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OFR  
79-1567

6L00302

Inventory of Drilling Activities of the U. S. Geological Survey  
in the United States, Fiscal Years 1979-1980

Compiled by  
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345 Middlefield Road  
Menlo Park, California 94025

U. S. Geological Survey  
OPEN-FILE REPORT  
79-1567

This report is preliminary and has not  
been edited or reviewed for conformity  
with Geological Survey standards  
and nomenclature

**UNIVERSITY OF UTAH  
RESEARCH INSTITUTE  
EARTH SCIENCE LAB.**

FISCAL YEAR 1979

PROGRAM: Earthquake Studies    DIVISION: Geologic    BRANCH: Mechanics and Prediction    CONTACT: Mark Zoback, Menlo Park, CA    DATE: June 7, 1979

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
5	6"	900'		CA	San Benito	Granite	In situ stress, pore pressure, permeability tests	\$40,000	Not yet drilled

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
MTW1-X	2360'	6"	1415'-2023'	MO	36°24.62'	89°33.74'	2000' Late Cretaceous-Tertiary Mississippi embayment sediments, 360' Paleozoic dolomite	Geologic and geophysical control, stress measurements	\$350,000	09/26/78	11/13/78
CV-1	2000'	8"	ample sidewall coring	CA	36°43.42'	121°20.89'	Located in San Andreas Fault zone - contact of granite and Tertiary sediments	Sample recovery, <u>in-situ</u> tests	\$250,000	04/13/79	06/1/79
Monticello #2	3668'	6"	random intervals 1-8' long (2%)	SC	34°17.92'	81°19.34'	Granodiorite intrusions in Piedmont Province	In situ stress, pore pressure, permeability tests	\$240,000	11/25/78	12/18/78

PROGRAM: Geothermal Studies    DIVISION: Geologic    BRANCH: Tectonophysics    CONTACT: Tom Moses, Menlo Park, CA    DATE: 9/4/79

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
ALP*	355'	5-1/2"	0	AZ	32°59.3'	111°06.8'	Granite	Heat flow	\$2,700	03/29/79	03/31/79
BMT	248	"	"	AZ	32°47.0'	110°55.4'	"	"	"	03/31/79	04/01/79
DOS	484	"	"	AZ	32°10.7'	109°35.3'	"	"	"	04/13/79	04/14/79
NOG	504	"	"	AZ	32°22.7'	110°45.5'	"	"	"	04/04/79	04/10/79
PNT	504	"	"	AZ	33°21.3'	110°57.8'	"	"	\$3,800	03/21/79	03/28/79

\*All hole names listed under this program are three- or four-letter code abbreviations for the actual hole names. These are holes permitted, or in process of being drilled. Latitude and longitude are only tentative. Cased diameter is 1.66 OD, 1.380 ID, with bottom 200' of annulus cemented.

FY-79 - continued

INDIVIDUAL DRILLHOLES (continued)

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
RIN	504	5-1/2"	0	AZ	32°04.4'	110°39.5'	Granite	Heat flow	\$2,700	04/02/79	04/03/79
TBS	505	"	"	AZ	31°04.2'	110°06.6'	"	"	"	04/11/79	04/12/79
GBL	540	"	"	CA	40°05.5'	123°48.0'	Franciscan	"	\$6,500	10/03/78	10/07/78
CCT	503	"	"	CA	35°02.4'	117°55.0'	Granite	"	\$1,500	03/17/79	03/17/79
CPC	503	"	"	CA	35°00.8'	118°20.6'	"	"	\$2,700	03/14/79	03/16/79
CIN	568	"	"	CA	35°18.3'	118°02.8'	"	"	\$4,000	02/27/79	03/01/79
ELP	485	"	"	CA	35°26.0'	117°53.5'	"	"	\$3,500	03/04/79	03/07/79
GFZ	505	"	"	CA	35°03.4'	118°21.7'	"	"	\$6,000	03/08/79	03/14/79
HFM	504	"	"	CA	35°21.6'	118°06.6'	"	"	\$2,700	03/01/79	03/03/79
RMR	504	"	"	CA	35°12.5'	117°50.3'	"	"	\$2,700	03/18/79	03/19/79
ANP	464	"	"	CA	38°43.1'	123°20.8'	Franciscan and/or	"		03/06/79	03/23/79
BVL	441	"	"	CA	38°59.6'	123°20.8'	Tertiary marine	"		11/07/78	12/04/78
CLN	649	"	"	CA	39°50.1'	123°09.9'	"	"		11/05/78	11/08/78
FTS	611	"	"	CA	40°13.0'	123°38.4'	"	"		10/12/78	10/21/78
FRZ	540	"	517-522'	CA	38°34.8'	122°38.9'	Tertiary volcanics	"		02/16/79	02/18/79
LYN	432	"	0	CA	39°43.8'	123°30.1'	Franciscan and/or	"		01/14/79	01/21/79
NOY	652	"	0	CA	39°24.5'	123°44.8'	Tertiary marine	"		01/25/79	02/01/79
UKI	630	"	540-545' 600-605'	CA	39°03.4'	123°09.1'	"	"		02/06/79	02/08/79
SCV	463	"	0	CA	40°01.3'	124°04.0'	"	"		10/04/78	10/10/78
LMR	497	"	"	CA	39°56.8'	123°21.1'	"	"		11/01/78	11/05/78
KET	505	"	"	CA	40°08.3'	123°24.6'	"	"		10/22/79	11/01/78
PVY	546	"	"	CA	39°20.4'	123°06.1'	"	"		02/02/79	02/05/79
TLR	465	"	"	AZ	32°50.2'	110°07.3'	Granite	"		04/26/79	04/27/79
PNA	504	"	"	AZ	32°33.4'	109°44.8'	"	"		04/24/79	04/25/79
CAS	443	"	"	AZ	32°12.2'	110°14.0'	"	"		04/14/79	04/23/79
SEA	694	"	"	CA	38°42.0'	122°25.1'	Cretaceous marine	"		03/07/79	04/21/79
BRN	335'	5-1/2"	0	CA	34°53.6'	116°12.8'	Granite	"		05/17/79	05/22/79
SHP	334'	"	"	CA	34°14.4'	115°43.4'	"	"		05/05/79	05/06/79
AVA	335'	"	"	CA	35°35.5'	116°28.4'	"	"		05/25/79	05/26/79
GPN	335'	"	"	CA	34°48.7'	115°36.6'	"	"		05/23/79	05/24/79
CDZ	335'	"	"	CA	34°34.2'	115°29.4'	"	"		05/06/79	05/07/79
CHB	225'	"	"	CA	34°21.9'	115°17.2'	"	"		05/07/79	05/09/79
CXF	333'	"	"	CA	34°02.6'	115°12.2'	"	"		05/03/79	05/04/79
BAG	335'	"	"	CA	34°37.6'	115°49.6'	"	"		05/09/79	05/10/79
MUD	336'	"	"	CA	35°03.6'	117°00.0'	"	"		05/29/79	05/30/79
GRW	335'	"	"	CA	36°04.8'	116°29.8'	"	"		05/27/79	05/28/79
TWT	316'	"	"	CA	34°05.4'	116°00.7'	"	"		05/16/79	05/17/79
CXE	335'	"	"	CA	34°06.1'	115°21.1'	"	"		05/04/79	05/04/79
DMD	335'	"	"	CA	34°04.3'	115°45.6'	"	"		05/12/79	05/13/79
CXS	225'	"	"	CA	33°55.4'	115°18.2'	"	"		05/14/79	05/15/79
BOR	335'	"	"	CA	35°07.7'	117°35.9'	"	"		06/05/79	06/06/79
CQU	422'	"	"	CA	34°57.2'	118°17.1'	"	"		06/06/79	06/08/79
FIC	305'	"	"	CA	35°21.1'	116°33.3'	"	"		05/30/79	06/05/79

INDIVIDUAL DRILLHOLES (continued)

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
TEH	335'	5-1/2"	0	CA	35°08.3'	118°26.2'	Granite	Heat flow		06/08/79	06/10/79
LSNH	610'	"	"	CA	40°23.6'	121°21.6'	Quaternary and Tertiary	"		08/17/79	08/20/79
LSNL	310'	"	"	CA	40°22.6'	121°24.5'	volcanics	"		08/21/79	08/27/79
LSNG	565'	"	"	CA	40°24.4'	121°26.8'	"	"		08/27/79	08/30/79
LKA	720'	5-1/8"	"	CA	36°42.2'	121°20'	Granite	"		07/23/79	08/11/79
LKB	685'	5-1/4"	"	CA	36°41.6'	121°20.3'	"	"		07/25/79	07/27/79
LKC	696'	"	"	CA	36°41.7'	121°22.2'	"	"		07/28/79	07/31/79
LKD	717'	"	"	CA	36°38.4'	121°27.4'	"	"		08/01/79	08/09/79
COS	505'	5-1/2"	"	CA	38°04.7'	119°08.8'	"	"		07/06/79	07/08/79
GAS	365'	"	"	CA	37°53.7'	118°50.9'	"	"		06/12/79	06/13/79
GTM	505'	5-1/4"	"	CA	37°54.3'	118°45.4'	"	"		06/13/79	06/20/79
IND	505'	"	"	CA	37°56.0'	118°53.3'	"	"		07/11/79	07/13/79

PROGRAM: Earthquake Studies      DIVISION: Geologic      BRANCH: Ground Motion & Faulting      CONTACT: Jim Gibbs, Menlo Park, CA      DATE: 5/30/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location State    County	Generalized stratigraphy	Principal objectives	Cost	Other information
40	4-7/8"	30 m		CA    Los Angeles		Shear-wave measurements	\$24,000	
7	"	"		CA    Ventura		"    "    "	\$ 4,000	

PROGRAM: Earthquake      DIVISION: Geologic      BRANCH: Seismology      CONTACT: D. P. Hill, Menlo Park, CA      DATE: 8/22/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location State    County	Generalized stratigraphy	Principal objectives	Cost	Other information
20-30	6-9"	150'	--	ID OR CA		Shot holes for refraction profiles	Total: approx. \$55,000	@ average \$15/ft.
						"    "    "    "    "		

FY-79 - continued

PROGRAM: See Other Information below      DIVISION: Geologic      BRANCH: Engineering Geology      CONTACT: Various (see Other Information)      DATE: 5/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
3	6"	100'	0	WY	Johnson	Quaternary sediments & terranes, Ft. Union Formation	Seismic research	Unknown	Program: Energy Lands Contact: C. Miller*
14	6"	5'	100	CO	Jefferson	Generally biotite and gneiss	Research instrumentation	\$3000	Program: Radioactive waste storage Contact: H. Swolfs*
31	3-1/2"	15'	0	OH	Hamilton	Colluvium on flat-lying kope formation	Landslide instrumentation	\$5000	Program: Landslide investigations Contact: R. Fleming*

\*All contacts in Denver, CO.

