



YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT SITE ATLAS

**YUCCA MOUNTAIN
NYE COUNTY, NEVADA**

PREPARED BY

 **EG&G ENERGY MEASUREMENTS, INC**
REMOTE SENSING LABORATORY

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SITE ATLAS EXECUTIVE SUMMARY

The U.S. Department of Energy (DOE) has been conducting a program for siting an underground repository for permanent disposal of high-level radioactive waste. The process was initiated in February of 1983 when the DOE identified Yucca Mountain as one of nine potential repository sites. All nine sites were evaluated in accordance with the DOE's General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories (10 CFR Part 960). The evaluations of these sites were reported in nine draft Environmental Assessments (EAs) prepared pursuant to Section 112 of the Nuclear Waste Policy Act of 1982 (NWPA). The draft EAs were issued for public review and comment in December 1984. Final EAs were published in May of 1986 for the five sites nominated for further study.

Yucca Mountain became one of three candidate sites on May 28, 1986, with the publication of the Environmental Assessment, the recommendation for site characterization by the Secretary of the U.S. Department of Energy, and approval by the President. On December 21, 1987, the U.S. Congress passed the Nuclear Waste Policy Amendments Act of 1987, which directed the DOE to characterize the Yucca Mountain site and to terminate site-specific activities at the other two sites.

An extensive program of characterization investigations must be conducted and evaluated before a site can be judged suitable for development as a repository. The DOE, as directed under the NWPA, is the Federal agency responsible for conducting these investigations. According to the NWPA, site characterization refers to those research activities (whether in the field or in the laboratory) that are undertaken to establish the geologic character and the range of parameters relevant to an evaluation of a candidate site's suitability.

The purpose of the Site Atlas is to provide a management tool for the Yucca Mountain Site Characterization Project Office (YMPO) by providing the location and areas of coverage of field activities that have been conducted and are planned to be conducted at Yucca Mountain.

The first release of the Site Atlas (October 1988) was prepared by Holmes and Narver as a reference document for existing field activities. A companion document of planned activities (the Surface-Based Investigations Plan (SBIP)) was issued in December of 1988. These documents provided maps showing the locations of field activities. A separate database was maintained with detailed descriptive data about the sources of the locational data.

This current version of the Site Atlas was developed using an automated Geographic Information System (GIS). By using a GIS approach, it is possible to link the location of field activities with a relational database that maintains descriptive attribute information. Locational information for existing and planned field investigations from the original Site Atlas and SBIP are combined and updated in this version of the Site Atlas and are maintained in a GIS database. The information contained in the Site Atlas provides a reference for locations of existing and proposed site characterization field activities.

General categories of activities contained in the Site Atlas include administrative boundaries, sociological data, drillholes, trenches, geologic test pits, bedrock pavements, and ecological hydrologic, geologic, and geophysical studies.

The Site Atlas was prepared by the Remote Sensing Laboratory operated for the DOE by EQ&G Energy Measurements, Inc. It is scheduled to be updated annually.

HOW TO USE THE SITE ATLAS

Site Atlas Index Sections providing titles and numbers of Site Atlas maps

- Section 1 - Land Administration
- Section 2 - Sociology
- Section 3 - Driftholes, Trenches, Pits, and Pavements
- Section 4 - Ecology
- Section 5 - Hydrology
- Section 6 - Geology
- Section 7 - Geophysics

Activity Index List of specific activities with Activity ID, Activity Type, and Map Number

- Basemaps** Section 1 contains the basemaps that are used in the Site Atlas. Basemaps at various scales and areas of coverage range from statewide regional information to localized site characterization study areas. Maps shown in Section 1 have political, administrative, and project boundaries labeled and identified. To avoid clutter, subsequent maps have only field activities labeled. Users may need to refer to Section 1 maps to identify the names of some basemap boundary features. Each basemap has an associated legend that describes map symbology and provides map source information.
- Format** The Site Atlas provides a map on the right page with a facing text page on the left listing locational information for map point features. For each point feature identified on a map, the description will provide the map symbol, type of activity, location of the activity in latitude/longitude, elevation in feet or meters, and locational data source. Each map presents reference ticks for latitude and longitude, Nevada State Plane (feet) and Universal Transverse Mercator (meters) coordinates. Existing field activities are shown in blue. Proposed field activities are shown in red.
- Appendix A** Index maps showing areas of coverage for map and photographic data. Included are indexes for orthophotography generated at map scales of 1:6,000 and 1:12,000 over the Yucca Mountain Site; bedrock and surficial geology maps, and aeromagnetic and gravity surveys.
- Appendix B** Standard Conversions. Included are the International System of Units describing the modern metric system and Standard Conversion Factors that are frequently used.
- Appendix C** Gazetteer or listing of geographical names for Southern Nevada. The Gazetteer provides the names of geographic features, the type of feature, and its location in latitude and longitude. The Gazetteer is taken from the U.S. Geological Survey Geographic Names Information System (GNIS) digital files for Nevada; cultural features are also available from the GNIS but are not provided in this Appendix.
- Appendix D** Data References with citations for the source of field activity locations.
- The Site Atlas maps are provided as an informational source. Precise measurements cannot be made from them. The information displayed on the maps can be provided to Project participants upon request in a variety of projections or units and in digital or analog forms.

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT SITE ATLAS INDEX

PAGE	MAP TITLE	PAGE	MAP TITLE
10	LAND ADMINISTRATION	3 17	Logging Feasibility Test Holes - Localional Reference Map SAJ 9 0
11	State of Nevada - Legend	3 20	Trenches Localional Reference Map SAJ-10 0
12	Map SAJ-1 0	3 21	Near-Field Study Area Trenches - Localional Reference
13	Southern Nevada & Southeastern California - Legend	3 22	Map SAJ 11 0
14	Map SAJ 2 0	3 23	Pits - Localional Reference Map SAJ 12 0
15	Near-Field Study Area - Legend	3 24	Map SAJ 12 0
16	Map SAJ 3 0	3 25	Existing Pits and Geologic Pavements - Localional Reference
17	Exporatory Studies Facilities and Surface Access Dirts - Legend	3 26	Map SAJ-13 0
18	Map BA1-4 0	3 27	Proposed Pits - Localional Reference
19	Far-Field Study Area and Land Withdrawal - Legend	3 28	Map SAJ-14 0
1 10	Map SAJ 5 0		
1 11	Nevada Test Site - Legend	4 0	ECOLOGY
1 12	Map SAJ 6 0	4 1	Environmental Sampling Locations - Legend
2 0	SOCIOLOGY	4 2	Map SAJ 1 0
2 1	Population of Nevada's Counties, 1990 Census - Legend	4 3	Major Vegetation Associations - Legend
2 2	Map SAJ 1 0	4 4	Map SAJ-2 0
2 3	Population of Nevada's Cities, 1990 Census - Legend	4 5	Tombstone Signs 1981 1984 and 1989, 1981 - Legend
2 4	Map SAJ 2 0	4 6	Map SAJ 3 0
3 0	DRILLHOLES, TRENCHES, PITS, AND PAVEMENTS	5 0	HYDROLOGY
3 1	Existing and Proposed Drillholes - Legend	5 1	Potentiometric Surveys - Localional Reference
3 2	Map SAJ 1 0	5 2	Map SAJ-1 0
3 3	Geologic Drillholes - Localional Reference	5 3	Temperature/Precipitation Stations and Ground W.
3 4	Map SAJ 2 0	5 4	Map SAJ-2 0
3 5	Volcanic Drillholes - Localional Reference	5 5	Ground Water Geochemistry Stations in the Nevada Test Site Area - Localional Reference
3 6	Map SAJ 3 0	5 6	Map SAJ-3 0
3 7	Exporatory Drillholes - Localional Reference	5 7	Ground Water Recharge Monitoring Stations - Localional Reference
3 8	Map SAJ 4 0	5 8	Map SAJ-4 0
3 9	Hydrologic Drainholes - Localional Reference	5 9	Regional Water-Level and Spring Discharge Monitoring Sites - Localional Reference
4 0	Map SAJ 5 0	5 10	Map SAJ 5 0
4 11	Natural Infiltration Monitoring Drillholes - Localional Reference	5 11	Regional Precipitation and Streamflow Monitoring Stations - Localional Reference
4 12	Map SAJ 6 0	5 12	Map SAJ-6 0
4 13	Geophysical Drillholes in the Nevada Test Site Localional Reference	5 14	NTS Precipitation and Streamflow Monitoring Stations - Localional Reference
4 14	Map SAJ-7 0	5 15	Map SAJ-7 0
4 15	Geophysical Drillholes in the Near Field Study Area Localional Reference	5 16	Map SAJ 8 0
4 16	Map SAJ 8 0		

PAGE	MAP TITLE	PAGE	MAP TITLE
5 17	Proposed Precipitation and Streamflow Monitoring Stations in the Near Field Area - Locational Reference	7 13	Magnetic Air and Ground Traverses - Legend
- 18	Map SA5 9 0	7 14	Map SA7 7 0
5 19	Ground Water Reservoir Wells in the Amargosa Desert Region - Legend	7 16	Gravity Surveys - Legend
5 20	Map SA5 10 0	7 17	Existing Magnetotelluric Surveys - Locational Reference
5 21	Fentonmeyer Surface - Legend	7 18	Map SA7 9 0
5 22	Map SA5 11 0	7 19	Proposed Magnetotelluric Surveys - Legend
5 24	Flood Potential of Fornyue Wash - Legend	7 20	Map SA7 10 0
5 24	Map SA5 12 0	7 21	Schlumberger Resistivity Soundings - Legend and Locational Reference
6 0	GEOLOGY	7 22	Map SA7 11 0
6 1	Structural Features and Bedrock Arroyos in Context - Legend	7 23	Schlumberger Soundings in the Amargosa Desert - Locational Reference
6 2	Map SA6 1 0	7 24	Map SA7 12 0
6 3	Transect Series Dating of Carbonate and Siltstone Facies - Locational Reference	7 25	Magneto-telluric Resistivity Surveys - Legend
6 4	Map SA6 2 0	7 26	Map SA7 13 0
7 0	GEOPHYSICS	7 27	APPENDIX A
7 1	Southern Great Basin Seismic Monitoring Network - Locational Reference	A 0	Orthophoto Topographic Index - Legend
7 2	Map SA7 1 0	A 1	Map SA7 1 0
7 3	Timing Summary, Reflection Surveys - Legend	A 2	Map SA7 2 0
7 4	Map SA7 2 0	A 3	Map SA7 3 0
7 5	Proposed Seismic Reflection Surveys - Legend	A 4	Map SA7 4 0
7 6	Map SA7 3 0	A 5	Map SA7 5 0
7 7	Seismic Reflection Surveys 1983 - Legend	A 6	Map SA7 6 0
7 8	Map SA7 4 0	A 7	Map SA7 7 0
7 9	Seismic Reflection Surveys 1985 - Legend	A 8	Map SA7 8 0
7 10	Map SA7 5 0	A 9	Map SA7 9 0
7 11	Seismic Reflection Lines - Legend	A 10	Map SA7 10 0
7 12	Map SA7 6 0	A 11	Map SA7 11 0
7 13	APPENDIX B	A 12	Map SA7 12 0
7 14	Standard Conversions	A 13	Map SA7 13 0
7 15	APPENDIX C	A 14	Map SA7 14 0
7 16	APPENDIX D	A 15	Map SA7 15 0
7 17	Data References	A 16	Map SA7 16 0
7 18	APPENDIX A	A 17	Map SA7 17 0
7 19	APPENDIX B	A 18	Map SA7 18 0
7 20	APPENDIX C	A 19	Map SA7 19 0
7 21	APPENDIX D	A 20	Map SA7 20 0

ACTIVITY INDEX

ACTIVITY ID	ACTIVITY TYPE	MAP NO.	ACTIVITY ID	ACTIVITY TYPE	MAP NO.
1	Seismic Monitoring Network	SAT-1.0	AD6	Water-Level Monitoring Site	SAS-5.0
2	Seismic Monitoring Network	SAT-1.0	AD7	Water-Level Monitoring Site	SAS-5.0
3	Seismic Monitoring Network	SAT-1.0	AD8	Water-Level Monitoring Site	SAS-5.0
4	Seismic Monitoring Network	SAT-1.0	AD9	Water-Level Monitoring Site	SAS-5.0
5	Seismic Monitoring Network	SAT-1.0	AD10	Water-Level Monitoring Site	SAS-5.0
6	Seismic Monitoring Network	SAT-1.0	AD11	Water-Level Monitoring Site	SAS-5.0
7	Seismic Monitoring Network	SAT-1.0	AD12	Water-Level Monitoring Site	SAS-5.0
8	Seismic Monitoring Network	SAT-1.0	AD13	Water-Level Monitoring Site	SAS-5.0
9	Seismic Monitoring Network	SAT-1.0	AD14	Water-Level Monitoring Site	SAS-5.0
10	Seismic Monitoring Network	SAT-1.0	AD15	Water-Level Monitoring Site	SAS-5.0
11	Seismic Monitoring Network	SAT-1.0	AD16	Water-Level Monitoring Site	SAS-5.0
12	Seismic Monitoring Network	SAT-1.0	AD17	Water-Level Monitoring Site	SAS-5.0
13	Seismic Monitoring Network	SAT-1.0	AM1	Water-Level Monitoring Site	SAS-5.0
14	Seismic Monitoring Network	SAT-1.0	AM2	Water-Level Monitoring Site	SAS-5.0
15	Seismic Monitoring Network	SAT-1.0	AM3	Water-Level Monitoring Site	SAS-5.0
16	Seismic Monitoring Network	SAT-1.0	AM4	Water-Level Monitoring Site	SAS-5.0
30	U-Series Dating Sample Loc	SAS-2.0	AM5	Water-Level Monitoring Site	SAS-5.0
31	U-Series Dating Sample Loc	SAS-2.0	AM6	Water-Level Monitoring Site	SAS-5.0
32	U-Series Dating Sample Loc	SAS-2.0	AM7	Water-Level Monitoring Site	SAS-5.0
40	U-Series Dating Sample Loc	SAS-2.0	AM-9	U-Series Dating Sample Loc	SAS-2.0
45	U-Series Dating Sample Loc	SAS-2.0	AMR-Amerigo4	Seismic Monitoring Network	SAT-1.0
46	U-Series Dating Sample Loc	SAS-2.0	ANDY	Seismic Monitoring Network	SAT-1.0
47	U-Series Dating Sample Loc	SAS-2.0	Antelope Spg	Meteorological Mon Station	SAS-2.0
48	U-Series Dating Sample Loc	SAS-2.0	APK/Angel Peak	Seismic Monitoring Network	SAT-1.0
50	U-Series Dating Sample Loc	SAS-2.0	Auer7	Seismic Monitoring Network	SAS-2.0
51	U-Series Dating Sample Loc	SAS-2.0	Bare Mountain 1	Trench	SAS-10.0
59	U-Series Dating Sample Loc	SAS-2.0	Bare Mountain 2	Trench	SAS-10.0
60	U-Series Dating Sample Loc	SAS-2.0	Barrel Spg	GW Geochemistry Station	SAS-2.0
61	U-Series Dating Sample Loc	SAS-2.0	Beatty	Temperature/Precipitation Sta	SAS-2.0
62	U-Series Dating Sample Loc	SAS-2.0	BGB-Big Butte	Seismic Monitoring Network	SAT-1.0
96	U-Series Dating Sample Loc	SAS-2.0	Black Spg	GW Geochemistry Station	SAS-2.0
112	U-Series Dating Sample Loc	SAS-2.0	BLT-Bellad Range	Seismic Monitoring Network	SAT-1.0
115	U-Series Dating Sample Loc	SAS-2.0	BMT-Black Mt	Seismic Monitoring Network	SAT-1.0
154	U-Series Dating Sample Loc	SAS-2.0	Breen Crk @ Ran Spg	GW Geochemistry Station	SAS-2.0
155	U-Series Dating Sample Loc	SAS-2.0	Cactus Spg	GW Geochemistry Station	SAS-2.0
169	U-Series Dating Sample Loc	SAS-2.0	CAROLYN	Meteorological Mon Station	SAS-2.0
388	U-Series Dating Sample Loc	SAS-2.0	Carrot Summit Spg	GW Geochemistry Station	SAS-2.0
379	U-Series Dating Sample Loc	SAS-2.0	Cave Spg	GW Geochemistry Station	SAS-2.0
386	U-Series Dating Sample Loc	SAS-2.0	CDM-Calico Driehole	Seismic Monitoring Network	SAT-1.0
387	U-Series Dating Sample Loc	SAS-2.0	Cedar Spg	GW Geochemistry Station	SAS-2.0
395	U-Series Dating Sample Loc	SAS-2.0	CFT	Water-Level Monitoring Site	SAS-5.0
412	U-Series Dating Sample Loc	SAS-2.0	CF2	Water-Level Monitoring Site	SAS-5.0
79-3-79	U-Series Dating Sample Loc	SAS-2.0	CF3	Water-Level Monitoring Site	SAS-5.0
80-10-20f	U-Series Dating Sample Loc	SAS-2.0	CF-8(E)	Trench	SAS-10.0
81-3-19f	U-Series Dating Sample Loc	SAS-2.0	CF8(W)	Trench	SAS-10.0
1024/800	Misc Streamflow Station	SAS-7.0	China Spg	GW Geochemistry Station	SAS-2.0
1024/800	Complete Record Gauging Sta	SAS-7.0	CJ1	GW Geochemistry Station	SAS-2.0
10251220	Crest Stage Station	SAS-7.0	COLIC	Precipitation Collector	SAS-7.0
10251244	Misc Streamflow Station	SAS-7.0	COLJG	Ecological Study Plot	SAS-7.0
10251248	Complete Rec Gauging Station	SAS-7.0	COLJC	Ecological Study Plot	SAS-7.0
10251254	Complete Rec Gauging Station	SAS-7.0	COLK	Ecological Study Plot	SAS-7.0
10251260	Precipitation Station	SAS-7.0	COLLC	Ecological Study Plot	SAS-7.0
10251252	Complete Pt Vent Gauging Sta	SAS-4.0	COLLC	Ecological Study Plot	SAS-7.0
10251254	Precipitation Stations	SAS-4.0	COLLT	Ecological Study Plot	SAS-7.0
10251255	Complete Record Gauging Sta	SAS-4.0	COLLT	Ecological Study Plot	SAS-7.0
10251255	Precipitation Stations	SAS-4.0	COLLT	Ecological Study Plot	SAS-7.0
10251256	Complete Record Gauging Sta	SAS-7.0	COLLT	Ecological Study Plot	SAS-7.0
10251256	Precipitation Station	SAS-7.0	COLLT	Ecological Study Plot	SAS-7.0
10251280	Crest Stage Station	SAS-7.0	Coronan Cyn Spg	GW Geochemistry Station	SAS-2.0
10251280	Precipitation Station	SAS-7.0	Corral Spg	GW Geochemistry Station	SAS-2.0
10251282	Precipitation Station	SAS-7.0	Coronado C: Spg	GW Geochemistry Station	SAS-2.0
10251285	Precipitation Station	SAS-7.0	Coyote Spg	GW Geochemistry Station	SAS-2.0
10251285	Crest Stage Station	SAS-7.0	CPX-CP-46	Seismic Monitoring Network	SAT-1.0
10251286	Misc Streamflow Station	SAS-7.0	Cranichall Jct. CA	Woodrat Midden	SAS-2.0
10251289	Misc Streamflow Station	SAS-7.0	Crow Spg	GW Geochemistry Station	SAS-2.0
10251270	Crest Stage Station	SAS-7.0	CTS-Cactus Peak	Seismic Monitoring Network	SAT-1.0
10251270	Precipitation Station	SAS-7.0	DIANNE	Meteorological Mon Station	SAS-8.0
10251871	Crest Stage Station	SAS-7.0	DLM-Delmar Mtn	Seismic Monitoring Network	SAT-7.0
10251272	Crest Stage Station	SAS-7.0	Eden Crk Ranch Spg	GW Geochemistry Station	SAS-2.0
10251300	Recording Stage/Pan Gauge	SAS-8.0	Elmore Range 2	Woodrat Midden	SAS-1.0
102512532	Misc Streamflow Station	SAS-8.0	Elmore Range 3	Woodrat Midden	SAS-2.0
102512533	Misc Streamflow Station	SAS-8.0	Elko	Temperature/Precipitation Sta	SAS-2.0
102512535	Misc Streamflow Station	SAS-8.0	Ely	Temperature/Precipitation Sta	SAS-2.0
102512536	Misc Streamflow Station	SAS-8.0	EMN-Eldorado Mtn	Seismic Monitoring Network	SAT-1.0
AD1	Misc Streamflow Station	SAS-8.0	EPN Echo Pt	Seismic Monitoring Network	SAT-1.0
AD2	Water-Level Monitoring Site	SAS-5.0	EPN East Rainnagat	Seismic Monitoring Network	SAT-1.0
AD3	Water-Level Monitoring Site	SAS-5.0	Eureka	Temperature/Precipitation Sta	SAS-10.0
AD4	Water-Level Monitoring Site	SAS-5.0	F. FLAT #1	Trench	SAS-10.0
AD5	Water-Level Monitoring Site	SAS-5.0	F. FLAT #2	Trench	SAS-10.0
	Water-Level Monitoring Site	SAS-5.0	FF58	Radiochemical Monitoring P of	SAS-11.0

ACTIVITY ID	ACTIVITY TYPE	MAP NO.	ACTIVITY ID	ACTIVITY TYPE	MAP NO.
USW UZ 3	Un-saturated Zone Hydro Hole	SA3-5-0	USW UZ-N89	Nairi Infil Mon Drithole	SA3-5-0
USW UZ 6	Un-saturated Zone Hydro Hole	SA3-5-0	USW UZ-N90	Nairi Infil Mon Drithole	SA3-5-0
USW UZ 6s	Un-saturated Zone Hydro Hole	SA3 5 0	USW UZ-N93	Nairi Infil Mon Drithole	SA3 6 0
USW UZ 7	Un-saturated Zone Hydro Hole	SA3 5 0	USW UZ-N84	Nairi Infil Mon Drithole	SA3 6 0
USW UZ 8	Un-saturated Zone Hydro Hole	SA3-5-0	USW UZ-N85	Nairi Infil Mon Drithole	SA3-6-0
USW UZ-10	Un-saturated Zone Hydro Hole	SA3-5-0	USW UZ-N86	Nairi Infil Mon Drithole	SA3-6-0
USW UZ-11	Un-saturated Zone Hydro Hole	SA3-5-0	USW UZ-N88	Nairi Infil Mon Drithole	SA3-6-0
USW UZ-12	Un-saturated Zone Hydro Hole	SA3 5 0	USW V1	Volcanic Drithole	SA3 3 0
USW UZ 13	Un-saturated Zone Hydro Hole	SA3 5 0	USW V2	Volcanic Drithole	SA3 3 0
USW UZ 14	Un-saturated Zone Hydro Hole	SA3-5-0	USW V3	Volcanic Drithole	SA3-3-0
USW UZ-N11	Nairi Infil Mon Drithole	SA3-6-0	USW V4	Volcanic Drithole	SA3-3-0
USW UZ-N15	Nairi Infil Mon Drithole	SA3-6-0	USW VH-1	GW Geochemistry Station	SA5 3 0
USW UZ N16	Nairi Infil Mon Drithole	SA3-6-0	USW VH-1	Volcanic/Hydrologic Hole	SA3-3-0
USW UZ N17	Nairi Infil Mon Drithole	SA3-6-0	USW VH 2	Volcanic/Hydrologic Hole	SA3 3 0
USW UZ N24	Nairi Infil Mon Drithole	SA3-6-0	USW WT-1	Water Table Hydrologic Hole	SA3-5-0
USW UZ N25	Nairi Infil Mon Drithole	SA3-6-0	USW WT-2	Water Table Hydrologic Hole	SA3-5-0
USW UZ N26	Nairi Infil Mon Drithole	SA3 6 0	USW WT-7	Water Table Hydrologic Hole	SA3 5 0
USW UZ N36	Nairi Infil Mon Drithole	SA3-6-0	USW WT-8	Water Table Hydrologic Hole	SA3 5 0
USW UZ N37	Nairi Infil Mon Drithole	SA3-6-0	USW WT-9	Water Table Hydrologic Hole	SA3 5 0
USW UZ-N40	Nairi Infil Mon Drithole	SA3-6-0	USW WT-10	Water Table Hydrologic Hole	SA3 5 0
USW UZ-N41	Nairi Infil Mon Drithole	SA3-6-0	USW WT-11	Water Table Hydrologic Hole	SA3 5 0
USW UZ-N42	Nairi Infil Mon Drithole	SA3-6-0	USW WT-23	Water Table Hydrologic Hole	SA3-5-0
USW UZ-N43	Nairi Infil Mon Drithole	SA3-6-0	USW WT-21	Water Table Hydrologic Hole	SA3-5-0
USW UZ-N44	Nairi Infil Mon Drithole	SA3-6-0	USW WT-22	Water Table Hydrologic Hole	SA3 5 0
USW UZ-N45	Nairi Infil Mon Drithole	SA3-6-0	W1	Meteorological Mon Station	SA5-9-0
USW UZ N46	Nairi Infil Mon Drithole	SA3-6-0	V2	Meteorological Mon Station	SA5-9-0
USW UZ N47	Nairi Infil Mon Drithole	SA3-6-0	W3	Meteorological Mon Station	SA5-9-0
USW UZ-N48	Nairi Infil Mon Drithole	SA3-6-0	W4	Meteorological Mon Station	SA5-9-0
USW UZ N49	Nairi Infil Mon Drithole	SA3-6-0	W5	Meteorological Mon Station	SA5 9 0
USW UZ N51	Nairi Infil Mon Drithole	SA3-6-0	W6	Meteorological Mon Station	SA5-9-0
USW UZ N52	Nairi Infil Mon Drithole	SA3-6-0	W7	Meteorological Mon Station	SA5-9-0
USW UZ-N54	Nairi Infil Mon Drithole	SA3-6-0	W8	Meteorological Mon Station	SA5-9-0
USW UZ-N55	Nairi Infil Mon Drithole	SA3-6-0	W9	Meteorological Mon Station	SA5 2 0
USW UZ N56	Nairi Infil Mon Drithole	SA3 6 0	W10	Meteorological Mon Station	SA7-1-0
USW UZ N66	Nairi Infil Mon Drithole	SA3-6-0	War Cyn Spg	GW Geochemistry Station	SA5-2-0
USW UZ N67	Nairi Infil Mon Drithole	SA3-6-0	WCT-Wildcat Peak	Seismic Monitoring Network	SA5-2-0
USW UZ N69	Nairi Infil Mon Drithole	SA3 6 0	White Rock Spg	GW Geochemistry Station	SA5-2-0
USW UZ N70	Nairi Infil Mon Drithole	SA3-6-0	Whisker 1 yf Spg	GW Geochemistry Station	SA5-2-0
USW UZ N71	Nairi Infil Mon Drithole	SA3-6-0	Winemucco1	Temperature/Precipitation Sta	SA7-1-0
USW UZ N72	Nairi Infil Mon Drithole	SA3-6-0	WRN-Wheeler Peak	Seismic Monitoring Network	SA5 8 0
USW UZ N73	Nairi Infil Mon Drithole	SA3 6 0	Y3	Precipitation Collector	SA5-8-0
USW UZ N74	Nairi Infil Mon Drithole	SA3-6-0	Y6	Precipitation Collector	SA5 8 0
USW UZ N75	Nairi Infil Mon Drithole	SA3-6-0	Y7	Precipitation Collector	SA5 8 0
USW UZ N76	Nairi Infil Mon Drithole	SA3-6-0	Y8	Precipitation Collector	SA5 8 0
USW UZ-N77	Nairi Infil Mon Drithole	SA3-6-0	YM1	Water-Level Monitoring Site	SA7-1-0
USW UZ-N78	Nairi Infil Mon Drithole	SA3-6-0	YMT#1-Yucca Mtn 1	Seismic Monitoring Network	SA7-1-0
USW UZ N79	Nairi Infil Mon Drithole	SA3 6 0	YMT#2-Yucca Mtn 2	Seismic Monitoring Network	SA7 1 0
USW UZ N80	Nairi Infil Mon Drithole	SA3 6 0	YMT#3 Yucca Mtn 3	Seismic Monitoring Network	SA7-1-0
USW UZ-N81	Nairi Infil Mon Drithole	SA3 6 0	YMT#4-Yucca Mtn 4	Seismic Monitoring Network	SA7-1-0
USW UZ N82	Nairi Infil Mon Drithole	SA3 6 0	YMT#5-Yucca Mtn 5	Seismic Monitoring Network	SA7-1-0
USW UZ N83	Nairi Infil Mon Drithole	SA3-6-0	YMT#6 Yucca Mtn 6	Seismic Monitoring Network	SA7-1-0
USW UZ N84	Nairi Infil Mon Drithole	SA3-6-0	Young Flame Spg	GW Geochemistry Station	SA5-2-0
USW UZ N86	Nairi Infil Mon Drithole	SA3-6-0	Yucca Wash 1	Woodrat Midden	SA5 1 0
USW UZ N87	Nairi Infil Mon Drithole	SA3-6-0	Yucca Wash 2	Woodrat Midden	SA5 1 0
USW UZ N88	Nairi Infil Mon Drithole	SA3 6 0	Yucca Wash 3	Woodrat Midden	SA5 1 0
			Yucca Wash 4	Woodrat Midden	SA5-1-0
			Yucca Wash 5	Woodrat Midden	SA5-1-0



SECTION 1

LAND ADMINISTRATION

STATE OF NEVADA
SA1-1.0

LEGEND

ROADS

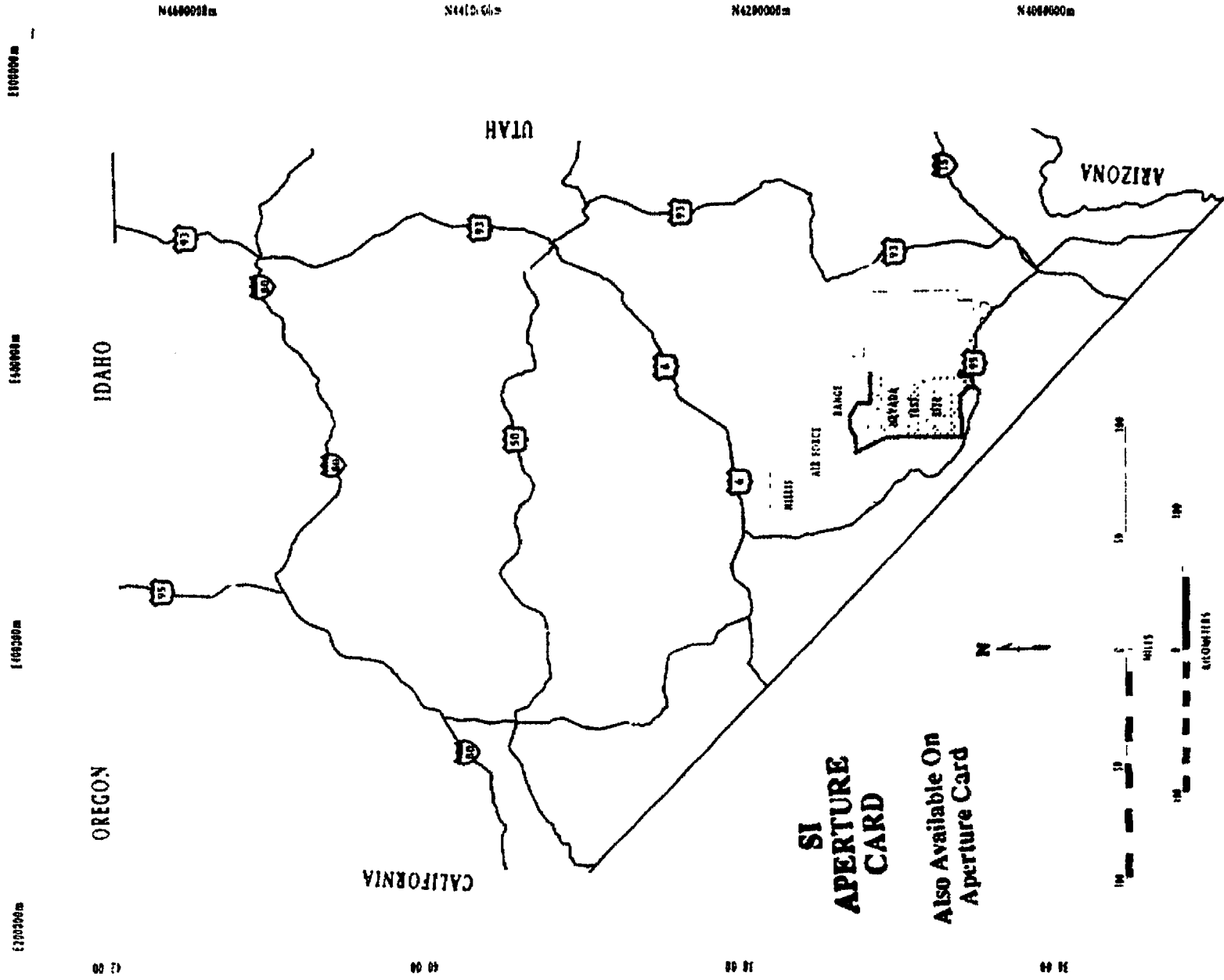
-  U.S. Interstate
-  U.S. Federal Highway

BOUNDARIES

-  Federal Reservation
-  Nevada Test Site

Source: This basemap was produced using the U.S. Geological Survey (USGS) 1:2,000,000 scale Digital Line Graph (DLG) of the 1970 *National Atlas of the United States of America*. The digital files for political (state boundary), administrative (selected federal reservations), and transportation features (federal roads) were used for this map.

9210260125-01



REGO SMI 10

SOUTHERN NEVADA AND SOUTHEASTERN CALIFORNIA

SA1-2.0

LEGEND

PROJECT STUDY AREAS (Shown in green)



- A - Conceptual Perimeter Drift Area Boundary
- B - Conceptual Controlled Area Boundary

POPULATED PLACES

- Town
- Urban Area

LANDFORMS (Shown in brown)

- Elevated Area

ROADS

- Primary Highway
- Secondary Highway
- Light Duty Road

BOUNDARIES

- State
- County
- Federal

The Conceptual Perimeter Drift Boundary was digitized from Sandia National Laboratories Drawing Number R07003A, April 1986

The Conceptual Controlled Area Boundary was digitized from Sandia National Laboratories Product Number CAL0166

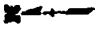
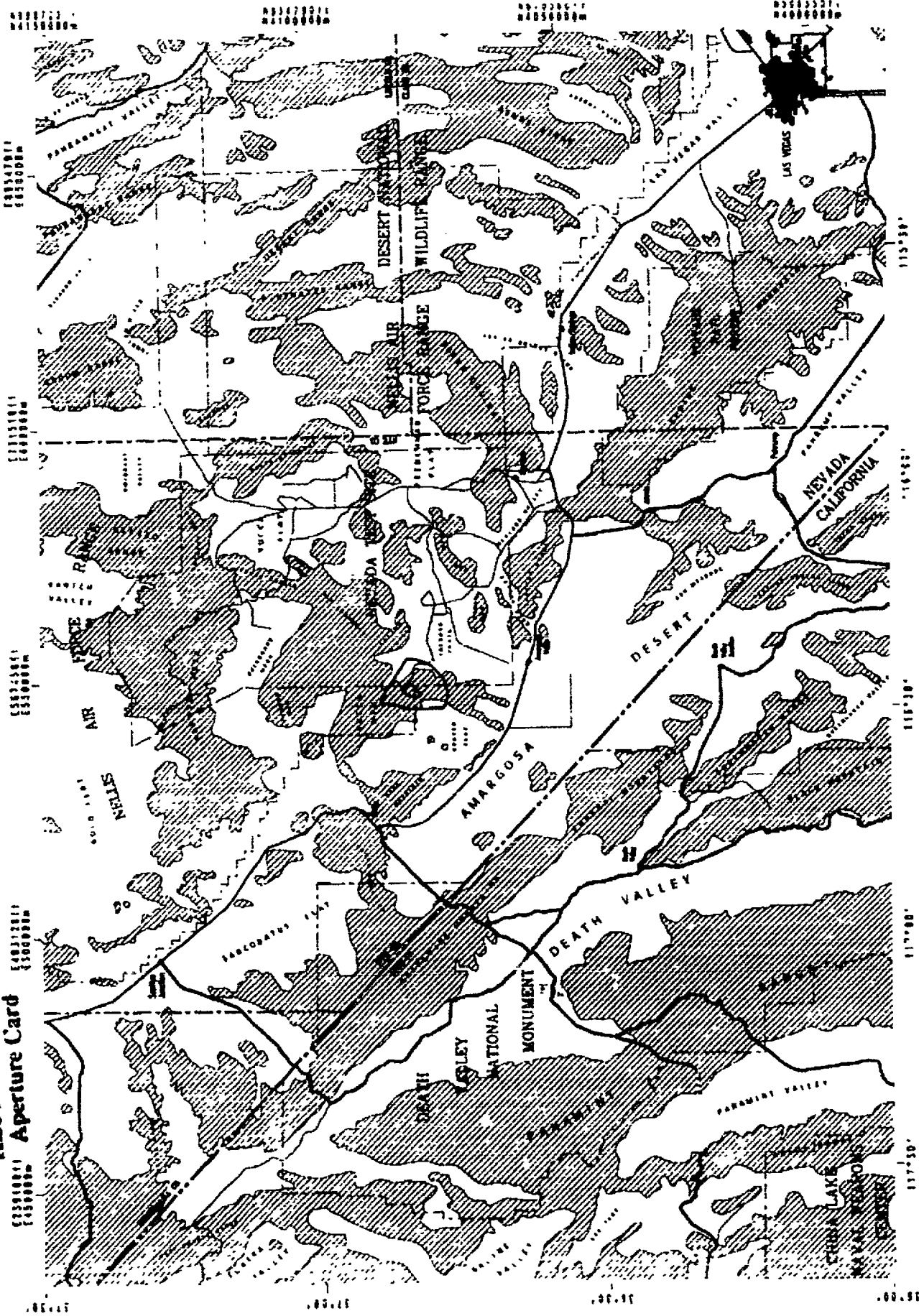
Coordinates for Nevada Test Site (NTS) Boundary were entered from the NTS Coordinate Map-Site Plan and Insert, Holmes & Narver Map #090-094-C7 2, Revised 6/8/77

Source Basemap Features (roads, boundaries, and populated places) were digitized, and elevated areas were interpreted, from the following U.S. Geological Survey 1:250,000 scale topographic map quadrangles:

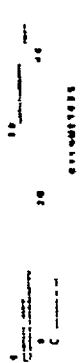
Caliente, NV-UT	1954, Rev 1970
Death Valley, CA-NV	1954, Rev 1970
Goldfield, NV-CA	1954, Rev 1970
Las Vegas, NV-CA	1954, Rev 1969

Contour Interval

Also Available On
Aperture Card



117°50' 117°00' 116°50' 116°00' 115°50'



9210260125-02

NEAR-FIELD STUDY AREA

SA1-3.0

LEGEND

ROADS

- Light-duty
- - Unimproved
- Trail

LAND SURVEY SYSTEMS (Shown in red)

- Township
- - Township (location doubtful)
- Section (location doubtful)

PROJECT STUDY AREAS (Shown in green)



- A - Conceptual Perimeter Drift Boundary
- B - Conceptual Controlled Area Boundary

BOUNDARIES

Federal

HYPISOGRAPHY (Shown in brown)

- Elevation Contour (interval 200 feet)

ES3204071
ES40908m

ES3440071
ES50008m

NELLIS
AIR FORCE RANGE

NEVADA
TEST SITE
(Area 25)

YUCCA
MOUNTAIN

YUCCA WASH

NORTHERN CANYON

MIDWAY
VALLEY

ABOVE
RIDGE

MONTICLO
CANYON

IRON
MOUNTAIN

DEEP
CANYON

BOYD
CANYON

SOUTHERN
CANYON

SHILOH FLAT

NORTHERN
CANYON

BUREAU OF
LAND MANAGEMENT

116 30 00

116 21 30

Contour Interval 200 Feet

SI
APERTURE
CARD



Also Available On
Aperture Card

EG&G SA130

9210260125-03

34 52 30









34 49 30



EXPLORATORY STUDIES FACILITIES AND SUBSURFACE ACCESS DRIFTS

SA1-4.0

LEGEND

FACILITIES		BOUNDARIES	
	Exploratory Studies Facilities		Federal
	Subsurface Access Drifts	PROJECT STUDY AREAS (Shown in green)	
ROADS			A - Conceptual Perimeter Drift Boundary
	Light-duty		B - Conceptual Controlled Area Boundary
	Unimproved	HYPSOGRAPHY (Shown in brown)	
	Trail		Elevation Contour (interval 200 feet)

Source Exploratory Studies Facilities and North and South Portals were provided by Raytheon Services Nevada from "Exploratory Studies Facility General Arrangement - Overall Site Plan" Drawing Number YMP-025-1-CIVL-PLO1, Revision 0, September 27, 1991, and from "Exploratory Studies Facility TS South Portal General Arrangement - Batch Plant Facilities, Site and Grading Plan" Drawing Number YMP-025-2-CIVL-PLO7, Revision 0, September 27, 1991

The Subsurface Access Drifts were digitized from Raytheon Services Nevada Drawing Number YMP-025-1-MING-MI01, June 1991

Roads were photointerpreted and independently photo verified in stereo from 1:12,000 scale (March 1990) color-infrared photography. They were mapped onto 1:6,000 scale orthophotographs and digitized.

