
Worldway Center  
Los Angeles, California 90009  
\*Tel: (805) 648-2751

Sunoco Energy Development Company  
ATTN: Mr. John Williams  
Suite 1500 -- Box 9  
12700 Park Central Place  
Dallas, Texas 75251  
\*FTS Ope: 749-1011 214-233-2600

Republic Geothermal, Incorporated  
Northern California Office  
ATTN: J. L. Schneidenger  
2544 Cleveland Avenue  
Santa Rosa, California 95401  
\*Comm: 707-527-7755

Southland Royalty Company  
ATTN: Jere Denton  
1000 Fort Worth Club Tower  
Fort Worth, Texas 76102  
\*FTS Opr: 334-3001 (817)390-9200

INTERESTED PARTIES for EA #135-9

Thermal Power Company  
ATTN: Mr. Lou DeLeon  
601 California Street, Suite 1302  
San Francisco, California 94108  
\*415-981-5700

Aminoil USA, Incorporated  
ATTN: Mr. C. E. Woods  
Post Office Box 11279  
Santa Rosa, California 95406  
\*FTS Ope: 623-1011 707-527-5333/2

Phillips Petroleum Company  
Geothermal Operations  
ATTN: Bob Wright  
Post Office Box 239  
Salt Lake City, Utah 84110  
\*Comm: 801-364-2083

Mr. Warren M. Woodward  
125 Drew Drive  
Reno, Nevada 89502  
\*FTS 470-5911 702-825-3079

Union Oil Company of California  
Geothermal Division  
ATTN: Neil Stefanides  
Union Oil Center, Box 7600  
Los Angeles, California 90051  
\*213-486-7740

Anadarko Production Company  
ATTN: Mr. R. C. Edmiston  
Post Office Box 1330  
Houston, Texas 77001  
\*FTS Ope: 527-4011 713-526-5421

Mr. Clyde E. Kuhn  
Post Office Box 69  
Davis, California 95616

Mr. Jack McNamara  
10850 Wilshire Blvd, Suite 790  
Los Angeles, California 90024  
\*Tel: (213) 475-4933

## PLAN OF OPERATION PER 30 CFR 270.34

The plan is to drill an additional exploratory well in Dixie Valley, Nevada, to a depth of approximately 8,500 feet.

- (a) The proposed location of the well is shown on the attached topo map. A rig layout showing the position of the mud tanks, reserve pits, pipe racks, and other surface facilities is also attached.
- (b) Existing and planned access and lateral roads are shown on the topo map for this well.

### (c) Location of Water Supply

Water supply will be the same as shown in well 22-24, 24N-36E, below.

Well 22-24, 24N-36E

A water supply well will be drilled approximately 200 feet north of the well and water piped to the well.

### Road Building Material

A separate application has been applied for from the BLM and a site suitable to BLM will be designated for our use. (See Attachment #1.)

- (d) A campsite will be located on fee land in the SW SW quarter, Section 7-24N-37E.
- (e) There should be no other areas of surface disturbance except those as listed here and as shown on the attached topo map.
- (f) The topographic features and drainage features are depicted on the topo map.
- (g) Methods of disposing of existing materials are discussed in the environmental section and the drilling plans.

Methods used to protect the environment are discussed in the environmental section.

All pertinent information required for proper and timely consideration of the Plan of Operation should be included herein. If any other data are required, we will furnish them. Various required data will be taken throughout operations to ensure that the plan is being followed and that we are in compliance with applicable rules, regulations, and GRO orders.

- (h) Should sufficient geothermal resources be encountered during the exploratory phase of the Plan of Operation, a one-year baseline datum will subsequently be initiated to address other environmental requirements.

PROPOSED WELL LOCATION  
CHURCHILL COUNTY, NEVADA

1,950' FEL and 1,200' FNL, Section 24-24N-36E

Soils

Mostly gray-brown silt-clay, salt crust on surface.

Vegetation

Sparse saltgrass, pickle weed, and greasewood.