PROGRAM:      DIVISION: Geologic      BRANCH: Coal Resources      CONTACT: Various (see Other Information)      DATE: 8/28/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
3	3"	1350'	9	CO	Huerfano Las Animas	Vermejo (Upper Cretaceous) & Raton, Upper Cretaceous & Paleocene	Coal evaluation		4,040' primary 1,360' twin 550' coring Contract Contact: Walter Danilchik*
29	3"	450'	2	MT	Roosevelt Daniels Sheridan	Ft. Union (Paleocene)	Coal evaluation		13,050' primary 4,900' twin 385' coring Contract Contact: H. H. Arndt*
4	3"	500'	1	NM	Valencia Catron	Mesaverde Formation	Coal evaluation		2000' primary 1500' twin 40' coring USGS drill rig Contact: E. J. McKay*

\*All contacts in Denver, CO.

FY-79 - continued

GROUPS OF DRILLHOLES (continued)

Number of holes	Final diam.	Average depth	% core	Location State	County	Generalized stratigraphy	Principal objectives	Cost	Other information
6	3"	500'	1	NM	Valencia	Crevasse Canyon Formation of Mesaverde Group	Location and thickness of coal--Acoma Indian Reservation		USGS drilling 3,000' primary 2,600' twin 100' coring Contact: W. J. Mapel*
6-10	3"	550'	6	NM	Bernadillo	Crevasse Canyon	Assess coal resources of Canoncito Indian Reservation		5500' primary 3000' twin USGS drill rig 550' coring Contact: Bill Mapel*
10	3"	350'	4	NM	San Juan	Menefee Coal	Coal evaluation		3500' primary 1500' twin Contract Contact: Robert O'Sullivan*
11	3"	100'	30	UT	Emery	Ferron Sandstone (Cretaceous)	Coal samples for petrographic study		USGS drilling 926' rotary 392' coring Contact: T. A. Ryer*
5		538'	25	UT	Garfield Grand	Nelsen/Sego - Mesa Verde	Coal quality & quantity, stratigraphy & correlation		2000' pilot 1400' twin 1160' coring USGS drilling rig Contact: J. Gualtieri*
3	3"	1000'	25	UT	Emery	Star Point Sandstone (Cretaceous)	Coal core		Contract 2,125' rotary 700' coring Contact: Joseph D. Sanchez*
11	3"	100'	30	UT	Emery	Ferron Sandstone	Coal samples for petrographic study	\$17,000	USGS drill rig 926' rotary 392' coring Contact: T. A. Ryer*

\*All contacts in Denver, CO.

FY-79 - continued

GROUPS OF DRILLHOLES (continued)

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u># core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
35+	3"	400'	3	WY	Fremont	Mesaverde, Meeteetse, & Lance Formations; Cretaceous	Coal resource evaluation		14,000' primary 3,000' twin 600' coring Contract Contact: John F. Windolph, Jr.*
30	3"	500'	6	WY	Campbell	Lebo Shale Member, Ft. Union Formation, Wasatch Formation	Coal evaluation; stratigraphic correlation		15,000' primary 10,000' twin 1500' coring USGS drill rig Contact: R. G. Hobbs*
44	3"	450'	5	WY	Carbon Albany	Ferris (Paleocene) and Hanna (Eocene)	Coal evaluation		Contract 20,000' rotary 1000' coring Contact: Dan E. Hansen*
5-6	3"	400'	20-33	WY	Carbon Albany	Ferris (Paleocene) and Hanna (Eocene)	Coal evaluation		USGS drill rig 1600' rotary 400'-800' coring Contact: Dan E. Hansen*

\*All contacts in Denver, CO.

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PROGRAM: B.I.A.-Navajo Res.- Uranium      DIVISION: Geologic      BRANCH: Uranium & Thorium      CONTACT: Morris Green, Denver, CO      DATE: 8/23/79

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Gallup Sag	6000'	6"	Morrison Fm.	NM	35°40'	108°53'30"	Cret.-Precambrian	Lithology, facies, mineralization, alteration	\$180,000	Oct. 1	
Hopi Buttes 1	2000'	6"	Diatreme	AZ	35°15'	110°2.30'	Tuff, agglomerate blocks, other volcanic rocks and sedimentary inclusions	Distribution of mineralized zones in volcanics and sedimentary inclusions	\$140,000	Oct. 1	

FY-79 - continued

INDIVIDUAL DRILLHOLES (continued)

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Hopi Buttes 2	1000'	6"	Diatreme	AZ	35°15'	110°2.30'	Same as Hopi Buttes 1	Same as Hopi Buttes 1			
Hopi Buttes 3	1000'	6"	"	AZ	"	"	" " " " "	" " " " "			

PROGRAM: Lithium resource appraisal      DIVISION: Geologic      BRANCH: Chem. Resources      CONTACT: J. Vine, Denver, CO      DATE: 8/22/79

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
1	700	4.5"	none	NV	37°49'	117°58'	Playa sediments	Li-brine or clay		9/79	
2	1000	"	"	NV	37°52'	117°56'	" "	" " "			
3	600	"	"	NV	37°57'	117°42'	" "	" " "			
4	400	"	"	NV	38°03'	117°35'	" "	" " "			
5	500	"	"	NV	37°51'	117°24'	" "	" " "			
6	400	"	"	NV	37°54'	117°18'	" "	" " "			
7	400	"	"	NV	37°54'	117°04'	" "	" " "			
8	500	"	"	NV	37°32'	117°09'	" "	" " "	\$75,000		10/79

PROGRAM: Utah Oil Shale      DIVISION: Geologic      BRANCH: Chemical Resources      CONTACT: W. B. Cashion, Denver, CO      DATE: 8/28/79

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
1	200	3.5"	150-200	UT	39°36'N	109°37'W	Parachute Creek Member of the Green River Formation (oil shale and siltstone)	Mahogany zone; to evaluate oil shale	\$4,500		
2	"	"	" "	UT	39°34'N	109°32'W			"		
3	"	"	" "	UT	39°31'N	109°35'W			"		
4	"	"	" "	UT	39°30'N	109°29'W			"		10/1/79



INDIVIDUAL DRILLHOLES (continued)

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
5	"	"	" "	UT	39°28'N	109°27'W	(see previous page)	(see previous page)	\$4,500		
6	"	"	" "	UT	39°24'N	109°27'W	"	"	"		
7	"	"	" "	UT	39°32'N	109°31'W	"	"	\$31,500		

PROGRAM: Blacktail Mountain      DIVISION: Geologic      BRANCH: Central Mineral Resources      CONTACT: J. W. Hasler, Denver, CO      DATE: 8/22/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
22	4 7/8"	81.1	96.3	MT	Flathead	Precambrian belt supergroup Empire and Spokane formations	Research on stratabound copper occurrences in green beds of belt supergroup	\$80,800	Beds were cored continuously after hole was collared. Obtained 3-inch (76.2 mm) core. Holes range from 30-155 feet deep.

PROGRAM:      DIVISION: Geologic      BRANCH: Astrogeology      CONTACT: David Roddy, Flagstaff, AZ      DATE: 8/30/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
15	BX and NX	200'- 3000'	100	TN	Jackson	Fort Payne Chert Chattanooga Shale Impact crater breccia Leipers Formation (limestone) Catheys Formation (limestone) Cannon limestone Hermitage Formation (limestone) Stones River Group (limestone and dolomite) Knox Group (limestone and dolomite)	Study of impact cratering	See "Other Info."	Drilling in progress-- no estimate of cost yet. All within Flynn Creek impact crater.

## FY-79 - continued

PROGRAM: DIVISION: Geologic BRANCH: Eastern Environmental CONTACT: Dennis Duty, Reston, VA DATE:

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
4	3"	50'	75	MA	Barnstable	Mashpee Outwash plain	Stratigraphic test		Split spoon samples Sample overburden and core
2	4"	50'	10	MA	Plymouth	Pleistocene/Tertiary/Penn.	" "		
2	3"	100'	75	MA	Bristol	Pleistocene	Glacial tectonics		Shelby tube sampling Split spoon sampling
2	4"	250'	90	NY	Rockland	Triassic/Paleoz./PrC	Assess seismicity of faults		

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Cusseta #1	120'	2&1/2"	100	GA	32.31°	84.79°	Upper Blufftown Fm.	Stratigraphic test		10/20/79	10/21/79
Buena Vista NW #1	105'	2&1/2"	100	GA	32.41°	84.64°	Lower Blufftown/Eutaw	Stratigraphic test		10/23/79	10/24/79
Eufaula North #1	75'	2&1/2"	100	AL	31.16°	85.15°	Upper Ripley Fm.	Stratigraphic test		10/25/79	10/26/79
Eufaula North #2	120'	2&1/2"	100	AL	31.91°	85.15°	Ripley/Cusseta	Stratigraphic test		10/26/79	10/27/79
Brooklyn #1	121'	2&1/2"	100	GA	32.23°	84.70°	Providence/Ripley	Stratigraphic test		10/28/79	10/29/79
Catamount #2	600'	4"	100	NY	41.10°	74.05°	Triassic/Paleoz./PC.	Identify seismicity of faults	\$11,000.	10/78	9/79

PROGRAM: Evaluation of Indian Lands DIVISION: Geologic BRANCH: Eastern Mineral Resources CONTACT: William F. Cannon, Reston, VA DATE: 4/25/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
3	2"	500'	100%	WI	Forest	Lower Proterozoic volcanic rocks	Determine nature of rock causing electromagnetic anomalies. Evaluate economic potential of tribal lands.	\$40,000 (estimate)	Drilling is planned for June and July, 1979

FY-79 - continued

PROGRAM: DIVISION: Geologic BRANCH: Atlantic-Gulf of Mexico CONTACT: J. Robb, Woods Hole, MA DATE: 4/25/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
40	3 1/2" core diam.	30'	100	Georges Bank and Middle Atlantic area:	Continental Slope, 200-2000 m	Pleistocene and older	Geotechnical properties in slump and non-slump areas	135,000	Project planned to be continued in FY80.