Federal boundaries were digitized from the following U.S. Geological Survey 7.5" topographic quadrangles (1:24,000 scale)

Busted Butte, NV, 1983

East of Beatty Min., NV, Photo-revised 1987

Crater Flat, NV, Photo-revised 1986

Topopah Springs NW, NV, 1961

Project study areas were digitized from the following Sandia National Laboratory drawings

Conceptual Perimeter Drift Boundary - Drawing Number R07003A, April 1986

Conceptual Controlled Area Boundary - Product Number CAL0186

U.S. Geological Survey Digital Line Graphs (DLGs) from the U.S. Geological Survey 7.5" topographic quadrangles (1:24,000 scale) for hypsography were used to generate the 200-foot elevation contours. The original DLG was mapped at twenty-foot contour intervals.

ES45000m

ES50000m

16 52 30"

16 58 00"

16 57 30"

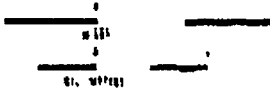
116 30 00

116 27 30

116 25 00

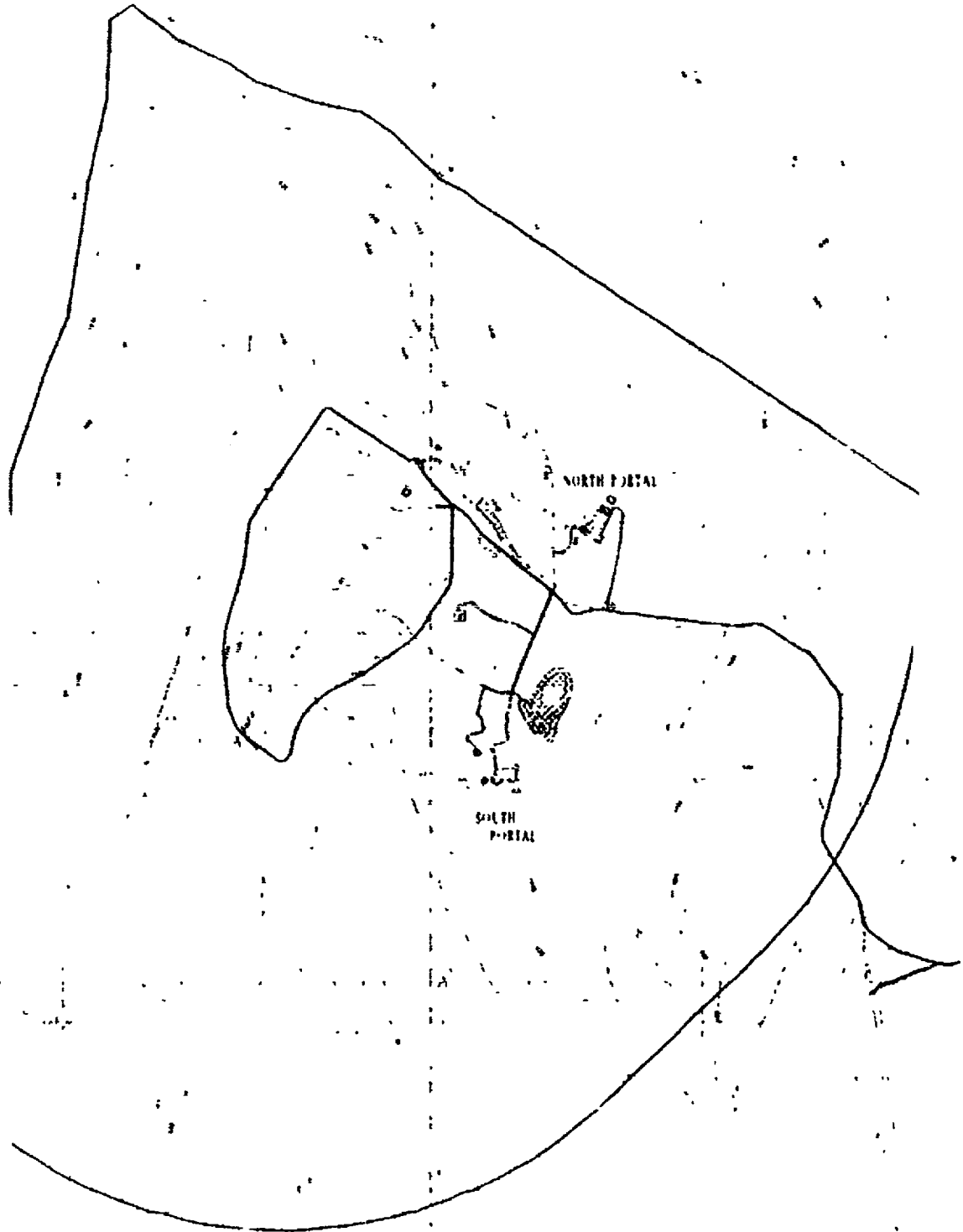
N

Contour Interval 200 Feet



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NATIONAL ARCHIVES

NATIONAL ARCHIVES


9210260125-04

SAI 40

FAR-FIELD STUDY AREA AND LAND WITHDRAWALS

SA1-5.0

LEGEND

<p>LAND WITHDRAWAL BOUNDARIES</p> <p>----- Land Withdrawal</p> <p>--- Right-of-Way Reservation Agreement (Core Area)</p> <p>... RANCH</p> <p>ROADS</p> <p>==== Primary Highway</p> <p>== Secondary Route</p> <p>— Light-duty</p> <p> Unimproved</p> <p> Trail</p>	<p>BOUNDARIES</p> <p>Federal</p> <p>PROJECT STUDY AREAS (Shown in green)</p> <p>A - Conceptual Perimeter Drift Boundary</p> <p>B - Conceptual Controlled Area Boundary</p> 
---	--

Source Land withdrawal boundaries were entered using legal descriptions from the following documents

Bureau of Land Management, 1988 *Right-Of-Way Reservation Agreement* Bureau of Land Management Document N-47748 2800 (NV-943 2)

Bureau of Land Management, 1989 *Right-of-Way Reservation Agreement* Bureau of Land Management Document N-48602 2800 (NV-943 2)

Bureau of Land Management, 1990 *Public Land Order - Withdrawal of Public Land to Maintain the Physical Integrity of the Subsurface Environment, Yucca Mountain Project, Nevada* Department of the Interior Public Land Order 6302

The boundary for the Yucca Mountain Site Characterization Project - Area 25 Site Operations Area, or the "RANCH," was digitized from the Holmes and Narver drawing titled "U.S. Department of Energy Nevada Test Site Roads and Facilities Map" updated July 1964. The description for the "RANCH" can be found in U.S. Department of Energy 1991 *Field Management Plan* YMP/CC-0018, Revision 1.

Roads and boundaries were produced using the U.S. Geological Survey Digital Line Graph data from the following 1:100,000 scale topographic quadrangle maps series:

Beatty, NV-CA	Death Valley Junction, NV-CA
Indian Springs, NV	Las Vegas, NV-CA

Project study areas were digitized from the following Sandia National Laboratory drawings:

Conceptual Perimeter Drift Boundary - Drawing Number R07003A April 1986

Conceptual Controlled Area Boundary - Product Number CAL0165

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16 52 36

16 45 00

116 37 30

116 30 00

116 22 30



ES330407
ES400070

ES445401
ES400070



NUMBER
10000000

NUMBER
10000000

9210260125-05



NEVADA TEST SITE

SA1-6.0

LEGEND

BOUNDARIES

- Federal
- State
- NTS Boundary
- NTS Operation Areas

PROJECT STUDY AREAS (Shown in green)



- A - Conceptual Perimeter Drift Boundary
- B - Conceptual Controlled Area Boundary

ROADS

- Primary Highway
- Secondary Route
- Light-duty

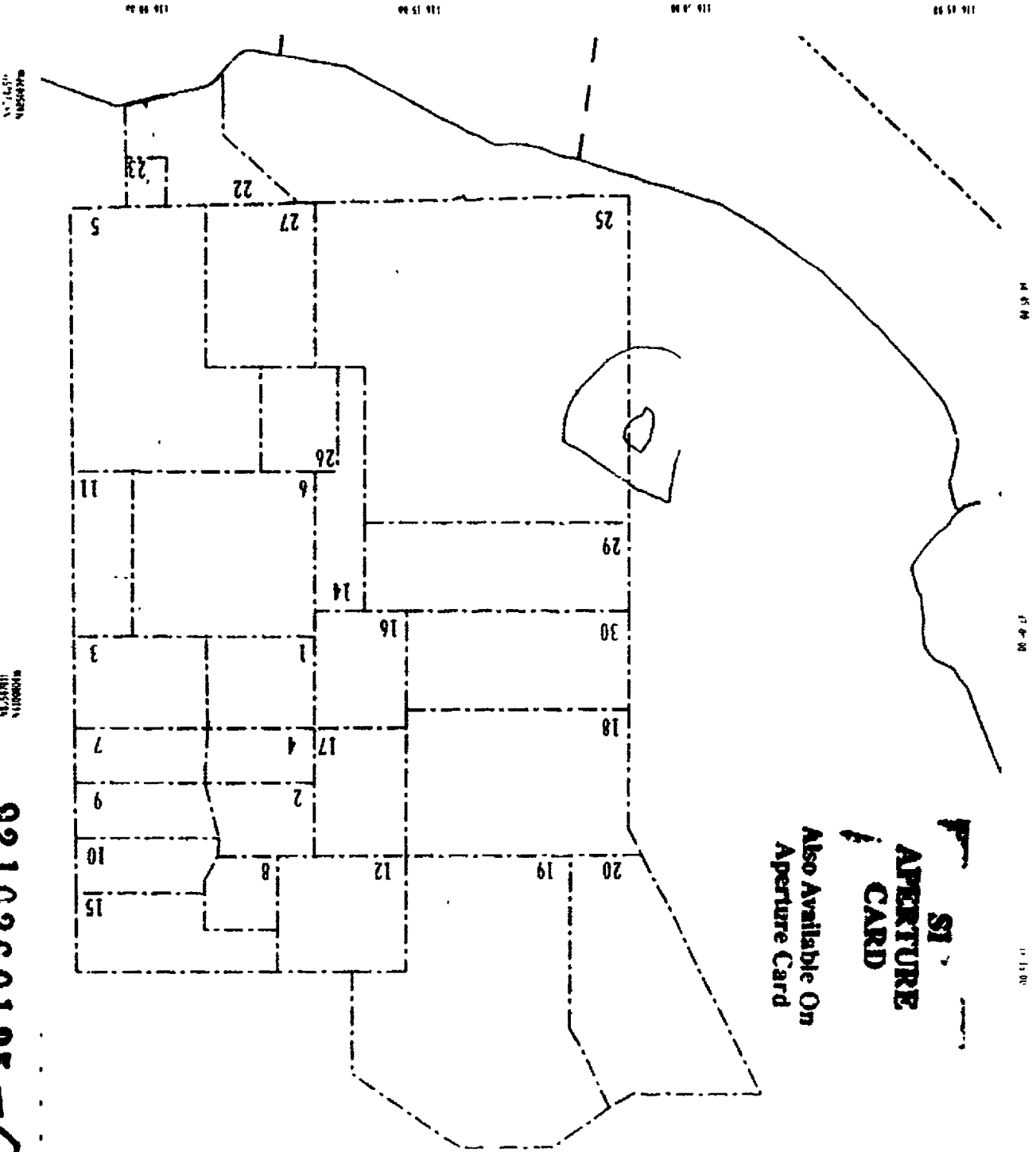
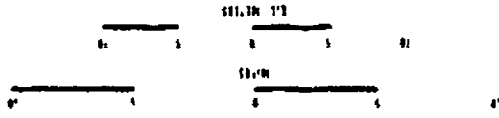
Source: Roads and boundaries were produced using the U.S. Geological Survey Digital Line Graph data from the following 1:100,000 scale topographic quadrangle maps series:

Beatty, NV-CA	Death Valley Junction, NV-CA
Indian Springs, NV	Las Vegas, NV-CA

Project study areas were digitized from the following Sandia National Laboratory drawings:

- Conceptual Perimeter Drift Boundary - Drawing Number R07003A, April 1986
- Conceptual Controlled Area Boundary - Product Number CAL0168

Coordinates for Nevada Test Site (NTS) Boundary and Operation Area Boundaries were entered from the NTS Coordinate Map - Site Plan and Insert, Holmes and Narver Map #090-094-C7 2. Revised 6/8/87



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9210260125-06

SECTION 2

SOCIOLOGY



**POPULATION OF NEVADA'S COUNTIES
1990 CENSUS
SA2-1.0**

LEGEND

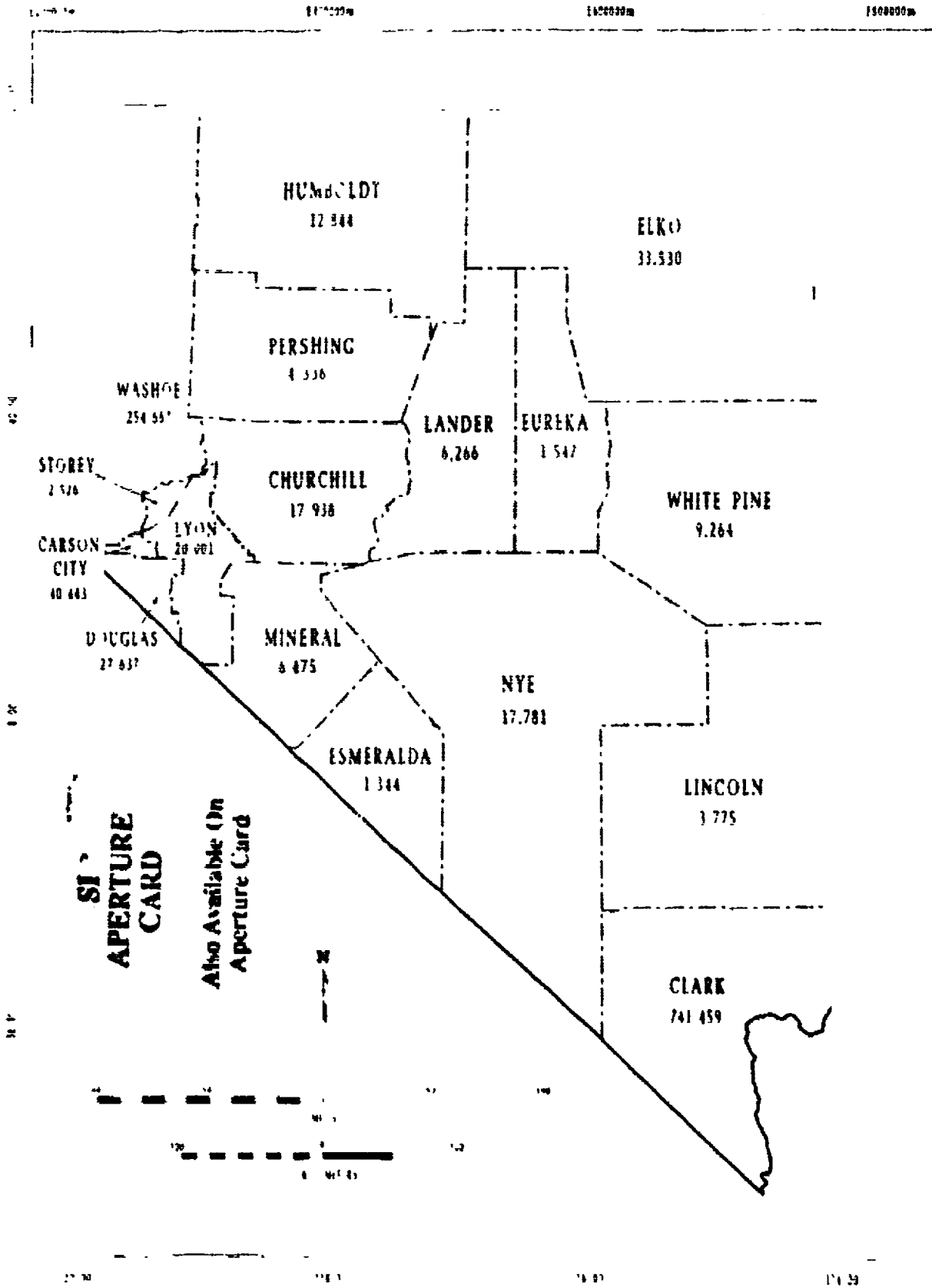
BOUNDARIES

—— State
- - - County

SOCIOLOGICAL FEATURES

NVE County Name
13,452 County population
Total Nevada Population - 1,201,833

Source: U.S. Department of Commerce, 1991, *1990 Census of Population and Housing, Summary Tape File 1A on CD-ROM*, U.S. Bureau of the Census



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CARD

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 Aperture Card

9210260125-07
 HIGGINS
 HIGGINS
 HIGGINS

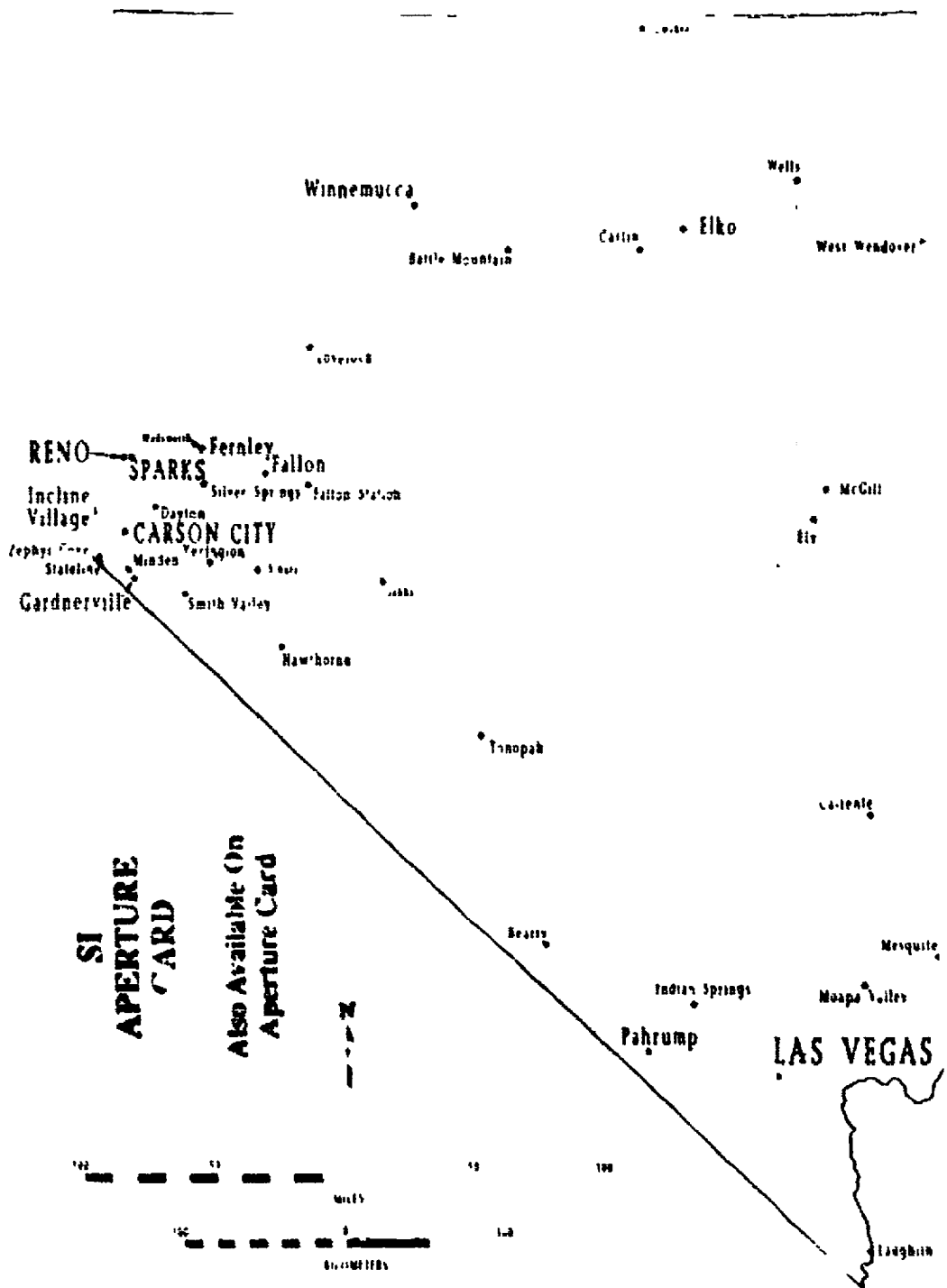
**POPULATION OF NEVADA'S CITIES,
1990 CENSUS
SA2-2.0**

City/Town	Population
Battle Mountain	3,542
Beatty	1,623
Calliente	1,111
Carlin	2,220
Carson City	40,443
Dayton	2,217
Elko	14,736
Ely	4,756
Fallon	6,438
Fallon Station	1,092
Ferlieley	5,164
Gabbs	667
Gardnerville	9,632
Hawthorne	4,162
Incline Village	7,119
Indian Springs	1,164
Las Vegas Divisadero	715,587
Laughlin	4,791
Lovelock	2,069
McCall	1,258
Mesquite	1,671
Minden	1,441
Moapa Valley	3,444
Owyhee	908
Pahrump	7,424
Reno	133,850
Schurz	617
Silver Springs	2,253
Smith Valley	1,033
Sparks	53,367
Stateline	1,379
Tonopah	3,616
Wadsworth	640
Wells	1,256
West Wendover	2,007
Winnemucca	6,134
Yerington	2,367
Zephyr Cove	1,434

Source U.S. Department of Commerce 1991 1990 Census of Population and Housing Summary Tape File 1A on CD-ROM U.S. Bureau of the Census

120000m 180000m 240000m 300000m

60 00
60 00
60 00
60 00



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Aperture Card

120000m 180000m 240000m 300000m

9210260125-08

120000m 180000m 240000m 300000m



SECTION 3

D. HILLOLES, TRENCHES, PITS, AND PAVEMENTS

EXISTING AND PROPOSED DRILLHOLES

SA3-1.0

LEGEND

EXISTING HOLES (Shown in blue)

- ▲ Geologic
- ★ Volcanic
- ▼ Exploratory
- Hydrologic
- ◆ Natural Infiltration Monitoring
- + Geophysical
- Logging Feasibility Test

PROPOSED HOLES (Shown in red)

- △ Geologic
- ☆ Volcanic
- ▽ Exploratory
- Hydrologic
- ⊕ Geophysical

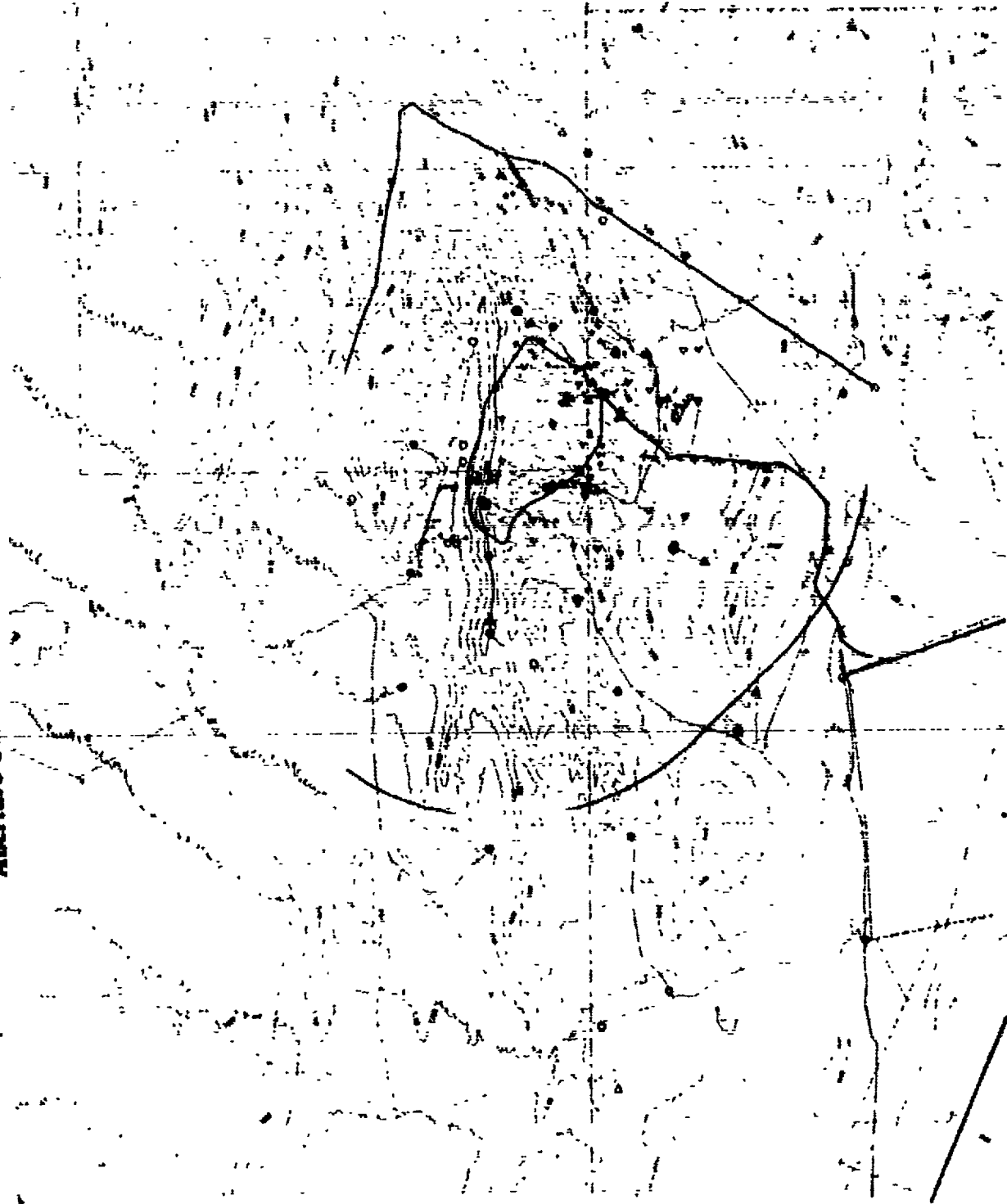
Note This map provides an overview of drillholes within the near-field study area only. The legend above includes symbology for Logging Feasibility Test and proposed Volcanic drillholes that are not present within the near-field study area. The following maps in Section 3 provide the location and reference information for each activity.

ES130001
ES400000

ES400001
ES130000

9210260125-09

UNCLASSIFIED
UNREVIEWED



CARD

Also Available On
Aperture Card

11° 5' W

14° 12' N

111° 24' W

111° 22' W

UNCLASSIFIED
UNREVIEWED

Contour Interval 200 Feet



SA110

GEOLOGIC DRILLHOLES

SA3-2.0

▲ EXISTING GEOLOGIC EXPLORATORY COREHOLES

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)	SOURCE
1	UE 25h #1	36°46'21"N	116°24'44"W	3409 40	Felix and Scason, 1966g
2	UE 25a #1	36°51'05"N	116°28'24"W	3632 80	Felix and Scason, 1966a
3	UE 25a #3	36°51'47"N	116°18'53"W	4545 80	Felix and Scason, 1966a
4	UE 25a #4	36°51'36"N	116°28'47"W	4100 70	Felix and Scason, 1966a
5	UE 25a #5	36°51'25"N	116°28'43"W	4056 50	Felix and Scason, 1966a
6	UE 25a #6	36°51'15"N	116°28'48"W	4052 80	Felix and Scason, 1966a
7	UE 25a #7	36°51'16"N	116°28'34"W	4004 60	Felix and Scason, 1966a
8	UE 25a #1	36°51'08"N	116°28'23"W	3639 00	Felix and Scason, 1966a
9	UE 25p #1	36°49'36"N	116°25'21"W	3654 63*	Felix and Scason, 1966h
10	USW G-1	36°52'06"N	115°27'29"W	4348 60	Felix and Scason, 1967b
11	USW G-2	36°53'22"N	116°27'35"W	5088 40	Felix and Scason, 1967b
12	USW G-3	36°49'06"N	116°28'01"W	4856 50	Felix and Scason, 1967b
13	USW GA-1	36°51'14"N	116°27'04"W	4166 90	Felix and Scason, 1967b
14	USW GA-1	36°53'28"N	116°27'51"W	5186 80	Felix and Scason, 1967b
15	USW GAU-3	36°49'04"N	116°28'00"W	4856 60	Felix and Scason, 1967b

△ PROPOSED GEOLOGIC EXPLORATORY COREHOLES

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
16	UE 25 G-7	36°44'28"N	116°28'28"W	U S DOE, 1966b
17	USW G-5	36°53'53"N	116°27'04"W	U S DOE, 1966b
18	USW G-6	36°53'22"N	116°29'35"W	U S DOE, 1966b
19	UE25 PH10 1a	36°51'15"N	116°25'47"W	U S DOE, 1966c
20	UE25 PH10 1b	36°51'15"N	116°25'47"W	U S DOE, 1966c

* Top Casing Elevation (ft)

921026125-10

1300000
1300000

1300000
1300000

1300000
1300000

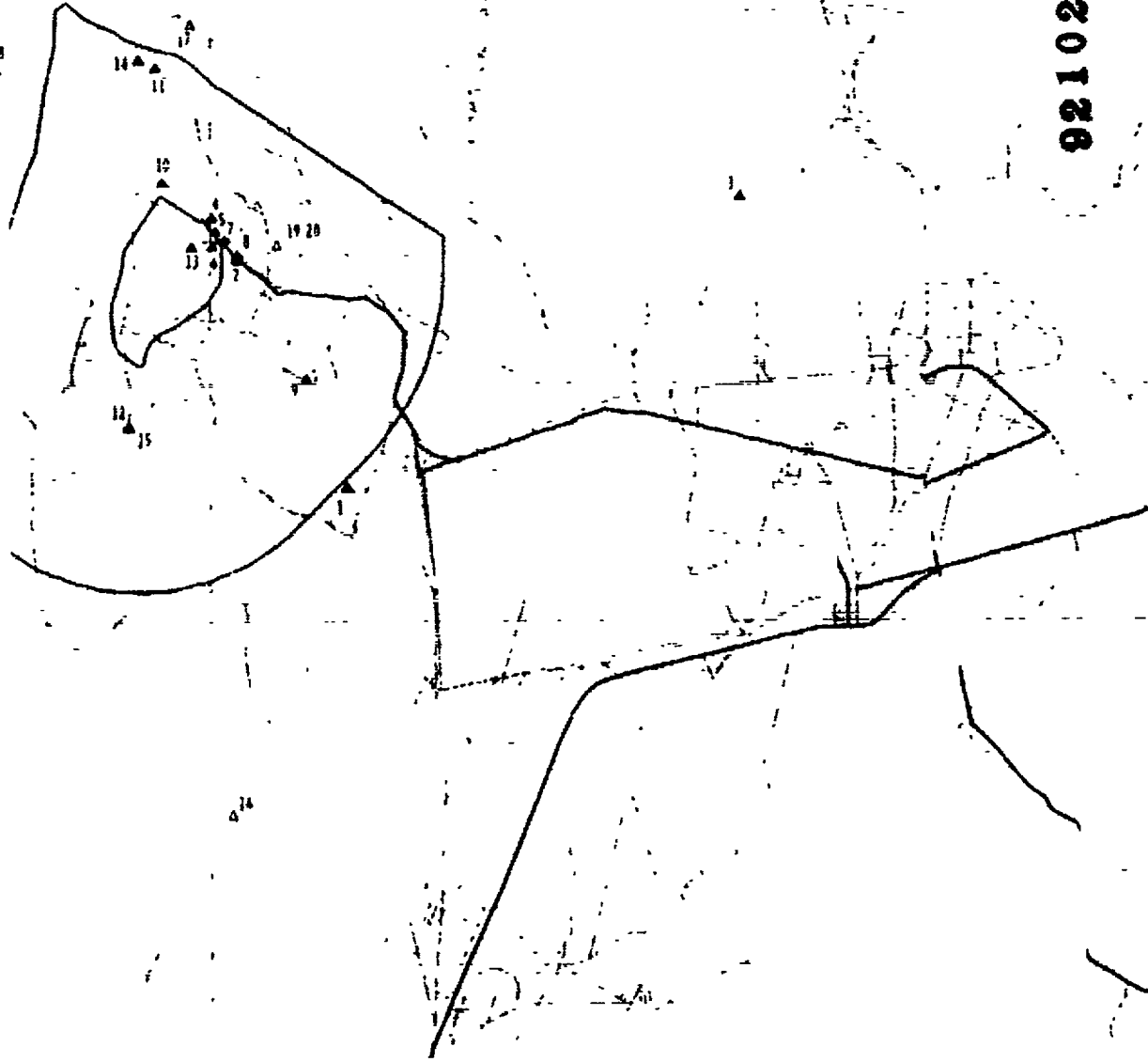
14 53' 30"

14 53' 30"

110 10' 00"

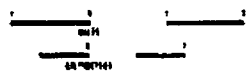
110 22' 30"

110 15' 00"



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VOLCANIC DRILLHOLES

SA3-3.0

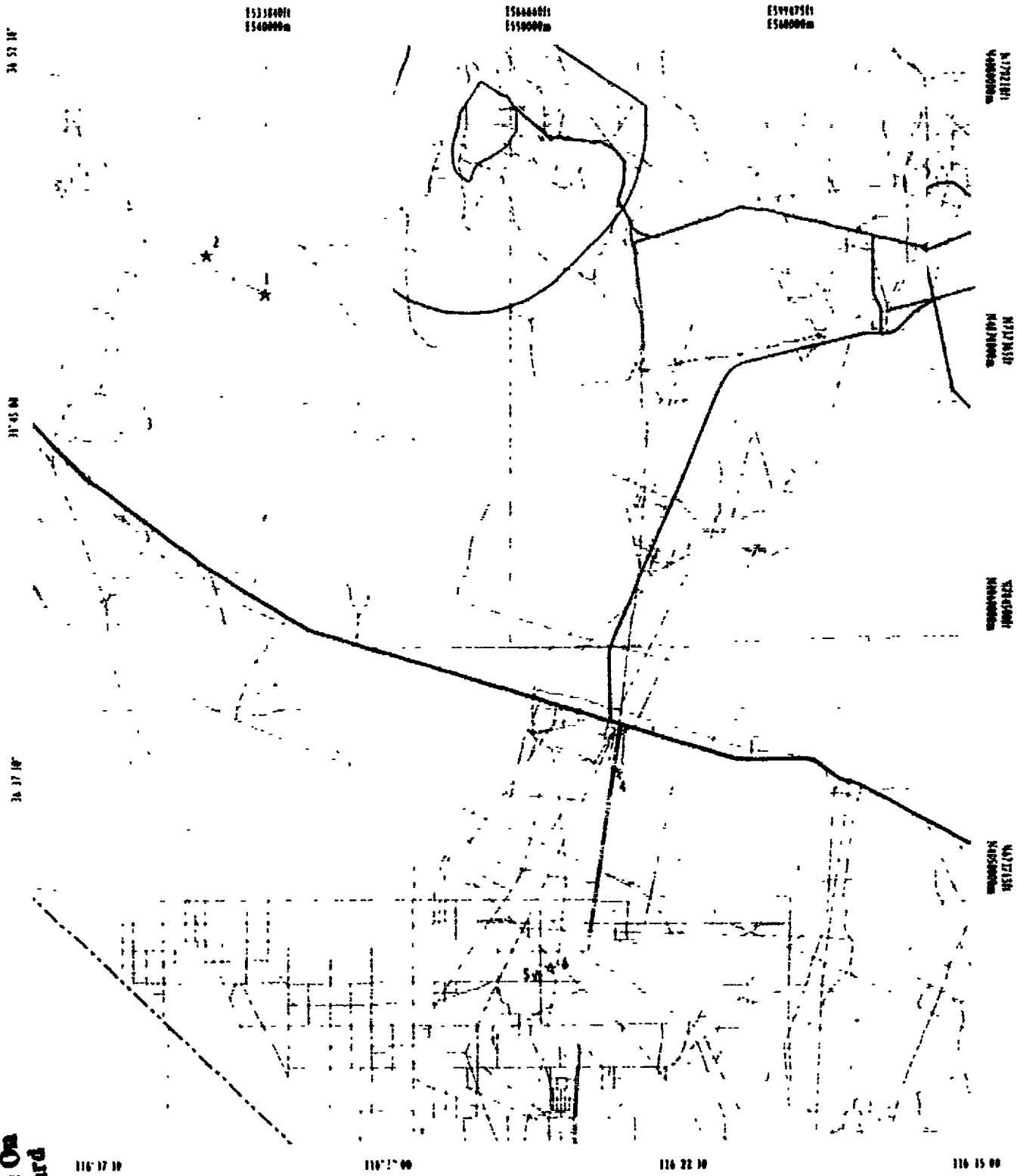
★ EXISTING VOLCANIC/HYDROLOGIC HOLES – SOURCE: Fenix and Scisson, 1986

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)
1	USW VH-1	36°47'32"N	116°33'07"W	3161.00
2	USW VH-2	36°48'21"N	116°34'37"W	3197.10

★ PROPOSED VOLCANIC HOLES

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
3	USW V-1	36°45'15"N	116°36'19"W	U S DOE, 1988b
4	USW V-2	36°37'40"N	116°24'04"W	Crowe, 1991
5	USW V-3	36°33'28"N	116°26'08"W	U S DOE, 1988c
6	USW V-4	36°33'38"N	116°25'48"W	U S DOE, 1988c

9210260125 -//



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EXPLORATORY DRILLHOLES

SAS-4.0

EXISTING REPOSITORY SURFACE FACILITIES SITE EXPLORATORY HOLES - SOURCE Fernix and Scisson, 1966

MAP DESIGNATOR ACTIVITY ID LATITUDE LONGITUDE GROUND ELEVATION (FT)

1	UE-25 RF #1	36°50'30"N	113°25'28"W	3668.90
2	UE-25 RF #10	36°51'08"N	116°25'38"W	3672.20*
3	UE-25 RF #11	36°51'12"N	116°25'33"W	3668.60*
4	UE-25 RF #2	36°50'04"N	116°25'35"W	3656.80
5	UE-25 RF #3	36°51'11"N	116°25'26"W	3657.70
6	UE-25 RF #3B	36°51'12"N	116°25'26"W	3661.10
7	UE-25 RF #4	36°50'37"N	116°25'13"W	3636.80
8	UE-25 RF #	36°50'08"N	116°26'02"W	3613.70
9	UE-25 RF #7	36°51'43"N	116°25'24"W	3756.10
10	UE-25 RF #7A	36°51'43"N	116°25'36"W	3755.90
11	UE-25 RF #8	36°51'12"N	116°25'54"W	3787.80
12	UE-25 RF #9	36°51'15"N	116°25'31"W	3674.40*

PROPOSED SYSTEMATIC DRILLING PROGRAM

13	USW SD-1	36°51'37"N	116°27'00"W	US DOE, 1966c
14	USW SD-2	36°51'34"N	116°27'33"W	US DOE, 1966c
15	USW SD-3	36°51'03"N	116°27'50"W	US DOE, 1966c
16	USW SD-4	36°51'00"N	116°27'13"W	US DOE, 1966c
17	USW SD-5	36°50'48"N	116°26'50"W	US DOE, 1966c
18	USW SD-6	36°50'38"N	116°27'50"W	US DOE, 1966c
19	USW SD-7	36°50'02"N	116°27'29"W	US DOE, 1966c
20	USW SD-8	36°50'30"N	116°26'52"W	US DOE, 1966c
21	UE-25 SD49	36°50'28"N	116°26'45"W	US DOE, 1966c
22	USW SD-10	36°50'24"N	116°26'57"W	US DOE, 1966c
23	USW SD-11	36°50'23"N	116°26'51"W	US DOE, 1966c
24	USW SD-12	36°50'16"N	116°26'48"W	US DOE, 1966c
25	UE-25 RF#6	36°51'05"N	116°25'30"W	US DOE, 1966c
26	UE-25 RF#12	36°51'01"N	116°25'40"W	US DOE, 1966c

PROPOSTD RAMP DESIGN DRILLING PROGRAM

MAP DESIGNATOR	ACTIVITY	ID	LATITUDE	LONGITUDE	SOURCE
27	UE-25 NRQ-1	36°51'10"N	116°25'40"W	US DOE, 1991c	
28	UE-25 NRQ-2	36°51'13"N	116°25'51"W	US DOE, 1991c	
29	UE-25 NRQ-3	36°51'18"N	116°26'01"W	US DOE, 1991c	
30	UE-25 NRQ-4	36°51'24"N	116°26'17"W	US DOE, 1991c	
31	UE-25 NRQ-5	36°51'34"N	116°26'44"W	US DOE, 1991c	
32	UE-25 NRQ-6	36°51'23"N	116°26'53"W	US DOE, 1991c	
33	UE-25 SRQ-1	36°49'43"N	116°26'23"W	US DOE, 1991c	
34	UE-25 SRQ-2	36°49'46"N	116°26'40"W	US DOE, 1991c	
35	USW SRQ-3	36°49'48"N	116°26'58"W	US DOE, 1991c	
36	USW SRQ-4	36°49'51"N	116°27'28"W	US DOE, 1991c	
37	USW SRQ-5	36°49'57"N	116°28'03"W	US DOE, 1991c	