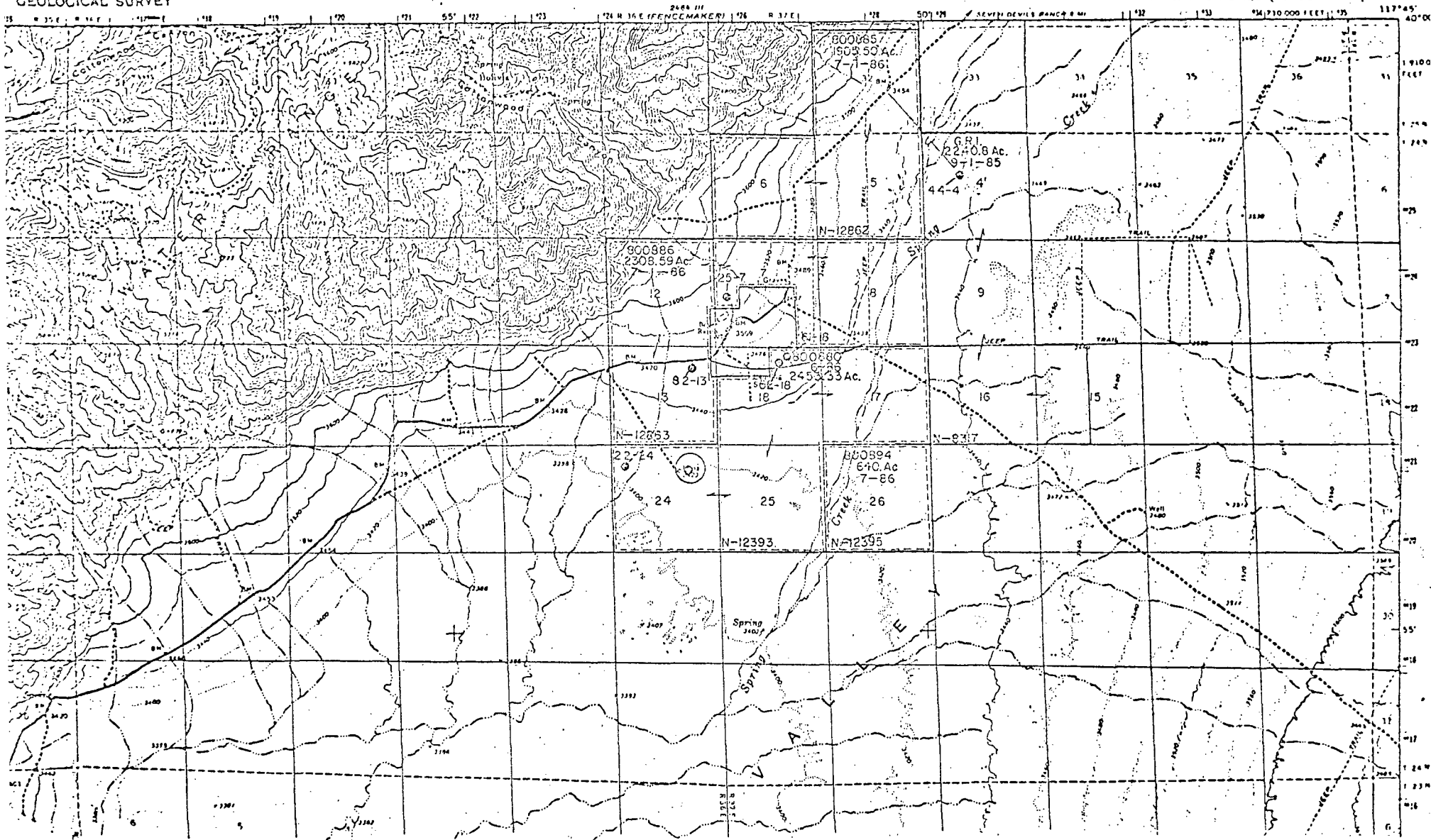
Topography

Flat



DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

HUMBOLDT-SALT MARSH QUADRANGLE  
NEVADA-CHURCHILL CO.  
15 MINUTE SERIES (TOPOGRAPHIC)

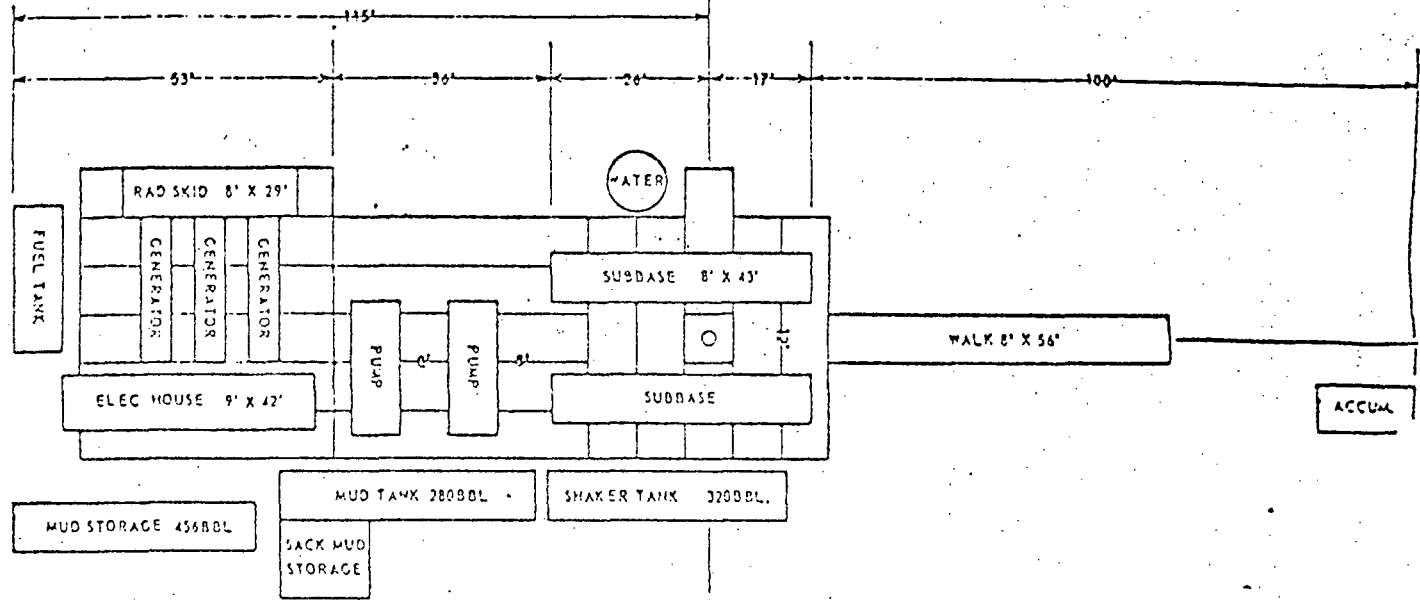


## CULTURAL RESOURCES STATEMENT

A field inventory of the proposed drilling site is being conducted by an approved archaeologist and will be submitted to the supervising BLM office. A copy of the report will be forwarded as soon as we receive it.

## PLANT SURVEY

A botanical field inventory of the proposed drilling area has been scheduled. A copy of the report will be forwarded as soon as we receive it.



(50')

225'

(173')

SUMP AREA