PROGRAM: Geothermal Research DIVISION: WRD REGION: Western CONTACT: James H. Robison, Menlo Park, CA DATE: May 22, 1979

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
3	5"	500'	1	CA	Riverside	Alluvium, lake deposits	Geothermal Resource Assessment	\$10,000	Coachella Valley

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
1	3000'	4"	All	OR	43°42.5'	121°13.3'	Late Cenozoic volcanics of Newberry Caldera	Geothermal Resource	\$100,000		

PROGRAM: DIVISION: WRD REGION: Western CONTACT: E. R. Leggat, Menlo Park, CA DATE: 9/4/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
20	1 1/2"	20-80'		WA	Okanogan	Alluvium-glacial drift	Observation wells	\$15,000	
12-15	2"	20-60'		WA	Thurston	Alluvium	" "	\$6,500	
20	2"	10-50'		WA	King	Alluvium	" "	\$8,200	
6	6"	80-400'		WA	King	Glacial drift	" "	\$18,700	Quality of water sampling
3	6"	170'	no	OR	Coos Bay	Beach sand	Hydrologic heads	\$15,000	Saltwater-fresh water interface
4	6"	100'	no	AK	Kenai	Alluvial fan	Stratigraphy	\$20,000	Hydrologic head distribution
35	2"	960'	no	WA	Yakima	Alluvium	Observe water levels	\$10,000	

GROUPS OF DRILLHOLES (continued)

Number of holes	Final diam.	Average depth	% core	Location		Generalized stratigraphy	Principal objectives	Cost	Other information
				State	County				
50	2"	2500'		WA	King	Glacial drift	Observation wells	\$42,000	Quality of water sampling
1	12"	1200'		WA	Douglass	Basalt	Piezometers	\$20,000	Head measurement

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
TI2N/R1E-34RD1 (Test hole 1)	2501'	3"	100' 90' sidewalls	CA	38°50.20'	121°50.36'	Alluvium	Stratigraphy-hydrologic characteristics, head distribution, water quality	\$177,000	3/5/79	4/12/79
Test hole 2	1400'	3"	100 core (60' sidewalls)	CA	39°27.30'	121°57.50'	Alluvium	Stratigraphy-hydrologic characteristics, head distribution, water quality, observation of water level	\$150,000	6/79	8/79
Kona T-1	1040'	6"	none	HI			Basalt		\$110,000	3/79	5/79

PROGRAM: Data Collection

DIVISION: W/R

DISTRICT: Arkansas

CONTACT: A. H. Ludwig, Little Rock, AR

DATE: 8/23/79

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
16N01E30	360'	4"	0		35°59'31"	91°00'59"	Cretaceous, Tertiary, Quaternary	Water Resources Investigations	\$1000		2/28
18N02E25	400'	4"	0		36°10'07"	90°49'00"	"	"	"		3/7
13N01W30	400'	4"	0		35°49'28"	91°07'54"	"	"	"		3/8
12N02W05	450'	4"	0		35°42'32"	91°12'47"	"	"	"		3/27
08S17W18	240'	4"	0		34°01'59"	92°52'59"	Tertiary-Quaternary	"	"		4/26
08S17W14	165'	4"	0		34°01'25"	92°48'45"	"	"	"		4/27
11S19W04	150'	4"	0		33°48'50"	93°03'33"	"	"	"		4/30
12S20W16	300'	4"	0		33°41'34"	93°10'00"	"	"	"		5/1
14S22W05	150'	4"	0		33°33'16"	93°24'14"	"	"	"		5/2
13S23W04	150'	4"	0		33°38'46"	93°29'12"	"	"	"		5/2
13S20W36	123'	4"	0		33°33'24"	93°07'08"	"	"	"		5/3
14S19W29	250'	4"	0		33°29'42"	93°05'13"	"	"	"		5/4
17S19W15	300'	4"	0		33°15'19"	93°03'12"	"	"	"		5/7
18S20W20	310'	4"	0		33°09'22"	93°12'10"	"	"	"		5/8
18S23W26	290'	4"	0		33°09'20"	93°27'48"	"	"	"		5/9
16S24W19	290'	4"	0		33°20'26"	93°37'28"	"	"	"		5/10
16S27W31	145'	4"	0		33°19'15"	93°56'25"	"	"	"		5/14

PROGRAM: Liquid Waste,  
Arbuckle Group, KS

DIVISION: WRD

DISTRICT: Kansas

CONTACT: A. J. Gogel, Lawrence, KS

DATE: 8/23/79

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
1	2150'	4"	--		38°28'33"	94°54'28"	Limestones, shales	Arbuckle (hydraulic parameters)	\$76,000	10/79	--
2	3000'	6-1/2"	60' in Arbuckle		39°00'45"	95°28'24"	Limestones, shales	"	\$141,000	11/79	--
3	3700'	6-1/2"	" " "		38°51'19"	97°33'59"	Limestones, shales	"	\$168,000	11/79	--

PROGRAM: Contamination-Equus  
Beds

DIVISION: WRD

DISTRICT: Kansas

CONTACT: J. B. Gillespie, Lawrence, KS

DATE: 8/22/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location		Generalized stratigraphy	Principal objectives	Cost	Other information
				State	County				
5	2"	200'		KS	Reno	Alluvium sand, gravel, silt, and clay	GS quantity and quality. GS flow modeling. GS solute transport modeling.	\$15,000	Drilling (June, 1979)

PROGRAM: Wellington aquifer  
parameters

DIVISION: WRD

DISTRICT: Kansas

CONTACT: J. B. Gillespie, Lawrence, KS

DATE: 8/22/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location		Generalized stratigraphy	Principal objectives	Cost	Other information
				State	County				
4	4"	150'	0	KS	Saline	60' alluvium (sand & gravel). 90' shale and interbedded shale and gypsum	Determine aquifer parameters.	\$10,000	Drilling June & July, 1979

PROGRAM: DIVISION: WRD DISTRICT: Louisiana CONTACT: George T. Cardwell, Baton Rouge, LA DATE: 8/23/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location		Generalized stratigraphy	Principal objectives	Cost	Other information
				State	County				
2	2"	650'	0	LA	East Baton Rouge and West Baton Rouge.	Pleistocene sand and gravel	Water-level monitors	\$3000	
8 (in addition to wells below)	4"	120'	None (Rotary drill samples only)	LA	De Soto	Unconsolidated sand of Tertiary age (mostly Wilcox Sand).	Lignite project	est. \$2000	

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
C1-148	745'	---	0		32°54'37"	92°50'33"	Unconsolidated sand and clay of Tertiary age (mostly Sparta Sand).	Stratigraphy, water quality, and water level information.	\$7142.50	10/4/78	10/11/78
C1-149	907'	5.6"	Rotary		33°00'02"	92°44'59"			\$8311.00	10/9/78	10/19/78
Ja-156	814'	4.5"	drill		32°17'30"	92°37'37"			\$9143.00	12/27/78	1/22/79
L-153	764'	5.6"	samples		32°40'18"	92°48'22"			\$7022.00	10/11/78	10/18/78
Ou-488	957'	4.5"	only.		32°24'37"	92°24'31"	"	"	\$11635.00	1/22/79	2/7/79
Un-134	859'	4.5"	"		32°36'55"	92°21'17"	"	"	\$9305.00	2/5/79	3/2/79
Wb-398	623'	4.75"	"		32°45'28"	93°15'35"	"	"	\$6309.00	10/2/78	10/6/78
Wb-399	417'	5.0"	"		32°55'18"	93°22'19"	"	"	\$4521.00	10/16/78	10/19/78
W-174	469'	---	"		32°04'33"	92°46'52"	"	"	\$4883.00	2/16/79	2/16/79

PROGRAM: Montana District DIVISION: WRD DISTRICT: Montana CONTACT: Joe A. Moreland, Helena, MT DATE: 8/28/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location		Generalized stratigraphy	Principal objectives	Cost	Other information
				State	County				
25	4"	200'	5	MT	Rosebud	Sedimentary sandstone and coal	Groundwater observation wells	\$20,000	Coal hydrology
50	4"	200'	--	MT	Rosebud	Sedimentary sandstone and coal	Groundwater observation wells	\$60,000	Drill by cooperator
6	4"	1000'	5	MT	Rosebud & Custer	Fort Union Formation	Groundwater observation wells	\$90,000	Northern Great Plains Regional Aquifer Study

PROGRAM: High Plains RASA  
Project NE 78-041

DIVISION: WRD

REGION: Central

CONTACT: M. J. Ellis, Lincoln, NE

DATE: 6/26/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
4	4-5"	455'	0	NE	Holt	Surficial wind-blown sand	Collection of data to determine the thickness of the principal aquifer system, and provide a basis for estimating hydraulic conductivities and specific yields of aquifer material.		Contract has not been awarded, and cost cannot be determined
4	"	690'	0	NE	Rock	deposits			
1	"	610'	0	NE	Brown	Pleistocene sand and gravel			
4	"	550'	0	NE	Cherry	deposits			
4	"	740'	0	NE	Loup	Miocene Ogallala Formation			
2	"	730'	0	NE	Blaine	Oligocene Brule Fm.			
4	"	770'	0	NE	Custer	"			
1	"	790'	0	NE	Logan	Test holes generally are drilled 20 to 30 feet into the Brule Fm., which is the base of the principal aquifer system.			
6	"	580'	0	NE	Lincoln				

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
34 HP 78	725'	8"	None	NE	41°54.42'	100°16.09'	Same as above	Same as above	\$2300	10/18/78	10/19/78
35 HP 78	850'	8"	"	NE	41°55.03'	100°49.25'	"	"	\$2660	10/23/78	10/25/78
36 HP 78	770'	5"	"	NE	42°02.03'	100°49.01'	"	"	\$2305	10/30/78	11/1/78
37 HP 78	710'	4"	"	NE	41°28.17'	100°42.50'	"	"	\$2280	11/14/78	11/15/78
38 HP 79	740'	4"	"	NE	41°43.05'	100°46.12'	"	"	\$2340	3/13/79	3/14/79
39 HP 79	870'	5-1/2"	"	NE	41°34.37'	100°46.33'	"	"	\$2715	3/27/79	3/28/79
40 HP 79	825'	5-1/2"	"	NE	41°35.15'	100°18.28'	"	"	\$2575	4/3/79	4/4/79
41 HP 79	1070'	5-1/2"	"	NE	41°18.59'	101°27.57'	"	"	\$4900	4/23/79	4/25/79
42 HP 79	580'	5"	"	NE	42°14.59'	102°25.49'	"	"	\$1810	4/30/79	5/1/79
43 HP 79	890'	5"	"	NE	42°21.14'	102°03.27'	"	"	\$2775	5/2/79	5/3/79
44 HP 79	740'	4-5/8"	"	NE	42°12.22'	102°14.23'	"	"	\$2635	5/7/79	5/8/79
45 HP 79	830'	5-7/8"	"	NE	42°03.14'	101°54.58'	"	"	\$2980	5/14/79	5/15/79
46 HP 79	895'	5-3/4"	"	NE	42°11.37'	101°44.05'	"	"	\$2790	5/22/79	5/23/79
47 HP 79	900'	4-5/8"	"	NE	42°01.48'	101°24.27'	"	"	\$2810	5/30/79	5/31/79

PROGRAM: Logan County Water Resources

DIVISION: WRD

DISTRICT: North Dakota

CONTACT: R. L. Klausung, Bismark, ND

DATE: 8/27/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
58	1&1/4"	330'	0	ND	Logan	Glacial drift	Aquifer delineation	Estimated \$57,000	Drilling not completed yet.