Top Casing Elevation (ft)

CARD

Also Available On
Aperture Card



FORM SA 10

146465128 N
146465128 N

146465128 N
146465128 N

9210260125-12

1100000000

1100000000

HYDROLOGIC DRILLHOLES SA3-5.0

EXISTING HYDROLOGIC TEST HOLES

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	ELEVATION (FT)	SOURCE
1	UE 25 UZ #4	36°51'42"N	116°26'26"W	3936.50	Fenz and Scisson, 1987c
2	UE 25 UZ #5	36°51'41"N	116°26'26"W	3951.60	Fenz and Scisson, 1987c
3	UE-25 WT #12	36°46'56"W	116°26'16"W	3528.60	Fenz and Scisson, 1986b
4	UE-25 WT #13	36°49'43"W	116°23'51"W	3386.00	Fenz and Scisson, 1986b
5	UE 25 WT #14	36°50'32"N	116°24'35"W	3529.90	Fenz and Scisson, 1986b
6	UE 25 WT #15	36°51'16"N	116°23'39"W	3552.50	Fenz and Scisson, 1986b
7	UE-25 WT #16	36°52'29"W	116°25'34"W	3671.40	Fenz and Scisson, 1986b
8	UE-25 WT #17	36°48'22"W	116°26'26"W	3668.50	Fenz and Scisson, 1986b
9	UE 25 WT #18	36°52'07"N	116°26'42"W	4543.00	Fenz and Scisson, 1986b
10	UE-25 WT #3	36°47'57"N	116°24'58"W	3379.52	Fenz and Scisson, 1986b
11	UE 25 WT #4	36°51'40"N	116°26'03"W	3629.10	Fenz and Scisson, 1986b
12	UE-25 WT #5	36°50'34"N	116°24'47"W	3559.00	Fenz and Scisson, 1986b
13	UE-25 WT #6	36°53'40"N	116°26'48"W	4306.90	Fenz and Scisson, 1986b
14	UE-25c #1	36°49'47"N	116°25'43"W	3708.70	Fenz and Scisson, 1986b
15	UE 25c #2	36°49'45"N	116°25'43"W	3714.10	Fenz and Scisson, 1986b
16	UE 25c #3	36°49'46"N	116°25'44"W	3714.20	Fenz and Scisson, 1986b
17	UE 25a #1	36°56'29"W	116°22'26"W	3996.70	Fenz and Scisson, 1986b
18	UE-25a #2	36°56'29"W	116°22'26"W	3997.40	Fenz and Scisson, 1986b
19	USW H-1	36°51'58"N	116°27'12"W	4274.40	Fenz and Scisson, 1987a
20	USW H-3	36°49'42"N	116°28'01"W	4066.40	Fenz and Scisson, 1987a
21	USW H-4	36°50'32"N	116°26'54"W	4098.50	Fenz and Scisson, 1987a
22	USW H-5	36°51'22"N	116°27'35"W	4850.60	Fenz and Scisson, 1987a
23	USW H-6	36°50'49"N	116°26'55"W	4270.60	Fenz and Scisson, 1987a
24	USW UZ-1	36°52'08"N	116°27'39"W	4426.24	Fenz and Scisson, 1987c
25	USW UZ-13	36°48'57"N	116°28'01"W	4815.60	Fenz and Scisson, 1987c
26	USW UZ-6	36°50'14"N	116°28'02"W	4824.90	Fenz and Scisson, 1987c
27	USW UZ-6#	36°50'15"N	116°28'00"W	4849.20	Fenz and Scisson, 1987c
28	USW UZ 7	36°50'24"N	116°27'05"W	4169.30	Fenz and Scisson, 1987c
29	USW UZ 8*	36°50'24"N	116°27'14"W	4227.00	Fenz and Scisson, 1987c
30	USW WT 1	36°49'16"N	116°28'56"W	3842.46	Fenz and Scisson, 1985b
31	USW WT 10	36°46'25"N	116°29'05"W	3666.00	Fenz and Scisson, 1985b
32	USW WT 11	36°46'49"N	116°29'05"W	3690.50	Fenz and Scisson, 1985b
33	USW WT 2	36°50'23"N	116°27'18"W	4209.68	Fenz and Scisson, 1985b
34	USW WT-7	36°49'33"N	116°28'57"W	3622.20	Fenz and Scisson, 1985b
35	J 11	36°47'06"N	116°17'06"W	3445.00	Fenz and Scisson, 1987f
36	J-12	36°45'54"N	116°23'24"W	3129.80	Fenz and Scisson, 1987f
37	J-13	36°48'39"N	116°23'41"W	3317.70	Fenz and Scisson, 1987f

PROPOSED HYDROLOGIC TEST WELLS

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
38	UE 25 WT#19	36°48'17"N	116°21'34"W	U S DOE, 1986b
39	UE-25 WT#20	36°45'03"N	116°26'40"W	U S DOE, 1986b
40	UE 25 WT#24	36°53'01"N	116°26'34"W	U S DOE, 1986c
41	UE25 UZ#9	36°50'22"N	116°26'43"W	U S DOE, 1986c
42	UE25 UZ#9a	36°50'22"N	116°26'43"W	U S DOE, 1986c
43	UE25 UZ#9b	36°50'22"N	116°26'42"W	U S DOE, 1986c
44	US25 UZP#1,2	36°45'23"N	116°25'50"W	U S DOE, 1986c
45	USW H-7	36°50'49"N	116°28'18"W	U S DOE, 1986c
46	USW UZ-10	36°46'39"N	116°28'24"W	U S DOE, 1986c
47	USW UZ-11	36°49'51"N	116°28'24"W	U S DOE, 1986c
48	USW UZ-12	36°49'51"N	116°28'30"W	U S DOE, 1986c
49	USW UZ-14	36°52'08"N	116°27'39"W	U S DOE, 1986c
50	USW UZ-2	36°50'14"N	116°28'04"W	Holmes & Narver, 1987b
51	USW UZ-3	36°50'13"N	116°28'04"W	Holmes & Narver, 1987b
52	USW UZ 8*	36°50'34"N	116°27'14"W	Holmes & Narver, 1987a
53	USW WT-21	36°50'17"N	116°29'41"W	U S DOE, 1986b
54	USW WT 22	36°53'23"N	116°34'11"W	U S DOE, 1986b
55	USW WT 23	36°52'08"N	116°27'39"W	U S DOE, 1986c
56	USW WT 8	36°50'30"N	116°28'18"W	U S DOE, 1986c
57	USW WT 9	36°51'50"N	116°28'11"W	U S DOE, 1986b
58	UE 25 FMR1	36°51'20"N	116°23'15"W	U S DOE, 1986c
59	UE 25 FMR2	36°49'37"N	116°23'36"W	U S DOE, 1986c
60	UE 25 FMR3	36°42'08"N	116°25'12"W	U S DOE, 1986c

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NATURAL INFILTRATION MONITORING DRILLHOLES

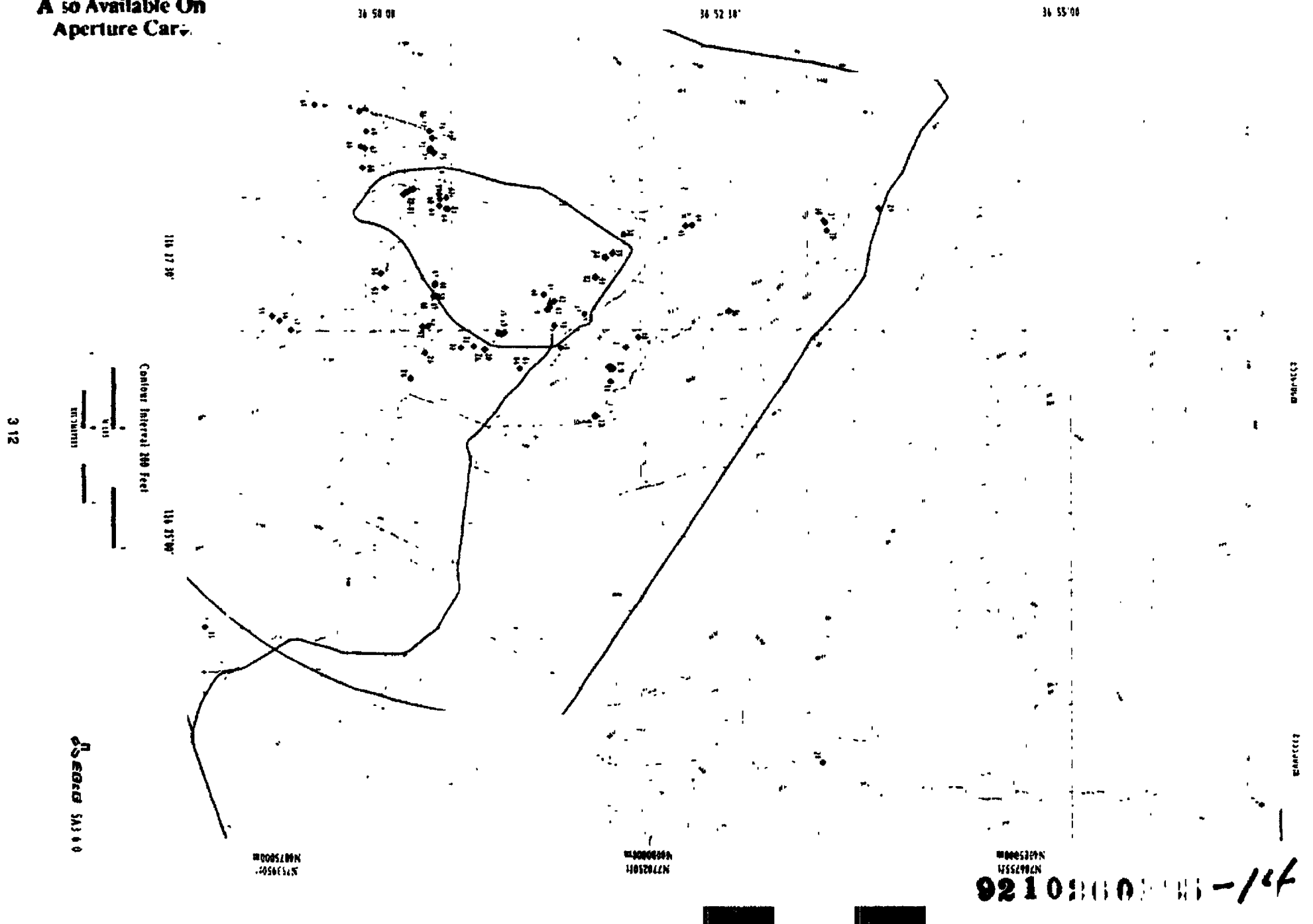
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◆ EXISTING NATURAL INFILTRATION MONITORING

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)	SOURCE
1	UE-25 UZ-N #1	36°51'48"N	116°28'37"W	3995 10	Fenn & Scason, 1987d
2	UE-25 UZ-N #2	36°51'41"N	116°28'28"W	3947.20	Fenn & Scason, 1987d
3	UE-25 UZ-N #3	36°51'41"N	116°28'26"W	3940.80	Fenn & Scason, 1987d
4	UE-25 UZ-N #4	36°51'42"N	116°28'26"W	3942.40	Fenn & Scason, 1987d
5	UE-25 UZ-N #5	36°51'42"N	116°28'26"W	3942.90	Fenn & Scason, 1987d
6	UE-25 UZ-N #6	36°51'42"N	116°28'26"W	3943.00	Fenn & Scason, 1987d
7	UE-25 UZ-N #7	36°51'42"N	116°28'26"W	3943.80	Fenn & Scason, 1987d
8	UE-25 UZ-N #8	36°51'43"N	116°28'26"W	3943.80	Fenn & Scason, 1987d
9	UE-25 UZ-N #9	36°51'43"N	116°28'26"W	3941.20	Fenn & Scason, 1987d
10	UE-25 UZ-N #10	36°51'43"N	116°28'26"W	3941.20	Fenn & Scason, 1987d
11	UE-25 UZ-N #11	36°51'42"N	116°28'26"W	3938.80	Fenn & Scason, 1987d
12	UE-25 UZ-N #12	36°51'42"N	116°28'26"W	3821.30	Fenn & Scason, 1987d
13	UE-25 UZ-N #13	36°51'35"N	116°28'00"W	3823.90	Fenn & Scason, 1987d
14	UE-25 UZ-N #14	36°51'20"N	116°28'00"W	4018.30	Fenn & Scason, 1987d
15	UE-25 UZ-N #18	36°50'53"N	116°28'46"W	4024.90	Fenn & Scason, 1987d
16	UE-25 UZ-N #19	36°50'53"N	116°28'45"W	4027.20	Fenn & Scason, 1987d
17	UE-25 UZ-N #20	36°50'54"N	116°28'45"W	4027.50	Fenn & Scason, 1987d
18	UE-25 UZ-N #22	36°50'55"N	116°28'45"W	4028.80	Fenn & Scason, 1987d
19	UE-25 UZ-N #23	36°50'55"N	116°28'48"W	4043.10	Fenn & Scason, 1987d
20	UE-25 UZ-N #28	36°50'47"N	116°28'36"W	3958.10	Fenn & Scason, 1987d
21	UE-25 UZ-N #29	36°50'42"N	116°28'36"W	3972.90	Fenn & Scason, 1987d
22	UE-25 UZ-N #30	36°50'38"N	116°28'37"W	3959.80	Fenn & Scason, 1987d
23	UE-25 UZ-N #58	36°50'26" N	116°28'31"W	3892.10	Fenn & Scason, 1987d
24	UE-25 UZ-N #60	36°49'44"N	116°28'08"W	3337.10	Fenn & Scason, 1987d
25	UE-25 UZ-N #66	36°50'47"N	116°28'35"W	3858.10	Fenn & Scason, 1987d
26	UE-25 UZ-N #91	36°50'24"N	116°28'29"W	3940.90	Fenn & Scason, 1987d
27	UE-29 UZ-N #91	36°53'14"N	116°22'51"W	3669.20	Fenn & Scason, 1987d
28	USW UZ-N#11	36°53'40"N	116°27'53"W	-----	RSN, 1992a
29	USW UZ-N#15	36°53'15"N	116°27'47"W	-----	RSN, 1992a
30	USW UZ-N#16	36°53'16"N	116°27'46"W	-----	RSN, 1992a
31	USW UZ-N#17	36°53'16"N	116°27'41"W	-----	RSN, 1992a
32	USW UZ-N#24	36°51'40"N	116°27'16"W	4228.60	Fenn & Scason, 1987d
33	USW UZ-N#25	36°51'40"N	116°27'27"W	4334.70	Fenn & Scason, 1987d
34	USW UZ-N#26	36°51'40"N	116°27'20"W	4384.10	Fenn & Scason, 1987d
35	USW UZ-N#26	36°52'34"N	116°28'57"W	4642.00	Fenn & Scason, 1987d
36	USW UZ-N#36	36°51'30"N	116°28'50"W	-----	RSN, 1992a
37	USW UZ-N#40	36°51'17"N	116°28'50"W	4079.40	Fenn & Scason, 1987d
38	USW UZ-N#41	36°51'14"N	116°28'50"W	4117.60	Fenn & Scason, 1987d
39	USW UZ-N#41	36°51'13"N	116°27'00"W	4179.10	Fenn & Scason, 1987d
40	USW UZ-N#2	36°51'13"N	116°27'00"W	4179.10	Fenn & Scason, 1987d
41	USW UZ-N#3	36°51'16"N	116°27'02"W	4149.40	Fenn & Scason, 1987d
42	USW UZ-N#4	36°51'17"N	116°27'03"W	4161.50	Fenn & Scason, 1987d
43	USW UZ-N#4	36°51'15"N	116°27'00"W	4129.90	Fenn & Scason, 1987d
44	USW UZ-N#6	36°52'18"N	116°27'45"W	4500.50	Fenn & Scason, 1987d
45	USW UZ-N#7	36°53'15"N	116°27'44"W	4480.40	Fenn & Scason, 1987d
46	USW UZ-N#6	36°50'24"N	116°27'12"W	4211.00	Fenn & Scason, 1987d
47	USW UZ-N#9	36°50'25"N	116°27'13"W	4228.50	Fenn & Scason, 1987d
48	USW UZ-N#6	36°50'24"N	116°27'06"W	4173.20	Fenn & Scason, 1987d
49	USW UZ-N#5	36°50'25"N	116°27'06"W	4169.00	Fenn & Scason, 1987d
50	USW UZ-N#2	36°50'25"N	116°27'06"W	4169.00	Fenn & Scason, 1987d
51	USW UZ-N#5	36°50'21"N	116°28'48"W	4172.20	Fenn & Scason, 1987d
52	USW UZ-N#5	36°50'21"N	116°28'50"W	-----	RSN, 1992a
53	USW UZ-N#5	36°50'03"N	116°27'11"W	4371.90	Fenn & Scason, 1987d
54	USW UZ-N#9	36°50'01"N	116°27'19"W	4355.60	Fenn & Scason, 1987d
55	USW UZ-N#7	36°49'13"N	116°28'55"W	3963.20	Fenn & Scason, 1987d
56	USW UZ-N#6	36°49'16"N	116°28'53"W	3962.70	Fenn & Scason, 1987d
57	USW UZ-N#9	36°49'21"N	116°28'48"W	3916.20	Fenn & Scason, 1987d
58	USW UZ-N#70	36°51'49"N	116°27'40"W	4542.10	Fenn & Scason, 1987d
59	USW UZ-N#71	36°50'26"N	116°28'01"W	4924.90	Fenn & Scason, 1987d
60	USW UZ-N#72	36°50'27"N	116°27'59"W	4688.20	Fenn & Scason, 1987d
61	USW UZ-N#73	36°50'27"N	116°27'55"W	4666.60	Fenn & Scason, 1987d
62	USW UZ-N#74	36°50'30"N	116°28'00"W	4903.70	Fenn & Scason, 1987d
63	USW UZ-N#75	36°50'31"N	116°27'53"W	4799.00	Fenn & Scason, 1987d
64	USW UZ-N#76	36°50'30"N	116°27'54"W	4958.00	Fenn & Scason, 1987d
65	USW UZ-N#77	36°49'32"N	116°28'51"W	3900.50	Fenn & Scason, 1987d
66	USW UZ-N#78	36°49'52"N	116°28'28"W	4182.20	Fenn & Scason, 1987d
67	USW UZ-N#79	36°48'52"N	116°28'27"W	4154.90	Fenn & Scason, 1987d
68	USW UZ-N#80	36°48'53"N	116°28'16"W	4332.20	Fenn & Scason, 1987d
69	USW UZ-N#81	36°48'53"N	116°28'38"W	4095.20	Fenn & Scason, 1987d
70	USW UZ-N#82	36°48'52"N	116°28'47"W	3974.60	Fenn & Scason, 1987d
71	USW UZ-N#83	36°50'23"N	116°28'27"W	4157.40	Fenn & Scason, 1987d
72	USW UZ-N#84	36°50'23"N	116°28'32"W	4111.60	Fenn & Scason, 1987d
73	USW UZ-N#86	36°50'22"N	116°28'25"W	4111.60	Fenn & Scason, 1987d
74	USW UZ-N#87	36°50'23"N	116°28'32"W	4111.60	Fenn & Scason, 1987d
75	USW UZ-N#88	36°50'24"N	116°28'24"W	4201.70	Fenn & Scason, 1987d
76	USW UZ-N#89	36°50'22"N	116°28'36"W	4089.60	Fenn & Scason, 1987d
77	USW UZ-N#90	36°50'22"N	116°28'36"W	4089.60	Fenn & Scason, 1987d
78	USW UZ-N#93	36°50'12"N	116°28'03"W	4924.00	Fenn & Scason, 1987d
79	USW UZ-N#4	36°50'14"N	116°28'04"W	4928.10	Fenn & Scason, 1987d
80	USW UZ-N#5	36°50'15"N	116°28'04"W	4928.10	Fenn & Scason, 1987d
81	USW UZ-N#6	36°51'11" N	116°28'02"W	4903.40	Fenn & Scason, 1987d
82	USW UZ-N#6	36°51'31" N	116°27'16"W	4223.10	Fenn & Scason, 1987d
83	UE-25 UZ-N#C #1	36°51'02" N	116°28'26"W	3928.50	Fenn & Scason, 1987d
84	UE-25 UZ-N#C #2	36°51'02" N	116°28'26"W	3928.40	Fenn & Scason, 1987d

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GEOPHYSICAL DRILLHOLES IN THE NEVADA TEST SITE

SA3-7.0

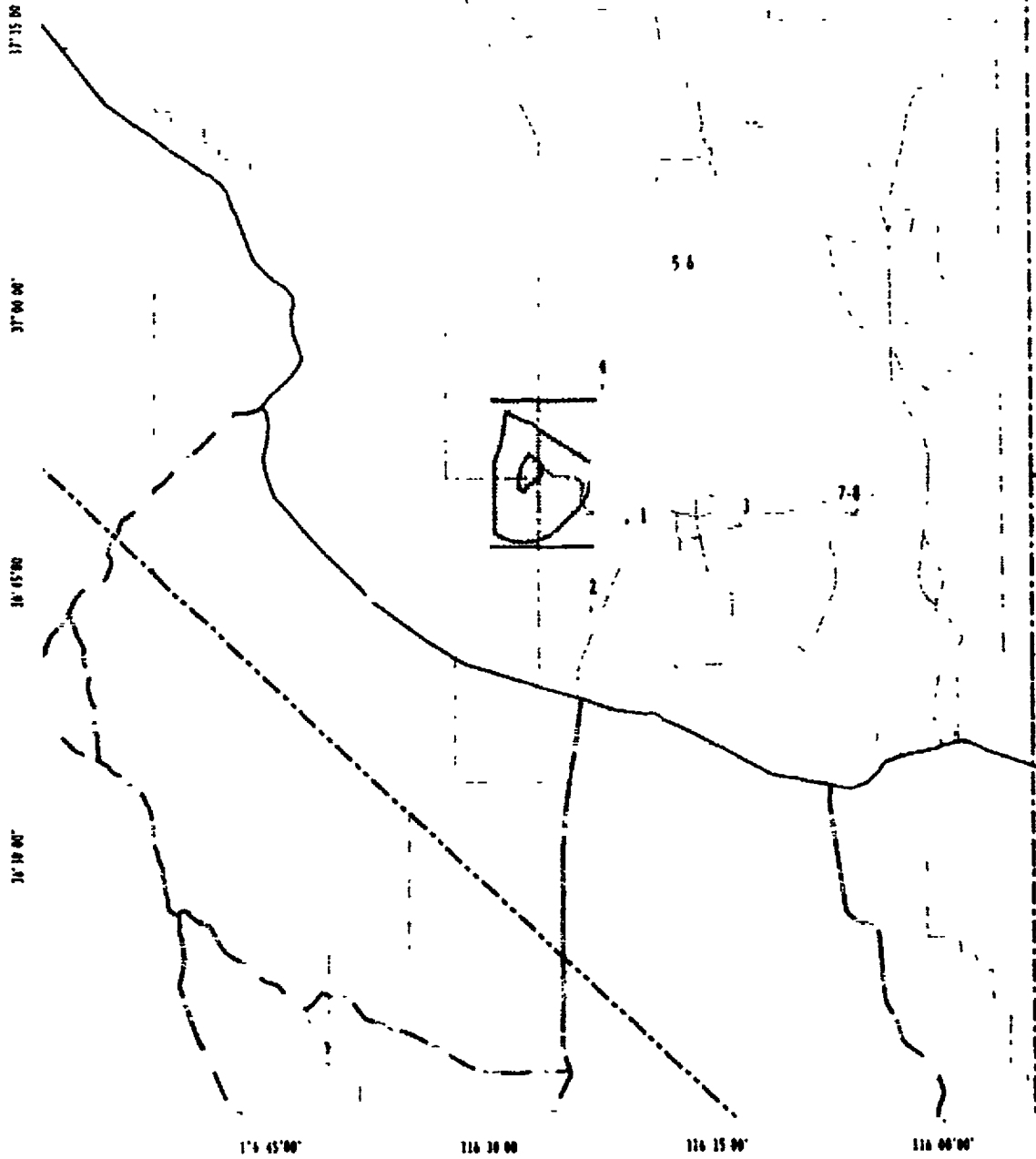
+ EXISTING SEISMIC HOLES - SOURCE Fenix and Scisson, 1987e

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)
1	U 25 Seismic #20	36°48'09"N	116°20'54"W	3357 00
2	U 25 Seismic #22	36°43'24"N	116°23'22"W	2948 60
3	U-26 Seismic #1	36°47'57"N	116°13'24"W	3848 40
4	U-29 Seismic #1	36°55'31"N	116°22'31"W	3878 00
5	U 30 Seismic #1	37°03'00"N	116°18'27"W	4753 00
6	U 30 Seismic #2	37°03'00"N	116°18'27"W	4753 70
7	U 5 Seismic #1	36°48'29"N	116°05'33"W	3868 70
8	U 5 Seismic #2	36°48'29"N	116°05'33"W	3867 70

Note Shaded area is shown enlarged on Map SA3-8 0

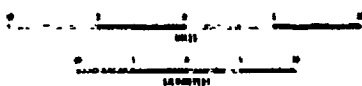
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MAP 1
116° 00' 00"

MAP 2
116° 15' 00"



SA 179

GEOPHYSICAL DRILLHOLES IN THE NEAR-FIELD STUDY AREA

SA3-8.0

EXISTING SEISMIC HOLES - SOURCE: Fenix and Scisson, 1987a

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)
1	U-25 Seismic #	36°53'23"N	116°27'36"W	—
2	U-25 Seismic #2	36°53'25"N	116°27'37"W	5106.76
3	U-25 Seismic #3	36°53'27"N	116°27'38"W	5110.62
4	U-25 Seismic #4	36°53'29"N	116°27'39"W	5113.46
5	U-25 Seismic #5	36°53'30"N	116°27'40"W	5120.53
6	U-25 Seismic #6	36°53'32"N	116°27'42"W	5084.98
7	U-25 Seismic #7	36°53'34"N	116°27'43"W	5141.04
8	U-25 Seismic #8	36°53'35"N	116°27'44"W	5152.83
9	U-25 Seismic #9	36°53'37"N	116°27'45"W	5161.61
10	U-25 Seismic #10	36°53'39"N	116°27'46"W	5171.03
11	U-25 Seismic #11	36°53'41"N	116°27'47"W	5179.24
12	U-25 Seismic #12	36°53'42"N	116°27'48"W	5185.31
13	U-25 Seismic #13	36°53'22"N	116°27'35"W	5096.04
14	U-25 Seismic #14	36°53'18"N	116°27'32"W	5076.04
15	U-25 Seismic #15	36°53'16"N	116°27'31"W	5064.18
16	U-25 Seismic #16	36°53'15"N	116°27'30"W	5051.55
17	U-25 Seismic #17	36°53'13"N	116°27'29"W	5040.20
18	U-25 Seismic #18	36°53'11"N	116°27'28"W	5027.69
19	U-25 Seismic #19	36°53'09"N	116°27'26"W	5017.53
20	U-25 #1	36°50'42"N	116°26'35"W	4256.61
21	U-25 #2	36°50'40"N	116°26'23"W	4316.23
22	U-25 #4	36°50'40"N	116°26'05"W	3800.35
23	U-25 #5	36°50'40"N	116°26'05"W	3799.45
24	U-25 #6	36°50'40"N	116°26'57"W	3783.18
25	U-25 #7	36°50'39"N	116°26'57"W	3782.82
26	U-25 #8	36°50'39"N	116°26'47"W	3757.32
27	U-25 #9	36°50'39"N	116°26'47"W	3755.42
28	U-25 #10	36°50'38"N	116°26'37"W	3723.97
29	U-25 #11	36°50'38"N	116°26'37"W	3724.08
30	U-25 #12	36°50'38"N	116°26'28"W	3686.00
31	U-25 #13	36°50'37"N	116°26'28"W	3667.62
32	U-25 #14	36°50'37"N	116°26'18"W	3653.14
33	U-25 #15	36°50'37"N	116°26'18"W	3653.66
34	U-25 #16	36°50'36"N	116°26'09"W	3620.00
35	U-25 #3	36°50'36"N	116°26'09"W	3619.57
36	U-25 #17	36°50'36"N	116°24'54"W	3575.59
37	U-25 #18	36°50'35"N	116°24'41"W	3544.71
38	U-25 #19	36°50'33"N	116°24'22"W	3488.78
39	U-25 #20	36°50'32"N	116°24'11"W	3464.76
40	U-25 #21	36°50'32"N	116°23'54"W	3461.40
41	U-25 Seismic #21	36°48'07"N	116°25'46"W	3526.10
42	U-25 Seismic #23	36°47'09"N	116°23'33"W	3215.30
43	U-25 Seismic #24	36°51'45"N	116°23'24"W	3554.60

PROPOSED VERTICAL SEISMIC PROFILE HOLES



MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
44	UE25 VSP 2 (UZ-16)	36°50'20"N	116°26'40"W	USGS, 1991a
45	UE25 VSP 1 (UZ-15)	36°50'14"N	116°28'02"W	U S DOE, 1991a

36 32 30'

N 37° 02' 10" E
1:42 5000m

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36 50 00'

N 37° 02' 10" E
1:42 5000m

36 47 30'

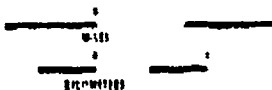
116 30 00'

116 27 30'

116 25 00'



Contour Interval 200 feet



ROLO SA3 89

LOGGING FEASIBILITY TEST HOLES

SA3-9.0

EXISTING LOGGING FEASIBILITY TEST HOLES - SOURCE: Fenix and Scisson, 1987

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)
1	U 25 TC #1	36°49'40"N	116°16'51"W	3753.6
2	U 25 TC #2	36°49'40"N	116°16'51"W	3753.6
3	U 25 TC #3	36°49'43"N	116°16'49"W	3762.9
4	U 25 TC #4	36°49'44"N	116°16'49"W	3764.30
5	U 25 TC #1	36°49'43"N	116°16'44"W	3789.80
6	U 25 TC #2	36°49'43"N	116°16'44"W	3789.80
7	U 25 TC #3	36°49'43"N	116°16'45"W	3789.70
8	U 25 TC #4	36°49'43"N	116°16'45"W	3790.00

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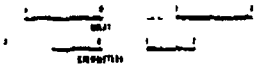
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ED:G SA3 90

TRENCHES

SA3-10.0



EXISTING TRENCHES

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
1	CFS(E)	36°43'42"N	116°34'06"W	Yount, 1992a
2	CFS(W)	36°43'48"N	116°34'18"W	Yount, 1992a
3	F FLAT #1	36°45'20"N	115°58'50"W	Yount, 1992a
4	F FLAT #2	36°45'37"N	115°59'40"W	Yount, 1992a
5	ROCK V #1	36°43'18"N	116°07'48"W	Yount, 1991b
6	ROCK V #2	36°43'30"N	116°07'24"W	Yount, 1991b
7	TRBF-1	36°52'18"N	116°45'08"W	U S DOE, 1988d
8	TRBF-2	36°52'00"N	116°30'41"W	U S DOE, 1988d
9	TRCF2	36°47'01"N	116°30'44"W	Swadley et al., 1983
10	TRCF3	36°46'56"N	116°30'44"W	Swadley et al., 1983



PROPOSED TRENCHES - SOURCE: U S. DOE, 1988b

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE
11	Bare Mountain 1	36°52'01"N	116°38'01"W
12	Bare Mountain 2	36°46'33"N	116°37'36"W

Note: Centerpoint used from trench locations. Orientation of trenches is not identified. Shaded area is shown enlarged on Map SA3-11.0

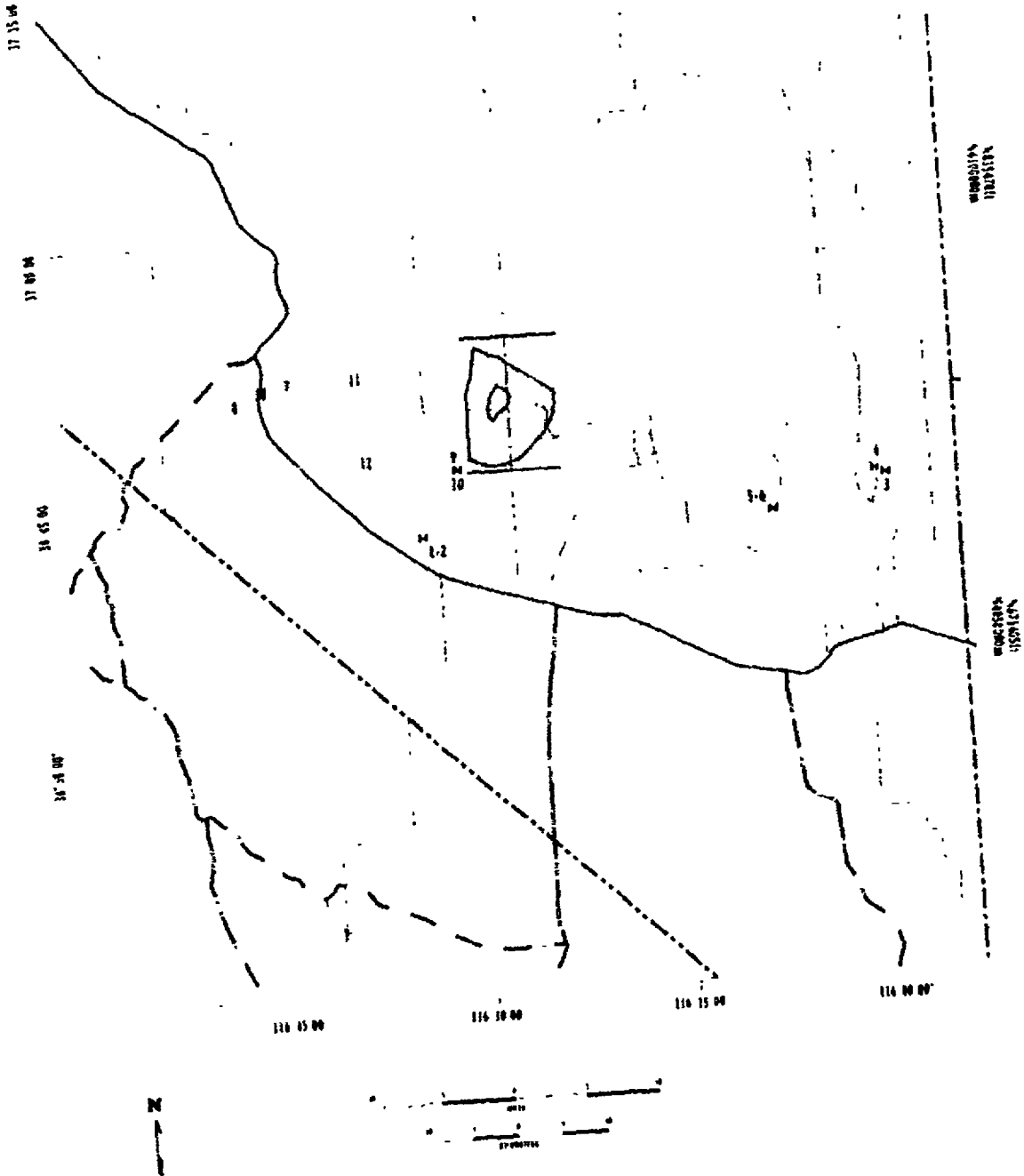
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E7310000F
E6200000m

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NEAR-FIELD STUDY AREA TRENCHES SA3-11.0



EXISTING TRENCHES

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
1	SPYW 1	36°53'20"N	116°28'16"W	Taylor 1986
2	SPFW 17	36°51'43"N	116°27'23"W	Taylor 1986
	SPFW 18	36°51'25"N	116°23'28"W	Taylor 1986
4	SPFW 19	36°51'30"N	116°23'38"W	Taylor 1986
5	SPFW 3	36°49'14"N	116°23'49"W	Taylor 1986
6	SPFW 4	36°49'09"N	116°23'45"W	Taylor, 1986
7	SPFW 5	36°48'55"N	116°23'40"W	Taylor, 1986
8	SPFW 7	36°48'20"N	116°23'30"W	Taylor 1986
9	SPYW 1	36°53'38"N	116°26'45"W	Taylor 1986
10	SPYW 12	36°53'31"N	116°26'24"W	Taylor 1986
11	SPYW 13	36°53'23"N	116°26'14"W	Taylor 1986
12	SPYW 14	36°54'09"N	116°27'29"W	Taylor 1986
13	SPYW 15	36°51'18"N	116°27'41"W	Taylor 1986
14	SPYW 16	36°51'31"N	116°26'48"W	Taylor 1986
15	SPYW 2	36°51'15"N	116°25'30"W	Taylor 1986
16	SPYW 20	36°54'11"N	116°27'34"W	Taylor 1986
17	SPYW 12	36°52'48"N	116°25'18"W	Taylor 1986
18	SPYW 6	36°52'20"N	116°24'56"W	Taylor 1986
19	SPYW 8	36°52'50"N	116°25'08"W	Taylor 1986
20	SPYW 9	36°52'45"N	116°24'54"W	Taylor 1986
21	TR10A	36°50'42"N	116°28'37"W	U.S. DOE, 1988d
22	TR11	36°54'00"N	116°27'20"W	U.S. DOE 1988d
23	TR12	36°53'15"N	116°27'41"W	U.S. DOE, 1988c
24	TR13	36°54'05"N	116°27'48"W	U.S. DOE, 1988d
25	TR14	36°51'10"N	116°25'48"W	Candellana, 1992
26	TR14A	36°51'17"N	116°25'48"W	U.S. DOE, 1988d
27	TR14B	36°51'36"N	116°25'50"W	U.S. DOE 1988d
28	TR14C	36°51'04"N	116°25'49"W	U.S. DOE, 1988d
29	TR14D	36°51'06"N	116°25'49"W	U.S. DOE, 1988d
30	TR16	36°49'14"N	116°25'08"W	U.S. DOE 1988d
31	TR16B	36°49'00"N	116°25'12"W	U.S. DOE 1988d
32	TR17	36°49'37"N	116°25'24"W	U.S. DOE, 1988d
33	TR2	36°49'55"N	116°27'15"W	U.S. DOE 1988d
34	TR4	36°50'52"N	116°27'10"W	U.S. DOE 1988d
35	TR5	36°49'14"N	116°27'19"W	U.S. DOE 1988d
36	TR8	36°48'34"N	116°28'40"W	U.S. DOE, 1988d
37	TR9	36°49'53"N	116°27'22"W	U.S. DOE, 1988d
38	TR4 2	36°51'34"N	116°25'43"W	Candellana 1992
39	TRCF 1	36°48'13"N	116°29'53"W	U.S. DOE 1988d
40	TRENCH A B C D	36°50'15"N	116°27'30"W	U.S. DOE, 1988d
41	TR10B	36°50'54"N	116°28'27"W	Swadley et al. 1984



PROPOSED TRENCHES - SOURCE: USGS, 1991b

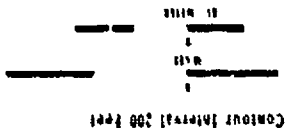
MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
42	TRA 1	36°51'37"N	116°25'43"W	Candellana 1992
43	MWV 11	36°51'15"N	116°25'25"W	USGS 1991b
44	MWV 12	36°51'24"N	116°24'47"W	USGS 1991b

Note: Centerpoints used for trench locations. Orientation of trenches is not identified. The SP trenches were excavated for soil profile analysis.