PROGRAM: McKenzie County Water Resources    DIVISION: WRD    DISTRICT: North Dakota    CONTACT: M. G. Croft, Bismark, ND    DATE: 5/7/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
20	1 1/4"	100'		ND	McKenzie	Glacial drift	Stratigraphy	\$3000	

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
1	1950'	4"		ND		McKenzie	Fort Union Formation	Water Supply	\$30,000		

PROGRAM: Bottineau-Rolette Counties Water Resources    DIVISION: WRD    DISTRICT: North Dakota    CONTACT: C. A. Armstrong, Bismark, ND    DATE: 8/29/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
90	4.5-4.75	200'		ND	Bottineau Rolette	Glacial drift Tertiary Cretaceous	Delineate glacial and bedrock aquifers	\$50,000	

PROGRAM: Rattlesnake Butte Hydrology ND79-085    DIVISION: WRD    DISTRICT: North Dakota    CONTACT: W. F. Horak, Bismarck, ND    DATE: 8/27/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
25	5"	325'	0	ND	Stark	Fort Union Formation (Paleocene) Sentinel Butte and Tongue River Members	Establish geologic framework and obtain hydrologic information for major shallow aquifers.	\$25,000	Total of 8,100 ft.



PROGRAM: Wibaux-Beach Hydrology ND78-082

DIVISION: WRD

DISTRICT: North Dakota

CONTACT: W. F. Horak, Bismarck, ND

DATE: 8/27/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
48	5"	274'	0.2	ND MT	Golden Valley Wibaux	Fort Union Formation (Paleocene) Tongue River and Ludlow Members	Establish geologic framework and obtain groundwater hydrologic information for major shallow aquifers.	\$45,000	Total of 13,100 ft.

PROGRAM: High Plains RASA

DIVISION: WRD

DISTRICT: South Dakota

CONTACT: H. L. Case, III, Rapid City, SD

DATE: 8/24/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
13	5"	400'	0	SD	Shannon Bennett Washabaugh Todd Tripp	Ogallala FM-unconsolidated sandy gravels, clay  Arikaree FM	Determine base of high plains aquifer system in So. Dakota  Obtain water levels	\$18,373	

PROGRAM:

DIVISION: WRD

DISTRICT: Texas

CONTACT: I. D. Yost, Austin, TX

DATE: 8/29/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
20	6 3/4"	415'	30	TX	Carson Crosby Dallam Floyd Gaines Hansford Hartley Hemphill Hutchinson Lipscomb Lynn Moore Ochiltree Potter Roberts Sherman Yoakum	Ogallala	Describe hydraulic characteristics of Ogallala.	\$145,000	

PROGRAM: Hydrology of Ferron Ss    DIVISION: WRD    DISTRICT: Utah    CONTACT: G. C. Lines, Salt Lake City, UT    DATE: 8/27/79

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
1-1	380'	2 1/2"	0	UT	38°52'24"	111°14'26"	Ferron Sandstone	Observation well	\$11220	11/7/78	11/9/78
1-2	150'	"	"	UT	38°52'24"	111°14'26"	Member of Mancos	"	\$5695	11/9/78	11/10/78
1-3	725'	5"	"	UT	38°53'00"	111°15'37"	Shale was drilled on	Hydrologic testing	\$15920	11/21/78	11/29/78
1-4	1100'	"	"	UT	38°54'26"	111°16'08"	all holes. Blue Gate	"	\$19670	12/4/78	12/13/78
2-1	720'	"	"	UT	38°50'45"	111°17'18"	Member of Mancos was	"	\$19874	11/20/78	11/27/78
2-3	440'	"	"	UT	38°50'49"	111°15'31"	also drilled at sites	"	\$15199	11/28/78	11/29/78
2-4	360'	"	"	UT	38°51'55"	111°14'17"	1-1, 1-2, 1-3, 1-4, 2-1.	"	\$16460	12/6/78	12/13/78

PROGRAM:    DIVISION: WRD    DISTRICT: Wyoming    CONTACT: James R. Marie, Cheyenne, WY    DATE: 8/23/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location State	County	Generalized stratigraphy	Principal objectives	Cost	Other information
24	4 1/2"	50'	0	WY	Platte	Sand & gravel "Tertiary"	Determine Sat. thickness and water level fluctuation	\$4800	

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
--	400'	7 7/8"	0	WY	42°06.13'	105°02.44'	0-30 sand & gravel 30-400 sandstone	Observation well	\$2700		Not yet drilled
--	760'	10" to 250' 4 1/2" to 760'	0	WY	42°07.18'	104°55.40'	0-8 1/2 gravel 8 1/2-760 sandstone	"	\$4100	5/14/79	5/15/79
--	160'	7 7/8"	0	WY	42°07.10'	104°19.30'	0-160 sandstone	"	\$1200	5/20/79	5/20/79

PROGRAM: Coal Hydrology, AL 76-041    DIVISION: WRD    DISTRICT: Alabama    CONTACT: W. J. Powell, University, AL    DATE: 9/5/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location State	County	Generalized stratigraphy	Principal objectives	Cost	Other information
10	2"	8'	0	AL	Tuscaloosa	Cretaceous sand, gravel and clay.	Wells for soil moisture probes.	\$300	Augured with USGS personnel.

FY-79 - continued

PROGRAM: FL 195                      DIVISION: WRD                      DISTRICT: Florida                      CONTACT: Michael C. Yurewicz, Tallahassee, FL                      DATE: 8/28/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
5 or 6	4"	60'	0	FL	Leon	Oligocene Limestone	Quality of water samples	\$2500	Contract

PROGRAM: FL 139, 294                      DIVISION: WRD                      DISTRICT: Florida                      CONTACT: Henry Trapp, Jr., Tallahassee, FL                      DATE: 4/30/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
4	2"	400'	0	FL	Escambia	Tertiary sand	Delineate water bearing zones, determine water levels, water quality	\$6400	Contract

PROGRAM: FL 282                      DIVISION: WRD                      DISTRICT: Florida                      CONTACT: Larry R. Hayes, Tallahassee, FL                      DATE: 4/30/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
5	6"	150'	0	FL	Okaloosa	Sand and gravel	Delineate water-bearing zones, and water quality and heads.	\$5000	Cooperator
11	4"	150'	0	FL	Okaloosa	Sand and gravel		\$12000	Cooperator
2	4"	1500'	1	FL	Okaloosa	Tertiary		\$28000	Cooperator
2	6"	1000'	0	FL	Walton	Tertiary		\$8000	Cooperator

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Field 4	1500'	4"	Bucatanna and lower Floridan	FL	30°30'13"	86°35'16"	Tertiary sand, clay and limestone	Delineate water-bearing zones, and water quality and heads.	\$14,000	5/7/79	5/14/79
Field 2	1500'	4"	Bucatanna and lower Floridan	FL	30°34'41"	86°26'39"	Tertiary sand, clay and limestone	Delineate water-bearing zones, and water quality and heads.	\$14,000	5/14/79	5/21/79

FY-79 - continued

PROGRAM: FL 307

DIVISION: WRD

DISTRICT: Florida

CONTACT: Harold C. Mattraw, Jr., Tallahassee, FL DATE: 8/24/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
4	2"	10'	100	FL	Liberty	Surficial sand	Water table-surface water interconnection.	\$1000	In-house.
4	2"	10'	100	FL	Gulf	Surficial sand		\$1000	

PROGRAM: Water Resources, Lee & Collier Counties

DIVISION: WRD

DISTRICT: Florida

CONTACT: F. A. Watkins, Jr., Fort Meyers, FL DATE: 8/23/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
10	2"	20'	0	FL	Lee	Sand	Water table levels and quality of water samples	\$1000	In-house

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
L-2901	652'	6" to 4"	0	FL	26°43'09"	81°40'51"	Sand, clay, limestone	Pilot hole for injection well, well cuttings, geologic logs	\$3172	11/21/78	Plugged
L-3224	622'	4"	0	FL	26°43'09"	81°40'51"	Sand, clay, limestone	Observation well	\$4270	4/9/79	4/13/79
L-3225	620'	10"	0	FL	26°43'09"	81°40'51"	" " "	Injection well	\$24000	11/21/78	3/23/79
C-578	260'	4"	0	FL	26°26'40"	81°31'01"	" " "	Hydrogeology-drill cuttings	\$4/ft.	1/16/79	1/16/79
C-577	390'	4"	0	FL	26°18'41"	81°38'32"	" " "	Hydrogeology-drill cuttings	\$4/ft.	1/15/79	1/15/79

PROGRAM:

DIVISION: WRD

DISTRICT: Florida

CONTACT: R. L. Knutilla, Tampa, FL

DATE: 8/27/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
73	2"	6'	0	FL	Pinellas	Quaternary	Ground water monitoring	\$1500	In-house



FY-79 - continued

PROGRAM: DIVISION: WRD DISTRICT: Georgia CONTACT: H. E. Gill, Doraville, GA DATE: 8/28/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
10	4" or 6"	100-200'		GA	Several in Dougherty Plain	Upper Eocene	Hydrology of Dougherty Plain	\$10,000	Drilling by contract

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Ocala No. 2 @ Miller	105'	4"	--	GA	31°35'51"	84°04'40"	Upper Eocene	Hydrology of Albany area	\$1,000	4/79	4/79
Ocala No. 3 @ Miller	105'	4"	--	GA	31°36'09"	84°04'35"	Upper Eocene	"	\$1,000	4/79	4/79
USGS TW 10	1347'	6"		GA	31°35'34"	84°10'30"	Upper Eocene - Upper Cretaceous	"	\$65,000	9/78	12/78

PROGRAM: DIVISION: WRD DISTRICT: Kentucky CONTACT: Philip A. Emery, Louisville, KY DATE: 8/23/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
14	4"	50'	--	KY	Livingston	Glacial outwash - alluvium	Lithology - water levels	\$800ea.	Cooperator
18	1 1/2"	100'	--	KY	Jefferson	"	"	\$600ea.	In-house