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36 59 10

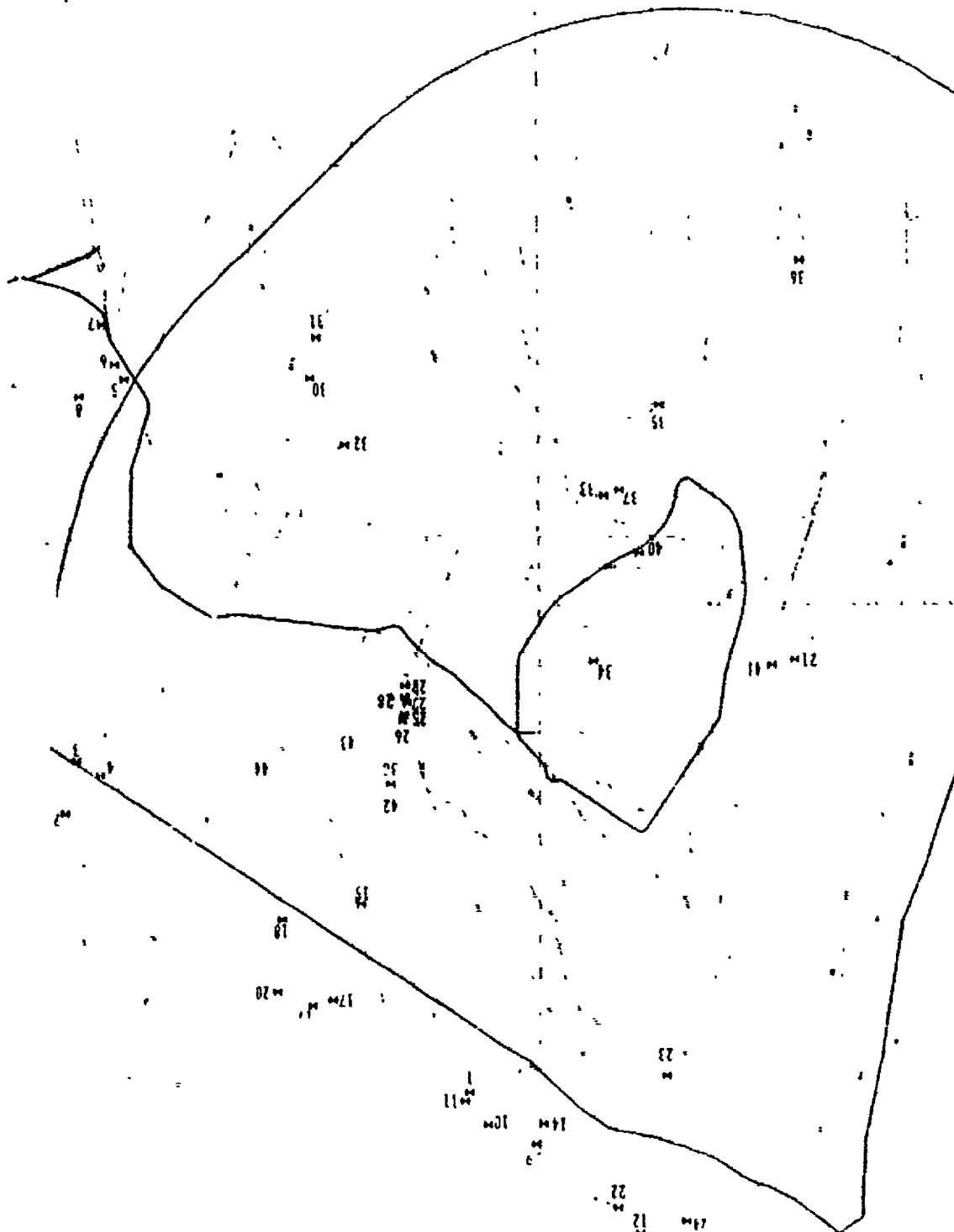
36 52 30

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36 52 30
36 59 10



PITS
SA3-12.0

● EXISTING PITS - SOURCE Reheis, 1986

MAP DESIGNATION	ACTIVITY ID	LATITUDE	LONGITUDE
1	P1	30°52'04"N	116°37'42"W
2	P2	30°51'31"N	116°38'16"W
3	P3	30°48'28"N	116°37'32"W
4	P4	30°47'19"N	116°37'40"W
5	P5	30°47'58"N	116°37'31"W

Note Shaded area is shown enlarged on Map SA3 13 0

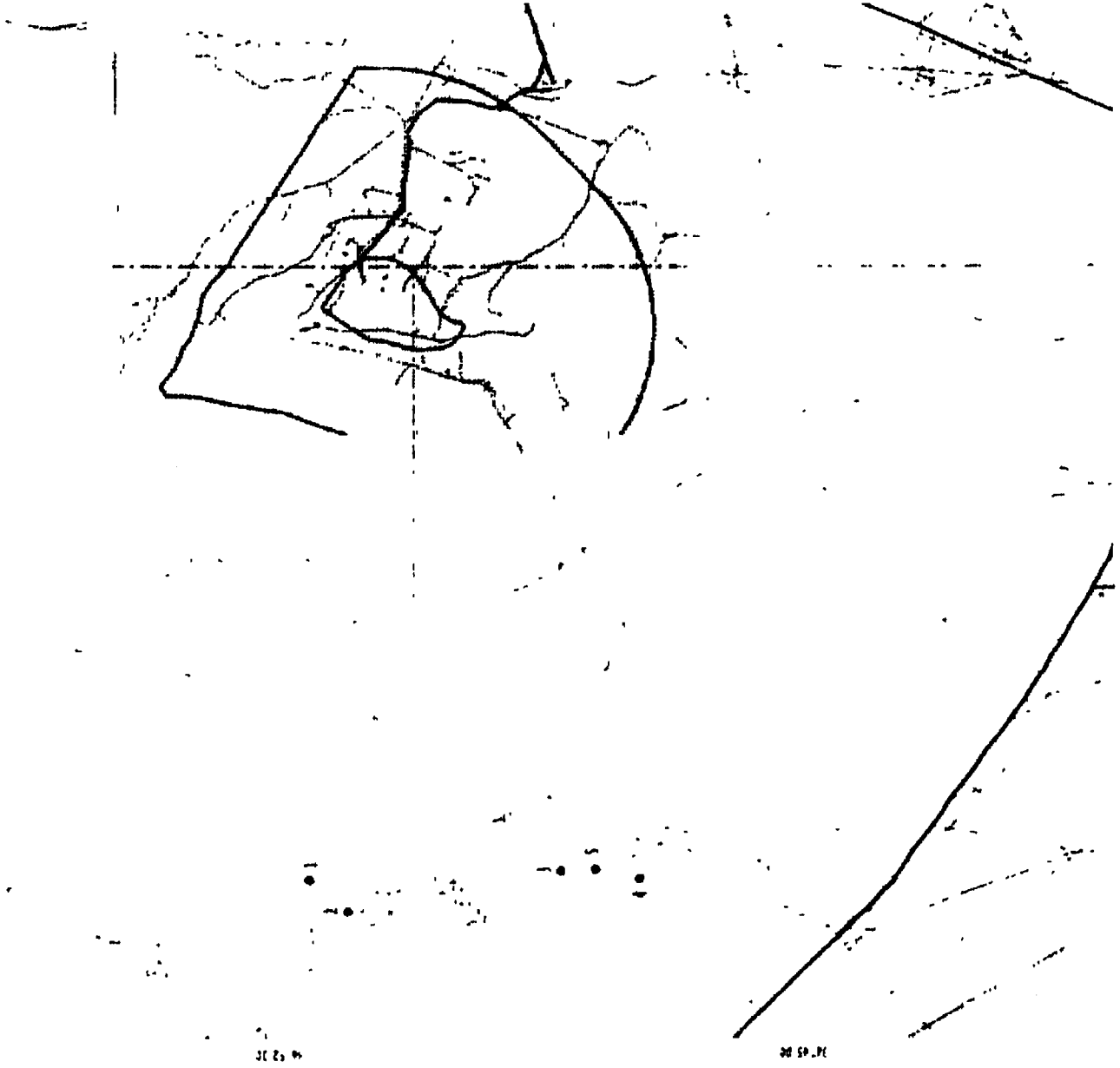
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EXISTING PITS AND GEOLOGIC PAVEMENTS

SA3-13.0

● EXISTING PITS

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	ELEVATION	SOURCE
1	TEST PIT #1	36°48'21"N	116°24'44"W	3415	Holmes & Narver 1987c
2	TEST PIT #2	36°48'22"N	116°24'44"W	3413	Holmes & Narver 1987c
3	TEST PIT #3	36°47'55"N	116°24'58"W	3371	Holmes & Narver 1987c
4	NRSF TP 1	36°51'07"N	116°25'41"W	3729	RSN, 1992b
5	NRSF TP 2	36°51'09"N	116°25'40"W	3722	RSN, 1992b
6	NRSF TP 3	36°51'09"N	116°25'40"W	---	RSN, 1992b
7	NRSF TP 4	36°51'09"N	116°25'39"W	3702	RSN, 1992b
8	NRSF TP 5	36°51'10"N	116°25'39"W	3708	RSN, 1992b
9	NRSF TP 6	36°51'11"N	116°25'39"W	3703	RSN, 1992b
10	NRSF TP 7	36°51'10"N	116°25'38"W	3690	RSN, 1992b
11	NRSF TP 8	36°51'11"N	116°25'38"W	3689	RSN, 1992b
12	NRSF TP 9	36°51'11"N	116°25'38"W	3700	RSN, 1992b
13	NRSF TP-10	36°51'12"N	116°25'38"W	3694	RSN, 1992b
14	NRSF TP-11	36°51'12"N	116°25'38"W	3692	RSN, 1992b
15	NRSF TP-13	36°51'13"N	116°25'37"W	---	RSN, 1992b
16	NRSF TP-14	36°51'12"N	116°25'38"W	3690	RSN, 1992b
17	NRSF TP 15	36°51'14"N	116°25'38"W	---	RSN, 1992b
18	NRSF TP-16	36°51'13"N	116°25'35"W	3678	RSN, 1992b
19	NRSF TP 17	36°51'15"N	116°25'35"W	---	RSN, 1992b
20	NRSF TP 18	36°51'14"N	116°25'34"W	---	RSN, 1992b
21	NRSF TP 19	36°51'12"N	116°25'32"W	3665	RSN, 1992b
22	NRSF TP 20	36°51'11"N	116°25'33"W	3665	RSN, 1992b
23	NRSF TP 21	36°51'11"N	116°25'35"W	3671	RSN, 1992b
24	NRSF TP-22	36°51'11"N	116°25'35"W	3572	RSN, 1992b
25	NRSF TP 23	36°51'10"N	116°25'34"W	3668	RSN, 1992b
26	NRSF TP 24	36°51'08"N	116°25'35"W	3669	RSN, 1992b
27	NRSF TP 25	36°51'07"N	116°25'34"W	3659	RSN, 1992b
28	NRSF TP 26	36°51'09"N	116°25'38"W	---	RSN, 1992b
29	NRSF TP 27	36°51'08"N	116°25'36"W	3670	RSN, 1992b
30	NRSF TP 27b	36°51'08"N	116°25'35"W	3664	RSN, 1992b
31	NRSF TP 28	36°51'08"N	116°25'35"W	3664	RSN, 1992b
32	NRSF TP 29	36°51'07"N	116°25'38"W	3669	RSN, 1992b
33	NRSF TP 30	36°51'07"N	116°25'37"W	3673	RSN, 1992b
34	NRSF TP 31	36°51'08"N	116°25'38"W	---	RSN, 1992b
35	NRSF TP 32	36°51'08"N	116°25'38"W	---	RSN, 1992b

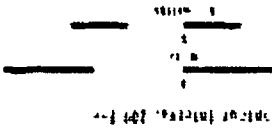
▼ EXISTING PAVEMENTS - SOURCE: Barton, 1992

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE
36	Pavement 100	36°51'09"N	116°27'18"W
37	Pavement 200	36°51'24"N	116°27'14"W
38	Pavement 300	36°51'24"N	116°27'13"W
39	Pavement 400	36°47'11"N	116°24'58"W
40	Pavement 500	36°51'00"N	116°28'38"W
41	Pavement 600	36°52'04"N	116°27'24"W
42	Pavement 1000	36°47'53"N	116°24'48"W

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PROPOSED PITS

SA3-14.0

PROPOSED PITS

MAP

DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
1	MWV P1	36°51'08"N	116°25'28"W	USGS 1991b
2	MWV P2	36°51'05"N	116°25'16"W	USGS 1991b
3	MWV P3	36°52'57"N	116°25'31"W	USGS 1991c
4	MWV P4	36°50'55"N	116°25'27"W	USGS 1991b
5	MWV P5	36°51'07"N	116°25'01"W	USGS 1991b
6	MWV P6	36°41'00"N	116°24'56"W	USGS 1991b
7	MWV P7	36°50'38"N	116°25'39"W	USGS 1991b
8	MWV P8	36°50'39"N	116°25'02"W	USGS 1991b
9	MWV P9	36°50'30"N	116°25'06"W	USGS 1991b
10	MWV P10	36°50'30"N	116°25'04"W	USGS 1991b
11	MWV P11	36°50'28"N	116°25'35"W	USGS 1991b
12	MWV P12	36°40'22"N	116°24'33"W	USGS 1991b
13	MWV P13	36°51'08"N	116°24'36"W	USGS 1991b
14	MWV P14	36°50'50"N	116°24'40"W	USGS 1991b
15	MWV P15	36°50'08"N	116°25'27"W	USGS 1991b
16	MWV P16	36°50'09"N	116°25'25"W	USGS 1991b
17	MWV P17	36°50'13"N	116°25'03"W	USGS 1991b
18	MWV P18	36°43'57"N	116°25'27"W	USGS 1991b
19	MWV P19	36°49'54"N	116°25'21"W	USGS 1991b
20	MWV P20	36°49'51"N	116°25'30"W	USGS 1991b
21	MWV P21	36°52'02"N	116°25'24"W	USGS 1991b
22	MWV P22	36°52'01"N	116°25'25"W	USGS 1991b
23	MWV P23	36°51'33"N	116°24'45"W	USGS 1991b
24	MWV P24	36°51'40"N	116°24'43"W	USGS 1991b
25	MWV P25	36°51'15"N	116°25'28"W	USGS 1992
26	MWV P26	36°51'11"N	116°25'28"W	USBR 1992
27	GSF TP 1	36°51'06"N	116°25'25"W	USBR 1992
28	GSF TP 2	36°51'07"N	116°25'25"W	USBR 1992
29	GSF TP 3	36°51'07"N	116°25'28"W	USBR 1992
30	GSF TP 4	36°50'55"N	116°25'27"W	USBR 1992
31	GSF TP 5	36°50'57"N	116°25'28"W	USBR 1992
32	GSF TP 6	36°50'51"N	116°25'28"W	USBR 1992
33	GSF TP 7	36°50'48"N	116°25'12"W	USBR 1992
34	GSF TP 8	36°50'40"N	116°25'08"W	USBR 1992
35	GSF TP 9	36°50'40"N	116°25'08"W	USBR 1992
36	GSF TP 10	36°50'36"N	116°25'51"W	USBR 1992
37	GSF TP 11	36°50'42"N	116°25'51"W	USBR 1992
38	GSF TP 12	36°50'46"N	116°25'55"W	USBR 1992
39	GSF TP 13	36°50'50"N	116°26'00"W	USBR 1992
40	GSF TP 14	36°50'52"N	116°26'05"W	USBR 1992
41	GSF TP 15	36°50'45"N	116°26'12"W	USBR 1992
42	GSF TP 16	36°50'41"N	116°25'58"W	USBR 1992
43	GSF TP 17	36°50'36"N	116°26'00"W	USBR 1992
44	GSF TP 18	36°49'37"N	116°26'04"W	USBR 1992
45	GSF TP 19	36°49'34"N	116°26'08"W	USBR 1992
46	GSF TP 20	36°50'36"N	116°26'14"W	USBR 1992
47	GSF TP 21	36°50'37"N	116°26'14"W	USBR 1992
48	GSF TP 22	36°50'40"N	116°26'20"W	USBR 1992
49	GSF TP 23	36°50'42"N	116°26'31"W	USBR 1992
50	GSF TP 24	36°50'39"N	116°26'35"W	USBR 1992
51	GSF TP 25	36°50'27"N	116°26'05"W	USBR 1992
52	GSF TP 26	36°50'22"N	116°26'07"W	USBR 1992
53	GSF TP 27	36°50'18"N	116°26'10"W	USBR 1992
54	GSF TP 28	36°50'13"N	116°26'13"W	USBR 1992
55	GSF TP 29	36°50'19"W	116°26'08"W	USBR 1992
56	GSF TP 30	36°50'04"N	116°26'07"W	USBR 1992
57	GSF TP 31	36°49'43"N	116°26'04"W	USBR 1992
58	GSF TP 32	36°50'12"N	116°26'19"W	USBR 1992
59	GSF TP 33	36°50'13"N	116°26'25"W	USBR 1992
60	GSF TP 34	36°50'08"N	116°26'15"W	USBR 1992
61	GSF TP 35	36°50'04"N	116°26'16"W	USBR 1992
62	GSF TP 36	36°50'51"N	116°25'59"W	USBR 1992
63	GSF TP 37	36°50'56"N	116°25'55"W	USBR 1992
64	GSF TP 38	36°51'02"N	116°25'55"W	USBR 1992
65	GSF TP 39	36°51'05"N	116°25'50"W	USBR 1992
66	PSF TP 1	36°51'21"N	116°25'30"W	USBR 1992
67	PSF TP 2	36°51'29"N	116°25'18"W	USBR 1992
68	PSF TP 3	36°49'30"N	116°26'10"W	USBR 1992
69	PSF TP 4	36°49'30"N	116°26'15"W	USBR 1992

Note: The locations of test pits MSF-TP-1 through MSF-TP-9 have not been determined at this time.

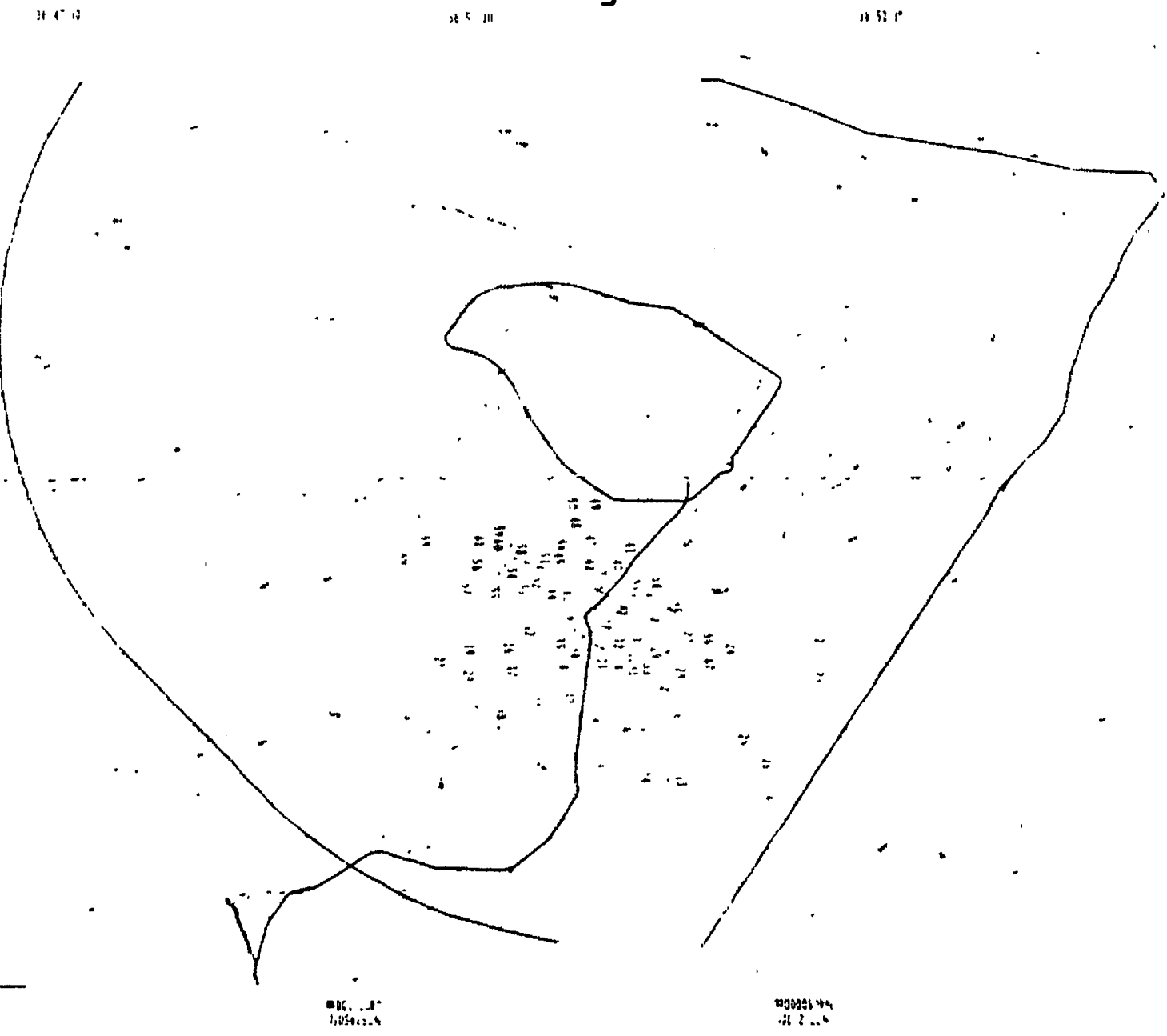
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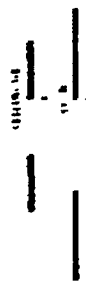
116 20 30

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Contour Interval 100 Feet

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SECTION 4

ECOLOGY

ENVIRONMENTAL SAMPLING LOCATIONS

SA4-1.0

■ ECOLOGICAL STUDY PLOTS (Shown in green)

◆ DEER FORAGE AREAS (Shown in blue)

Map Designator	Activity ID
1	LG2C
2	LG4C
3	LG7C
4	LG8T
5	LAMC
6	LA7T
.	LG7C
8	L79PC
9	LG4C
10	LG3C
11	LLG3C
12	LLG9C
13	LLG4C
14	LG4T
15	LG7T
16	LLG4T
17	LG3T
18	LG3T
19	COL3T
20	LG2T
21	LG6C
22	LLG1T
23	LLG5T
24	LLG7T
25	LLG2T
26	LLG6C
27	COL3T
28	COL1T
29	COL2T
30	COL4T
31	LLG6T
32	COL3C
33	LAA3T
34	LAE3T
35	LATC
36	LAA1T
37	LAA1T
38	LGT
39	LAGE
40	LARC
41	LAMC
42	LASC
43	COL6C
44	COLBC
45	COL4T
46	COL1C
47	COL3C
48	COL4.

Map Designator	Activity ID
60	NF81
61	NF45
62	NF63
63	NF82
64	NF68
65	NF39
66	NF40
67	NF33
68	NF38
69	NF28
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79	NF74
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81	NF78
82	NF90
83	NF77
84	NF27
85	NF80
86	NF85
87	NF84
88	NF70
89	NF34
90	NF71
91	NF25
92	NF35

■ PREDATOR SURVEY ROUTES (Shown in red)

Map Designator	Activity ID
93	PER-1
94	PER-2
95	PAR-1
96	PAR-2
97	PAR-3
98	PAR-1
99	PAR-2

■ RECLAMATION TRIAL PLOTS (Shown in black)

Map Designator	Activity ID
99	Reclamation Site #1
100	Reclamation Site #2
101	Reclamation Site #3
102	Reclamation Site #4
103	Reclamation Site #5

■ RADIOLOGICAL MONITORING PLOTS (Shown in green)

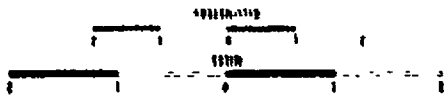
Map Designator	Activity ID
49	NF2
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51	NF5
52	NF5
53	NF68
54	NF14
55	NF14
56	NF37
57	NF59
58	NF12
59	FFM8

Source U.S. Department of Energy 1991b, Yucca Mountain Site Characterization Project Environmental Field Activity Plan for Terrestrial Ecosystems, YMP/91-47 Draft Report. Data for placement of environmental sampling locations were digitized from U.S. Geological Survey 1:24,000 scale topographic quadrangle maps provided by EGG Energy Measurements, Inc. Environmental Sciences Department. Topographic quadrangles covered include the following:

Escalad (Butte NV, Photo revised 1983)
 Topopah Spring NW NV 1961
 Greater Flat NW, 1986 Professional

Reclamation trial plots were photocopied and independently photo verified in stereo from 1:12,000 scale (March 1990) color infrared photography. They were mapped onto 1:6000 scale orthophotographs and digitized. Locations were verified by EGG Energy Measurements, Inc., Environmental Sciences Department.

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CONTOUR INTERVAL 200 FEET

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
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MAJOR VEGETATION ASSOCIATIONS

SA4-2.0

LEGEND

VEGETATION ASSOCIATION GROUP

-  Larrea-Ambrosia (Shown in brown)
-  Larrea-Lycium-Gravis (Shown in brown)
-  Larrea-Lycium (Shown in green)
-  Coleogyne (Shown in green)

SPECIES NAME

Larrea
Ambrosia
Lycium
Gravis
Coleogyne

COMMON NAME

Creosote Bush
Sarcobe
Woitberry
Hopsage
Blackbrush

Source

O'Farnell, T.P. and E. Collins 1984 1983 Biotic Studies of Yucca Mountain, Nevada Test Site, Nye County, Nevada
U.S. Department of Energy Topical Report, EG&G/EM Santa Barbara Operations Report Number 10282-2031,
45p

O'Farnell, T.P. and E. Collins 1983 1982 Biotic Studies of Yucca Mountain, Nevada Test Site, Nye County, Nevada
U.S. Department of Energy Topical Report, EG&G/EM Santa Barbara Operations Report Number 10282-2004,
45p

Ostler, K. 1991. Update to Major Vegetation Associations Map (Grassland Burns no longer applicable). Personal
communication

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ES5048a

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N4800000m

N75395011
N4875000m

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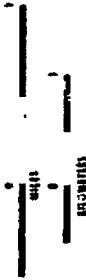
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**TORTOISE SIGN
1981-1984 AND 1989, 1991
SA4-3.0**

LEGEND

◆ Tortoise sign

Note Tortoise sign includes live tortoises, tortoise carcasses, tortoise burrows, tortoise scat, and tortoise eggs.

Source Collins, E. and T.P. O'Farrell. 1985 *1984 Biotic Survey of Yucca Mountain, Nevada Test Site, Nye County, Nevada*. U.S. Department of Energy Topical Report, EG&G/EM Santa Barbara Operations Report Number 10282-2057, 45p

O'Farrell, T.P. and E. Collins. 1984. *1983 Biotic Studies of Yucca Mountain, Nevada Test Site, Nye County, Nevada*. U.S. Department of Energy Topical Report, EG&G/EM Santa Barbara Operations Report Number 10282-2031, 46p

O'Farrell, T.P. and E. Collins. 1983. *1982 Biotic Survey of Yucca Mountain, Nevada Test Site, Nye County, Nevada*. U.S. Department of Energy Topical Report, EG&G/EM Santa Barbara Operations Report Number 10282-2004, 45p

EG&G Energy Measurements, Inc. 1989 *Tortoise Sign Location Map*. Environmental Sciences Department, EG&G/EM-NTS-ESS-MAP 160

EG&G Energy Measurements, Inc. 1991 *Yucca Mountain Biological Resources Monitoring Program - Annual Report FY 91*. EG&G/EM Environmental Sciences Department, EGG-10817-2127, UC-814, 68p

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36 57 30

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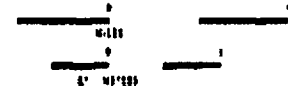
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N77E 30H
N48W 100M

N73W 60E
S40W 500M



Contour Interval



EOR S.A.



SECTION 5

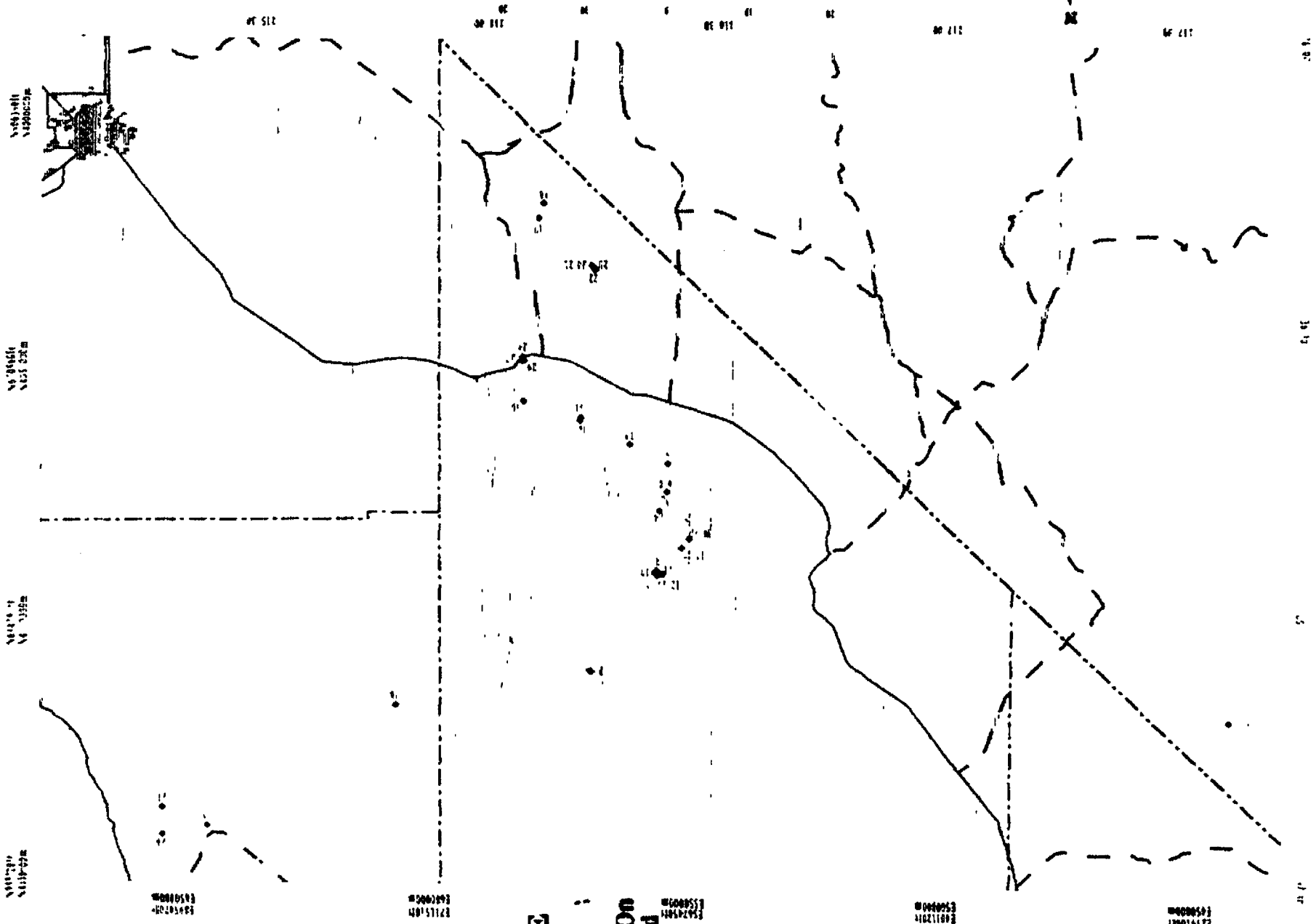
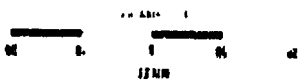
HYDROLOGY



PALEOCLIMATE SURVEYS SA5-1.0

◆ FOSSIL WOODRAT MIDDEN

MAP DESIGNATOR	LOCALITY	LATITUDE	LONGITUDE	GROUND ELEVATION (M)	SOURCE
1	Crankshaft, Jct. CA	37°12'00"N	117°39'00"W	1500	Wigand, 1991
2	Elsena Range 2	37°07'16"N	116°14'03"W	1810	Spaulding, 1983
3	Elsena Range 3	37°07'15"N	116°13'49"W	1800	Spaulding, 1983
4	Fornymile Canyon 1	36°50'00"N	116°23'00"W	1050	Spaulding (in press)
5	Fornymile Canyon 2	36°50'00"N	116°23'00"W	1050	Spaulding (in press)
6	Fornymile Canyon 3	36°48'00"N	116°24'00"W	1010	Spaulding (in press)
7	Fornymile Canyon 4	36°48'00"N	116°24'00"W	1000	Spaulding (in press)
8	Fornymile Canyon 5	36°48'00"N	116°24'00"W	995	Spaulding (in press)
9	Fornymile Canyon 6	36°45'00"N	116°24'00"W	925	Spaulding (in press)
10	Fornymile Canyon 7	36°58'42"N	116°22'21"W	1250	Spaulding (in press)
11	Fornymile Canyon 8	36°56'49"N	116°22'46"W	1240	Spaulding (in press)
12	Fornymile Canyon 9	36°56'49"N	116°23'01"W	1280	Spaulding (in press)
13	Fornymile Canyon 10	36°56'57"N	116°22'38"W	1230	Spaulding (in press)
14	Fornymile Canyon 11	36°56'48"N	116°23'27"W	1310	Spaulding (in press)
15	Fornymile Canyon 12	36°56'26"N	116°22'35"W	1240	Spaulding (in press)
16	Hancock Summit	37°24'00"N	115°23'00"W	1600	Wigand, 1991
17	Last Chance Range 1	36°19'00"N	116°10'00"W	1005	Wigand, 1991
18	Last Chance Range 2	36°17'25"N	116°10'40"W	960	Spaulding, 1983
19	Little Skull Men	36°43'00"N	116°19'00"W	1250	Wigand, 1991
20	Owl Canyon	36°24'00"N	116°14'00"W	800	Wigand, 1991
21	Owl Canyon 1	36°24'00"N	116°14'00"W	790	Spaulding, 1983
22	Owl Canyon 2	36°24'27"N	116°14'23"W	800	Spaulding, 1983
23	Owl Canyon 3	36°25'18"N	116°14'29"W	790	Spaulding, 1983
24	Pahrnagat Range 1	37°25'00"N	115°17'00"W	1900	Wigand, 1991
25	Pahrnagat Range 2	37°22'00"N	115°17'00"W	1790	Wigand, 1991
26	Pahrnagat Wash	37°11'00"N	115°48'00"W	950	Wigand, 1991
27	Point of Rocks 1	36°34'13"N	116°04'45"W	900	Spaulding, 1983
28	Point of Rocks 2	36°33'48"N	116°04'55"W	930	Spaulding, 1983
29	Point of Rocks 3	36°34'10"N	116°05'10"W	910	Spaulding, 1983
30	Specter Range 1	36°28'31"N	116°08'00"W	1040	Spaulding, 1983
31	Specter Range 2	36°40'16"N	116°12'30"W	1190	Spaulding, 1983
32	Sp. r. Flange 3	36°40'33"N	116°12'28"W	1100	Spaulding, 1983
33	Yucca's Wash 1	36°54'00"N	116°28'00"W	1330	Spaulding (in press)
34	Yucca's Wash 2	36°54'00"N	116°28'00"W	1340	Spaulding (in press)
35	Yucca's Wash 3	36°54'01"N	116°28'00"W	1350	Spaulding (in press)
36	Yucca's Wash 4	36°53'00"N	116°27'00"W	1365	Spaulding (in press)
37	Yucca's Wash 5	36°53'00"N	116°27'00"W	1385	Spaulding (in press)



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TEMPERATURE/PRECIPITATION STATIONS AND GROUND WATER GEOCHEMISTRY STATIONS

SAS-2 0

● EXISTING GROUND WATER GEOCHEMISTRY STATIONS - SOURCE Raker & Jacobson, 1987

MAP DESIGNATOR	LOCALITY	LATITUDE	LONGITUDE	GROUND ELEVATION (M)
1	Park Canyon Spring	39°16'53"N	117°48'20"W	1740
2	Carroll Summit Spring	39°15'39"N	117°42'48"W	2178
3	China Spring	39°43'03"N	117°03'58"W	1871
4	Indian Ranch Spring	39°32'48"N	116°47'42"W	2346
5	Pipe Ranch Spring	39°32'54"N	116°54'14"W	1832
6	Widow Canyon Spring	39°05'18"N	116°52'18"W	2103
7	Upper Paturra Canyon Spring	38°35'11"N	117°16'45"W	1853
8	Paturra Campground Spring	38°37'03"N	117°18'11"W	1914
9	Cottonwood Creek Spring	38°33'33"N	117°23'57"W	1901
10	Barnet Spring	38°32'17"N	117°25'59"W	1877
11	Squaw White Spring	38°43'12"N	116°04'57"W	2097
12	Iceberg Spring	38°25'39"N	116°10'19"W	1804
13	Black Spring	38°08'00"N	116°36'04"W	1898
14	Shewens Spring	38°36'51"N	117°31'27"W	2109
15	Lower Cingole Spring	38°44'11"N	117°30'15"W	2206
16	Iron Spring	38°58'12"N	117°33'29"W	2206
17	War Canyon Spring	39°36'06"N	117°51'47"W	2188
18	Indian Spring I	39°37'18"N	117°25'26"W	2086
19	Martin Ranch Spring	39°07'54"N	116°24'00"W	2243
20	Cocotron Canyon Spring	38°40'48"N	116°46'45"W	2225
21	Meadow Canyon Spring	38°41'21"N	116°54'43"W	2423
22	Sagehen Spring	38°15'23"N	116°41'21"W	1874
23	McCann Canyon Spring	38°28'46"N	116°42'48"W	2109
24	Crow Spring	38°14'57"N	117°35'25"W	1591
25	Garbert Spring	38°12'14"N	117°38'18"W	1850
26	Cave Spring	37°48'06"N	117°50'35"W	1901
27	Rhyolite Ridge Spring	37°47'54"N	117°48'47"W	1987
28	Indian Spring II	38°46'30"N	115°43'18"W	1883
29	Wondrous Battle Spring	38°56'18"N	116°08'46"W	1859
30	Coyote Spring	38°01'56"N	114°51'42"W	1587
31	White Rock Spring	37°14'7"N	115°36'10"W	1577
32	Parrot Spring	37°38'51"N	114°58'48"W	1645
33	Muskrat Spring	37°44'08"N	114°55'13"W	1882
34	Grassy Spring	37°32'27"N	114°47'26"W	1782
35	Cedar Spring	37°54'06"N	116°16'23"W	1767
36	Georges Water Spring	37°51'39"N	116°21'00"W	2028
37	Eden - rock Ranch Spring	7°58'12"N	116°22'48"W	1828
38	Young - Iron Spring	38°58'45"N	115°48'43"W	1901
39	Hells Acres Gulch Spring	37°27'36"N	115°07'40"W	1322
40	The Seeps Spring	37°44'24"N	115°34'30"W	1840
41	Cactus Spring	37°43'15"N	118°48'55"W	1814
42	Hornie Trough Spring	37°45'30"N	116°50'17"W	1518
43	Antelope Spring	37°57'09"N	116°43'33"W	1869
44	Stemung Spring	37°53'41"N	118°31'36"W	1987
45	Stinking Sheep Spring	37°53'41"N	116°31'36"W	1987
46	Bureau Creek @ Ranch Spring	37°54'53"N	116°28'34"W	2097
47	Corral Spring	37°47'08"N	116°22'30"W	2036
48	Rope Spring	37°44'37"N	116°21'00"W	2072
49	Powder River Spring	37°47'28"N	116°23'08"W	2023

◆ EXISTING TEMPERATURE/PRECIPITATION STATIONS - SOURCE Spaulding, 1983

MAP DESIGNATOR	LOCALITY	LATITUDE	LONGITUDE	GROUND ELEVATION (M)
50	Austin	39°30'00"N	117°46'00"W	2014
51	Beatty	37°V'00"N	116°43'00"W	1082
52	Elio	40°50'00"N	115°47'00"W	1547
53	Ely	39°17'00"N	114°51'30"W	1906
54	Eureka	39°31'00"N	115°58'00"W	1894
55	Winnemucca	40°54'00"N	117°48'00"W	1911

Note Shaded area is shown enlarged in Map SAS 3 0 for geochemistry stations

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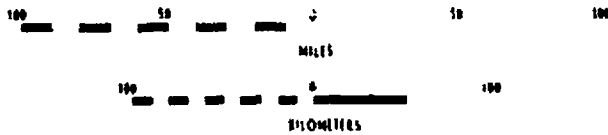
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SAS 2 0

**GROUND WATER GEOCHEMISTRY STATIONS IN THE
NEVADA TEST SITE AREA
SAS-3.0**

EXISTING GROUND WATER GEOCHEMISTRY STATIONS - SOURCE Baker & Jacobson, 1987

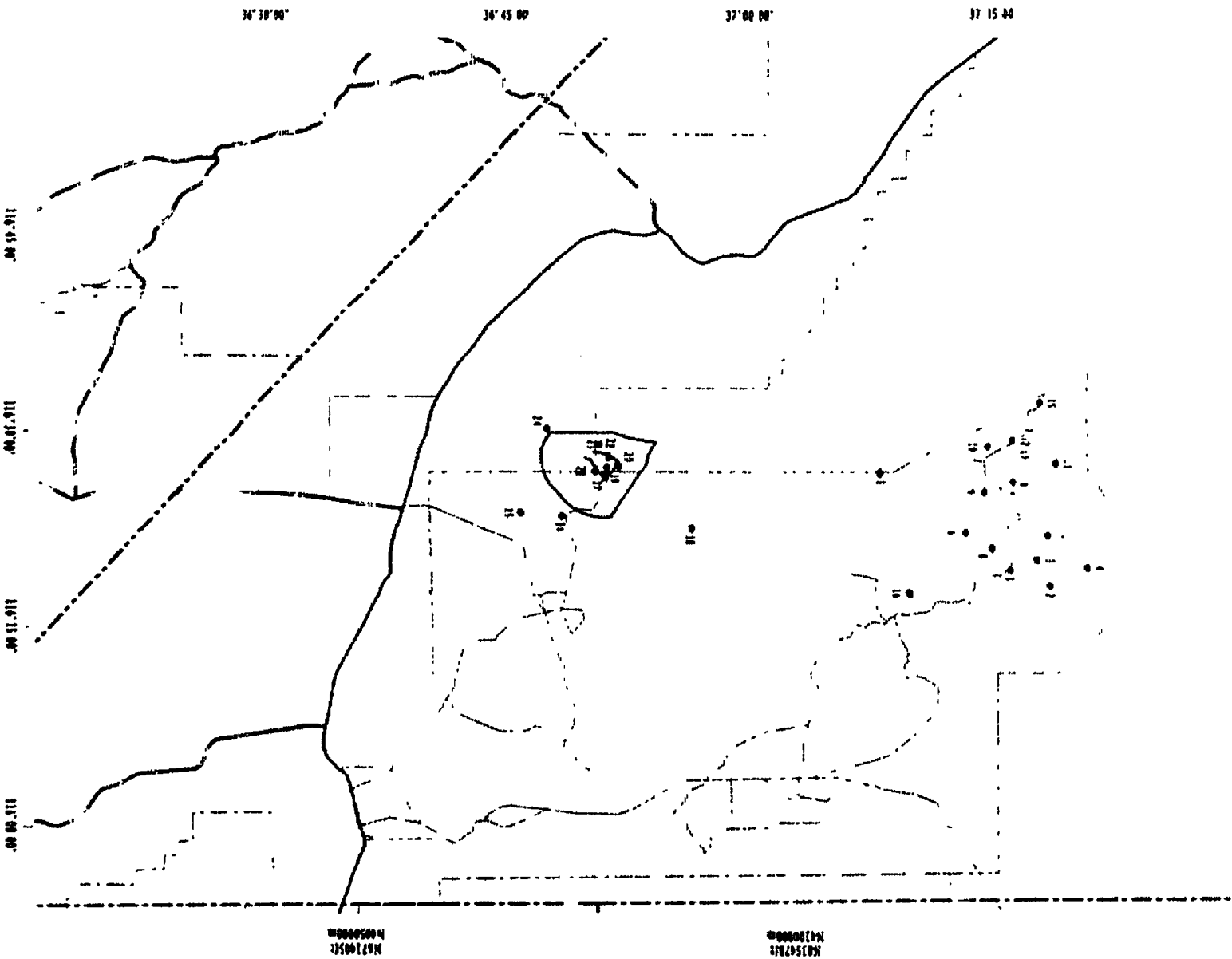
MAP DESIGNATOR	LOCALITY	LATTITUDE	LONGITUDE	GROUND ELEVATION (M)
1	Ue18	37°08'06"N	116°26'42"W	1668
2	Ue19a1	37°18'35"N	116°11'55"W	2073
3	Ue19c	37°18'06"N	116°19'09"W	2144
4	Ue19d	37°20'50"N	116°18'21"W	2081
5	Ue19e	37°17'47"N	116°18'58"W	2108
6	Ue19f	37°13'25"N	116°22'05"W	2053
7	Ue19g	37°18'28"N	116°21'51"W	2048
8	Ue19h	37°15'00"N	116°20'51"W	2085
9	U20a12	37°14'32"N	116°25'14"W	1973
10	Ue20d	37°14'47"N	116°28'45"W	1906
11	Ue20a11	37°18'56"N	116°27'24"W	1919
12	Ue20f	37°16'13"N	116°28'16"W	1804
13	Ue20i	37°16'13"N	116°28'15"W	1864
14	Ue20h	37°16'16"N	116°28'01"W	1889
15	Ue20j	37°17'56"N	116°32'03"W	1788
16	Test Well B	37°09'54"N	116°17'22"W	1736
17	Ue-25b1	36°51'08"N	116°28'22"W	1200
18	Ue-29a12	36°56'29"N	116°22'25"W	1215
19	USW G 4	36°51'14"N	116°27'04"W	1270
20	JSW H-1	36°51'58"N	116°27'11"W	1303
21	USW H-4	36°50'32"N	116°28'53"W	1248
22	USW H-5	36°51'22"N	116°27'55"W	1478
23	USW H-6	36°50'49"N	116°28'55"W	1305
24	USW VH 1	36°47'32"N	116°30'07"W	963
25	J 12	36°45'53"N	116°23'42"W	853
26	J 13	36°48'28"N	116°23'23"W	1011

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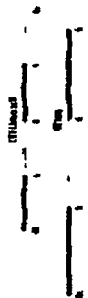
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GROUNDWATER RECHARGE MONITORING STATIONS

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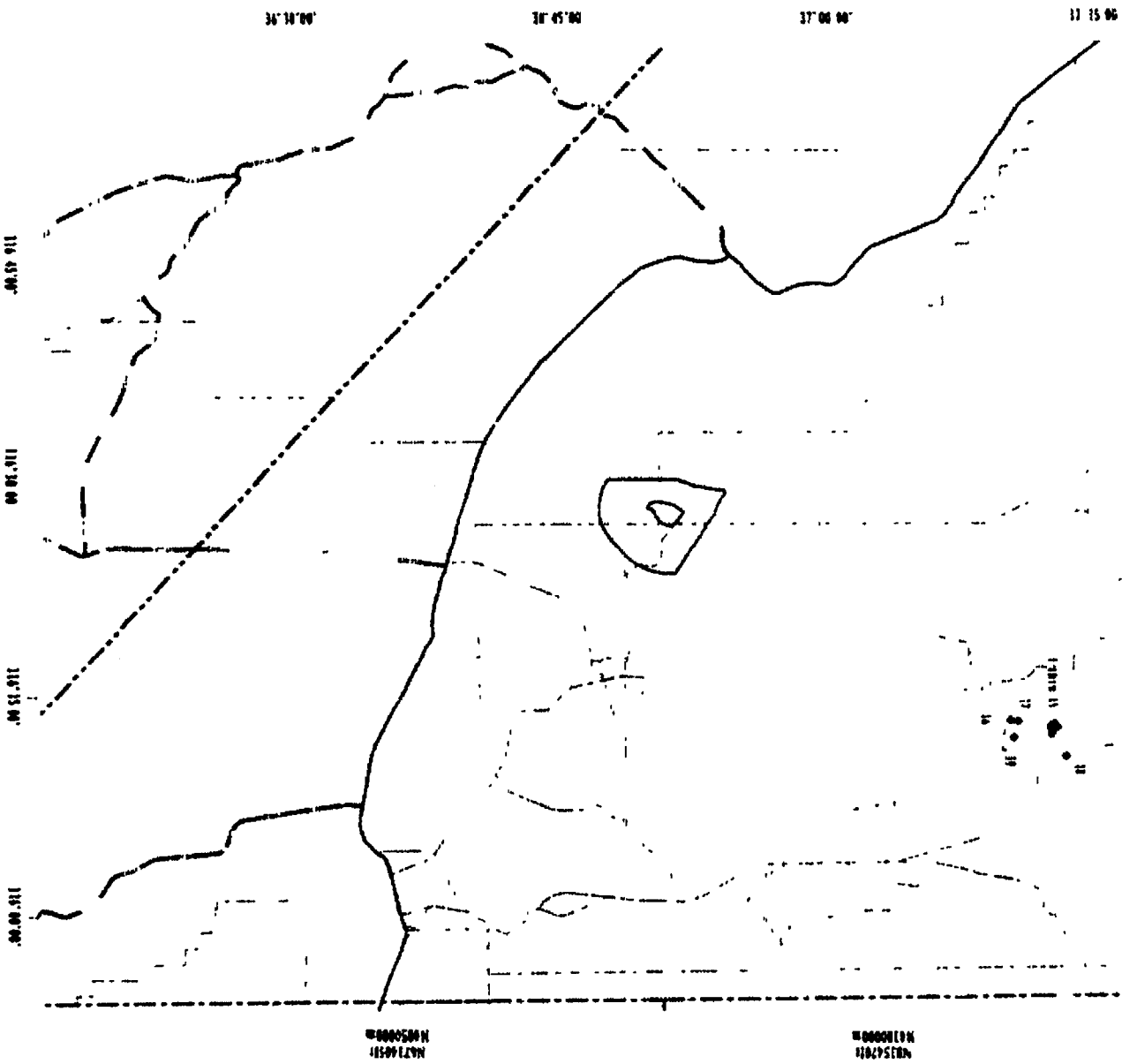
◆ EXISTING MONITORING STATIONS

MAP DESIGNATOR	ACTIVITY	LATITUDE	LONGITUDE	SOURCE
1	Lysimeter 1	37°12'21"N	116°12'13"W	U S DOE, 1988d
2	Lysimeter 2	37°12'21"N	116°12'13"W	U S DOE, 1988d
3	Lysimeter 3	37°12'23"N	116°12'17"W	U S DOE, 1988d
4	Lysimeter 4	37°12'23"N	116°12'17"W	U S DOE, 1988d
5	Lysimeter 5	37°12'14"N	116°12'24"W	U S DOE, 1988d
6	Lysimeter 6	37°12'21"N	116°12'21"W	Henne, 1982
7	Lysimeter 7	37°12'19"N	116°12'21"W	Henne, 1982
8	Lysimeter 8	37°12'27"N	116°12'27"W	Henne, 1982
9	Seep 2	37°12'16"N	116°12'06"W	U S DOE, 1988d
10	Seep 3	37°12'28"N	116°12'31"W	U S DOE, 1988d
11	Seep 4	37°12'34"N	116°12'17"W	U S DOE, 1988d
12	U12N 03	37°12'35"N	116°12'18"W	Russell, 1992
13	U12N 05	37°12'28"N	116°12'31"W	Russell, 1992
14	U12N	37°12'15"N	116°11'52"W	Russell, 1992
15	SM1	37°12'14"N	116°12'11"W	U S DOE, 1988d
16	Lysimeter 9	37°10'00"N	116°12'47"W	Henne, 1982
17	Lysimeter 10	37°10'25"N	116°12'43"W	Henne, 1982
18	Seep 1	37°13'04"N	116°10'19"W	U S DOE, 1988d
19	G Tunnel	37°10'10"N	116°11'39"W	U S DOE, 1990b

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REGIONAL WATER-LEVEL AND SPRING-DISCHARGE MONITORING SITES

SA5-5.0

◆ EXISTING REGIONAL WATER-LEVEL MONITORING SITES

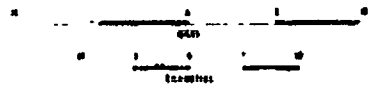
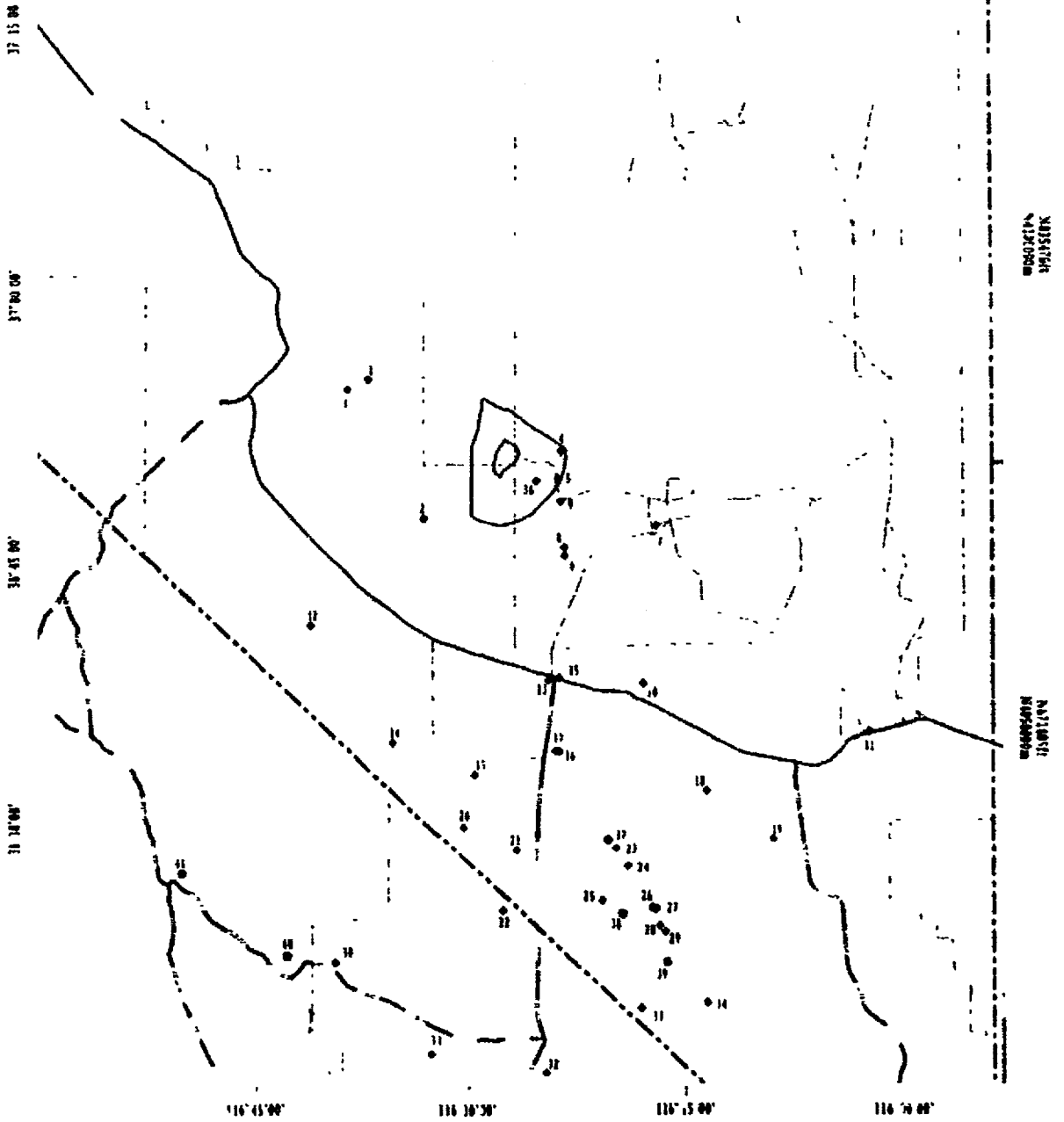
MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
1	CF1	36°55'20"N	116°37'03"W	U S DOE, 1991a
2	CF2	36°47'32"N	116°33'07"W	U S DOE, 1991a
3	CF3	36°54'45"N	116°38'35"W	Gibson, 1991
4	JF1	36°51'16"N	116°23'36"W	U S DOE, 1991a
5	JF2	36°49'43"N	116°23'51"W	U S DOE, 1991a
6	JF3	36°45'27"N	116°23'23"W	U S DOE, 1991a
7	J-11	36°47'06"N	116°17'06"W	U S DOE, 1991a
8	J-12	36°45'54"N	116°23'24"W	U S DOE, 1991a
9	J 13	36°48'28"N	116°23'40"W	U S DOE, 1991a
10		36°38'15"N	116°17'59"W	U S DOE, 1991a
11	MV1	36°35'30"N	116°02'14"W	U S DOE, 1991a
12	AD1	36°41'30"N	116°41'12"W	U S DOE, 1991a
13	AD2	36°38'25"N	116°24'33"W	U S DOE, 1991a
14	AD3	36°34'56"N	116°35'25"W	U S DOE, 1991a
15	AD4	36°33'10"N	116°29'40"W	U S DOE, 1991a
16	AD5	36°34'28"N	116°23'47"W	U S DOE, 1991a
17	AD6	36°34'28"N	116°24'03"W	U S DOE, 1991a
18	AD7	36°32'13"N	116°13'38"W	U S DOE, 1991a
19	AD8	36°29'29"N	116°08'57"W	U S DOE, 1991a
20	AD9	36°30'09"N	116°30'27"W	U S DOE, 1991a
21	AD10	36°28'48"N	116°28'46"W	U S DOE, 1991a
22	AD11	36°25'25"N	116°27'43"W	U S DOE, 1991a
23	AM1	36°28'58"N	116°19'53"W	U S DOE, 1991a
24	AM2	36°27'55"N	116°19'04"W	U S DOE, 1991a
25	AM3	36°25'55"N	116°20'53"W	U S DOE, 1991a
26	AM4	36°15'32"N	116°17'27"W	U S DOE, 1991a
27	AM5	36°25'29"N	116°17'11"W	U S DOE, 1991a
28	AM6	36°24'32"N	116°16'56"W	U S DOE, 1991a
29	AM7	36°24'11"N	116°16'33"W	U S DOE, 1991a
30	AD12	36°22'30"N	116°39'29"W	U S DOE, 1991a
31	AD13	36°17'24"N	116°32'42"W	U S DOE, 1991a
32	AD14	36°16'17"N	116°24'47"W	U S DOE, 1991a
33	AD15	36°19'54"N	116°18'12"W	U S DOE, 1991a
34	AD16	36°20'14"N	116°13'39"W	U S DOE, 1991a
35	AD17	36°38'35"N	116°23'47"W	Gibson, 1991
36	YM1	36°49'38"N	116°25'21"W	U S DOE, 1991a

● EXISTING SPRING-DISCHARGE MONITORING SITES -- SOURCE: U.S. DOE, 1991a

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE
37	SP1	36°29'26"N	116°20'28"W
38	SP2	36°25'13"N	116°19'27"W
39	SP3	36°22'29"N	116°16'25"W
40	SP4	36°22'52"N	116°42'53"W
41	SP5	36°27'28"N	116°50'11"W

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SA 510

REGIONAL PRECIPITATION AND STREAMFLOW MONITORING STATIONS

SA5-6.0

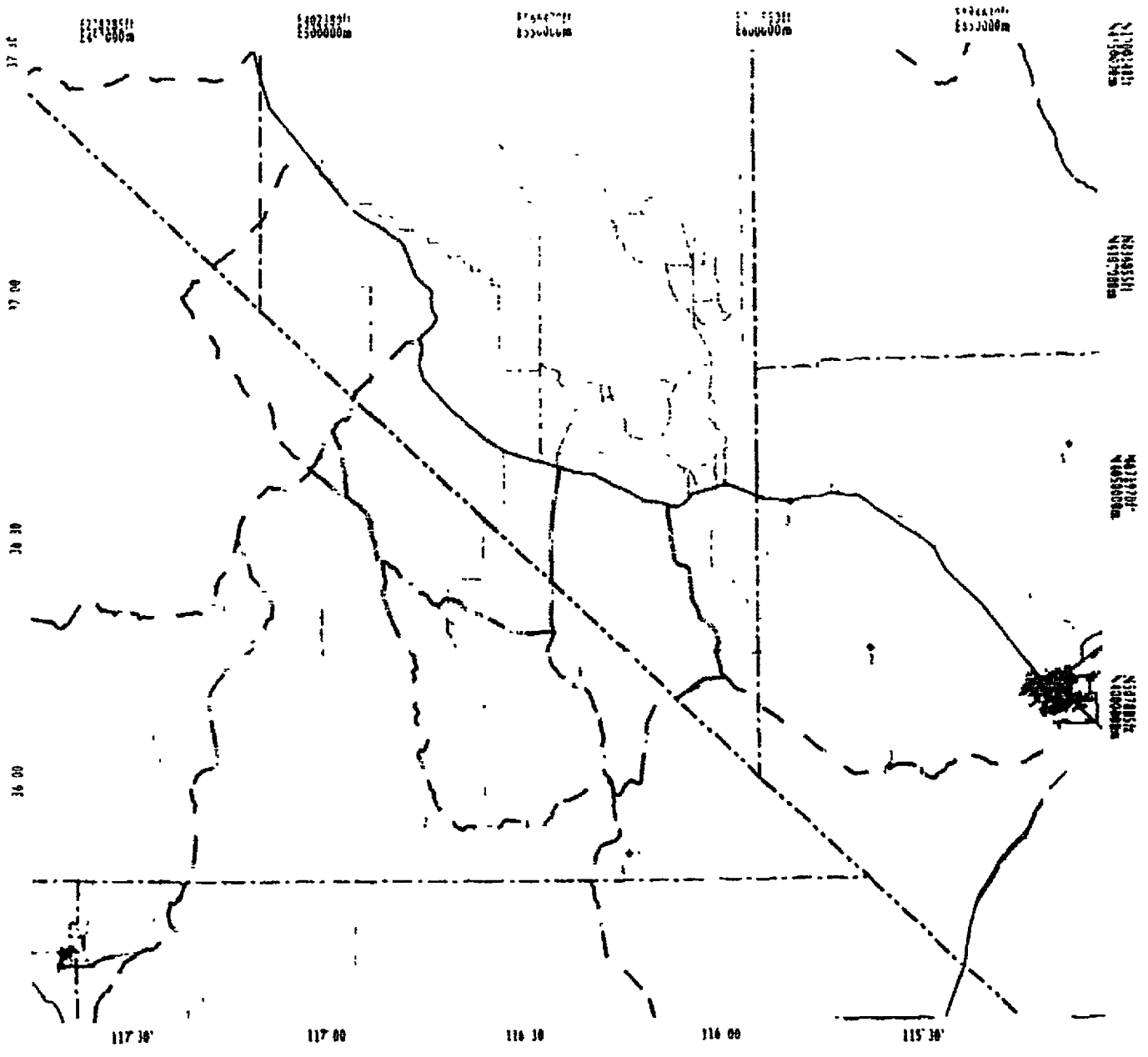
◆ EXISTING STATIONS

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)	SOURCE
1	LUCKY	36°01'05"N	115°34'00"W	457.0	Maine et al., 1987
2	GAIL	36°15'44"N	115°36'44"W	705.0	Maine et al., 1987
3	102-8490	36°34'00"N	116°48'40"W	—	Kane (in review)
4	102-1300	35°50'55"N	116°13'45"W	—	Johnson, 1992
5	KATHY	36°40'15"N	115°05'50"W	6234.0	Maine et al., 1987

◇ PROPOSED STATIONS

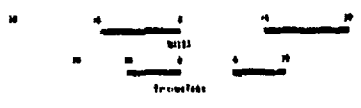
MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
6	SR 19	36°11'46"N	116°22'05"W	USGS, 1990c
7	SR 15	36°56'37"N	116°43'08"W	Johnson, 1992

Note: Boxed area is shown enlarged on Map SA5-7.0



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ANTS PRECIPITATION AND STREAMFLOW MONITORING STATIONS SA5-7-0

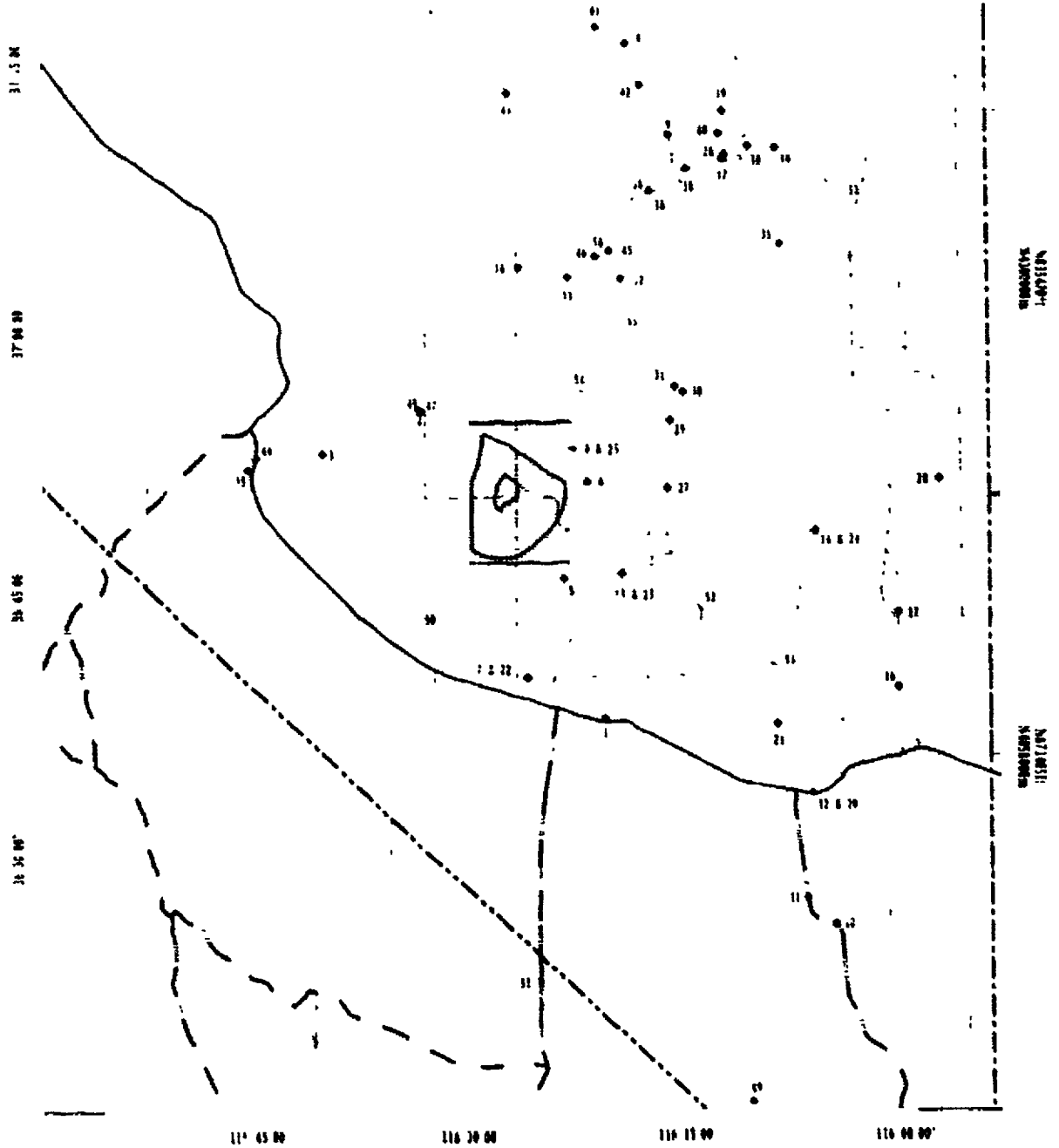
◆ EXISTING STATIONS

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)	SOURCE
1	JOANNE	36°31' 59"N	116°20' 34"W	---	Milne et al. 1987
2	PIAS3	36°55' 26"N	116°33' 25"W	---	Cochran 1992
3	JENNIFER	36°53' 00"N	116°40' 24"W	4475.0	Milne et al. 1987
4	KI	37°16' 05"N	116°19' 00"W	7038.0	Milne et al. 1987
5	N'S10 40 MILE WASH	36°45' 51"N	116°23' 26"W	3124.0	U.S. DOE 1984
6	N'S10 YUCCA MTN	36°51' 19"N	116°21' 47"W	4849.0	U.S. DOE 1984
7	10251256	36°40' 18"N	116°26' 03"W	---	Kaine (in review)
8	36°53' 13"N	116°22' 50"W	---	---	Kaine (in review)
9	10251248	37°10' 57"N	116°15' 09"W	---	Kaine (in review)
10	10251272	36°28' 09"N	116°04' 28"W	---	Kaine (in review)
11	10251271	36°27' 36"N	116°06' 28"W	---	Kaine (in review)
12	10251270	36°53' 40"N	116°06' 00"W	---	Kaine (in review)
13	10251260	36°48' 06"N	116°18' 23"W	---	Kaine (in review)
14	10251285	36°48' 27"N	116°05' 41"W	---	Kaine (in review)
15	10251220	36°52' 06"N	116°45' 34"W	---	Kaine (in review)
16	10251269	36°39' 36"N	116°00' 01"W	---	Kaine (in review)
17	10251166	36°43' 48"N	115°59' 59"W	---	Kaine (in review)
18	10251244	37°08' 59"N	116°14' 45"W	---	Kaine (in review)
19	10247890	37°10' 07"N	116°08' 27"W	---	Kaine (in review)
20	10251270	36°53' 40"N	116°06' 00"W	3425.0	U.S. DOE 1988b
21	10251282	36°37' 35"N	116°08' 31"W	2840.0	U.S. DOE 1988b
22	10251258	36°40' 18"N	116°26' 03"W	2705.0	U.S. DOE 1988b
23	10251260	36°46' 06"N	116°19' 23"W	3020.0	U.S. DOE 1988b
24	10251295	36°48' 27"N	116°05' 41"W	3690.0	U.S. DOE 1988b
25	10251230	36°53' 13"N	116°22' 50"W	---	Kaine (in review)
26	SP	37°09' 47"N	116°12' 03"W	6735.0	Kaine (in review)
27	ST4	36°50' 58"N	116°18' 08"W	---	U.S. DOE 1988b
28	SB1	36°51' 18"N	115°57' 08"W	---	U.S. DOE 1988b
29	ST3	36°54' 48"N	116°15' 58"W	---	U.S. DOE 1988b
30	ST2	36°56' 21"N	116°19' 01"W	---	U.S. DOE 1988b
31	ST1	36°58' 41"N	116°18' 36"W	---	U.S. DOE 1988b
32	TT3	37°02' 49"N	116°19' 23"W	---	U.S. DOE 1988b
33	TT2	37°02' 56"N	116°23' 07"W	---	U.S. DOE 1988b
34	TT1	37°03' 32"N	116°28' 37"W	---	U.S. DOE 1988b
35	RC1	37°04' 41"N	116°08' 10"W	---	U.S. DOE 1988b
36	RI3	37°07' 48"N	116°17' 19"W	---	U.S. DOE 1988b
37	RI2	37°09' 31"N	116°12' 12"W	---	U.S. DOE 1988b
38	CJ1	37°10' 15"N	116°10' 23"W	---	U.S. DOE 1988b
39	RI1	37°12' 14"N	116°12' 11"W	---	U.S. DOE 1988b
40	HANFERMESA SOUTH	37°10' 58"N	116°12' 28"W	---	U.S. DOE 1988b
41	P13	37°13' 23"N	116°27' 21"W	---	U.S. DOE 1988b
42	P11	37°13' 46"N	116°17' 59"W	---	U.S. DOE 1988b
43	P12	37°17' 04"N	116°21' 03"W	---	U.S. DOE 1988b
44	SR16	36°52' 44"N	116°45' 05"W	---	U.S. DOE 1988b
45	SF3	37°04' 27"N	116°20' 10"W	---	U.S. DOE 1988b
46	SFA	37°04' 06"N	116°21' 08"W	---	U.S. DOE 1988b
47	PM31	36°55' 28"N	116°33' 28"W	---	U.S. DOE 1988b
48	PM32	36°55' 29"N	116°33' 32"W	---	U.S. DOE 1988b
49	ANDY	36°16' 05"N	116°10' 28"W	2494.0	U.S. DOE 1988b

PROPOSED STATIONS

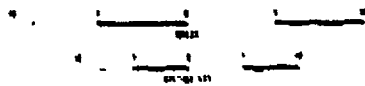
MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
50	SR17	36°43' 05"N	116°32' 45"W	USGS, 1990c
51	SR18	36°23' 12"N	116°25' 22"W	USGS, 1990c
52	PHJ	36°44' 16"N	116°11' 58"W	USGS, 1990c
53	PR4	36°41' 04"N	116°06' 57"W	USGS, 1990c
54	SP1	36°56' 36"N	116°22' 17"W	USGS, 1990c
55	SF2	37°01' 06"N	116°18' 24"W	USGS, 1990c
56	SF5	37°07' 43"N	116°17' 21"W	USGS, 1990c
57	SF6	37°07' 06"N	116°03' 37"W	USGS, 1990c
58	SF7	36°04' 19"N	116°20' 50"W	Johnson 1992

Note: Shaded area is shown enclosed on Maps SA5-8-0 and SA5-9-0



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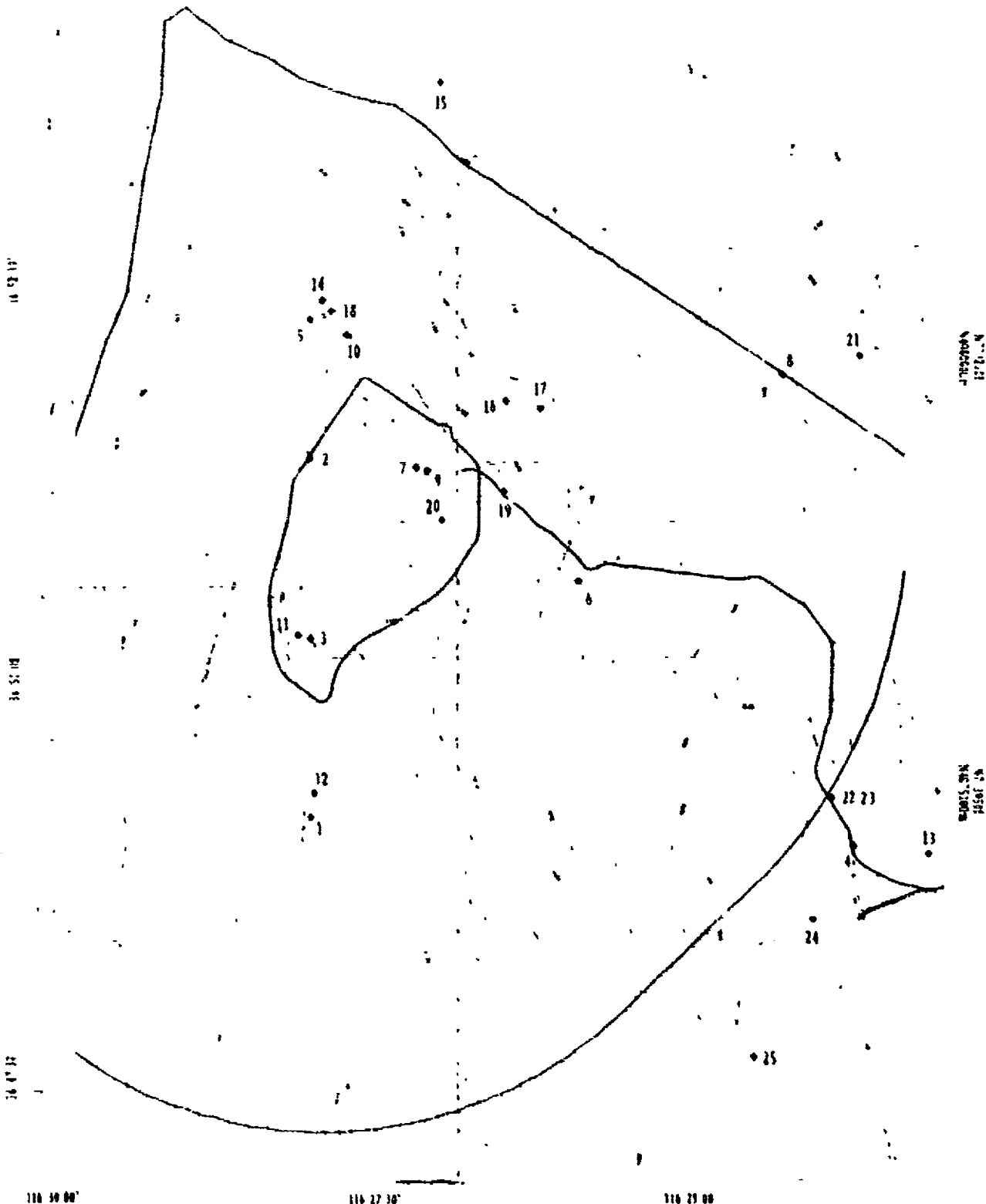


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**EXISTING PRECIPITATION AND STREAMFLOW
MONITORING STATIONS IN THE NEAR-FIELD AREA
SAS-8-0**

◆ EXISTING STATIONS

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)	SOURCE
1	CAROLYN	36°49.06'N	116°27.56'W	4856.0	Holmes and Narver, 1987c
2	DIANNE	36°51.21'N	116°27.56'W	4836.0	Milne et al., 1987
3	MARSE	36°50.13'N	116°27.56'W	4922.0	Milne et al., 1987
4	ROBIN	36°48.55'N	116°23.42'W	---	Milne et al., 1987
5	SANDY	36°52.13'N	116°27.56'W	4862.0	Holmes and Narver, 1987c
6	N1580 REPOSITORY	36°50.34'N	116°25.50'W	3751.0	U S DOE 1984
7	N1510 COVCTE WASH	36°51.17'N	116°27.06'W	4193.0	U S DOE 1984
8	N1510 ALICE HILL	36°51.51'N	116°24.15'W	4047.0	U S DOE 1984
9	PC44	36°52.07'N	116°27.32'W	---	U S DOE 1988d
10	H545	36°50.14'N	116°28.02'W	---	U S DOE 1988d
11	V3	36°49.15'N	116°27.54'W	-	U S DOE 1988d
12	V8	36°48.52'N	116°23.07'W	-	U S DOE 1988d
13	V7	36°52.20'N	116°27.50'W	---	U S DOE 1988d
14	V6	36°53.41'N	116°26.95'W	---	U S DOE 1988d
15	10251253E	36°51.42'N	116°26.24'W	---	Kane (in review)
16	10251253S	36°51.14'N	116°26.08'W	---	Kane (in review)
17	10251253S	36°52.18'N	116°27.46'W	---	Kane (in review)
18	10251253E	36°51.08'N	116°26.25'W	---	Kane (in review)
19	10251253Z	36°50.52'N	116°26.54'W	---	Kane (in review)
20	10251252Z	36°51.58'N	116°23.38'W	3590.0	Kane (in review)
21	10251254	36°49.13'N	116°23.52'W	---	Kane (in review)
22	10251254	36°49.13'N	116°23.42'W	3320.0	Kane (in review)
23	10251254	36°49.13'N	116°23.42'W	3680.0	Kane (in review)
24	10251255	36°48.27'N	116°24.17'W	3680.0	Kane (in review)
25	10251256	36°47.35'N	116°24.17'W	3270.0	Kane (in review)



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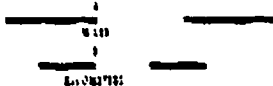
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**PROPOSED PRECIPITATION AND STREAMFLOW
MONITORING STATIONS IN THE NEAR-FIELD AREA
SA5-9.0**

PROPOSED STATIONS

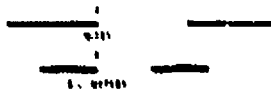
MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	GROUND ELEVATION (FT)	SOURCE
1	PR 1	36°51'07"N	116°25'46"W	---	USGS 1990c
2	SY 1	36°51'37"N	116°27'34"W	---	USGS 1990c
3	SY 2	36°50'33"N	116°24'23"W	---	USGS, 1990c
4	SY 3	36°50'37"N	116°24'27"W	---	USGS, 1990c
5	SY 4	36°50'06"N	116°23'01"W	---	USGS, 1990c
6	SY 6	36°50'41"N	116°27'06"W	---	USGS, 1990c
7	SY 7	36°50'24"N	116°26'42"W	---	USGS 1990c
8	SY 9	36°50'36"N	116°26'26"W	---	USGS 1990c
9	SY 10	36°51'26"N	116°27'17"W	---	USGS, 1990c
10	SY 11	36°51'26"N	116°27'04"W	---	USGS, 1990c
11	SY 13	36°52'25"N	116°27'45"W	---	USGS, 1990c
12	SY 14	36°52'28"N	116°27'04"W	---	USGS, 1990c
13	SY 16	36°51'33"N	116°25'37"W	---	USGS 1990c
14	SY 17	36°51'25"N	116°26'15"W	---	USGS, 1990c
15	SY 18	36°50'34"N	116°26'31"W	---	USGS, 1990c
16	SY 19	36°49'36"N	116°26'49"W	---	USGS 1990c
17	SY 20	36°49'37"N	116°27'08"W	---	USGS, 1990c
18	SY 21	36°49'36"N	116°27'03"W	---	USGS, 1990c
19	SY 22	36°48'56"N	116°26'39"W	---	USGS, 1990c
20	SY 23	36°47'47"N	116°24'44"W	---	USGS, 1990c
21	P1	36°52'16"N	116°27'38"W	---	U S DOE 1999a
22	P2	36°50'55"N	116°27'50"W	---	U S DOE 1999a
23	P3	36°49'42"N	116°28'01"W	---	U S DOE 1999a
24	P4	36°51'13"N	116°28'00"W	---	U S DOE 1999a
25	W1	36°50'26"N	116°25'52"W	---	U S DOE, 1999b
26	W2	36°52'07"N	116°27'39"W	4426 2	U S DOE, 1999b
27	W3	36°51'22"N	116°27'53"W	4851 6	U S DOE, 1999b
28	W4	36°51'15"N	116°27'02"W	---	U S DOE, 1999b
29	W5	36°50'49"N	116°28'57"W	4271 9	U S DOE, 1999b
30	W6	36°50'14"N	116°28'03"W	4924 5	U S DOE, 1999b
31	W7	36°50'21"N	116°26'43"W	---	U S DOE 1999b
32	W8	36°49'25"N	116°27'37"W	---	U S DOE, 1999b
33	W9	36°48'41"N	116°27'51"W	---	U S DOE, 1999b
34	W10	36°49'32"N	116°28'51"W	3928 8	U S DOE, 1999b



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**GROUND WATER OBSERVATION WELLS IN THE
AMARGOSA DESERT REGION**

SAS-10.0

LEGEND

◆ Ground Water Observation Well

Source: Kilroy, K.C. 1991. *Ground Water Conditions in the Amargosa Desert, Nevada-California, 1952-1987*.
U.S. Geological Survey Water Resources Investigations Report 89-4101. 93p

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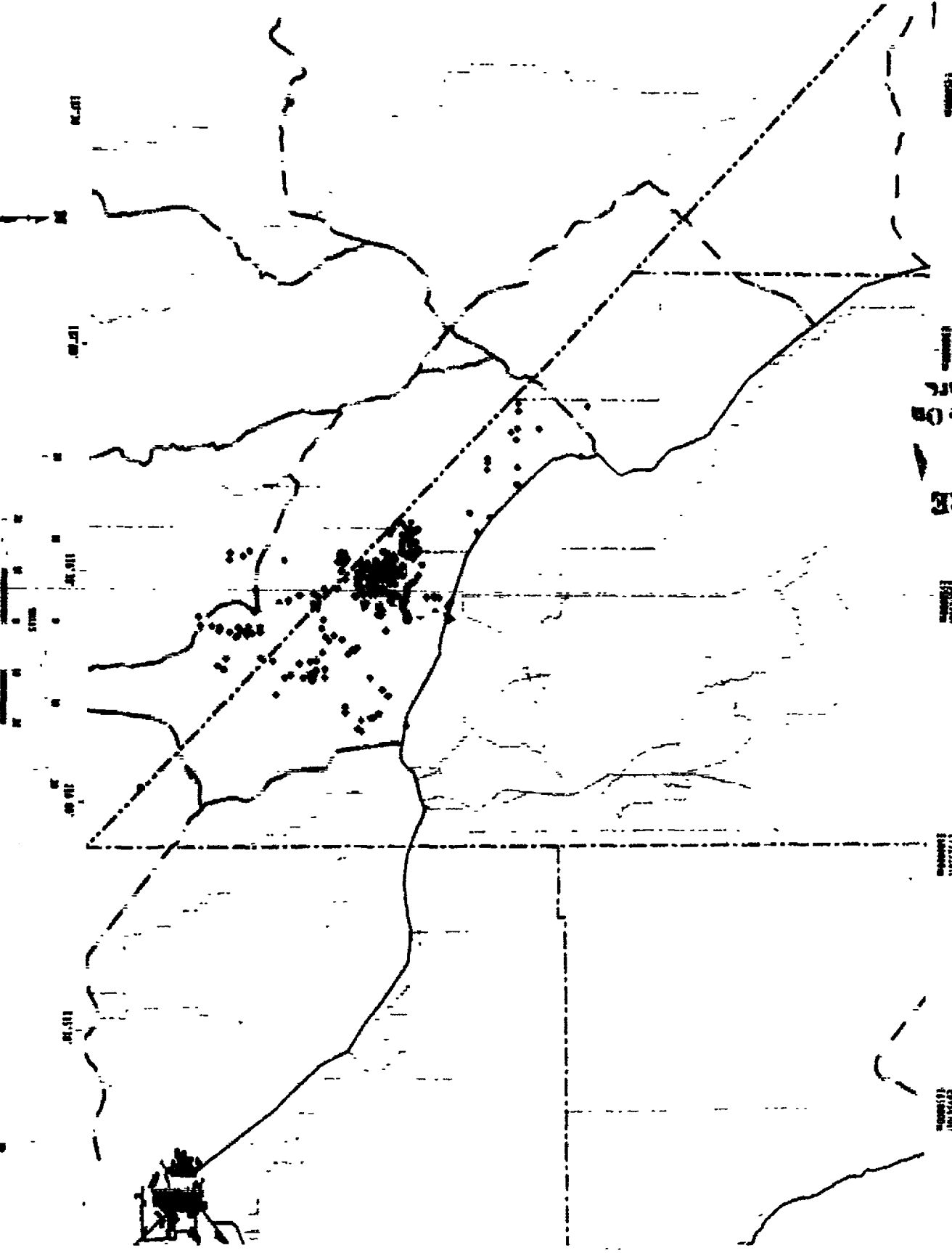
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SAS-11.0

LEGEND

CONTOURS

--- Potentiometric surface altitude
(Interval 100 meters)

5.21

Note: Hanging lines indicate end of data.