PROGRAM: Atlantic Coastal Plain Waste Storage DIVISION: WRD DISTRICT: North Carolina CONTACT: P. M. Brown, Raleigh, NC DATE: 8/28/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
7	2"	140'	90	NC	Pender New Hanover Brunswick	Cenozoic - Mesozoic contacts	Structure control	\$8,200	USGS equipment March 16-April 10, 1979

FY-79 - continued

PROGRAM: DIVISION: WRD DISTRICT: Caribbean CONTACT: James E. Heisel, San Juan, PR DATE: 5/9/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
10	4"	100'	20	PR	Vega Baja	Alluvium over limestone	Exploratory-observation wells	\$2000	Cooperator

PROGRAM: Hydrology Carbonate Aquifers--Dandridge DIVISION: WRD DISTRICT: Tennessee CONTACT: Pat Hollyday, Nashville, TN DATE: 8/22/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
7	2 @ 8" 3 @ 6-1/4" 2 back-filled	280'	0	TN	Jefferson	Cambro Ordovician Knox Dolomite	Hydrologic Investigation - test hole	\$17000	Contracted by cooperator, Town of Dandridge

PROGRAM: DIVISION: WRD REGION: Northeast CONTACT: John A. Baker, Reston, VA DATE: 5/4/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
18	4"	280'	0	MN	Big Stone	Drift & Cretaceous Shale	Water level, quality of water, Transmissivity & Storage coefficient	\$12600	10/1-30/78
5	4"	90'	0	MN	Hennepin	Drift & Platteville Limestone	Water level, quality of water, stratigraphy	\$5700	1/1-4/15/79
2	5"	60'	100	MN	Hennepin	Drift	"	\$2300	10/1-30/78
		80'	25	MN	Hennepin	"	"	included above	
25	4"	70'	0	MN	Hennepin	Drift & upper bedrock	"	\$37500	6/15-9/30/79
20	5"	80'	90	MN	Hennepin	"	"	\$30000	7/1-9/3/79
10	4"	150'	0	MN	Ottertail	Drift	" & T&S	\$8000	9/1-30/79
12	4"	200'	0	MN	Beltrami	Drift & peat	" "	\$12000	8/1-9/30/79
4	2"	50'	0	IN	Madison	Glacial drift or outwash	Water levels	\$1000	10/2-6/78
9	2"	185'	0	IN	Madison	"	Stratigraphy and water level	\$10500	10/30-11/9/78
5	2"	30'	0	IN	Kosciusko	"	Water level	\$1300	10/10-13/78

GROUPS OF DRILLHOLES (continued)

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
25	2"	60'	0	IN	Newton & Jasper	Glacial drift or outwash	Stratigraphy and water level	\$2900	10/16-27/78
16	2"	185'	0	IN	Northwest Elkhart	"	Stratigraphy, water level, and quality of water	\$17600	11/3-12/8/78
2	2"	160'	0	IN	"	"	Sed. sample	\$2000	11/14-15/78
5	2"	40'	0	IN	"	"	Test hole quality of water	\$1200	4/25-27/78
9	2"	60'	0	IN	Knox	"	Quality of water-CI	\$1900	11/20-12/1/78
20	2"	50'	0	IN	Northern Porter	"	Water level	\$3700	8/6-30/79
88	4"	160'	0	IN	"	"	Stratigraphy, water level, quality of water	\$110000	4/30-8/1/79
90	2"	75'	0	IN	Morgan & Johnson	"		\$25000	4/30-9/30/79

PROGRAM: DIVISION: WRD REGION: Northeast CONTACT: Helgesen - John A. Baker, Reston, VA DATE: 5/4/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
7	6"	97'	0	OH	Guernsey	Shale, sandstone, coal	Observation well water level	\$7200	Drilled 10/20-11/16/78
10	4"	50'	0	OH	Vinton	Sandstone, shale, coal	Quality of water, water level	\$3300	Drilled 11/15-12/15/78

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
GU-200	79'	16"	0	OH	39°58'56"	81°29'52"	Shale, sandstone, coal	Test pumping	\$3500	11/16/78	11/24/78

PROGRAM: DIVISION: WRD REGION: Northeast CONTACT: John A. Baker, Reston, VA DATE: 5/4/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
26	2"	22-77'	10	CT	Litchfield	Glacial outwash	Water level, stratigraphy	\$7800	
					New Haven				
30	2"	70'	20	CT	New London	"	"	\$9000	
2	6"	60'	0	NY	Albany	Sand	Water level	\$4000	



GROUPS OF DRILLHOLES (continued)

Number of holes	Final diam.	Average depth	% core	Location		Generalized stratigraphy	Principal objectives	Cost	Other information
				State	County				
5	6"	125'	0	MI	Cheboygan	Glacial	Lithologic & hydrologic information	\$22000 total	
					Hillsdale	"			
					Monroe	Glacial & bedrock			
87	1&1/4-6"	125'	0	MI	Otsego	" "	Stratigraphy, water level, QN	\$127500 total	
					Arenac	" "			
					Iosco	Glacial			
					Leelanau	"			
					Lake	"			
					Marquette	"			
10	4"	40'	4	IL	Bureau	"	Stratigraphy, water level,	\$10000	Drilling 7/1-30/79
4-6	4-6"	200'	0	IL	Cook	Till/Silurian dol.	lithology, hydrologic characteristics	\$10000	
1	4"	1031'	0	MD	Kent	Atl. Coastal Plain sed. to basement	Stratigraphy, water level	\$60000	Drilled 10/30-11/23/78
1	4"	1672'	0	MD	Kent	"	"	\$22000	8/9-12/12/78
1	4"	2185'	0	MD	Kent	"	"	\$22300	12/20/77-11/20/78
1	6"	188'	0	MD	Kent	Coastal Plain sed.	Water level, stratigraphy	\$2200	12/20/77-11/20/78
1	4"	617'	0	MD	St. Mary's	"	"	\$4600	10/19-20/78
1	4"	587'	0	MD	St. Mary's	"	"	\$4000	10/24-26/78
1	4"	598'	0	MD	St. Mary's	"	"	\$3500	10/16-18/78
1	4"	698'	0	MD	Calvert	"	"	\$6100	10/5-11/78
1	4"	577'	0	MD	Calvert	"	"	\$4200	10/2-4/78
3	8"	680'	0	MD	Anne	"	"	?	Drilling in progress
		440'			Arunel				
		120'							
5	6"	150-500'	0	MD	Calvert	"	"	--	Contracts out on bid
					St. Mary's				
					Anne				
					Arunez				
1	6"	1000'	0	MD	Montgomery	Triassic rocks	Stratigraphy, yield water level		Contracts out on bid
1	2"	330'	0	DE	Sussex	Coastal Plain sed.	Multi head obs. well	\$5200	10/15-16/78

PROGRAM: California Desert Study DIVISION: Conservation CONTACT: Jack Crowley, Menlo Park, CA

DATE: 5/24/79

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
FL 1	335'	5"	R.C.O.	CA	36°15'15"	116°22'08"	Lacustrine sediments	Evaluation and classification of the California Desert		7/78	7/78
EKV-1	335'	5"	"	CA	37°06'36"	117°42'13"		Conservation area and for leasable minerals		7/78	7/78
SV-3	230'	5"	"	CA	36°42'35"	117°49'22"				11/78	11/78
SV-4A	315'	5"	"	CA	36°42'01"	117°47'26"	Lacustrine sediments and chemical salts			12/78	12/78
SV-5A	135'	5"	"	CA	36°42'50"	117°46'47"	"			12/78	12/78

FY-79 - continued

PROGRAM: California Desert Study    DIVISION: Conservation    REGION: Western    CONTACT: Roger Dockter, Menlo Park, CA    DATE: 8/22/79

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
K-1	515'	5"	Reverse circulation air-drill cuttings collected at all intervals	CA	35°19'45"	117°53'01"	515' clay with thin beds of saline minerals	Saline mineral resource evaluation	\$3420	12/78	12/78
K-2	447.5'	5"	"	CA	35°19'46"	117°54'18"	447.5' clay	"	\$3116	12/78	12/78
K-3	335'	5"	"	CA	35°18'22"	117°53'19"	312' clay with few thin tuff ? layers 312-335 sand & clay beds	"	\$1520	12/78	12/78
K-4	400'	5"	"	CA	35°19'24"	117°52'23"	400' clay	"	\$1575	12/78	12/78
K-5	435'	5"	"	CA	35°20'59"	117°52'09"	374' clay, 374-435 interbedded sand and clay. Sand contains saline brine.	"	\$2508	12/78	12/78

PROGRAM:    DIVISION: Conservation    AREA OR OFFICE:    CONTACT: See Other Information below    DATE: 5/31/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
2		500'	2	CO			Coal evaluation--short-term lease application		USGS drill rig 750' rotary 12' coring Contact: Gary W. Stuckley*
2		600'	1				Coal evaluation--short-term lease application		USGS drill rig 1200' rotary 10' coring Contact: Gary W. Stuckley*

\*All in Denver, CO.

GROUPS OF DRILLHOLES (continued)

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
4		1630'	3	CO	Rio Blanco	Trout Creek Sandstone	Coal evaluation--short-term lease application		1 or 2 holes twinned USGS drill rig 6522' rotary 200' coring Contact: Gary W. Stuckley*
4-5		1000'	0	CO	Gunnison	Mesa Verde Fm.	Coal exploration to define KRCRA		USGS drill rig 4500' rotary Tentative Contact: Dave Gaskill*
7		800'	0	WY	Carbon	Hanna Fm.	Coal evaluation--lease application		USGS drill rig 5800' rotary Tentative Contact: Tim Timmons*
8		1333'	0	UT	San Pete Emery	Star Point Ss. & Blackhawk Fm.	Coal evaluation		10,500' rotary Contract Contact: Gene Ellis*
34		1292'	6	UT	San Pete Sevier	Star Point Ss. & Blackhawk Fm.	Coal evaluation		Contract 41,060' rotary 2,815' coring Contact: Howard Albee*

\*All in Denver, CO.

PROGRAM: DIVISION: Conservation OFFICE: Farmington CONTACT: Russell Jentgen, Denver, CO DATE:

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
?		1000'	?	NM	?	Fruitland Coal	Coal data collection		Contract?

PROGRAM:

DIVISION: Conservation AREA: Northern Rocky Mtn.