Source: Weddell, R.K., J.J. Robson and R.K. Blankenship. 1984. *Hydrology of Yucca Mountain and Vicinity, Nevada-California, Investigative Results Through Mid-1983*. U.S. Geological Survey Water Resources Investigations Report 84-4267

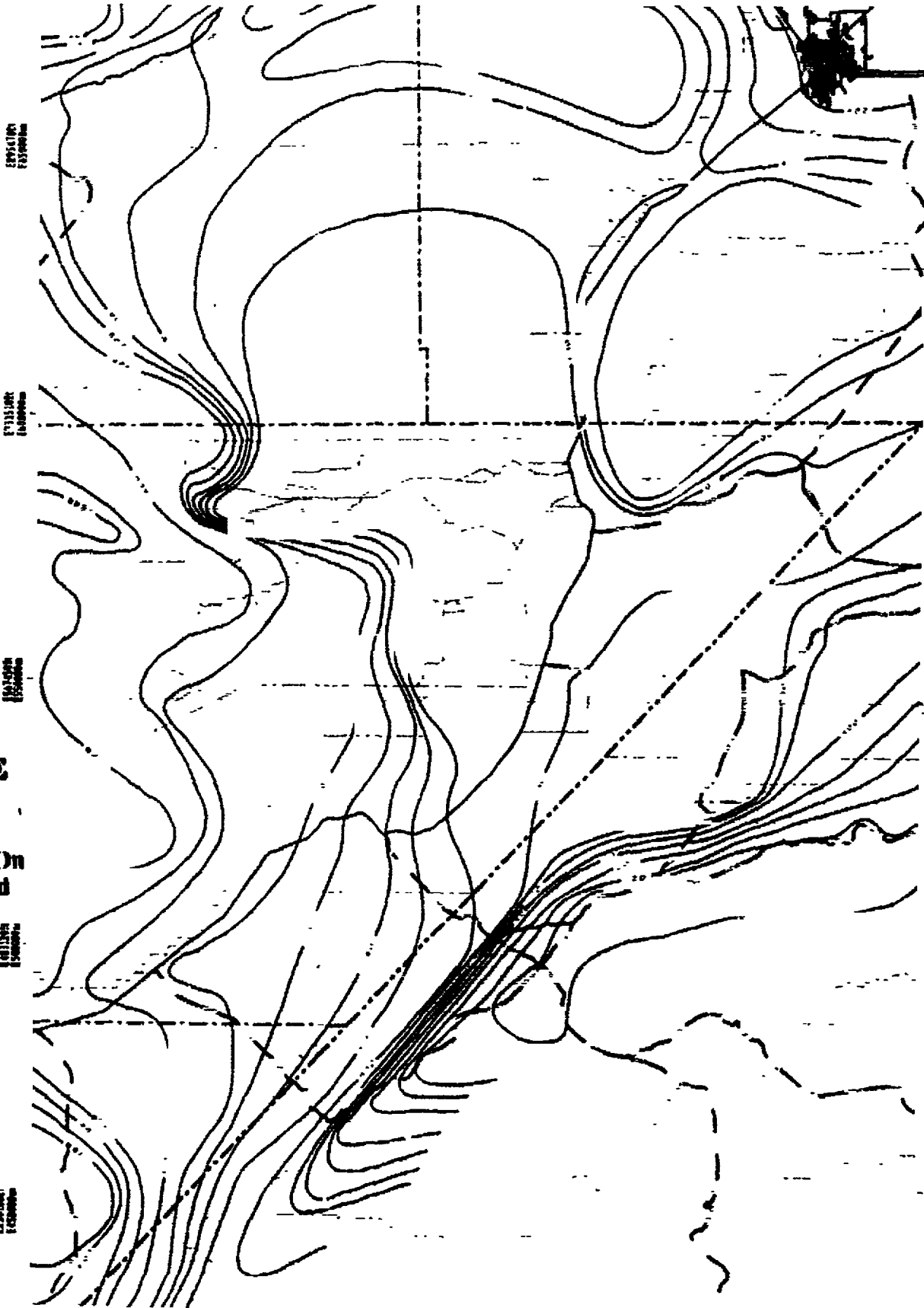
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

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FLOOD POTENTIAL OF FORTYMILE WASH

SAS-12.0

LEGEND

- LIMITS OF INUNDATION (Shown in blue)**
-  100-year flood
 -  500-year flood
 -  Regional maximum flood
- DRAINAGE**
-  Intermittent stream (Shown in blue)
 -  Drainage basin divide (Shown in black)

Note Shading shows extent of available, interpreted data

Source: Squires, R.R. and R.L. Young 1984. *Flood Potential of Forty-mile Wash and its Principal Southwestern Tributaries, Nevada Test Site, Southern Nevada. Water Resources Investigation Report 83-4001, Plate 1, Map Showing Approximate Flood Prone Areas, Forty-mile Wash and its Principal Southwestern Tributaries, Nevada Test Site, Southern Nevada.*

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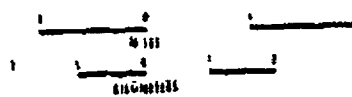
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SECTION 6

GEOLOGY

STRUCTURAL FEATURES AND BEDROCK/ALUVIUM CONTACTS

SA6-1.0

LEGEND

BEDROCK/ALUVIUM CONTACTS

 Alluvium

 Bedrock

 Bedrock/alluvium contact

STRUCTURAL FEATURES


 Fault


 Inferred fault

 Concealed fault

 Concealed fault (inverted by electric magnetic survey)


 Concealed fault (indicated by aeromagnetic anomalies)

 Dike intruded along fault

 Faults that cut alluvium, absence of fractures on fault traces separating bedrock and alluvium indicates alluvium deposited against fault scarps

 Fracture

 Scarp

 Bar and ball on downthrown side of fault


 Arrows indicate relative strike-slip displacement

 Trend and plunge of striations on slickensides

 Direction of fault dip

 Queried where doubtful

 Tectonic Reccis

 Strike of dominant near-vertical fracture set

Note: The extent of available data is shown

Source Scott R. B. and J. Bank 1994 *Preliminary Geologic Map of Yucca Mountain with Geologic Sections, Nye County, Nevada* USGS Open File Report 84-494



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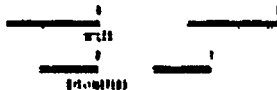
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URANIUM-SERIES DATING OF CARBONATE AND SILICA PRECIPITATES

SA6-2.0

◆ EXISTING SAMPLING LOCATIONS

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	SOURCE
1	5J	37°13'40"N	116°02'27"W	Szabo, et al., 1981
2	5I	37°13'40"N	116°02'27"W	Szabo, et al., 1981
3	H1	37°06'21"N	116°11'03"W	Szabo, et al., 1981
4	I2	37°06'21"N	116°11'03"W	Szabo, et al., 1981
5	365	36°53'28"N	116°28'01"W	Szabo, et al., 1985
6	UE-25A #1	36°51'04"N	116°28'24"W	Szabo, et al., 1981
7	412	36°51'10"N	116°25'42"W	Szabo, et al., 1985
8	STOP 9	36°50'00"N	116°13'31"W	Szabo, et al., 1981
9	379	36°48'65"N	116°23'41"W	Szabo, et al., 1985
10	368	36°48'34"N	116°28'40"W	Szabo, et al., 1985
11	112	36°48'04"N	116°28'7"W	Szabo, et al., 1981
12	366	36°48'13"N	116°28'54"W	Szabo, et al., 1985
13	367	36°48'13"N	116°28'54"W	Szabo, et al., 1985
14	115	36°47'07"N	116°28'27"W	Szabo, et al., 1981
15	106	36°45'10"N	116°27'49"W	Szabo, et al., 1985
16	190	36°43'42"N	116°33'00"W	Szabo, et al., 1981
17	59	36°41'31"N	116°30'16"W	Szabo, et al., 1981
18	60	36°41'52"N	116°29'36"W	Szabo, et al., 1981
19	154	36°37'04"N	116°19'14"W	Szabo, et al., 1981
20	155	36°37'04"N	116°19'14"W	Szabo, et al., 1981
21	40	36°43'46"N	116°08'19"W	Szabo, et al., 1981
22	97	36°44'01"N	116°07'25"W	Szabo, et al., 1981
23	82	36°44'07"N	116°08'59"W	Szabo, et al., 1981
24	46	36°41'53"N	116°04'58"W	Szabo, et al., 1981
25	30	36°41'29"N	116°05'34"W	Szabo, et al., 1981
26	31	36°41'11"N	116°06'48"W	Szabo, et al., 1981
27	32	36°41'08"N	116°07'45"W	Szabo, et al., 1981
28	48	36°40'49"N	116°07'40"W	Szabo, et al., 1981
29	47	36°40'49"N	116°07'40"W	Szabo, et al., 1981
30	48	36°40'49"N	116°07'40"W	Szabo, et al., 1981
31	81 3-19F	36°27'30"N	116°18'42"W	Szabo, et al., 1985
32	AM 9	36°27'30"N	116°18'42"W	Szabo, et al., 1985
33	79 3-7P	36°25'08"N	116°27'35"W	Szabo, et al., 1985
34	80-10-20F	36°25'08"N	116°27'35"W	Szabo, et al., 1985

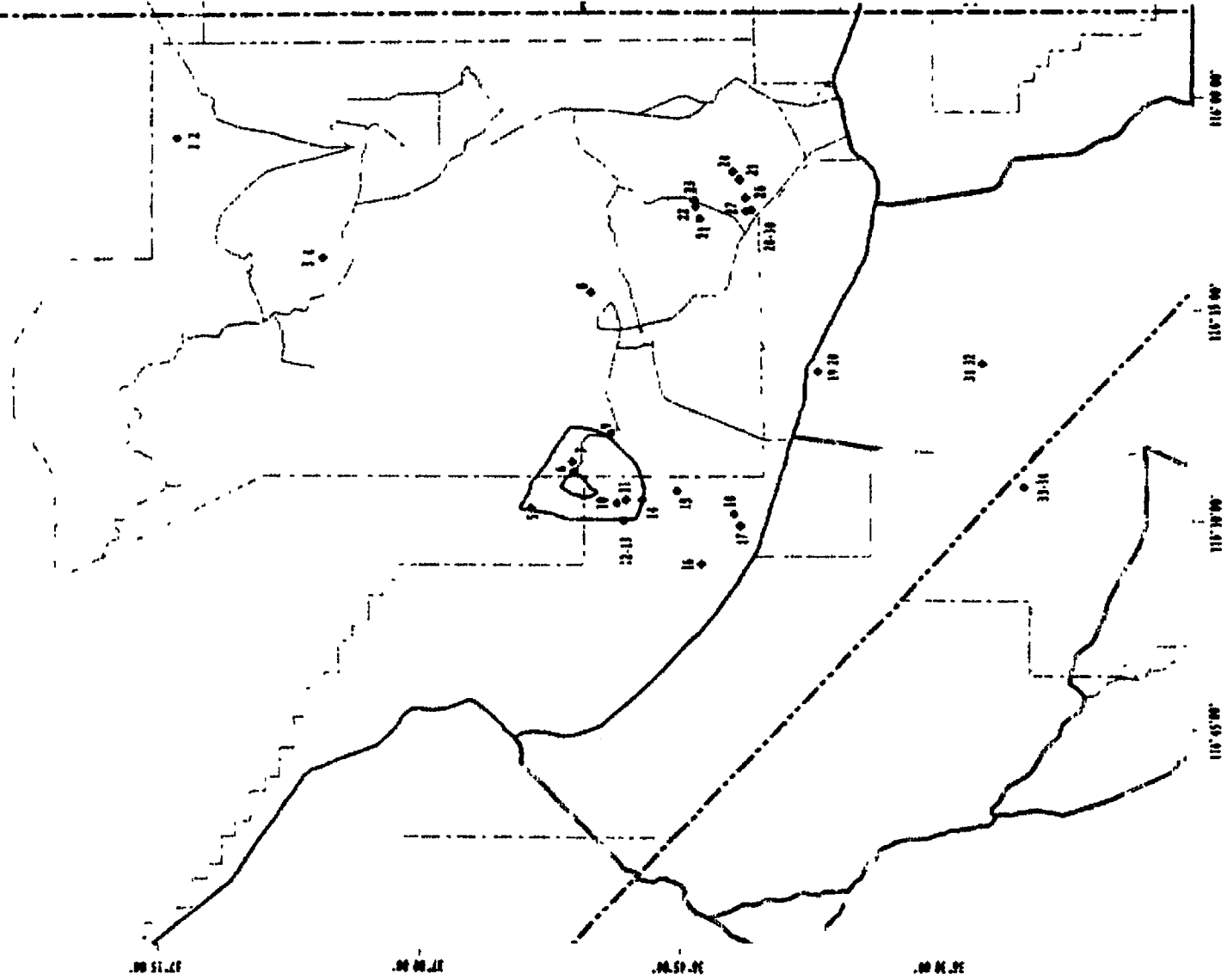
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SECTION 7

GEOPHYSICS

SOUTHERN GREAT BASIN SEISMIC MONITORING NETWORK

SA7-1.0

◆ EXISTING SEISMIC MONITORING NETWORK - SOURCE: Harmsen (in Press)

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE
1	AMR-Amarigosa	36°23'49"N	116°28'35"W
2	APNW-Angel Peak	36°19'11"N	115°35'18"W
3	BGB-Big Butte	37°02'25"N	116°13'40"W
4	BLT-Bellied Range	37°28'59"N	116°07'32"W
5	BMT-Black Mtn	37°17'30"N	116°38'25"W
6	CDH-Calico Downhole	36°51'49"N	116°18'58"W
7	CPX-CP 55	36°55'58"N	116°03'16"W
8	CTS-Cactus Peak	37°39'23"N	116°43'35"W
9	DLM-Dalmar Mtn	37°30'22"N	114°44'25"W
10	EMN-Eldorado Mtn	35°55'16"N	114°45'17"W
11	EPN-Echo Peak	37°38'53"N	116°18'25"W
12	EPR-East Pahrengat	37°10'08"N	116°11'14"W
13	FMF-Funeral Mtn	36°38'17"N	116°46'59"W
14	GLR-Gloom Lake	37°11'55"N	116°01'02"W
15	GMH-Gold Mtn	37°18'01"N	117°15'31"W
16	GMR-Groom Range	37°20'02"N	115°46'21"W
17	GWN-Grapewine Canyon	36°59'57"N	117°20'47"W
18	GWY-Green Waller Valley	36°11'16"N	116°40'18"W
19	HCR-Hot Creek	36°26'23"N	116°06'19"W
20	JON-Johne	37°44'32"N	116°22'53"W
21	KRN-A-Kawich Range	37°13'58"N	116°10'07"W
22	LCH-Last Chance Range	36°51'16"N	116°16'19"W
23	LOP-Look Out Peak	36°44'31"N	117°16'40"W
24	LSM-Little Skull Mtn	36°39'45"N	115°57'38"W
25	MCA-Marble Canyon	37°26'26"N	117°29'58"W
26	MCY-Mercy	37°36'31"N	115°16'33"W
27	MGM-Magruder Mtn	37°42'03"N	117°23'08"W
28	MTI-Mount Irish	36°10'38"N	116°09'13"W
29	MZP-Montezuma Peak	37°39'08"N	114°56'14"W
30	NOP-Nopah Range	36°23'35"N	117°09'58"W
31	NPN-North Pahrengat	37°25'31"N	117°54'28"W
32	PAN-Panavint Range	37°24'25"N	115°02'59"W
33	PPK-Piper Peak	37°45'28"N	115°58'20"W
34	PRR-Pahrengat	35°57'51"N	113°52'03"W
35	QCS-Queen City Summit	36°38'44"N	116°20'28"W
36	OSM-Queen Sheeba Mtn	36°58'55"N	117°02'07"W
37	SDH-Striped Hills	36°30'17"N	115°06'32"W
38	SHRG-Sheep Range	36°41'37"N	115°48'38"W
39	SRG-Seaman Range	37°52'54"N	116°04'04"W
40	SPP-Spoehne Peak	36°55'33"N	116°13'14"W
41	SVP-Silver Peak	37°02'07"N	116°23'13"W
42	TMBR-Timber Mtn	36°48'16"N	117°24'17"W
43	TMO-Tin Mtn	37°36'16"N	115°30'08"W
44	TPU-Timpahute Range	37°08'31"N	116°42'59"W
45	TTC-Thirsty Canyon	36°47'33"N	116°37'22"W
46	WCT-Wedical Peak	37°58'55"N	115°35'32"W
47	WRN-Wheeler Peak	36°51'14"N	116°31'50"W
48	YMT#1-Yucca Mtn 1	36°47'06"N	116°59'10"W
49	YMT#2-Yucca Mtn 2	36°50'56"N	116°24'58"W
50	YMT#3-Yucca Mtn 3	36°53'54"N	116°27'08"W
51	YMT#4-Yucca Mtn 4	36°51'20"N	116°27'13"W
52	YMT#5-Yucca Mtn 5	36°52'51"N	116°24'02"W
53	YMT#6-Yucca Mtn 6	36°36'18"N	116°02'37"W
54		36°41'34"N	116°02'40"W
55		36°48'49"N	116°01'37"W
56		37°04'21"N	116°01'55"W
57		36°41'13"N	116°09'54"W
58		36°48'13"N	116°09'59"W
59		36°51'35"N	116°14'01"W
60		37°07'52"N	116°15'37"W
61		36°43'34"N	116°19'07"W
62		36°46'52"N	116°20'38"W
63		36°49'11"N	116°23'17"W
64		36°54'26"N	116°19'55"W
65		36°57'30"N	116°22'34"W
66		36°52'44"N	116°25'58"W
67		37°19'35"N	116°25'05"W

◇ PROPOSED SEISMIC MONITORING NETWORK - SOURCE: Gomborg, 1991

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE
56	1	36°52'51"N	116°58'03"W
57	2	36°36'18"N	116°02'37"W
58	3	36°41'34"N	116°02'40"W
59	4	36°48'49"N	116°01'37"W
60	4	37°04'21"N	116°01'55"W
61	5	36°41'13"N	116°09'54"W
62	7	36°48'13"N	116°09'59"W
63	8	36°51'35"N	116°14'01"W
64	9	37°07'52"N	116°15'37"W
65	10	36°43'34"N	116°19'07"W
66	11	36°46'52"N	116°20'38"W
67	12	36°49'11"N	116°23'17"W
68	13	36°54'26"N	116°19'55"W
69	14	36°57'30"N	116°22'34"W
70	15	36°52'44"N	116°25'58"W
71	16	37°19'35"N	116°25'05"W

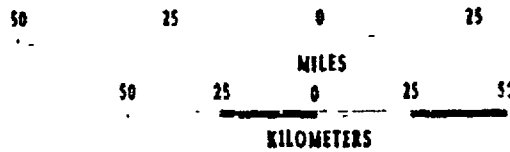
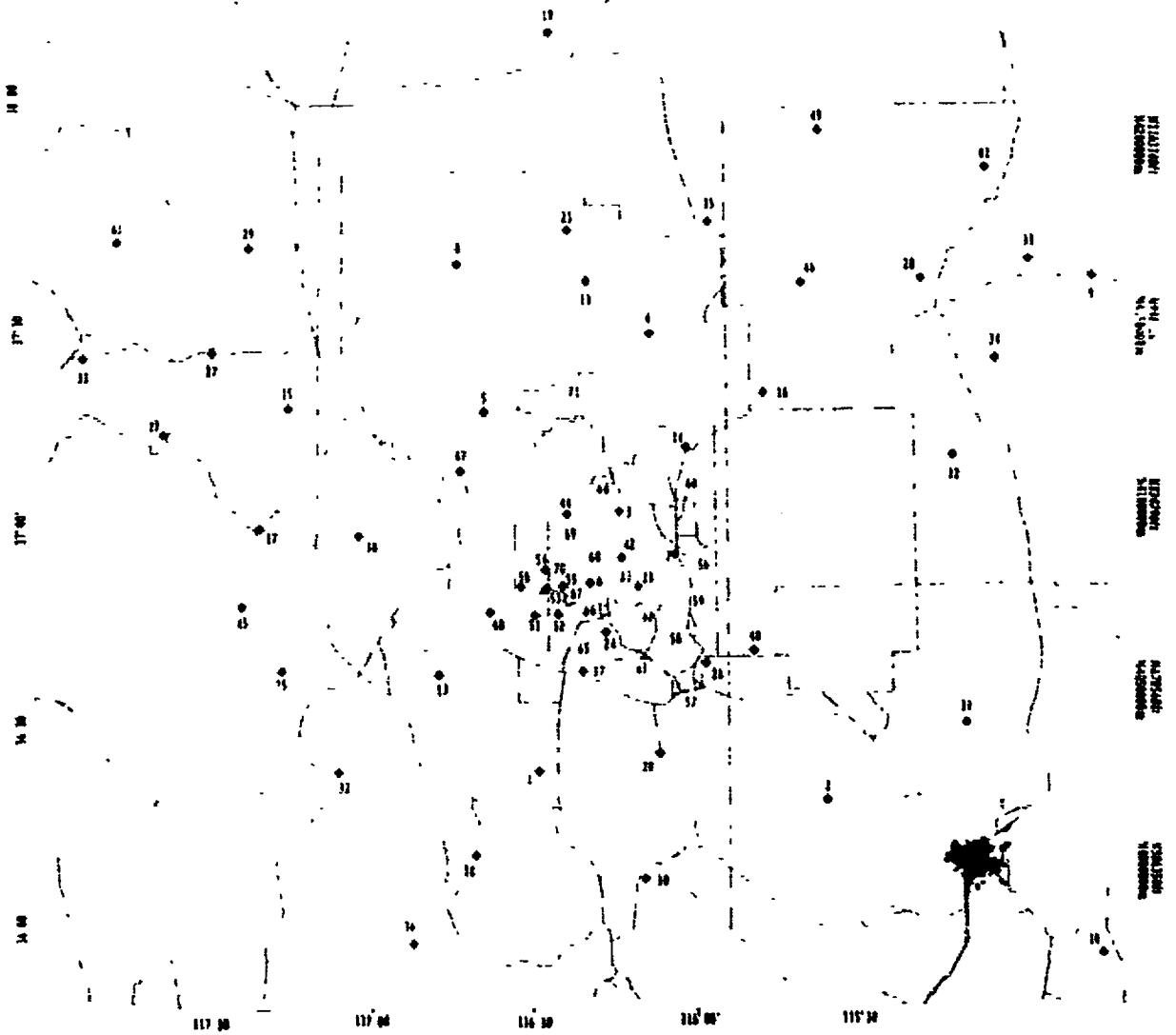
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 NASA SA7-1.0

EXISTING SEISMIC REFLECTION SURVEYS

SA7-2.0

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SEISMIC SURVEYS*

- Seisdata Services Inc./Seismic International Research Corporation
- Colorado School of Mines
- Bridwell Seismograph Services Inc.

Source: McGovern, T.F., L.W. Parkratz, and H.D. Ackeman. 1983. *An Evaluation of Seismic Reflection Studies in the Yucca Mountain Area, Nevada Test Site*. USGS Open File Report 83-912, 58p.

* Seismic survey lines are identified by the name of the surveying organization

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PROPOSED SEISMIC REFLECTION SURVEYS

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SEISMIC SURVEYS

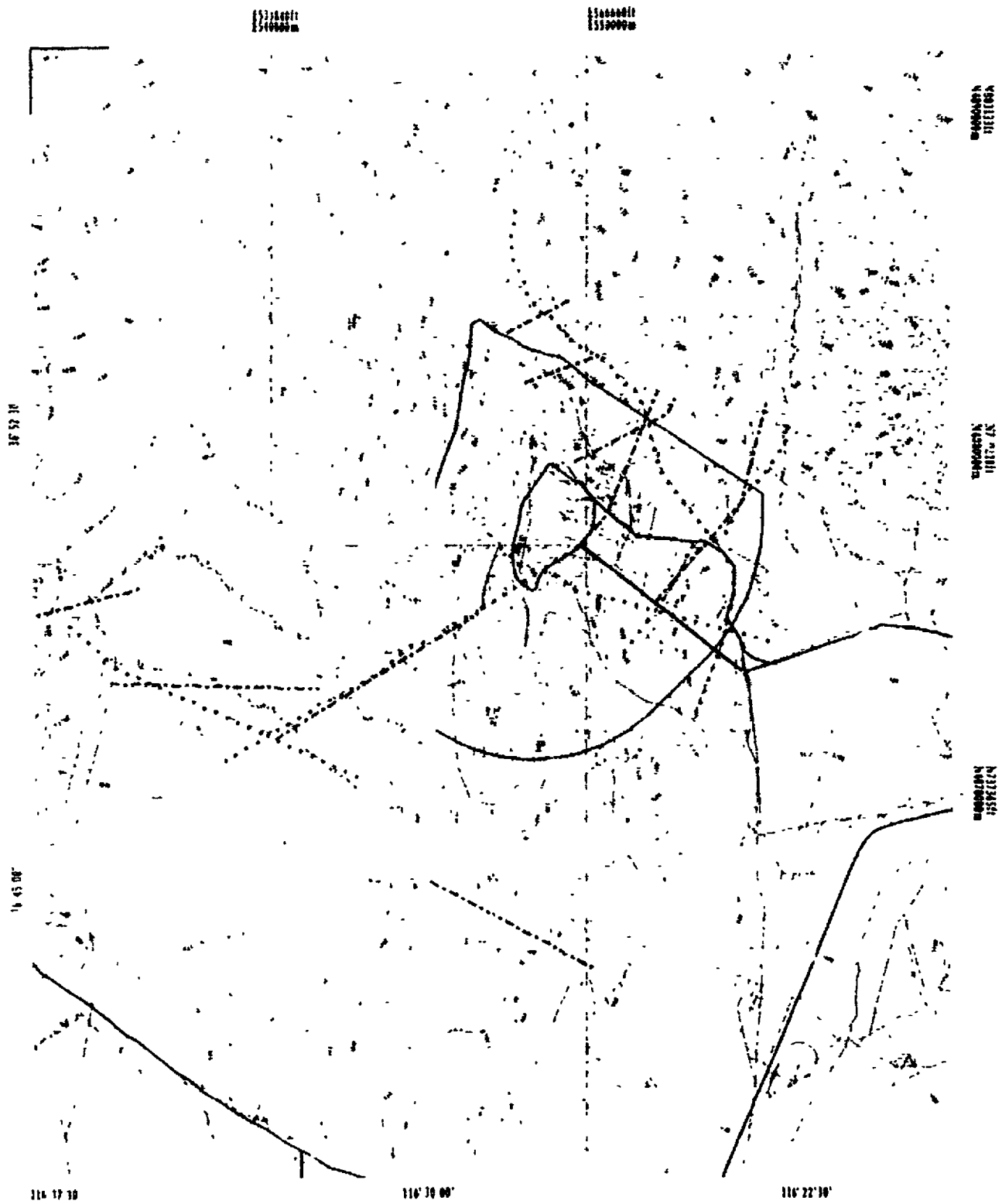
- Seismic Reflection * (U S DOE, 1989a)
- Seismic Reflection (USGS, 1991c)
- Principal Lines for Evaluation **

Source U S Department of Energy, 1989a. *Site Characterization Plan, Yucca Mountain Site, Nevada Research and Development Area, Nevada*. DOE/RW-0199, Volumes I-IX

* These proposed shallow seismic reflection (mini-sosie) lines are for assessment of method and for investigation of faults in the Yucca Mountain region

** The two principal lines are planned to be performed first for test and evaluation.

U S Geological Survey 1991c. *Characteristics of the Vertical and Lateral Distribution of Stratigraphic Units within the Site Area*. USGS Quality Assurance Grading Report Number G1232211, Revision 1



36° 52' 30"

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114° 17' 30"

116° 30' 00"

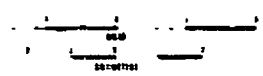
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SEISMIC REFRACTION SURVEYS – 1983
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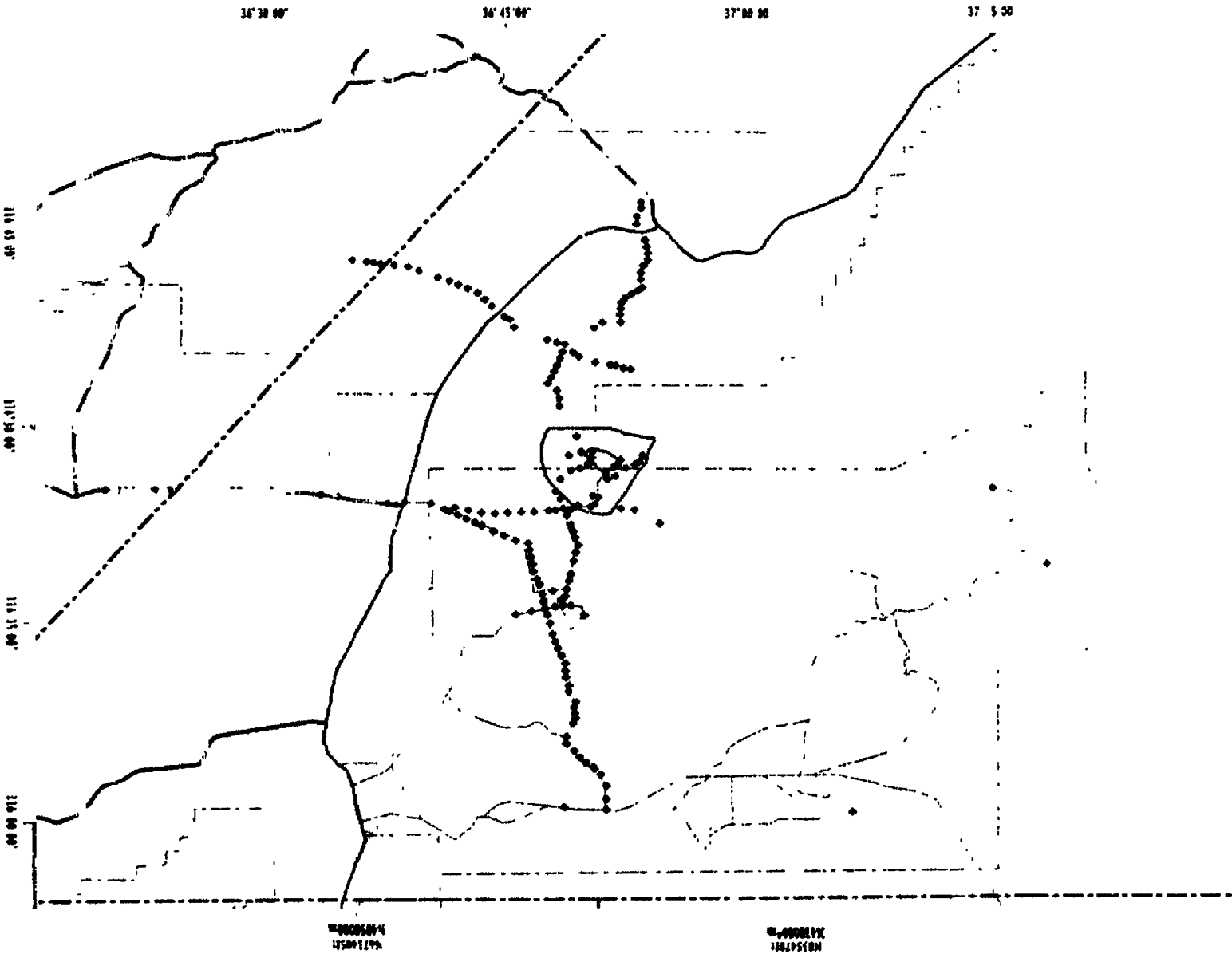
- ◆ Existing Seismic Refraction Recorders and/or Shot Points

Sc 11c Hoffman, L R and W D Mooney 1983 *A Seismic Study of Yucca Mountain and Vicinity, Southern Nevada Data Report and Preliminary Results* U.S. Geological Survey Open-File Report 83-588, 1 plate, 50p

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SEISMIC REFRACTION SURVEYS – 1985

SA7-5.0

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- ◆ Sigsbee Refraction Recorders and/or Shot Points

Source Sutton, V.D. 1985 *Data Report for the 1985 Seismic Refraction Experiment at Yucca Mountain and Vicinity, Southwestern Nevada* U.S. Geological Survey Open-File Report 85-391, 17 plates, 96p.

Mooney, W. 1992. Update to Sutton 1985 Report. U.S. Geological Survey written communication

SEISMIC REFRACTION LINES

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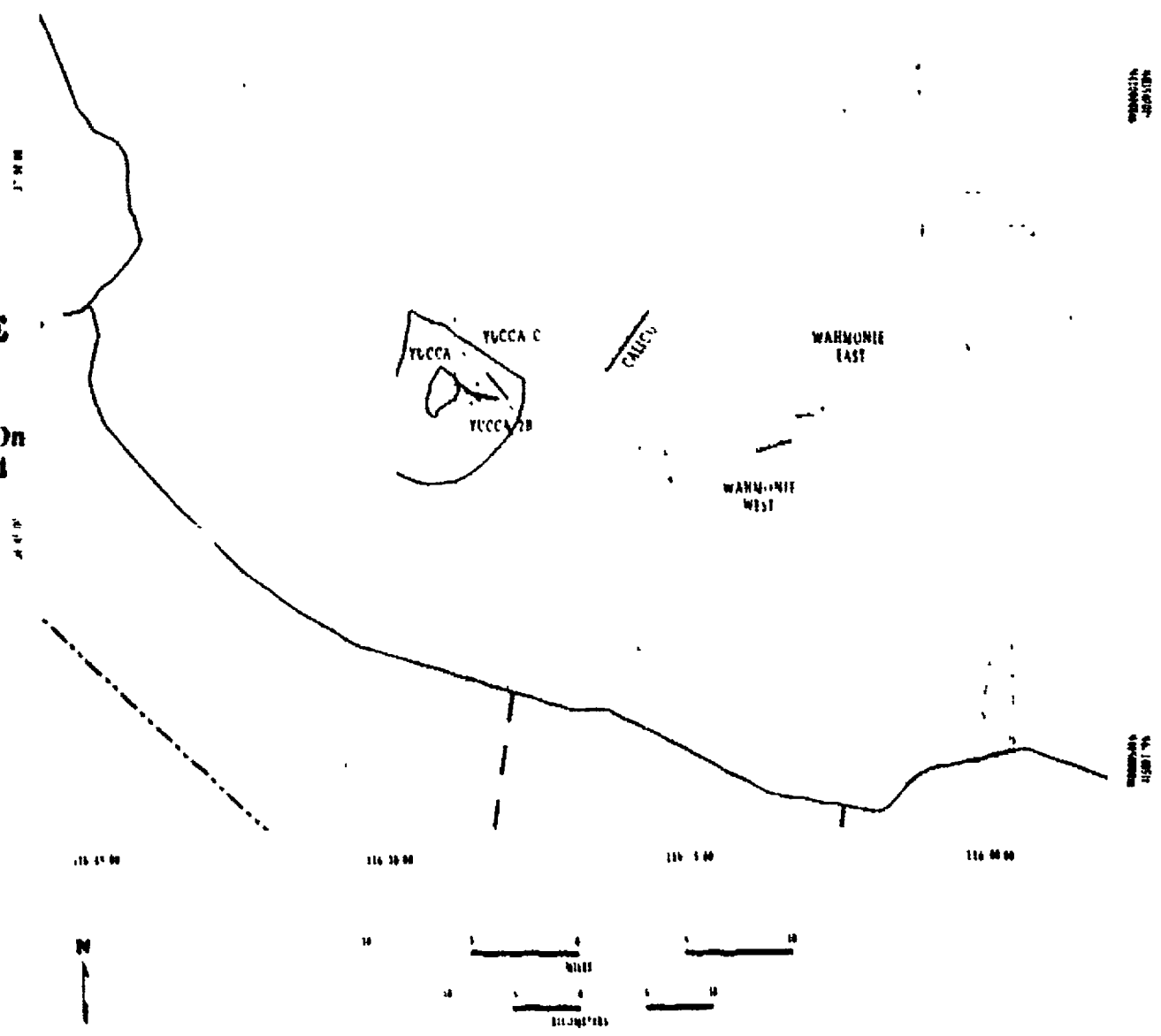
— Seismic Refraction Lines with Geophone Locations

Source Parkratz, L. W. 1982 Reconnaissance Seismic Refraction Studies at Calico Hills, Wahmonie, and Yucca Mountain Southwest Nevada Test Site, Nye County, Nevada USGS Open File Report 82-478, 25p

U S Department of Energy 1980a Site Characterization Plan, Yucca Mountain Site, Nevada Research and Development Area, Nevada DOE/RW 0199, Volumes I-IX

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SA 7 & 8

MAGNETIC AIR AND GROUND TRAVERSES

SA7-7.0

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- — Magnetic Ground Traverses (Shown in brown)
- Air Traverses (Shown in blue)

Note Traverse annotation indicates direction in which survey was run. For example, Traverse H82 was run from starting point H82 to stopping point H82'. Traverse distances are measured in meters.

Source Bath, G. D. and C. E. Jahren. 1984. *Interpretations of Magnetic Anomalies at a Potential Repository Site Located in the Yucca Mountain Area, Nevada Test Site*. USGS Open File Report 84-120, 40.

Bath, G. D. and C. E. Jahren. 1985. *Investigations of an Aeromagnetic Anomaly on the West Side of Yucca Mountain, Nye County, Nevada*. USGS Open File Report 85-459, 24p.

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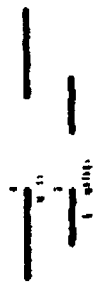
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GRAVITY SURVEYS

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— Gravity Surveys

Note Traverse annotation indicates the direction in which survey was run. For example traverse A was run from starting point A to stopping point A.

Source Snyder, D. B. and W. J. Carr 1982. *Preliminary Results of Gravity Investigations of Yucca Mountain and Vicinity, Southern Nye County, Nevada*. U.S. Geological Survey Open File Report 82-701, 36p.

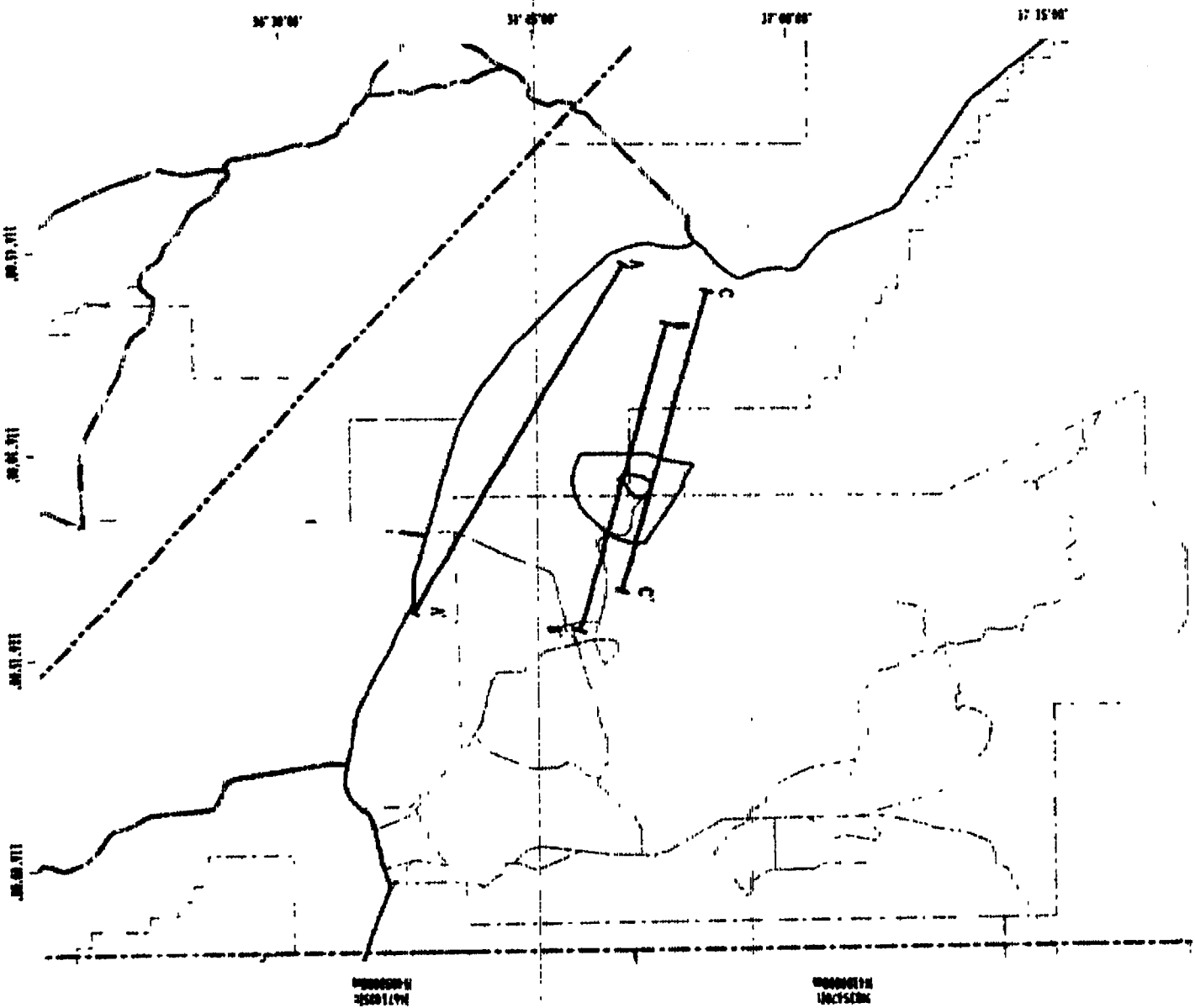
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EXISTING MAGNETOTELLURIC SURVEYS
SAT-9.8

◆ MAGNETOTELLURIC SOUNDING STATIONS - SOURCE: Furgerson 1982

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE
1	Station 11	38°30'05"N	115°08'32"W
2	Station 12	38°17'41"N	115°35'47"W
3	Station 13	38°07'50"N	118°08'55"W
4	Station 14	38°12'34"N	118°38'03"W
5	Station 16	37°12'17"N	118°00'48"W
6	Station 17	37°12'15"N	118°17'19"W
7	Station 18	37°04'58"N	118°48'10"W
8	Station 19	38°23'25 N	116°28'29"W
9	Station 20	37°02'10"N	118°11'49"W
10	Station 21	38°55'13"N	118°10'43"W
11	Station 22	38°51'31"N	118°08'22"W
12	Station 21	38°45'38"N	118°37'32"W
13	Station 24	38°40'13"N	115°58'18"W
14	Station 25	38°28'36"N	118°08'27"W
15	Station 26	38°38'48"N	118°21'19"W

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PROPOSED MAGNETOTELLURIC SURVEYS

SA7-10.0

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◆ Magnetotelluric Sounding

Source U S Department of Energy 1989a Sl. Characterization Plan, Yucca Mountain Site, Nevada Research and Development Area, Nevada DOE/RM-0199, Volumes I-IX

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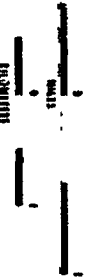
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SCHLUMBERGER RESISTIVITY SOUNDINGS

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TRAVERSES

-- Resistivity Cross-section

◆ Schlumberger Sounding Locations

MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	AZIMUTH
1	24	36°50'21"N	116°24'06"W	128°
2	25	36°50'51"N	116°24'40"W	107°
3	26	36°51'48"N	116°25'22"W	110°
4	27	36°50'34"N	116°24'38"W	112°
5	29	36°50'38"N	116°24'49"W	115°
6	30	36°50'42"N	116°25'40"W	183°
7	31	36°50'48"N	116°25'55"W	136°
8	32	36°51'09"N	116°26'30"W	122°
9	33	36°51'43"N	116°27'02"W	170°
10	34	36°52'44"N	116°25'42"W	92°
11	35	36°53'20"N	116°26'21"W	85°
12	36	36°53'46"N	116°27'00"W	64°
13	37	36°54'48"N	116°27'52"W	153°
14	38	36°51'54"N	116°27'25"W	142°
15	39	36°51'59"N	116°27'30"W	137°
16	40	36°52'00"N	116°27'23"W	175°
17	41	36°47'39"N	116°19'52"W	171°
18	42	36°47'51"N	116°20'40"W	90°
19	43	36°48'22"N	116°21'36"W	80°
20	44	36°49'24"N	116°23'49"W	61°
21	45	36°47'58"N	116°23'40"W	80°
22	47	36°48'46"N	116°23'30"W	165°
23	48	36°45'37"N	116°24'58"W	122°
24	49	36°45'17"N	116°25'50"W	153°
25	50	36°45'05"N	116°26'58"W	170°
26	YM-1	36°45'38"N	116°24'23"W	128°
27	YM-2	36°47'12"N	116°18'53"W	125°
28	YM-3	36°47'34"N	116°19'22"W	124°

Source Senterfit, P.M., D.B. Hoover, and M. Chomak 1982 *Resistivity Sounding Investigations by the Schlumberger Method in the Yucca Mountain and Jackass Flat Area, Nevada Test Site, Nevada*. USGS-Open File Report 82-1043, 39p.

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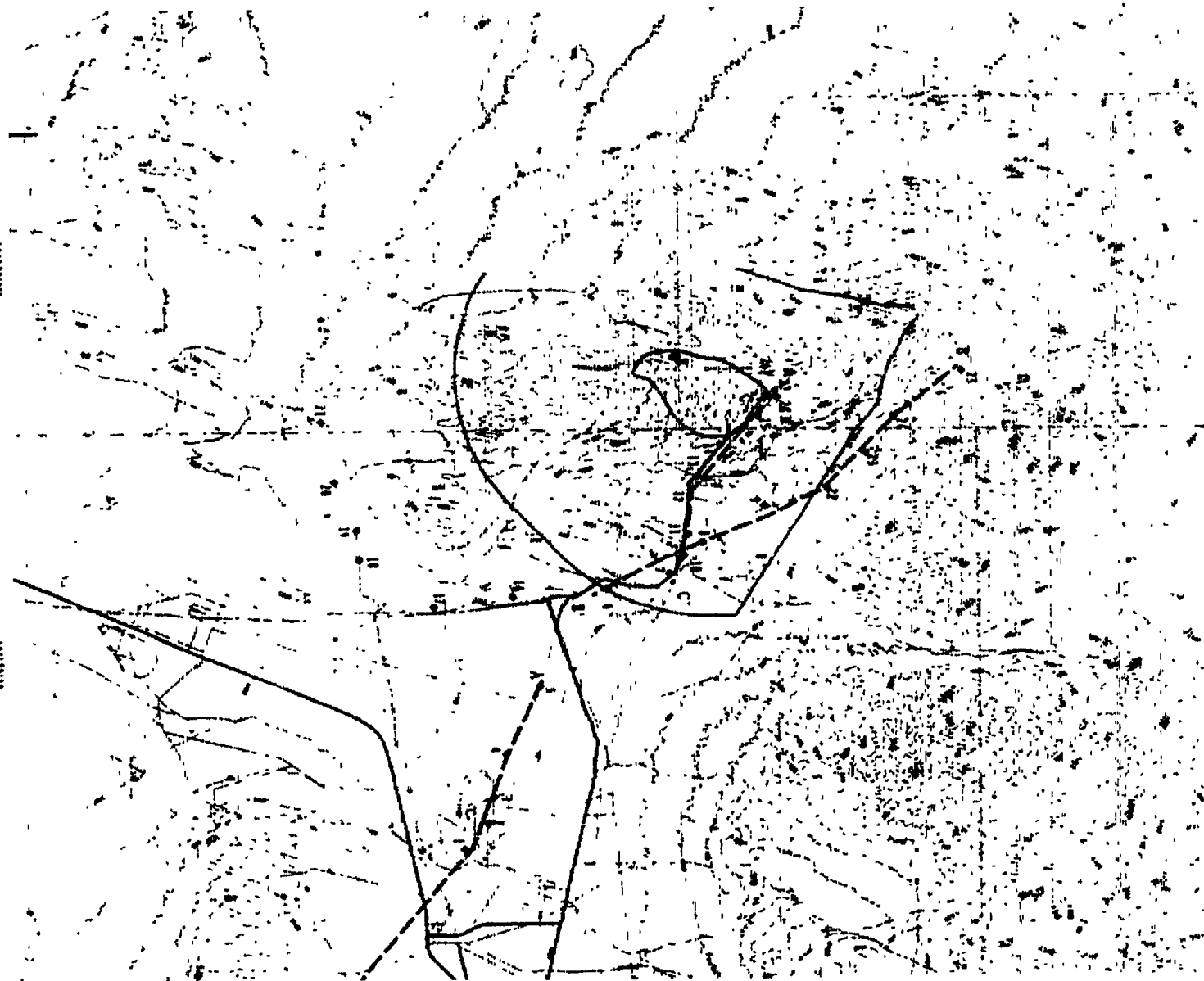
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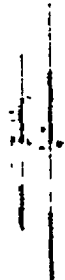
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SCHLUMBERGER SOUNDINGS IN THE AMARGOSA DESERT

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◆ SOUNDING LOCATIONS - SOURCE Greenhaus and Zablacki, 1982

MAP DESIGNATION	ACTIVITY ID	LATITUDE	LONGITUDE	AZIMUTH	MAP DESIGNATOR	ACTIVITY ID	LATITUDE	LONGITUDE	AZIMUTH
1	1	36°42'48"N	118°42'51"W	145°	66	66	36°23'16"W	118°23'16"W	180°
2	2	36°41'28"N	118°41'16"W	131°	68	68	36°18'54"W	118°22'28"W	248°
3	3	36°42'18"N	118°40'18"W	187°	70	70	36°22'22"W	118°19'13"W	178°
4	4	36°42'07"N	118°39'10"W	149°	71	71	36°22'28"W	118°18'11"W	150°
5	5	36°40'11"N	118°37'12"W	172°	72	72	36°31'27"W	118°42'28"W	185°
6	6	36°41'43"N	118°35'20"W	137°	73	73	36°37'19"W	118°41'19"W	180°
7	7	36°41'16"N	118°33'11"W	161°	74	74	36°35'10"W	118°38'07"W	90°
8	8	36°40'08"N	118°32'08"W	135°	75	75	36°35'10"W	118°38'07"W	90°
9	9	36°39'28"N	118°35'46"W	168°	76	76	36°38'10"W	118°35'46"W	90°
10	10	36°39'28"N	118°35'46"W	168°	77	77	36°38'10"W	118°35'46"W	90°
11	11	36°39'28"N	118°35'46"W	168°	78	78	36°38'10"W	118°35'46"W	90°
12	12	36°42'18"N	118°28'49"W	203°	79	79	36°38'10"W	118°31'07"W	90°
13	13	36°41'46"N	118°28'49"W	200°	80	80	36°38'10"W	118°27'39"W	90°
14	14	36°41'08"N	118°27'43"W	186°	81	81	36°33'22"W	118°27'28"W	90°
15	15	36°41'22"N	118°25'20"W	180°	82	82	36°33'22"W	118°27'28"W	90°
16	16	36°41'28"N	118°25'20"W	180°	83	83	36°33'17"W	118°27'31"W	90°
17	17	36°41'17"N	118°17'26"W	187°	84	84	36°33'17"W	118°27'31"W	90°
18	18	36°40'21"W	118°27'48"W	90°	85	85	36°32'40"W	118°33'23"W	155°
19	19	36°39'28"N	118°25'27"W	240°	86	86	36°30'34"W	118°28'10"W	155°
20	20	36°39'08"N	118°25'24"W	232°	87	87	36°28'30"W	118°25'46"W	90°
21	21	36°47'08"N	118°26'17"W	228°	88	88	36°28'20"W	118°25'46"W	90°
22	22	36°46'18"N	118°25'22°	215°	89	89	36°28'20"W	118°25'46"W	90°
23	23	36°37'08"N	118°24'30"W	184°	90	90	36°27'17"W	118°25'46"W	240°
24	24	36°37'42"N	118°24'19"W	188°	91	91	36°27'17"W	118°25'46"W	242°
25	25	36°37'08"N	118°24'41"W	90°	92	92	36°26'18"W	118°27'18"W	81°
26	26	36°35'48"N	118°23'30"W	278°	93	93	36°26'00"W	118°26'48"W	104°
27	27	36°35'08"N	118°22'08"W	90°	94	94	36°26'31"W	118°23'03"W	188°
28	28	36°35'08"N	118°21'18"W	90°	95	95	36°26'47"W	118°22'08"W	241°
29	29	36°34'58"N	118°20'47"W	90°	96	96	36°26'47"W	118°22'08"W	172°
30	30	36°35'08"N	118°19'37"W	90°	97	97	36°26'03"W	118°24'10"W	180°
31	31	36°35'10"N	118°18'37"W	90°	98	98	36°26'12"W	118°22'41"W	176°
32	32	36°35'08"N	118°18'07"W	90°	99	99	36°26'12"W	118°22'41"W	180°
33	33	36°35'08"N	118°17'18"W	90°	100	100	36°24'28"W	118°20'77"W	180°
34	34	36°34'31"W	118°18'48"W	207°	101	101	36°24'28"W	118°20'77"W	180°
35	35	36°35'47"N	118°18'41"W	265°	102	102	36°24'28"W	118°20'77"W	180°
36	36	36°34'10"W	118°20'27"W	183°	103	103	36°23'34"W	118°24'28"W	180°
37	37	36°34'10"W	118°20'27"W	183°	104	104	36°23'34"W	118°24'28"W	180°
38	38	36°34'11"W	118°20'24"W	90°	105	105	36°23'10"W	118°24'02"W	90°
39	39	36°34'10"W	118°20'33"W	90°	106	106	36°23'10"W	118°24'02"W	90°
40	40	36°34'11"W	118°20'30"W	90°	107	107	36°23'10"W	118°24'02"W	90°
41	41	36°34'07"W	118°20'02"W	90°	108	108	36°23'10"W	118°24'02"W	90°
42	42	36°34'08"W	118°20'02"W	90°	109	109	36°23'10"W	118°24'02"W	90°
43	43	36°34'11"W	118°20'13"W	182°	110	110	36°23'10"W	118°24'02"W	90°
44	44	36°34'08"W	118°20'13"W	182°	111	111	36°23'10"W	118°24'02"W	90°
45	45	36°34'08"W	118°20'13"W	182°	112	112	36°23'10"W	118°24'02"W	90°
46	46	36°34'02"W	118°19'44"W	90°	113	113	36°23'10"W	118°24'02"W	90°
47	47	36°34'03"W	118°19'44"W	90°	114	114	36°23'10"W	118°24'02"W	90°
48	48	36°34'03"W	118°19'44"W	90°	115	115	36°23'10"W	118°24'02"W	90°
49	49	36°34'03"W	118°19'44"W	90°	116	116	36°23'10"W	118°24'02"W	90°
50	50	36°34'03"W	118°19'44"W	90°	117	117	36°23'10"W	118°24'02"W	90°
51	51	36°33'28"W	118°20'28"W	183°	118	118	36°23'10"W	118°24'02"W	90°
52	52	36°33'28"W	118°20'28"W	183°	119	119	36°23'10"W	118°24'02"W	90°
53	53	36°33'28"W	118°20'28"W	183°	120	120	36°23'10"W	118°24'02"W	90°
54	54	36°33'28"W	118°20'28"W	183°	121	121	36°23'10"W	118°24'02"W	90°
55	55	36°32'51"W	118°19'48"W	182°	122	122	36°23'10"W	118°24'02"W	90°
56	56	36°32'51"W	118°19'48"W	182°	123	123	36°23'10"W	118°24'02"W	90°
57	57	36°32'51"W	118°19'48"W	182°	124	124	36°23'10"W	118°24'02"W	90°
58	58	36°32'51"W	118°19'48"W	182°	125	125	36°23'10"W	118°24'02"W	90°
59	59	36°32'51"W	118°19'48"W	182°	126	126	36°23'10"W	118°24'02"W	90°
60	60	36°32'51"W	118°19'48"W	182°	127	127	36°23'10"W	118°24'02"W	90°
61	61	36°32'51"W	118°19'48"W	182°	128	128	36°23'10"W	118°24'02"W	90°
62	62	36°32'51"W	118°19'48"W	182°	129	129	36°23'10"W	118°24'02"W	90°
63	63	36°32'51"W	118°19'48"W	182°	130	130	36°23'10"W	118°24'02"W	90°
64	64	36°32'51"W	118°19'48"W	182°	131	131	36°23'10"W	118°24'02"W	90°
65	65	36°32'51"W	118°19'48"W	182°	132	132	36°23'10"W	118°24'02"W	90°
66	66	36°32'51"W	118°19'48"W	182°	133	133	36°23'10"W	118°24'02"W	90°
67	67	36°32'51"W	118°19'48"W	182°	134	134	36°23'10"W	118°24'02"W	90°
68	68	36°32'51"W	118°19'48"W	182°	135	135	36°23'10"W	118°24'02"W	90°
69	69	36°32'51"W	118°19'48"W	182°	136	136	36°23'10"W	118°24'02"W	90°

MAGNETOMETRIC RESISTIVITY SURVEYS
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-- -- Magnetometric Survey Lines

Source Fitterman, D V 1982 *Magnetometric Resistivity Survey Near Forrymile Wash, Nevada Test Site, Nevada* USGS
Open File Report 82-401, 27p

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34° 52' 30"

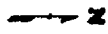
116° 53' 00"

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APPENDIX A

INDEX MAPS

ORTHOPHOTOGRAPHY INDEX

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INDEXES

- 1:6,000 Scale Orthophotograph Coverage (Shown in red)
- 1:12,000 Scale Orthophotograph Coverage (Shown in blue)

Source: This index presents the extents of orthophotograph coverage generated for the Yucca Mountain Site Characterization Project. The orthophotographs were produced to provide up-to-date basemaps. The 1:6,000 scale series includes thirty orthophotograph sheets. The orthophotographs were prepared from 1:24,000 scale aerial photographs taken in July 1990. Digital elevation contour maps are also available at ten foot contour intervals for the 1:6,000 scale series, as well as 160 foot spacing Digital Elevation Models (DEM).

The 1:12,000 scale orthophotographs include thirty-six sheets, prepared from 1:40,000 scale color aerial photographs taken in July 1990. Digital elevation contour maps are available at twenty foot contour intervals for the 1:12,000 scale series, as well as DEMs at 250 foot interval.

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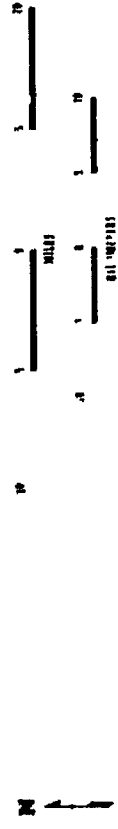
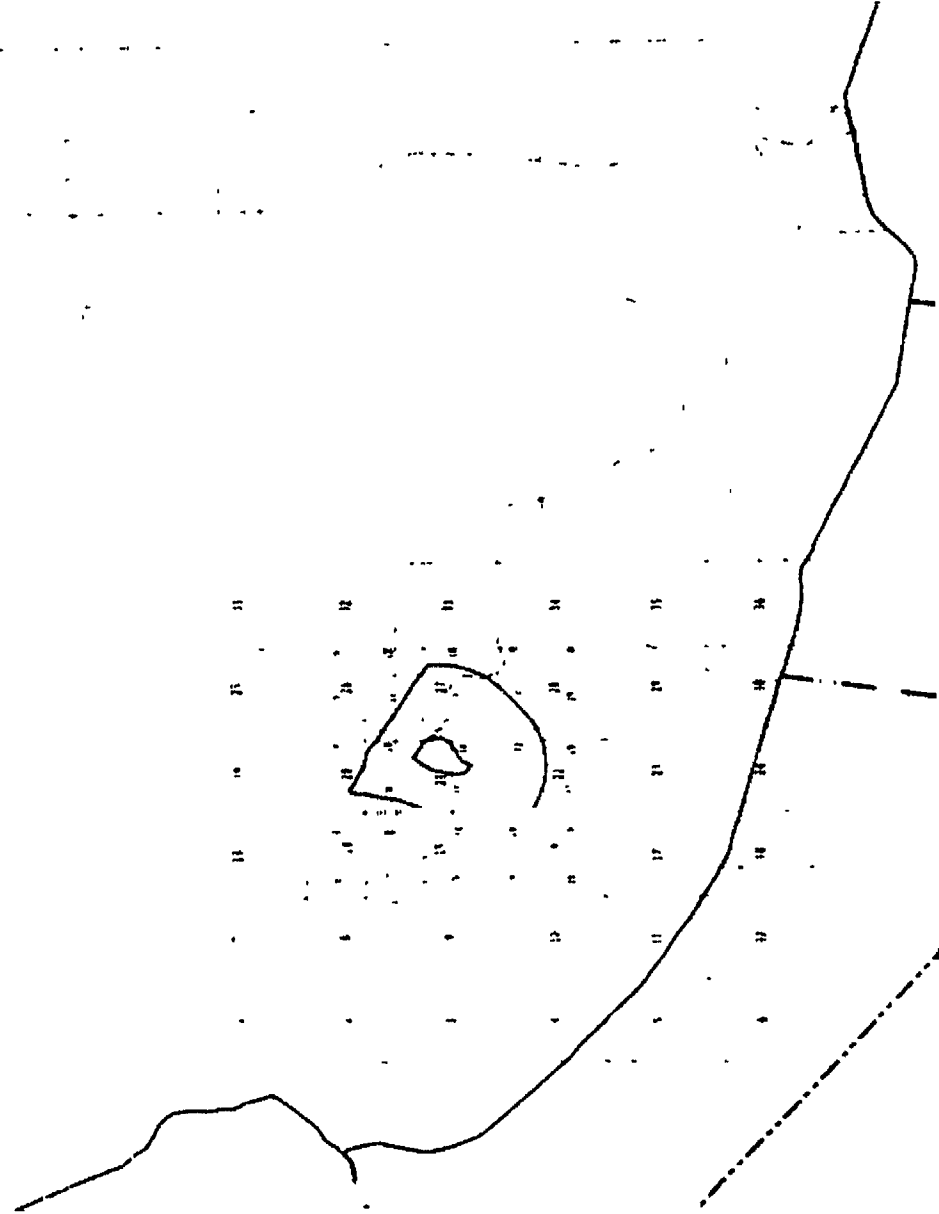
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








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BEDROCK GEOLOGIC MAP INDEX

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-  Franzel, V.A. Jr, and J. Shulters 1990 *Geologic Map of the Nevada Test Site, Southern Nevada* U.S. Geological Survey Miscellaneous Investigations Map I-2046, scale 1:100,000.
-  Maldonado, F. 1981 *Geology of the Twinridge Pluton Area, Nevada Test Site, Nevada* U.S. Geological Survey Open File Report 81-156, 13p.
-  Maldonado, F. 1985 *Geologic Map of the Jackass Flats Area, Nye County, Nevada* U.S. Geological Survey Miscellaneous Investigations Map I-1515, scale 1:48,000.
-  Maldonado, F. 1990. *Geologic Map of the Northwest Quarter of the Bullfrog 15-Minute Quadrangle, Nye County, Nevada* U.S. Geological Survey Miscellaneous Investigations Series Map I-1985, scale 1:24,000.
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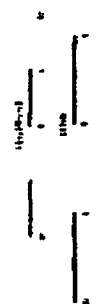
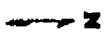
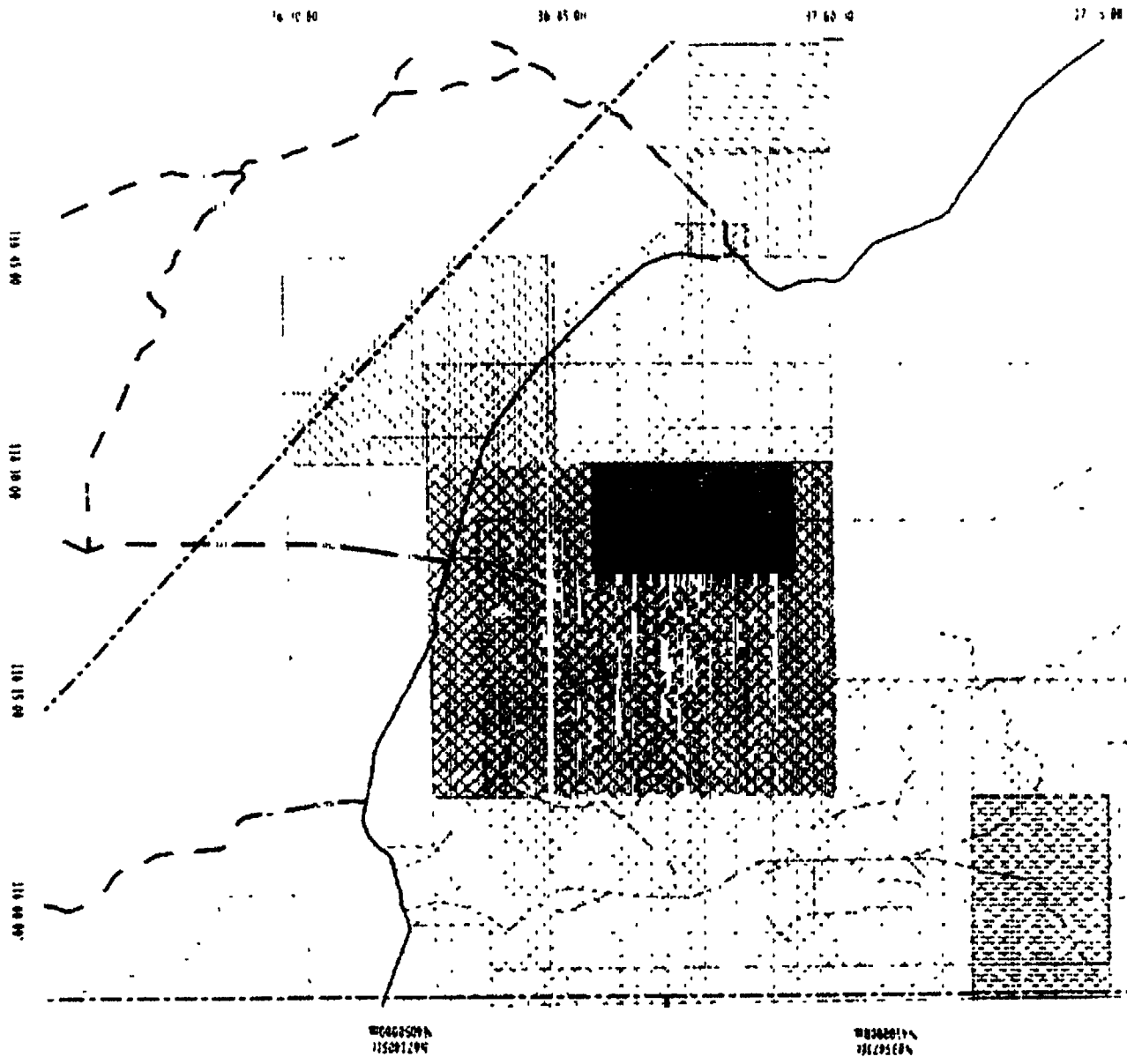
Source: Glanzman, V.M. 1991 *Bibliography of Publications Related to the Yucca Mountain Site Characterization Project Prepared by U.S. Geological Survey Personnel Through April 1992* U.S. Geological Survey Open File Report 91-341, 52p.

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





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SURFICIAL GEOLOGIC MAP INDEX

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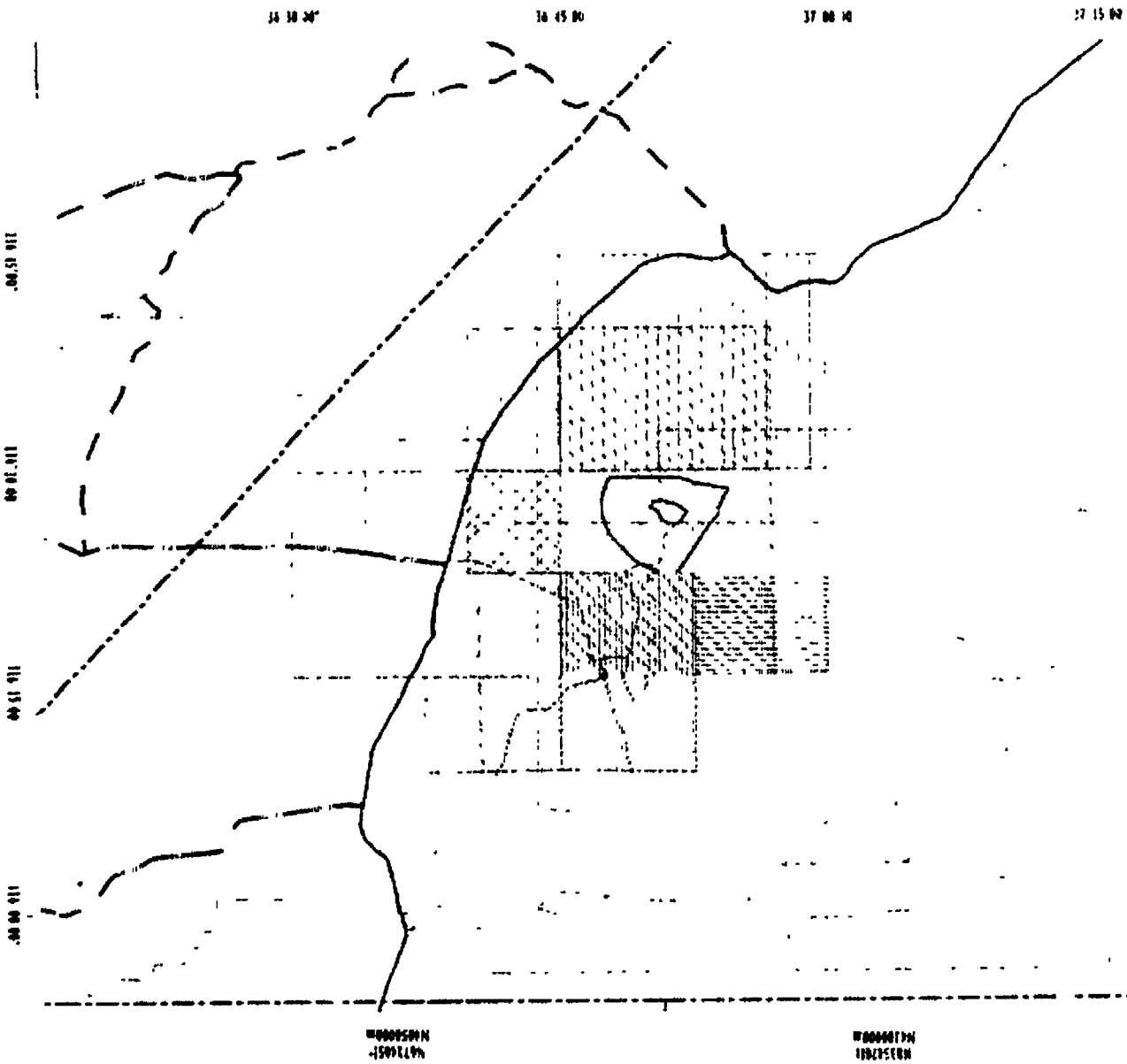
-  Swadley, W.C. 1983 *Surficial Geology of the Lathrop Wells Quadrangle, Nye County, Nevada* U.S. Geological Survey Miscellaneous Investigations Map I-1361, scale 1:48,000.
-  Swadley, W.C. and D.L. Hoover 1989 *Geologic Map of the Surficial Deposits of the Topopah Spring Quadrangle, Nye County, Nevada* U.S. Geological Survey Miscellaneous Investigations Series Map I-2018, scale 1:24,000.
-  Swadley, W.C. and D.L. Hoover 1989 *Geologic Map of the Surficial Deposits of the Jackass Flats Quadrangle, Nye County, Nevada* U.S. Geological Survey Miscellaneous Investigations Series Map I-1994, scale 1:24,000.
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-  Swadley, W.C. and H.E. Huckins 1989 *Surficial Geologic Map of the Specter Range NW Quadrangle, Nye County, Nevada* U.S. Geological Survey Miscellaneous Investigations Series Map I-1884, scale 1:24,000.
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-  Swadley, W.C. and L.D. Parrish 1988 *Surficial Geology of the Bare Mountain Quadrangle, Nye County, Nevada* U.S. Geological Survey Miscellaneous Investigations Series Map I-1826, scale 1:48,000.

Source Glanzman, V.M. 1991 *Bibliography of Publications Related to the Yucca Mountain Site Characterization Project Prepared by U.S. Geological Survey Personnel Through April 1992* U.S. Geological Survey Open File Report 91-341, 52p.

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AEROMAGNETIC STUDIES MAP INDEX

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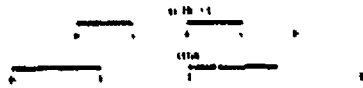
- - - Kane, M.F. and R.E. Bracken 1983 *Aeromagnetic Map of Yucca Mountain and Surrounding Regions, Southwest Nevada* U.S. Geological Survey Open File Report 83-816, 19p
- : : Kane, M.F., M.W. Webring, and B.K. Bhattacharyya 1981 *A Preliminary Analysis of Gravity and Aeromagnetic Surveys of the Timber Mountain Area, Southern Nevada* U.S. Geological Survey Open File Report 81-189, 40p
- - - Kirchoff-Stein, K.S., D.A. Ponce, and B.A. Chuchel 1990 *Preliminary Aeromagnetic Map of the Nevada Test Site and Vicinity, Nevada* U.S. Geological Survey Open File Report 89-445, scale 1:100,000
- - - Langenheim, V.E., S.F. Carl, D.A. Ponce, and J.D. Phillips, in press *Revision of an Aeromagnetic Survey of the Lathrop Wells Area, Nevada* U.S. Geological Survey Open File Report 91-48, scale 1:62,500
- - - U.S. Geological Survey, 1984. *Aeromagnetic Map of the Yucca Mountain Area, Nevada* U.S. Geological Survey Open File Report 84-206, scale 1:62,500
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Source: Glanzman, V.M. 1991 *Bibliography of Publications Related to the Yucca Mountain Site Characterization Project Prepared by U.S. Geological Survey Personnel Through April 1992* U.S. Geological Survey Open File Report 91-341, 52p

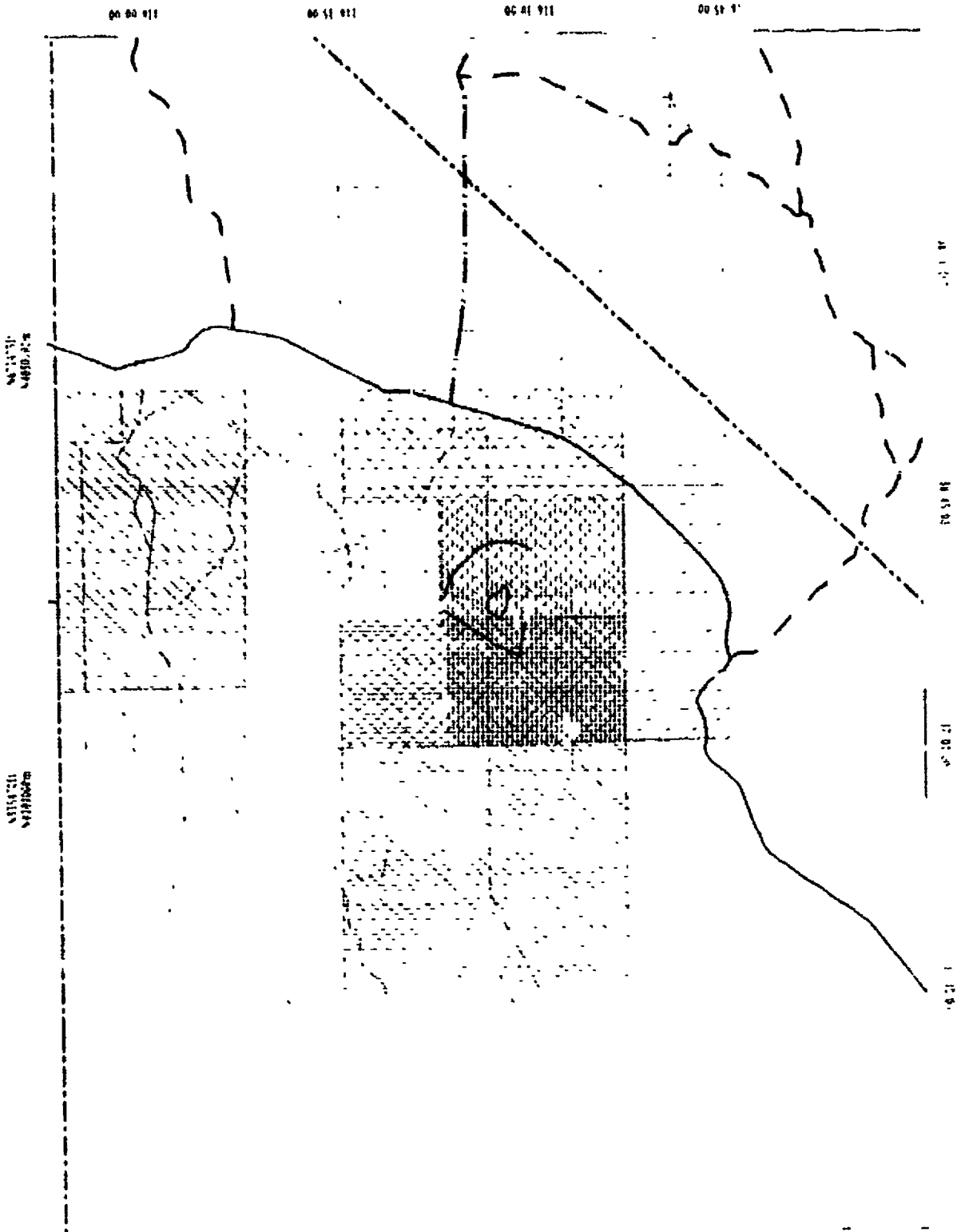
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GRAVITY STUDIES MAP INDEX

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- Kane, M F , M W Webring and B.K. Bhattacharyya. 1981 *A Preliminary Analysis of Gravity and Aeromagnetic Surveys of the Timber Mountain Area, Southern Nevada* U S Geological Survey Open File Report 81-189, 40p.
- Ponce, D A , R N Harris, and H W Oliver 1990 *Isostatic Gravity Map of the Nevada Test Site and Vicinity* U S Geological Survey Open File Report 88-664, scale 1:100,000
- Snyder, D B , and W J Carr 1982 *Preliminary Results of Gravity Investigations at Yucca Mountain and Vicinity, Southern Nye County, Nevada* U S Geological Survey Open File Report 82-701, 36p

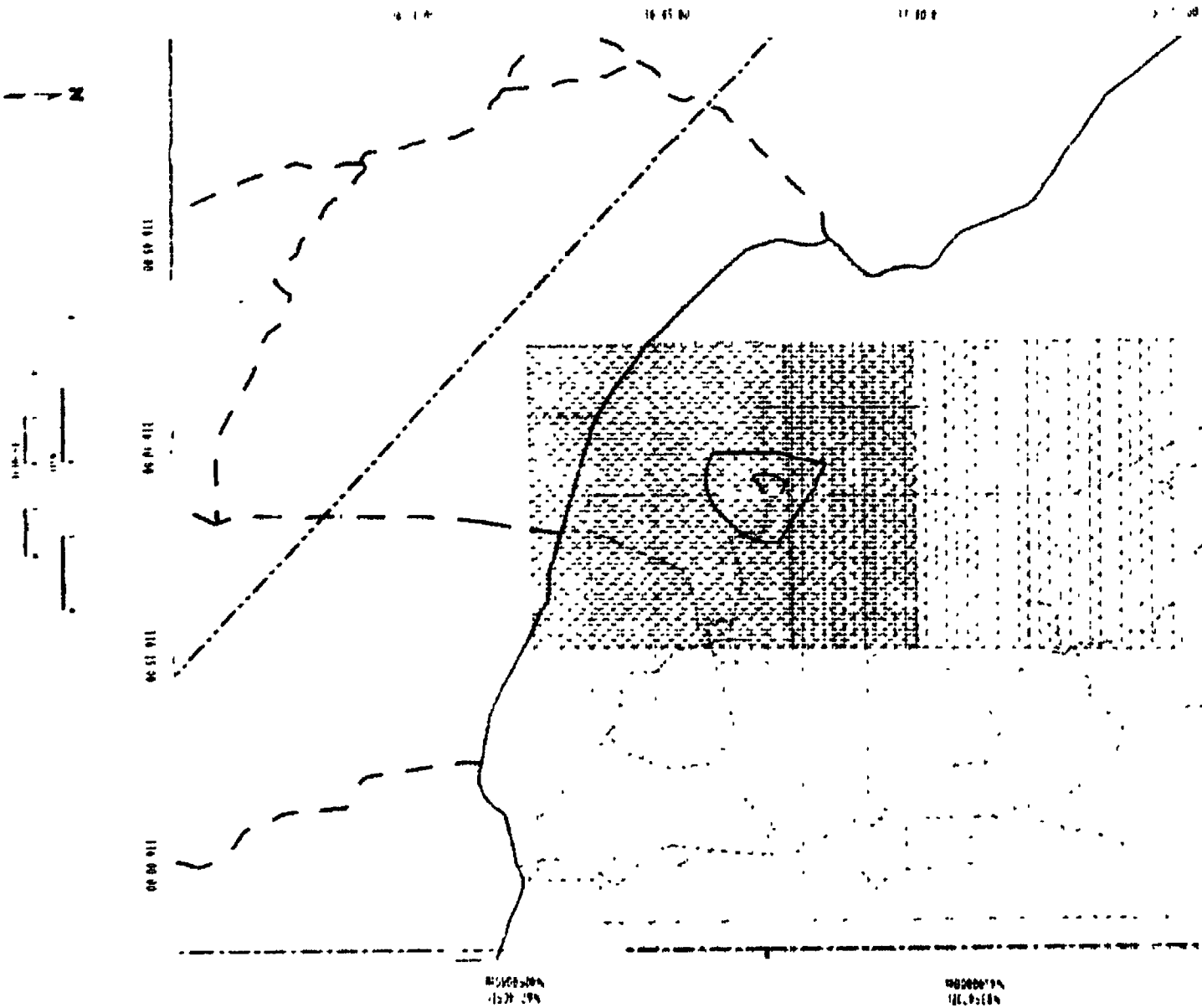
Source Glanzman, V M 1991 *Bibliography of Publications Related to the Yucca Mountain Site Characterization Project Prepared by U S Geological Survey Personnel Through April 1992* U S Geological Survey Open File Report 91-341 52p

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APPENDIX B

STANDARD CONVERSIONS

INTERNATIONAL SYSTEM OF UNITS

The "Metric Conversion Act of 1975" declared the policy of the United States to be an increased use of "the metric system of measurement on a voluntary basis with the goal of achieving a uniformity of units by 1990."