CONTACT: See Other Information below

DATE: 5/31/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
2		550'	0	WY	Campbell		Coal correlation		USGS drill rig 1100' rotary Contact: Ken Bowen*
2		600'	0	MT	Bighorn		Coal information--resource evaluation		Contract 1465' rotary Contact: Steven Volz (Montana Bureau Mines and Geology)
53		643'	4	MT	Bighorn Rosebud		Coal correlation--resource evaluation		Contract 34,750' rotary 1340' coring Contact: Robert Matson and V. Niermeier (Montana Bureau of Mines and Geology)
12		725'	0	WY	Converse		Coal correlation--update KRCRA		USGS drill rig 8700' rotary Contact: Frank B. Kistner*
4		450'	0	WY	Campbell		Determine coal occurrence		USGS drill rig 1800' rotary Contact: Robert A. Katock or Frank B. Kistner*
9		425'	4	WY			Coal resource evaluation		3800' rotary 170' core USGS drill rig Contact: Frank B. Kistner or James D. Williams*
3		620'	0	WY	Campbell		Coal resource evaluation		USGS drill rig 1860' rotary Contact: Frank B. Kistner or Elmer M. Schell*

\*Denver, CO

## GROUPS OF DRILLHOLES (continued)

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
8		340'	0	WY		Felix, Anderson, & Wyodak coal beds	Top and thickness of coals		USGS drill rig 2720' rotary Contact: Lee H. Jefferis or Frank B. Kistner*
27		517'	.7	ND	Williams	Fort Union lignites	Establish and evaluate coal resource areas		Contract? 13980' rotary 100' coring Contact: John Spencer*
150		420'	.3	ND	Dunn Stark Billings	Fort Union Fm.	KRCRA establishment and evaluation		63,100' rotary 160' coring Contact: Michael Menge*
32		318'	.5	ND	Mountrail	Fort Union Fm.	KRCRA establishment and evaluation		10,180' coring 50' core Contact: John Spencer*
17		478'	.2	ND	Ward	Fort Union Fm.	KRCRA establishment and evaluation		8,140' rotary 20' core Contact: Susan M. Cook*
67		395'	.4	ND	Divide	Fort Union Fm.	KRCRA establishment and evaluation		26,440' rotary 100' core Contact: John M. Spencer*
77		440'	.6	ND	Williams	Fort Union Fm.	Establish and evaluate coal resource areas		Contact: John M. Spencer*
31		465'	.3	ND	Ward	Fort Union Fm.	KRCRA establishment and evaluation		14,400' rotary 40' core Contract (FY-78) Contact: Susan M. Cook*
5		624'	0	ND	Mountrail	Fort Union Fm.	KRCRA establishment and evaluation		3120' rotary Contract (FY-78) Contact: Susan M. Cook*

\*Denver, CO.

## GROUPS OF DRILLHOLES (continued)

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u> <u>State</u> <u>County</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
3		280'	0	ND	Renville	Fort Union Fm.	KRCRA establishment and evaluation		840' rotary Contract (FY-78) Contact: Susan M. Cook*
62		400'	.2	MT	Roosevelt		Identification of coal beds		25,000' rotary 120' core Contact: Mary Alice Spencer* Contract
55		400'	0	MT	McCone Prairie Dawson	Section through Tongue River Member of Ft. Union Fm.	KRCRA establishment and evaluation		20,360' rotary Contact: Herbert Wincentzen*
24		285'	0	MT	Dawson Wibaux	Fort Union Fm.	Evaluation of nominated areas and KRCRA established		6,850' rotary Contract (FY-78) Contact: Robert Matson (Montana Bureau of Mines and Geology)
46		282'	.4	MT	Richland Wibaux Dawson	Tongue River Coals	Evaluate Sidney KRCRA		17,000' rotary 60' core Contract Contact: Robert Matson (Montana Bureau of Mines and Geology)
16		300'	?	MT	Musselshell		Establish KRCRA boundary and evaluate		6000' rotary 7 coring Contract (FY-78) Contact: Robert Matson (Montana Bureau of Mines and Geology)
62		407'	.5	MT	Roosevelt	Fort Union Fm.	Coal evaluation		25,000' rotary 120' core Contact: Mary Alice Spencer* Contract

\*Denver, CO.

PROGRAM: Black Warrior Coal Basin, Phase I

DIVISION: Conservation REGION: Eastern

CONTACT: Orrin Gilbert, Washington, D.C.

DATE: 4/30/79

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Section, Township, & Range	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
1	2075'	1&7/8"	100%	AL	14-19S, 9W	Pottsville Formation (Pennsylvanian):	Purpose is to assess coal resources on Federal lands (Federal ownership of coal resources). For pre-lease sale evaluation. Mary Lee coal bed	\$18675		Exact order of drilling not established yet. Drilling to commence on or about May 21, 1979, and to be completed mid-August, 1979.
2	2095'	"	"	AL	35-18S, 9W		\$18855			
3	2130'	"	"	AL	24-18S, 9W	alternating shales, sandstones, and coal (minor limestones).	\$19170			
4	1725'	"	"	AL	5-18S, 8W		\$15525			
5	2005'	"	"	AL	32-18S, 9W		\$18045			
6	2030'	"	"	AL	24-18S, 10W		\$18270			
7	1750'	"	"	AL	6-18S, 9W		\$15750			
8	1600'	"	"	AL	17-17S, 9W		\$14400			
9	1505'	"	"	AL	9-17S, 10W		\$13545			
10	1200'	"	"	AL	22-16S, 10W		\$10800			
11	1310'	"	"	AL	32-16S, 9W		\$11790			
12	1280'	"	"	AL	12-16S, 9W		\$11520			
13	1270'	"	"	AL	17-16S, 9W		\$11430			
14	810'	"	"	AL	25-15S, 10W		\$7290			
15	700'	"	"	AL	9-15S, 10W		\$6300			
16	670'	"	"	AL	36-14S, 10W		\$6030			
17	550'	"	"	AL	13-14S, 10W		\$4950			
18	660'	"	"	AL	28-14S, 10W		\$5940			
19	620'	"	"	AL	23-14S, 11W		\$5580			
20	630'	"	"	AL	5-14S, 10W		\$5670			
21	425'	"	"	AL	33-13S, 11W		\$3825			
22	500'	"	"	AL	36-12S, 11W		\$4500			
23	610'	"	"	AL	21-12S, 10W		\$5490			

PROGRAM: National Petroleum Reserve in Alaska

DIVISION: Director's Office

CONTACT: R. D. Carter, Menlo Park, CA

DATE: 8/22/79

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
South Meade #1	9945'	8&1/2"	3010-3020.5 4010-4020 4950-4961 5992-6002.5 7500-7504 8489-8519 8819-8873 9040-9059 9305-9328	AK	70°36'54"	156°53'24"	Quat. - Tertiary Cretaceous Jurassic Triassic Permian Miss-Penn (Carb.) Pre-Miss. basement	Test well		2/7/78	1/22/79

FY-79 - continued

INDIVIDUAL DRILLHOLES (continued)

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Inigok #1	20102'	6&1/4"	2632-2662 3072-3082 4206-4216 5000-5010 7054-7064 8210-8240 8842-8852 9338-9348 9448-9458 10295-10305 10998-11008 11704-11714 12273-12283 12500-12530 12705-12735 13480-13510 13831-13880 14020-14066 15185-15215 16185-16198 17053-17083 19360-19372 20091-20102	AK	70°00'18"	153°05'57"	Quat. - Tertiary Cretaceous Jurassic Triassic Permo-Triassic Miss-Penn (Carb.) Mississippian	Test well		6/7/78	5/22/79
Tunalik #1	15408'	6&1/4"	2651-2654' 3280-3308 3820-3830 5552-5562 6504-6514 7870-7880 8782-8810 10472-10502 10671-10702 10910-10940 11672-11694 12567-12597	AK	70°12'22"	161°04'09"	Quat. - Tertiary Cretaceous Jurassic Triassic Permo-Triassic Miss.-Penn. (Carb.) Pre-Devonian basement	Test well		11/10/78	--



## FY-79 - continued

## INDIVIDUAL DRILLHOLES (continued)

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
Peard #1	10225'	8 1/2"	3034.5-3065 4278-4294 5409-5421 5906-5916.4 6119-6129.4 6403-6413 7837-7868 8275-8289.5 8451-8481 8977-9008 9490-9520 10215-10225	AK	70°42'56"	159°00'03"	Quat. - Tertiary Cretaceous Jurassic Triassic Permo-Triassic Permian Pre-Devonian basement	Test well		1/26/79	4/13/79
East Simpson #1	7739'	8 1/2"	2674.5-2685 5120-5130 6810-6870 6898-6922 7426-7436 7564-7593 7729-7739	AK	70°55'02"	154°36'43"	Quat. - Tertiary Cretaceous Jurassic Triassic Permo-Triassic Miss.-Penn. (Carb.) Mississippian Pre-Devonian basement	Test well		2/19/79	4/10/79
Ikpikpuk #1	14210'	7" liner 9528-14208 (suspended status)	2930-2960' 3784-3812 5690-5700 7132-7143 7368-7378 7491-7501 10270-10300 10619-10649 10815-10842 11108-11135 11718-11733 12743-12753	AK	70°27'20"	154°19'53"	Quat. - Tertiary Cretaceous Jurassic Triassic Permo-Triassic Miss.-Penn. (Carb.) Devonian (?) Pre-Devonian basement	Test well		11/28/78	Sus- pended 4/17/79 (Will re-enter)
Lisburne #1	15500' proposed	8 1/2"	1554-1558.7 2075-2090.5 2990-3000 3900-3910 5340-5356 6215-6225	AK	68°29'05"	155°41'33"	Cretaceous ? Miss.-Penn. (Carb.) Pre-Miss. (?)	Test well		6/11/79	--
J. W. Dalton #1	8800' proposed	8 1/2"	3500-3530 4667-4697 5603-5633 6585-6615 7524-7534 7967-8021	AK	70°55'14"	153°08'15"	Tertiary Cretaceous Jurassic Triassic Permo-Triassic Permian	Test well		5/7/79	8/1/79

INDIVIDUAL DRILLHOLES (continued)

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
			8021-8081				Miss.-Penn. (Carb.) Pre-Devonian basement				
			8081-8113								
			8113-8139.5								
			8140-8200								
			8317-8345								
			8515-8543.5								
Seabee #1	15500'	8 1/2"	9357-9367				Cretaceous	Test well		7/1/79	--
	proposed		5390-5402	AK	69°22'49"	152°10'31"					

PROGRAM: USGS Geotechnical      DIVISION: Conservation      REGION: Western      CONTACT: Gerald Shearer, Anchorage, AK      DATE: 8/27/79  
Investigation, Beaufort  
Sea, 1979

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
16	4"	100'	10-20	AK	Beaufort	Silt, sand, and gravel	Geotechnical properties, depth to	\$1.8MM	Joint Federal/State
4	4"	300'			Sea	"	permafrost		sale area, 1979

PROGRAM: Geothermal      DIVISION: Geologic      BRANCH: FG&P      CONTACT: J. G. Moore, Menlo Park, CA      DATE: 7/16/79

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>Country</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Surtsey #1	200 m		continuous	Iceland	63°18'N	20°36.5'W	Hyaloclastitic tephra (alkali olivine basalt) Pillowed lava at base?	Alteration studies Degassing studies Structure of marine volcano Thermal studies	\$100,000	7/5/79	8/20/79

FY-79 - continued

PROGRAM: Geothermal

DIVISION: Geologic

BRANCH: Grant to Virginia Poly-  
technic Institute and State  
University, Blacksburg, VA

CONTACT: Lynn Glover, III, Blacksburg, VA

DATE: 8/28/79

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
USGS 1		AQ or BQ	bottom 300 ft.	NC	34°34'11"	78°56'02"	Atlantic Coastal Plain and underlying crystal- line rocks of the Fountain Belt, NC	1) petrologic, chemical (?) structural, and geo- chronologic study (Rb-Sr, K-Ar, Ar-Ar, fission track of the basement samples) 2) determination of heat flow	?	7/79	8/79
USGS 2		AQ or BQ	bottom 300 ft.	NC			Atlantic Coastal Plain and underlying crystal- line rocks of the Fountain or Hatteras belts, NC				9/79

FISCAL YEAR 1980

PROGRAM: Earthquake hazards      DIVISION: Geologic      BRANCH: Earthquake tectonics & risk      CONTACT: J. D. Sims, Menlo Park, CA      DATE: 5/9/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
1	7.5 cm	700 m	100	CA	Lake	Holocene & Pleistocene lake sediments of Clear Lake	Stratigraphy, paleoclimatic and paleolimnologic reconstruction, and geothermal & heat flow data	\$200,000	To be drilled with U.S.G.S.-owned rig now being procured. Cost of rig included in cost estimate to left.

PROGRAM: Geothermal Studies      DIVISION: Geologic      BRANCH: Tectonophysics      CONTACT: Tom Moses, Menlo Park, CA      DATE: 9/4/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
55	14 cm	150 m	0	CA NV AZ OR	All	Various	Heat flow	\$200,000	Contract drilled. Cased with nominal 3.2 cm O.D. casing. Bottom 60 m cemented.

PROGRAM: Regional Shear Wave Studies      DIVISION: Geologic      BRANCH: Ground Motion & Faulting      CONTACT: Jim Gibbs, Menlo Park, CA      DATE: 5/30/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
10	4 7/8"	30 m		CA	Los Angeles		Shear-wave measurements	\$10,000	
	"	40 m		AK			" " "	\$15,000	

FY-80 - continued

PROGRAM: DIVISION: Geologic BRANCH: Eastern Environmental CONTACT: Doug Rankin, Reston, VA DATE:

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location		Generalized stratigraphy	Principal objectives	Cost	Other information
				State	County				
5	3"	50'	75	MA		Pleistocene	Glacial tectonics		Split spoon sediment samples
3	4"	500'	100	GA	Richmond	Phyllites/Gneiss/Piedmont	Examine mylonite boundaries		NO wireline core
2	4"	500'	100	GA	Meriwether	Paleoz./Qtzites/Schist/Gneiss	Cenozoic fault study		" " "
4	4"	400'	50	VA/MD	Spottsylvania, Stafford, Charles	Late Mesozoic/Early Tertiary	Stratigraphic control along Stafford Fault system		
3	4"	500'	75	NJ	Bergen	Triassic/Paleozoic/PreC	Location of Ramopo Fault		
1	4"	300'	90	NJ	Essex	Silurian/Ordovician	Stratigraphic test		
4	4"	200'	100	GA		Upper Cretaceous/Lower Tertiary	Stratigraphic test holes		
4	4"	150'	100	VA	Essex, Westmoreland, Richmond	Middle Tertiary/lower Pleis.	Stratigraphic test		

PROGRAM: Hydrologic drilling DIVISION: Geologic/WRD BRANCH: Atlantic-Gulf of Mexico CONTACT: J. C. Hathaway, Woods Hole, MA DATE: 4/25/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location		Generalized stratigraphy	Principal objectives	Cost	Other information
				State	County				
12-48"	2" core diam.	1000-2000'	100	East Coast: Atlantic Shelf		Pleistocene-Cretaceous	Locate limits of offshore fresh water aquifers	\$1.7-5.9M	Proposed program; cost depends on size funded

PROGRAM: Geotechnical DIVISION: Geol./Consv. BRANCH: Atlantic-Gulf of Mexico CONTACT: J. C. Hathaway, Woods Hole, MA DATE: 9/04/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location		Generalized stratigraphy	Principal objectives	Cost	Other information
				State	County				
6-10	2-2 1/2"	1000-1700	100	East Coast Atlantic slope		Mostly Pleistocene, possibly Tertiary	Evaluate strength of sediments for potential slumping hazard	\$2M	Proposed program through Sandia Labs

FY-80 - continued

PROGRAM: Continuous Coring      DIVISION: Geologic      BRANCH: Atlantic-Gulf of Mexico      CONTACT: G. Shideler, Woods Hole, MA      DATE: 4/25/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
6	3" core diam.	100 m	100	Northern Padre Is.		Late Pleistocene/Holocene	To evaluate the stratigraphic evolution of a fluvial-estuarine-barrier island complex, and to evaluate its potential for peat/coral development.	\$100,000	Cooperative with Branch of Coal Resources. Coring operations will commence in FY-80.

PROGRAM:      DIVISION: WRD      REGION: Western      CONTACT: E. R. Leggat, Menlo Park, CA      DATE: 9/4/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
5-10	8"	600'		WA	Kitsep	Glacial drift	Hydrologic head	\$30,000	Water quality
3-5	4"	850'	0	HI	Honolulu	Caprock-basalt	Observation-piezometers	\$110,000+	
50	2"	2500'		WA	King	Glacial drift	Hydrologic head	\$40,000	
3	8-12"	600-1000'		WA	Douglas-Grant	Basalt	Hydrologic head	\$110,000	
35-50	2"	2800'		WA	Peud Oreille	Alluvium glacial drift	Hydrologic head	\$30,000	
3-5	8"	500'		WA	Island	Drift	Hydrologic head	\$25,000	Water quality

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Test hole 3	1000'	3"	100' cores 60' sidewall	CA	38°55.30"	121°36'	Alluvium	Stratigraphy-hydrology	\$135,000	10/79	11/79

PROGRAM: Data Collection      DIVISION: WRD      DISTRICT: Arkansas      CONTACT: A. H. Ludwig, Little Rock, AR      DATE: 8/23/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
10	4"	300'	--	AR		Cretaceous, Tertiary, Quaternary Series	Water Resources Investigations	Unknown	

PROGRAM: DIVISION: WRD DISTRICT: Louisiana CONTACT: George T. Cardwell, Baton Rouge, LA DATE: 8/23/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
14		2300'	--	LA	Webster Union Bossier Claiborne Bienville Jackson Ouachita	Upper Cretaceous, Paleocene, Eocene--sand, silt, clay, marl.	Obtain head and aquifer characteristic data for regional aquifers in northern Louisiana.		

GROUPS OF DRILLHOLES (continued)

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
1	2"	600'	0	LA	Richland Natchitoches Winn Franklin East Baton Rouge	Pleistocene sand and gravel	Water-level monitor	\$1500	

PROGRAM: Montana District DIVISION: WRD DISTRICT: Montana CONTACT: Joe Moreland, Helena, MT DATE: 8/28/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
50	4"	200'	--	MT	?	Sandstones and coal	Groundwater-observation wells	\$60,000	Coal hydrology
6-10	4"	1000'		MT	?	Sandstones and shales	Groundwater-observation wells	\$90,000	Northern Great Plains Regional Aquifer

PROGRAM: High Plains RASA DIVISION: WRD DISTRICT: Nebraska CONTACT: M. J. Ellis, Lincoln, NE DATE: 6/26/79  
Project NE 78-041

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
14	4-5"	750'	0	NE	Cherry	Surficial deposits of wind-blown sand	Collection of data to determine the thickness of the principal aquifer system, and to provide a basis for estimating hydraulic conductivities and specific yields of aquifer material		
6	4-5"	800'	0	NE	Sheridan	Pleistocene sand and gravel deposits			
2	4-5"	850'	0	NE	Hooker	Miocene Ogallala Formation			
2	4-5"	900'	0	NE	Grant	Oligocene Brule Formation Test holes will be drilled into upper 20-30 feet of Brule Formation			

FY-80 - continued

PROGRAM: McKenzie County Water Resources

DIVISION: WRD

DISTRICT: North Dakota

CONTACT: M. G. Croft, Bismark, ND

DATE: 5/7/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
2	4"	2000'		ND	McKenzie	Fort Union	Water supply	\$60,000	
4	2"	1000'		ND	McKenzie	Fort Union	Stratigraphy	\$10,000	
20	1&1/4"	100'		ND	McKenzie	Glacial drift	Stratigraphy	\$3,000	

PROGRAM: Bottineau-Rolette County Water Resources

DIVISION: WRD

DISTRICT: North Dakota

CONTACT: C. A. Armstrong, Bismark, ND

DATE: 8/29/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
100		200'		ND	Bottineau Rolette	Glacial drift Tertiary Cretaceous	Aquifer delineation	\$60,000	

PROGRAM: Rattlesnake Butte Hydrol. ND79-085

DIVISION: WRD

DISTRICT: North Dakota

CONTACT: W. F. Horak, Bismark, ND

DATE: 8/27/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
20	5"	250'	0.5	ND	Stark	Fort Union Formation	Groundwater hydrology program	\$25,000	



FY-80 - continued

PROGRAM: DIVISION: WRD DISTRICT: Texas CONTACT: I. D. Yost, Austin, TX DATE: 8/29/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
21	6 3/4"	250'	30	TX	Andrews Armstrong Bailey Castro	Ogallala	Describe hydraulic characteristics of Ogallala.	\$147,000	

GROUPS OF DRILLHOLES (continued)

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
					Cochran Dawson Deaf Smith Donley Ector Gray Hale Hockley Lamb Lubbock Martin Midland Parmer Randall Swisher Terry				

PROGRAM: FL 195 DIVISION: WRD DISTRICT: Florida CONTACT: Michael C. Yurewicz, Tallahassee, FL DATE: 8/27/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
21	4"	100'	0	FL	Leon	Oligocene Limestone	QW samples	\$12,600	Cooperator

FY-80 - continued

PROGRAM: Water Resources, Lee & Collier Co.      DIVISION: WRD      DISTRICT: Florida      CONTACT: F. A. Watkins, Jr., Fort Meyers, FL      DATE: 8/23/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location State	County	Generalized stratigraphy	Principal objectives	Cost	Other information
2	4"	400'	0	FL	Collier	Sand, clay, limestone	Hydrogeology	\$4000	Contract.
6	4"	400'	0	FL	Lee	" " "	"	\$15000	Contract.