The correct name of the "metric" system is the International System of Units, abbreviated as SI (from the name in French). This is a thoroughly modernized metric system based on very precise standards and relationships between units. SI provides a logical and consistently interrelated system of measurement for science, industry, commerce, and other areas of human effort, including, of course, navigation.

The modern metric system is built upon a foundation of seven base units, plus two supplementary units.

Quantity	SI unit name	Symbol
Length	meter	m
Mass (weight)	kilogram	kg
Temperature	kelvin	K [*]
Time	seconds	s
Electric current	ampere	A
Amount of substance	mole	mol
Luminous intensity	candela	cd
Plane angle	radian	rad
Solid angle	steradian	sr
Area	square meter	m ²
Volume	cubic meter	m ³
Density	kilogram per cubic meter	kg/m ³
Speed/velocity	meter per second	m/s
Acceleration	meter per second squared	m/s ²
Electrical field strength	volt per meter	V/m
Specific energy	joule per kilogram	J/kg
Magnetic field strength	nanotesla	nT

* The spelling in SI is "metre" but "meter" has been adopted for U.S. use.

† The commonly used unit of temperature is the "degree Celsius," C (formerly called "centigrade"); the size of the unit is the same, the zero point is different. If kelvins are used, note that the unit is "kelvin (K)" and not "degree kelvin (K)."†

Quantity	SI unit name	Symbol	Expression in terms of other units
Frequency	hertz	Hz	s ⁻¹
Force	newton	N	kg·m/s ²
Pressure/stress	pascal	Pa	N/m ²
Energy/work	joule	J	N·m
Power	watt	W	J/s
Electrical potential	volt	V	W/A
Electrical resistance	ohm	Ω	V/A

1 000 000 000	10 ⁹	giga	G
1 000 000	10 ⁶	mega	M
1 000	10 ³	kilo	k
100	10 ²	hecto	h
10	10 ¹	deka	da
0.1	10 ⁻¹	deca	d
0.01	10 ⁻²	centi	c
0.001	10 ⁻³	milli	m
0.00001	10 ⁻⁵	micro	μ

degree angle (°)	(π/180) rad
minute angle (')	(π/10 800) rad
second angle (")	(π/648 000) rad
liter (l)	10 ⁻³ m ³
metric ton (t)	10 ³ kg

STANDARD CONVERSION FACTORS

Known value	Multiplied by	To find
inches (in)	25.4	millimeters (mm)
feet (ft)	0.3048	meters (m)
yards (yd)	0.9144	meters (m)
statute miles (s mi)	1.609	kilometers (km)
nautical miles (n mi)	1.852	kilometers (km)
ounces (weight) (oz)	28.35	grams (g)
pounds (lb)	0.4536	kilograms (kg)
ounces, liquid (oz)	30.26	milliliters (ml)
quarts (qt)	0.9464	liters (l)
gallons (gal)	3.785	liters (l)
Fahrenheit temperature (°F)	$\frac{5}{9}$ after subtracting 32	Celsius temperature (°C)

Metric units to Customary

centimeters (cm)	0.3937	inches (in)
meters (m)	3.281	feet (ft)
meters (m)	1.094	yards (yd)
kilometers (km)	0.6214	statute miles (s mi)
kilometers (km)	0.5400	nautical miles (n mi)
grams (g)	0.03527	ounce (weight) (oz)
kilograms (kg)	2.205	pounds (lb)
milliliters (ml)	0.03302	ounces (liquid) (oz)
liters (l)	1.057	quarts (qt)
liters (l)	0.2642	gallon (gal)
Celsius temperature (°C)	9.5 then add 32	Fahrenheit temperature (°F)

Source: Mackney, E. S. 1985. *Dutton's Navigation and Piloting*, 14 ed. Naval Institute Press, Annapolis, MD. pp. 560-562

APPENDIX C

GAZETTEER

SITE ATLAS GAZETTEER

NAME	LATITUDE	LONGITUDE	FEATURE TYPE	NAME	LATITUDE	LONGITUDE	FEATURE TYPE
anti Edith Mine	36°20'30"N	115°39'32"W	mine	Basin	36°52'43.1"	116°50'43"W	valley
at Radiuming Pt	36°28'05"N	115°14'07"W	locality	Brazoscan	36°06'27"N	115°11'25"W	pop place
at Rio Camp	36°16'00"N	115°37'15"W	locality	Bradford Springs	36°24'04"N	116°18'07"W	spring
at Rio Mine	36°53'16"N	116°45'01"W	pop	Brazos Spring	36°21'48"N	116°15'45"W	spring
at Rio Mine	36°28'27"N	116°13'40"W	hill	Bridge Mountain	36°08'06"N	115°29'23"W	summit
at Rio Mine	36°36'07"N	116°33'22"W	hill	Brilliance Trail	36°17'59"N	115°41'21"W	trail
at Rio Mine	36°14'37"N	116°51'21"W	stream	Brunswick Bridge Cave	36°37'11"N	115°11'56"W	cave
at Rio Mine	36°36'36"N	116°23'56"W	pop place	Brown Spring	36°02'01"N	115°45'18"W	spring
at Rio Mine	36°18'09"N	115°34'25"W	summit	Brownley vs Basin	36°11'01"N	115°25'25"W	basin
at Rio Mine	36°03'44"N	115°29'23"W	crs	Buck Spring	36°55'15"N	116°53'41"W	spring
at Rio Mine	36°02'09"N	115°16'43"W	tower	Bullfrog Hills	36°07'32"N	116°49'55"W	range
at Rio Mine	36°08'37"N	115°18'30"W	mine	Bullfrog Mountain	36°54'31"N	116°55'00"W	summit
at Rio Mine	36°01'05"N	115°13'48"W	pop place	Bullfrog Mtng Dist	36°57'25"N	116°49'00"W	pop place
at Rio Mine	36°35'32"N	116°42'28"W	mine	Burred Hills	36°54'14"N	116°49'23"W	range
at Rio Mine	36°35'32"N	116°42'28"W	well	Burred Hot Spring	36°57'38"N	116°45'10"W	spring
at Rio Mine	36°25'34"N	116°21'04"W	well	Burro Basin	36°53'54"N	116°20'06"W	basin
at Rio Mine	36°09'34"N	115°23'33"W	well	Burro Peak	36°53'07"N	116°47'18"W	summit
at Rio Mine	36°25'34"N	116°24'43"W	spring	Burro Peak	36°54'54"N	116°52'24"W	summit
at Rio Mine	36°25'34"N	116°24'43"W	spring	Burred Butte	36°46'58"N	116°25'04"W	summit
at Rio Mine	36°27'47"N	116°17'46"W	pop place	Burnley Springs	36°28'51"N	116°18'17"W	spring
at Rio Mine	36°58'45"N	116°00'50"W	well	Burnley Springs	36°28'51"N	116°18'17"W	spring
at Rio Mine	36°33'20"N	115°07'10"W	summit	Burnshaw Wash	36°59'35"N	116°31'15"W	arroyo
at Rio Mine	36°45'54"N	115°16'34"W	ridge	C Hill	36°54'07"N	116°00'37"W	well
at Rio Mine	36°51'57"N	115°42'22"W	summit	C P Hills	36°50'05"N	116°04'43"W	summit
at Rio Mine	36°57'34"N	116°40'24"W	range	C P Canyon	36°51'38"N	116°04'48"W	valley
at Rio Mine	36°54'31"N	116°40'24"W	hill	C P Hogback	36°53'53"N	116°05'01"W	summit
at Rio Mine	36°54'31"N	116°40'24"W	summit	Cabin Spring	36°14'38"N	115°31'26"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	valley	Cabin Spring	36°50'57"N	116°08'50"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	stream	Cactus Springs	36°34'40"N	115°43'36"W	pop place
at Rio Mine	36°42'18"N	115°16'08"W	spring	Calico Spring	36°09'01"N	115°28'22"W	spring
at Rio Mine	36°27'47"N	116°17'46"W	pop place	Calico Basin	36°09'18"N	115°25'17"W	basin
at Rio Mine	36°58'45"N	116°00'50"W	well	Calico Hills	36°52'21"N	116°30'00"W	summit
at Rio Mine	36°33'20"N	115°07'10"W	summit	Camp Desert Rock	36°37'38"N	116°01'09"W	pop place
at Rio Mine	36°45'54"N	115°16'34"W	ridge	Cane Spring	36°47'56"N	116°05'42"W	spring
at Rio Mine	36°51'57"N	115°42'22"W	summit	Cane Spring Wash	36°47'42"N	116°13'54"W	stream
at Rio Mine	36°57'34"N	116°40'24"W	range	Canyon Spring	36°56'31"N	115°15'08"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	hill	Capehart Canyon	36°10'60"N	115°47'25"W	valley
at Rio Mine	36°54'31"N	116°40'24"W	pop place	Carrizo	36°48'03"N	116°47'41"W	pop place
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Canyon	36°48'11"N	116°41'16"W	valley
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°14'43"N	116°23'04"W	stream
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°28'13"N	116°21'21"W	stream
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°12'46"N	115°07'51"W	hill
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°00'42"N	115°15'01"W	summit
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°12'15"N	115°38'54"W	pop
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°09'28"N	115°38'46"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°06'58"N	115°33'02"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°12'46"N	115°07'28"W	well
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°08'31"N	115°35'27"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°11'32"N	115°35'07"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°17'25"N	115°33'08"W	div
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°17'14"N	115°40'18"W	hill
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°16'20"N	115°41'30"W	summit
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°41'05"N	115°48'45"W	pop
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°51'37"N	115°05'58"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°56'25"N	115°17'19"W	summit
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°56'05"N	115°20'40"W	valley
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°51'24"N	115°36'05"W	valley
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°54'42"N	116°28'10"W	valley
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°16'55"N	115°43'08"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°16'55"N	115°43'08"W	spring
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°06'43"N	116°37'06"W	valley
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°16'31"N	115°38'55"W	ridge
at Rio Mine	36°54'31"N	116°40'24"W	summit	Carrizo Slough	36°24'53"N	115°44'23"W	spring

SITE ATLAS GAZETTEER

NAME	LATITUDE	LONGITUDE	FEATURE TYPE	NAME	LATITUDE	LONGITUDE	FEATURE TYPE
Cad Creek	36°28'20"N	115°42'16"W	stream	East Supply Wash	36°41'45"N	115°48'46"W	stream
Cahoon Cave	36°17'07"W	115°08'57"W	cave	East Desert Range	36°51'30"N	115°15'32"W	range
Campo Peak	36°14'47"N	116°24'12"W	summit	East Lee Vegas	36°06'40"W	115°02'26"W	pop place
Campo Canyon	36°51'14"W	116°44'35"W	valley	Eastland Heights	36°11'22"N	115°11'14"W	pop place
Congress Mine	36°24'57"N	116°04'56"W	mine	Echo Cliff	36°18'02"W	115°58'36"W	cliff
Congress Well	36°14'45"W	115°00'44"W	well	Echo Gray Spring	36°18'14"N	115°40'44"W	spring
Contadora Canyon	36°28'20"N	115°17'37"W	valley	Elbow Range	36°47'20"N	11°49'44 W	ridge
Corn Creek	36°25'16"W	115°22'51"W	pop place	Ember Hill	36°24'48"N	116°25'12"W	well
Corn Creek Springs	36°26'21"N	115°21'28"W	spring	Every Hut	36°04'27"N	115°08'40"W	well
Corn Creek Well	36°27'53"W	115°23'54"W	well	Eve Canyon	36°29'50"N	115°19'56"W	valley
Corn Creek Dunes	36°26'25"N	115°21'21"W	summit	Fabulous Spring	36°25'25"W	116°25'25"W	spring
Corn Creek Well	36°27'53"W	115°23'54"W	well	Falcon Hill	37°02'23"N	115°20'15"W	summit
Cottonwood Valley	36°01'48"N	118°23'18"W	valley	Falls Trail	36°18'21"N	116°40'08"W	trail
Cottonwood Lake	36°19'27"N	115°15'58"W	lake	Fist Canyon	36°27'37"N	115°17'14"W	valley
Cottonwood Spring	36°02'44"N	115°24'20"W	spring	Fist Creek	36°04'47"N	115°28'22"W	stream
Cougar Springs	36°24'30"W	115°47'47"W	spring	Fist Creek Spring	36°04'48"N	115°28'26"W	spring
Cow Camp Spring	36°35'02"W	115°16'20"W	spring	Five A Well	36°46'36"N	115°57'30"W	well
Cow Spring	36°07'2 W	115°04'31"W	spring	Five C Well	36°47'08"N	115°57'44"W	well
Coyote Spring	36°44'35"N	116°03'48"W	spring	Fleming Wash	36°08'06"W	115°03'05"W	stream
Cramer Flat Wash	36°42'30"W	116°33'20"W	spring	Fletcher Peak	36°17'13"N	115°37'16"W	summit
Cramer Flat	36°47'26"N	116°39'12"W	flat	Fletcher Spring	36°16'38"N	115°37'46"W	spring
Crescent Cliff	36°52'06"N	116°40'21"W	cliff	Fletcher Canyon	36°15'54"W	115°36'34"W	valley
Crossgran Valley	36°41'54"N	115°42'23"W	valley	Fluzans	36°53'11"N	116°41'46"W	pop place
Crowds Mine	36°52'59"N	116°41'34"W	mine	Florence Mang Oak	36°51'53"N	116°36'57"W	cliff
Crysal Spring	36°25'48"W	115°58'18"W	spring	Florence Canyon	36°53'37"N	116°42'42"W	valley
Crysal Marsh	36°25'38"W	115°58'18"W	marsh	Forest Spring	36°24'55"N	115°16'4 W	spring
Crysal Pool	36°25'15"W	115°18'16"W	spring	Ferlymba Wash	36°26'03"W	115°23'0 W	stream
Crysal Reservoir	36°24'26"W	115°18'25"W	reservoir	Ferlymba Canyon	36°47'25"N	115°25'48"W	valley
Crysal Tank	36°00'07"N	115°28'13"W	reservoir	Fossil Ridge	36°26'27"N	115°15'12 W	ridge
Crysal Springs	36°58'11"W	116°45'0 W	spring	Fossil Canyon	36°18'15"N	115°40'10"W	valley
Cur's Well	36°38'08"N	115°55'35"W	well	Fried Bowlers Mine	36°27'01"N	115°02'54"W	mine
D H Well	36°25'28"N	116°17'14"W	well	French Peak	36°54'48"N	115°57'02"W	summit
Daily Mine	36°48'26"N	116°01'49"W	mine	Frenchman Flat	36°48'46"W	115°58'11"W	flat
Davis Ranch Spring	36°22'56"N	116°15'57"W	spring	Frenchmans Mine	36°03'05"N	115°07'08"W	mine
De Jesus Spring	36°51'32"N	116°34'18"W	spring	Frenchmans Range	36°49'53"N	115°47'55"W	range
Dead Horse Ridge	36°47'38"N	115°15'56"W	ridge	Frenchmans Lake	36°48'17"W	115°56'16"W	lake
Dead Horse Trail	36°46'15"W	115°12'07"W	trail	G Well	36°48'02"N	115°01'04"W	well
Deckeran Spring	36°37'48"W	115°12'36"W	spring	Garden Tank Spring	36°08'32"N	115°55'20"W	spring
Deckeran Canyon	36°37'48"W	115°12'17 W	valley	G. Spring	36°28'34"N	115°09'50"W	spring
Deer Creek Trail	36°17'17"N	115°38'45"W	trail	Gass Peak	36°54'02"N	115°10'46"W	summit
Deer Pasture	36°15'26"N	115°38'02"W	meadow	Gass Peak Mang D.	36°22'16"N	115°10'26"W	cliff
Deer Creek Spring	36°18'26"N	115°37'37"W	spring	Gass Peak Mang Dal	36°22'14"N	115°10'26"W	cliff
Deer Canyon	36°55'14"N	115°22'28"W	valley	Gauguin P. Brooks Hill	36°12'47"N	115°05'47"W	valley
Deer Valley	36°52'48"N	115°07'31"W	valley	Gauguin Mine	36°52'51"N	115°05'01"W	mine
Desert Willow Less	36°18'25"W	115°18'56"W	lake	Goad Spring	36°27'17"N	115°57'34"W	spring
Desert Cave	36°07'18"N	115°28'57"W	cave	Gold Bar	36°46'17"N	115°43'23"W	pop place
Desert View Point	36°16'44"W	115°38'57"W	pop place	Gold Star Mine	36°48'08"N	115°45'10"W	mine
Desert Hills	37°03'38"N	115°21'15"W	ridge	Gold Star Mine	36°48'18"N	115°43'22"W	mine
Desert Lake	36°48'38"N	115°13'22"W	lake	Gold Center	36°48'08"N	115°45'16"W	pop place
Desert Ridge	36°50'26"N	115°20'15"W	ridge	Goodwater Spring	36°48'08"N	115°45'16"W	pop place
Devils Hole	36°25'31"W	116°17'24"W	valley	Goodwater Canyon	36°48'08"N	115°45'16"W	valley
Devils Thumb	36°16'51"N	115°41'35"W	pillar	Grand Junction Mine	36°56'46"N	115°42'52"W	mine
Devils Hole Cave	36°25'38"W	116°17'29"W	cave	Greystone Canyon	36°17'33"N	115°28'26"W	valley
Devils Hole Hills	36°18'40"N	116°10'4 W	range	Greystone Spring	36°51'04"N	115°05'50"W	spring
Delmond Quinn Mine	36°50'17"N	116°38'07"W	mine	Greystone Springs	36°27'27"N	115°01'58"W	spring
Dell Mine Lake	36°28'34"W	115°08'04"W	lake	Guadalupe Springs	36°02'31"W	115°04'20"W	spring
Demo Mountain	36°53'43"N	115°27'05"W	summit	Grassy Canyon	36°26'22"N	115°57'05"W	valley
Demo Mountain	36°48'08"N	115°27'43"W	summit	Grassy Spring	36°20'23"N	115°49'46"W	spring
Dell Hole 4	36°07'49"N	116°48'27"W	gap	Gravel Canyon 4	36°54'03"N	115°38'12"W	reservoir
Dell Hole 4	36°07'49"N	116°48'27"W	gap	Gravel Canyon	36°54'03"N	115°38'12"W	valley
Dry Lake Spring	36°47'22"N	115°08'08"W	spring	Guthrie Peak	36°14'16"N	115°56'11"W	cave
Dry Canyon	36°52'08"N	115°44'37"W	valley	Guthrie Mine	36°14'20"N	115°56'58"W	cliff
Duck Creek	36°05'27"N	115°00'05"W	stream	Guthrie Peak Trail	36°14'20"N	115°56'58"W	trail
Duck Creek	36°41'32"W	115°58'03"W	lower	Guthrie Peak Trail	36°14'20"N	115°56'58"W	trail
East Fork Scarp Cyn	36°58'33"W	115°55'41"W	bluff	Group Springs	36°03'35"N	115°57'38"W	spring
				Harpur Range	37°08'48"N	115°27'38"W	range
				Harpur Wash	36°44'52"N	115°01'12"W	spring

SITE ATLAS GAZETTEER

NAME	LATITUDE	LONGITUDE	FEATURE TYPE	NAME	LATITUDE	LONGITUDE	FEATURE TYPE
pea Hill	36°45.31'N	116°05.34'W	summit	Little Butte	36°10'56"N	115°30'15"W	45'ing
Mountain	36°14.29'N	115°38'36"W	summit	Lumb Spring	36°56.42'N	115°08.24'W	spring
Spring Cyn	36°18.07'N	115°23.02'W	valley	Lee Vegas Valley	35°54.44'N	115°07.08'W	valley
Spring	36°14.35'N	115°32.27'W	spring	Lee Vegas Wash	36°07.86'N	114°52.41'W	stream
Arroyo	36°17.44'N	115°40'18"W	meve	Las Vegas Terrace	36°08.48'N	115°09.14'W	range
Peak	36°39'26"N	115°11'59"W	summit	Las Vegas Range	36°34.17'N	115°02'08"W	cave
Well	36°40'15"N	115°32'43"W	well	Las Vegas	36°10'30'N	115°08'11'W	pop place
Person	36°02'23'N	114°56'52'W	pop place	Las Chance R	36°17'00'N	118°02.20'W	range
Valley	36°33'04'N	114°56'57'W	Basin	Las Char 's S	36°21.24'N	118°18.22'W	spring
Forest R	36°38'33'N	115°13.12'W	ridge	Lathrop Wash Cone	36°41.20'N	118°30.40'W	summit
Peak	36°15.04'N	116°08'00'W	summit	Lee Mining District	36°33'06'N	118°38'05'W	cave
Pass	36°09'13'N	115°01.14'W	pop place	Lee Canyon	36°24.00'N	115°34.00'W	valley
Spring	36°38.38'N	115°16.57'W	spring	Lee Spring Cyn	36°22.64'N	115°45.30'W	valley
estate Mine	36°58.21'N	116°53.23'W	meve	Lee Spring	36°18'16'N	118°39.47'W	pop place
Ign Mine	36°52'25'N	116°58'44'W	meve	Lee Spring	36°13.41'N	118°42.38'W	spring
er City	36°11.47'N	115°07'57'W	pop place	Leeland	36°35.10'N	116°35.07'W	pop place
Silver Mine	36°48'36'N	116°09'46'W	meve	Lees Spring	36°14.82'N	115°42.48'W	spring
e Canyon	36°18.08'N	115°52.68'W	spring	Limer Ridge	36°58.10'N	116°16.55'W	ridge
where R	36°35.11'N	115°08'11'W	valley	Little Falls	36°16.18'N	115°38'18'W	falls
ance Mason	36°24.18'N	116°20.27'W	recreator	Little Corns	36°46.18'N	116°38.19'W	valley
ehalem S	36°25.08'N	116°20'54'W	swamp	Little Joe May Cyn	36°30'42'N	115°18.22'W	summit
Spring	36°26.35'N	115°55'56'W	spring	Little Saut Men	36°52'23'N	116°15.45'W	summit
in Canyon	36°08.46'N	115°28'22'W	valley	Lone Guapere R	36°40.11'N	115°27'39'W	spring
in Canyon R	36°56.31'N	115°28'37'W	recreator	Lone Mountain	36°14.18'N	115°18.56'W	summit
n Springs	36°34.17'N	115°40'11'W	pop place	Lone Willow S	36°03.52'N	115°28.23'W	spring
n Canyon V	36°34.26'N	115°52'04'W	valley	Long Valley	36°29'33'N	115°15.08'W	valley
n Canyon	36°56.55'N	115°30'58'W	valley	Longleaf Spring	36°27'53'N	116°19'22'W	spring
n Rock S	36°24.05'N	115°16.28'W	spring	Lookout Peak	36°51.20'N	116°10'03'W	summit
n Spring	36°09.08'N	115°05.44'W	spring	Lookout Cyn	36°04.57'N	115°38'05'W	spring
n Garden S	36°27'47'N	115°18'59'W	spring	Look Lake	36°09'37'N	115°28'53'W	valley
n Ridge	36°30'17'N	115°38'46'W	ridge	Lower Wash	35°59.10'N	115°40'30'W	stream
n Spring	36°25.32'N	115°18.48'W	spring	Lower Canyon	36°02'35'N	115°37'00'W	valley
nider S	36°09.47'N	115°44.02'W	spring	Lower Summit	36°09.59'N	115°36.15'W	gate
Age Mine	36°14'03'N	115°22.15'W	meve	Lower Indian S	36°58'48'N	116°47.44'W	spring
Bank	36°48'53'N	116°23'26'W	recreator	Lower Deer Creek	36°28'39'N	116°55.38'W	spring
ah Springs	36°12'16'N	115°59'03'W	spring	Lower Deerpawn S	36°37.19'N	115°16.25'W	spring
ah Well	36°48.04'N	116°18.46'W	well	Lower White Blotch	36°25.44'N	115°13.38'W	spring
ah Divide	36°53.33'N	116°12.33'W	gate	Lower Ranch	36°03'45'N	115°38'33'W	spring
ah Spring	36°23.27'N	116°16.40'W	spring	Lucky Strike Cyn	36°25.08'N	115°27.12'W	valley
ah Spring	36°28.14'N	115°58.63'W	spring	Lucky Strike Mine	36°20'08'N	115°32'20'W	meve
ah Canyon	36°38'28'N	115°18.14'W	recreator	Lucky-Jack Mine	36°55.01'N	116°48'05'W	meve
ah Mine	36°27'46'N	115°02.51'W	meve	Mace Canyon	36°24.06'N	115°39'22'W	valley
ah Spring	36°26.30'N	115°19.08'W	valley	Mace Spring	36°27.48'N	116°18.55'W	spring
ah Spring	36°24.59'N	115°00.37'W	meve	Made R. 's	36°08'16'N	115°53'24'W	pop place
ah Spring	36°26.11'N	115°04.15'W	pop place	Made	36°08'17'N	116°04'05'W	stream
ah Peak	36°41.00'N	115°11.11'W	summit	Made Wash	36°46'17'N	116°00'42'W	spring
ah Canyon	36°43'54'N	115°11'51'W	valley	Made Spring	36°25'39'N	116°18.51'W	spring
ah Hollow	36°54.34'N	116°37'38'W	valley	Mary Jane Falls	36°16.46'N	115°40.13'W	falls
ah Mine	36°22.10'N	115°10'18'W	meve	Mary Scott	36°55.01'N	116°50.03'W	spring
ah Mine	36°51.18'N	115°00.30'W	pop place	Mason Spring	36°53'34'N	116°58'08'W	summit
ah Rock T	36°09.17'N	115°09.42'W	lower	Massachusetts Min	36°59'44'N	116°47'25'W	meve
ah Mine	36°53.38'N	116°50.10'W	meve	Massachusetts Mine	36°14.40'N	115°38.35'W	valley
ah Spring	36°09'49'N	115°43'28'W	spring	Maze Canyon	36°14.40'N	115°38.15'W	spring
ah Mine	36°51.18'N	116°13.64'W	summit	Maze Spring	35°54.57'N	115°02.51'W	range
ah Mine	36°09'27'N	115°08'22'W	lower	McCabough Range	36°25.19'N	115°42.28'W	valley
ah Mine	36°08.18'N	115°02'14'W	lower	McCabough Canyon	36°25.19'N	115°44.32'W	spring
ah Spring	36°12.18'N	115°08'28'W	spring	McFarland Canyon	36°25.29'N	115°44.32'W	spring
ah Mine	36°17.41'N	115°18.40'W	valley	McFarland Peak	36°22.56'N	115°43.29'W	summit
ah Canyon	36°16.08'N	115°37'38'W	pop place	McWilliams Spring	36°18'38'N	115°40.13'W	spring
ah Mountain	36°12'48'N	116°27'26'W	summit	McWilliams Peak	36°29'38'N	116°25.24'W	well
ah Spring	36°27'07'N	116°03'20'W	pop place	McWhorter Peak	36°52'58'N	116°38'42'W	summit
ah Mine	36°27'09'N	116°03'25'W	meve	Mercury Mine	36°59'32'N	116°08'32'W	meve
ah Mountain	36°53.45'N	116°48'17'W	summit	Mercury Ridge	36°4.11'N	115°54.48'W	ridge
				Mercury Valley	36°37'00'N	116°01'00'W	valley
				Mercury	36°38'38'N	116°19'37'W	pop place
				Merquise Range	36°33'38'N	115°48.40'W	spring
				Merquise Spring	36°34'33'N	115°43'48'W	spring

SITE ATLAS GAZETTEER

NAME	LATITUDE	LONGITUDE	FEATURE TYPE	NAME	LATITUDE	LONGITUDE	FEATURE TYPE
Mesaque Well	38°07'26"N	118°04'40"W	well	Pahrump Township	38°05'56"N	118°00'40"W	civil
Mesaque Spring	38°25'55"N	118°18'33"W	spring	Pahrump	38°12'30"N	118°08'58"W	pop place
Mesaque Mine	38°48'02"N	118°38'25"W	mine	Panorah Canyon	38°52'41"N	118°24'38"W	valley
Mad Valley	38°54'00"N	118°00'38"W	valley	Panorama Mine	38°48'38"N	118°38'27"W	mine
Madge Indian Spring	38°58'59"N	118°47'58"W	spring	Paradise Valley	38°06'18"N	118°05'08"W	valley
Maise Well No. 2	38°32'17"N	118°13'55"W	well	Paradise Mountain	38°54'32"N	118°48'00"W	summit
Miners Well No. 1	38°54'25"N	118°28'28"W	well	Paradise Mountain	38°05'50"N	118°08'48"W	pop place
Mine Mountain	38°59'29"N	118°08'39"W	summit	Panorama	38°52'74"N	118°18'54"W	spring
Mine Mountain Mining Dist.	38°59'15"N	118°08'50"W	civil	Peak Spring	38°15'40"N	118°41'48"W	spring
Mona Cave	38°18'18"N	118°08'55"W	cave	Peak-a-bow Canyon	38°42'17"N	118°08'52"W	spring
Monitor Range	38°48'51"N	118°33'39"W	range	Pehaha No. 2 Reservoir	38°42'40"N	118°00'09"W	reservoir
Montgomery-Shoshone	38°54'52"N	118°48'25"W	summit	Pehaha Canyon	38°58'40"N	118°45'18"W	valley
Montgomery Mount	38°24'49"N	118°05'34"W	summit	Pehaha Reservoir	38°28'53"N	118°21'20"W	reservoir
Montgomery Mountain	38°54'39"N	118°48'32"W	summit	Pehaha Canyon	38°23'40"N	118°18'58"W	valley
Moonshine Spr-3	38°01'22"N	118°27'43"W	spring	Pine Creek	38°07'18"N	118°28'10"W	stream
Mormon Green Springs	38°03'18"N	118°51'09"W	spring	Pine Creek Spring	38°07'18"N	118°28'31"W	spring
Mormon Pass	38°27'21"N	118°04'39"W	gap	Pine Spring	38°28'50"N	118°15'57"W	spring
Mormon Well	38°38'29"N	118°08'44"W	well	Pine Canyon	38°38'54"N	118°16'44"W	valley
Mound Spring	38°05'44"N	118°56'59"W	spring	Pink Holes Hill	38°44'57"N	118°01'40"W	summit
Mount Charleston	38°18'01"N	118°38'50"W	mount	Pine Ridge	38°54'25"N	118°28'28"W	ridge
Mount Charleston	38°18'28"N	118°38'51"W	mount	Pineville Cave	38°47'40"N	118°34'03"W	cave
Mountain Springs	38°01'28"N	118°50'18"W	spring	Pintado Range	38°54'29"N	118°33'41"W	range
Mountain Springs Summit	38°01'10"N	118°50'12"W	summit	Pinyon Peak	38°58'42"N	118°28'24"W	peak
Mud Spring Number One	38°01'48"N	118°28'35"W	spring	Pioneer Rock	38°18'21"N	118°40'53"W	rock
Mud Spring Number Two	38°01'53"N	118°28'35"W	spring	Plyo W-ley	38°50'28"N	118°08'48"W	basin
Mud Hole Spring	38°22'00"N	118°53'57"W	spring	Plum Valley	38°58'20"N	118°39'30"W	valley
Mud Springs	38°58'49"N	118°51'28"W	spring	Podiat Canyon	38°52'58"N	118°18'00"W	valley
Mudberry Lake	38°19'29"N	118°16'54"W	lake	Point of Rocks	38°30'48"N	118°04'23"W	peak
Mule Spring	38°11'53"N	118°10'36"W	spring	Point of Rocks Springs	38°24'05"N	118°18'21"W	spring
Mule Deer Ridge	38°48'44"N	118°10'36"W	ridge	Point Spring	38°00'07"N	118°27'14"W	spring
Murray Mountain	38°17'58"N	118°38'15"W	summit	Porter Mine	38°48'38"N	118°53'58"W	mine
Murray Spring	38°17'48"N	118°38'15"W	spring	Prospect Springs	38°14'18"N	118°39'43"W	spring
Narrow Canyon	38°42'31"N	11°53'32"W	valley	Prospector Pass	38°58'15"N	118°25'25"W	pass
Narcosis, The	38°11'47"N	118°34'38"W	gap	Prum, The	38°54'18"N	118°29'10"W	summit
National Bank Mine	38°53'58"N	118°49'28"W	mine	Prum Pass	38°54'31"N	118°29'28"W	pass
Nelson Wash	38°50'27"N	118°03'44"W	stream	Puddle Peak	38°54'14"N	118°58'33"W	summit
NIS Area 1	38°58'17"N	118°57'18"W	locality	Pumping Station 3	38°42'08"N	118°58'18"W	locality
NIS Area 4(1)	38°48'17"N	118°10'15"W	locality	Pumping Station Four	38°42'11"N	118°58'18"W	locality
NIS Area 5	38°48'58"N	118°03'21"W	locality	Pumping Station 2	38°44'31"N	118°58'11"W	locality
NIS Area 30	37°00'48"N	118°20'34"W	locality	Purgatory Spring Well	38°28'18"N	118°08'13"W	well
NIS Area 18	37°02'43"N	118°11'28"W	locality	Quail Spring	38°58'45"N	118°03'31"W	spring
NIS Area 6	38°58'29"N	118°04'32"W	locality	Quartz Pt.	38°58'00"N	118°05'11"W	summit
NIS	38°59'05"N	118°19'29"W	locality	Quartz Mountain	38°20'00"N	118°05'11"W	summit
NIS Area 400	38°48'50"N	118°17'15"W	area	Quincy Canyon	38°41'48"N	118°16'18"W	valley
Nevan Nab	38°56'40"N	118°02'58"W	summit	Quincy Spring	38°28'48"N	118°12'10"W	spring
Nevan Wash	38°26'15"N	118°18'18"W	wash	Railroad Tanks	38°52'38"N	118°02'58"W	reservoir
Niggerhead Peak	38°28'07"N	11°09'25"W	summit	Rainbow Canyon	38°05'11"N	118°37'28"W	valley
North Las Vegas	38°12'38"N	118°08'02"W	civil	Rainbow Spring	38°24'38"N	118°37'28"W	spring
North Ridge	38°49'48"N	118°32'28"W	summit	Rainbow Mountain	38°48'38"N	118°48'00"W	summit
North Las Vegas	38°11'58"N	118°07'00"W	pop place	Ranger Mountains	38°12'35"N	118°50'18"W	range
North Fork Samwell Cyn	38°49'37"N	118°08'08"W	valley	Ranger Wash	38°12'35"N	118°50'18"W	well
North Fork Deer Creek	38°20'50"N	118°38'31"W	stream	Raymond Well	38°12'35"N	118°50'18"W	well
Nye Canyon	38°54'28"N	118°53'24"W	valley	Raymond Wash	38°12'35"N	118°50'18"W	well
Oak Creek	38°08'08"N	118°27'48"W	stream	Raymond Butte	38°52'00"N	118°52'58"W	summit
Oak Creek Spring	38°08'39"N	118°28'52"W	spring	Rinconada Ridge	38°52'08"N	118°41'00"W	ridge
Oak Spring	38°24'52"N	118°49'49"W	spring	Red Cone	38°47'40"N	118°34'48"W	summit
Oasis Valley	38°58'00"N	118°49'30"W	valley	Red Mountain	38°40'55"N	118°10'02"W	summit
One Well	38°48'48"N	118°54'15"W	well	Red Rock Canyon	38°08'49"N	118°30'18"W	valley
Original	38°54'04"N	118°53'02"W	mine	Red Rock Summit	38°08'11"N	118°52'22"W	summit
Original	38°53'57"N	118°52'48"W	mine	Red Rock Wash	38°08'28"N	118°20'37"W	gap
Overfield Mine	38°27'38"N	118°02'58"W	mine	Red Spring	38°08'40"N	118°28'10"W	spring
Pahrump Spring	38°22'45"N	118°08'41"W	spring	Reeving Spring Range	38°18'28"N	118°28'10"W	range
Pan Canyon	38°58'31"N	118°22'29"W	valley	Revel Springs	38°58'38"N	118°48'37"W	spring
Pahrump Wash	38°44'13"N	118°44'22"W	stream	Rhyolite	38°54'14"N	118°48'42"W	pop place
Pahrump Valley	38°00'00"N	118°54'00"W	valley	Robbers Road Cave	38°18'08"N	118°38'37"W	cave
Pahrump Springs	38°12'28"N	118°18'48"W	spring	Rock Valley Wash	38°28'03"N	118°22'28"W	stream

07



APPENDIX D

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