PROGRAM:      DIVISION: WRD      DISTRICT: Florida      CONTACT: R. L. Knutilla, Tampa, FL      DATE: 8/27/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location State	County	Generalized stratigraphy	Principal objectives	Cost	Other information
30	2"	40'	0	FL	Pinellas	Quaternary	Monitor water levels		In-house
3	6-8"	450'	0	FL	Pasco	Tertiary	" " "		Cooperator
4	6-8"	400'	0	FL	Hillsborough	"	" " "		"
4	6-8"	250'	0	FL	Charlotte	"	" " "		"
2	6-8"	700'	0	FL	Hardee	"	" " "		"
1	6"	410'	0	FL	Sarasota	"	" " "		"

INDIVIDUAL DRILLHOLES

Hole name or number	Depth	Final diam.	Cored intervals	State	Lat	Long	Generalized stratigraphy	Principal objectives	Cost	Start Date	Finish Date
TR 10-3	600'	6"	600	FL	27°55'	82°23'	Tertiary	Monitor water levels	?		FY79-80
TR 20-1	400'	"	400	FL	28°45'	82°40'	"	and determine hydraulic properties of aquifer.			"
TR 14-3	500'	"	500	FL	28°10'	82°40'	"	Drilling by cooperator.			"
TR 18-2	500'	"	500	FL	28°25'	82°40'	"				"
134	400'	"	400	FL	?	?	"				"
TR 3-2	400'	"	400	FL	26°50'	82°20'	"				"
TR 8-1	600'	"	600	FL	27°35'	82°30'	"				"

PROGRAM:      DIVISION: WRD      BRANCH:      CONTACT: E. C. Hayes, Jacksonville, FL      DATE: 8/28/79

GROUPS OF DRILLHOLES

Number of holes	Final diam.	Average depth	% core	Location State	County	Generalized stratigraphy	Principal objectives	Cost	Other information
1	6"	2100'	0	FL	Duval	Sand-shell-clay-limestone-sandstone	Deep observation wells	\$170,000	Cooperator
10	2"	100'	0	FL	St. Johns	Sand-shell-clay	Evaluate aquifer system	\$500 ea.	Cooperator

FY-80 - continued

PROGRAM: DIVISION: WRD DISTRICT: Florida CONTACT: Albert M. La Sala, Jr., Miami, FL DATE: 8/31/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
15	2"	200'	50	FL	Dade	Sand, sandstone, limestone	Delineate lithology and water quality	\$30,000	In-house
20	2"	150'	75	FL	Broward	Sand, sandstone	"	\$30,050	"
2	2"	200'	100	FL	Palm Beach	Sand, sandstone, limestone	Aquifer testing	\$5,000	"
15	2"	100'	100	FL	Dade	Sand, sandstone, limestone	Lithology	\$15,000	Cooperator
25	2"	150'	--	FL	Palm Beach Broward Dade	Sand, sandstone, limestone	Replacement of observation silos	\$37,500	In-house

PROGRAM: DIVISION: WRD DISTRICT: Georgia CONTACT: H. E. Gill, Doraville, GA DATE: 8/28/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
5	6"	600'		GA	Several south of Atlanta	Crystalline	Test site selection methods and yield	\$20,000	Drilling by contract
10	4" or 6"	100-200'		GA	Several counties in Dougherty Plain	Upper Eocene	Hydrology of Dougherty Plain	\$10,000	Drilling by contract

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Final Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Burke Co.	2000'	6"	Every 100'	GA	32°52'30"	82°12'40"	Lower Tertiary - Cretaceous	Regional stratigraphy, aquifer geometry	\$75,000	10/79	12/79

PROGRAM: DIVISION: WRD DISTRICT: Kentucky CONTACT: Philip A. Emery, Louisville, KY DATE: 8/23/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
10	1&1/2"	110'	0	KY	Jefferson	Glacial outwash and alluvium	Lithology - water level data	\$600 ea.	In-house
30	6"	100'	100	KY	In eastern coal field	Sandstone, shale, coal	Coal hydrology	\$1200 ea.	Cooperator

FY-80 - continued

PROGRAM: Caribbean District      DIVISION: WRD      DISTRICT: Caribbean      CONTACT: James E. Heisel, San Juan, PR      DATE: 5/9/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
3	6"	200'	20	PR	Loiza	Alluvium	Exploratory	\$8500	Cooperator
3	"	"	"	PR	Rio Grande San German Cabo Rojo Hormigueros	"	"	"	"
27	6"	90'	20	PR	Arecibo	Muck and limestone	Exploration	\$50,000	Contract - Survey
30	2"	15'	10	PR	Barceloneta	"	Materials Pressures Discharge	"	(\$50,000 for both)
10	4"	100'	20	PR	Barceloneta	Limestone	"		Funded by Dept. of Ag., PR

PROGRAM:      DIVISION: WRD      DISTRICT: South Carolina      CONTACT: Phillip W. Johnson, Columbia, SC      DATE: 4/26/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
35-40	4"	500'	35	SC	All Coastal Plain Counties	Coastal Plain	Definitive geologic and hydrologic data - Groundwater and quality of water monitoring sites		Unsure whether this project will be funded in FY-80.

PROGRAM: Hydrology Carbonate Aquifers-Lincoln Co.      DIVISION: WRD      DISTRICT: Tennessee      CONTACT: Pat Hollyday, Nashville, TN      DATE: 8/22/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
3	6-1/4"	100'	0	TN	Lincoln	Mississippian Fort Payne	Hydrologic Investigation - test wells	\$5000	Contracted by cooperator, L. C. Public Utilities Comm.

GROUPS OF DRILLHOLES (continued)

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
2	"	"	"	TN	Lincoln	Ordovician Cannon Limestone	"	\$4000	" Tentative - not currently funded

FY-80 - continued

PROGRAM: Hydrology Carbonate  
Aquifers--Dickson and  
Fairview

DIVISION: WRD

DISTRICT: Tennessee

CONTACT: Ann Zurawski, Nashville, TN

DATE: 8/27/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
15	6"	200'	0	TN	Dickson	Mississippian - Warsaw Forma- tion	Hydrologic Investigation - test wells	\$25,000	Cost includes aquifer tests. Drilling con- tracted by cooperator
10	6"	170'	0	TN	Williamson	Mississippian - Fort Payne Formation	Hydrologic Investigation - test wells	\$17,005	Cost includes 3 aquif- er tests. Drilling contracted by cooperator

PROGRAM: Hydrology Carbonate  
Aquifers--Murfreesboro

DIVISION: WRD

DISTRICT: Tennessee

CONTACT: C. R. Burchett, Nashville, TN

DATE: 5/7/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
3	4"	250'	0	TN	Rutherford	Ordovician limestones Stones River and Nashville Groups	Hydrologic Investigation - test holes	\$800 ea.	Tentative - not currently funded. Will be contracted to local water well driller.

PROGRAM: Lignite Studies--  
W. Tennessee

DIVISION: WRD

DISTRICT: Tennessee

CONTACT: W. S. Parks, Memphis, TN

DATE: 8/27/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
6-12	uncertain	200-300'	25	TN	Lauderdale	Eocene Jackson Formation	Observation well construction		Tentative - not currently funded. Will be contracted to driller by cooperator.

FY-80 - continued

PROGRAM: ORNL Burial Ground  
Studies

DIVISION: WRD

DISTRICT: Tennessee

CONTACT: Dave Webster, Nashville, TN

DATE: 5/7/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u> <u>State</u> <u>County</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
9-12	5"	125'	limited	TN	Roane	Conasauga Shale	Piezometer installation. Possibly QW monitoring of radionuclides.	\$60,000- \$70,000	Tentative--not yet funded. Union Carbide (not a cooperator) will contract for these wells at Oak Ridge Nat. Lab. USGS will design the wells and obtain data from them after construction.

PROGRAM: S.E. Limestone  
Aquifer Study

DIVISION: WRD

REGION: Southeast

CONTACT: R. H. Johnston, Atlanta, GA

DATE: 5/10/79

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Green Swamp #1	2500'	3"	350-2500'	FL	28°10'57"	81°49'50"	Tertiary limestone & dolomite (Ocala, Lake City, & Oldsmar limestones)	Stratigraphy, ground water quality, artesian head distribution by depth	\$56,000	10/79	12/79
Everglades Nat. Park No. 1	2500'	3"	1330-2800'	FL	25°24'	80°35'	Tertiary limestone & dolomite	Stratigraphy, ground water quality, artesian head changes with depth	\$46,000	1/80	2/80

INDIVIDUAL DRILLHOLES (continued)

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>Lat</u>	<u>Long</u>	<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
Waycross #1	2000-3000'	?	?	GA	site not selected		Tertiary limestone & dolomite	Stratigraphy, ground water quality, artesian head changes with depth	\$200,000	Proposed hole--details not certain.	



FY-80 - continued

PROGRAM: National Petroleum Reserve in Alaska

DIVISION: Director's Office

CONTACT: R. D. Carter, Menlo Park, CA

DATE: 8/22/79

GROUPS OF DRILLHOLES

<u>Number of holes</u>	<u>Final diam.</u>	<u>Average depth</u>	<u>% core</u>	<u>Location</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Other information</u>
				<u>State</u>	<u>County</u>				
3000		110'	spl. at T.D.	AK	NPR-A		Seismic shotholes		

INDIVIDUAL DRILLHOLES

<u>Hole name or number</u>	<u>Depth</u>	<u>Final diam.</u>	<u>Cored intervals</u>	<u>State</u>	<u>(Tentative)</u>		<u>Generalized stratigraphy</u>	<u>Principal objectives</u>	<u>Cost</u>	<u>Start Date</u>	<u>Finish Date</u>
					<u>Township</u>	<u>Range</u>					
Nulavik #1	6000'			AK	T19N	R21W		Test well			
Koluktak #1	4500'				T5N	R11W		"			
East Simpson #2	7000'				T19N	R12W		"			
Nuwuk #1	4200'				T24N	R17W		"			
Awuna #1	15000'				T3S	R25W		"			